

THE COLORADO WATER STUDY

DIRECTIONS FOR THE FUTURE

LEGAL STUDIES

OFFICE OF THE EXECUTIVE DIRECTOR  
COLORADO DEPARTMENT OF NATURAL RESOURCES

SEPTEMBER, 1978

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## ACKNOWLEDGMENTS

The Colorado Water Study received \$50,000 from the Colorado General Assembly in 1976, and again in 1977, and funds were matched by the U.S. Bureau of Reclamation. The U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency (through the Colorado Department of Local Affairs) provided additional support for analyses of issues of specific interest to those agencies.

Although conducted by a temporary staff\* in the Office of the Executive Director, Department of Natural Resources, this study would not have been possible without the assistance of several divisions within the department, including the Division of Water Resources, Division of Wildlife, Geological Survey, and Water Conservation Board. In addition, the Department of Agriculture, Department of Health, and Department of Local Affairs have assisted in selected aspects of the study. Finally, numerous individuals from the private sector, Colorado State University, Denver Research Institute, University of Colorado, and several federal agencies (Bureau of Reclamation, Fish and Wildlife Service, and Geological Survey) have contributed to this study in a variety of respects.

Acknowledgment is also due those who have worked under contract to the Department of Natural Resources. These include the Environmental Resources Center, Colorado State University; Ireland, Stapleton, and Pryor, P.C.; LTW Associates; Moses, Wittemyer, Harrison, and Woodruff, P.C.; Business Research Division, University of Colorado; Denver Research Institute, University of Denver; and White and Burke, P.C. (now Yegge, Hall and Evans). Without exception, these contractors' efforts have far exceeded the remuneration which the study, given its limited budget, has been able to provide.

In short, this study would not have been possible without the cooperation, assistance, and expertise of those noted above. The study staff gratefully acknowledges this help, with the hope that the study will prove to be a credit to all concerned.

---

\*Hamlet J. Barry, III, and J. William McDonald, study managers; Mary Hupp, secretary; Linda Rea, editor; and Jay Finesilver, Gail Homerding, Wes Howard, Ron Lehr, Steve Norris, Fred Peirce, Gary Peterson, Pam Pritzel, Lucy Skiffington, Gary Sondermann, Charles Tomlinson, George Weber, and Hank Worley, part-time, full-time, or seasonal research assistants or law interns.

## INTRODUCTION

### THE COLORADO WATER STUDY, GENERALLY

The people of Colorado have long recognized that water is a scarce and precious resource in our semi-arid climate. Its use and distribution have always been a matter of concern and, on occasion, a matter of intense conflict. In this sense, the future will be no different from the past. Given a finite supply of water, and future increases in the demand for water, it is clear that complex and difficult issues lie ahead, each of which will raise fundamental questions about the use of water in Colorado. The Colorado Water Study was initiated because the state legislature recognized the importance and the magnitude of future water problems in Colorado.

In 1976, the state legislature directed that a "water study" be done by the executive director's office of the Department of Natural Resources. Although the legislature did not specify the purposes of such a study, the Department of Natural Resources has defined the purposes as follows:

- (1) Describe the existing legal, economic, and factual basis for the allocation and use of water in Colorado.
- (2) Based on projections of ranges of future water demand, postulate different ways in which Colorado water could be used in the future.
- (3) Analyze the consequences of the alternative uses of water, measuring those consequences in terms of fundamental economic, social, and environmental values.
- (4) Describe various legal or institutional mechanisms now available, or available with changes in the law, which might be used to change the way water is distributed and used, should such changes be desired.

The publications of the Colorado Water Study generally correspond to the purposes outlined above. The publications of the water study are as follows:

- (1) A brief introduction to the water study, setting forth the scope and content of the entire study, and defining the basic issues concerning the use of water in Colorado.
- (2) A volume of background information and data on present and projected water uses.

- (3) A volume on alternatives for the future use and allocation of water in Colorado, on the impacts of such alternatives, and on the possible means for achieving the alternatives.
- (4) This volume of legal studies which fully describes the existing water rights system and possible changes in that system, and which addresses several specific legal problems.
- (5) A volume of special studies and technical appendices.

It should be emphasized that none of the above reports will make recommendations regarding the future use and distribution of water, nor will they recommend changes in existing laws and policies. The purpose of the publications is to provide a thorough basis for public consideration and discussion of "directions for the future." Following distribution of the publications and receipt of public comments and suggestions, the Department of Natural Resources will make recommendations to the governor concerning future Colorado water policies and the need for changes, if any, in the present water rights system.

#### THE COLORADO WATER STUDY, LEGAL STUDIES

Various future water allocation alternatives and the consequences thereof have been described in the analytical volume of the water study. The purpose of this volume of legal studies is to inventory and analyze the legal tools which are available, or which could be made available, to influence the future use of water in Colorado and bring about, or avoid, any given series of consequences. This volume is the primary source of the legal tools listed and analyzed in the volume on alternatives for the future allocation of water. The purpose of these legal studies is not to suggest that changes in our water rights system are needed or that change would lead to a better result than that yielded by the present system. The purpose is simply to determine whether there are legal tools which could influence the distribution and use of water and, to the extent that such tools may exist, to analyze the constitutional or other legal problems involved.

In order to determine the range of tools available, numerous technical, statutory, administrative, and constitutional tools were examined. Only a few were eliminated from consideration at the outset:

- (1) The water study does not consider or analyze the possibility of a constitutional amendment to abrogate the right to appropriate water. The reason for this exclusion is that most of the surface waters in the state are already covered by final or conditional appropriations, and such

a change would be largely irrelevant. However, while the study does not consider abrogation or elimination of the right to appropriate, numerous other changes are examined, some of which would limit or condition appropriative rights.

- (2) Similarly, the water study does not consider shifting to an administrative permit system for the initial appropriation of water. The reason for this is the long-standing tradition of a judicially based system. However, the study does consider various changes which would apply to applications for changes in water rights. Some of these changes would give greater authority to state or local government, or would give greater latitude to the water court. Also considered is the establishment of new criteria which water courts could use in reaching their decisions.
- (3) The water study does not consider "forced" reallocations of water by government edict, condemnation, or order, and no wholesale reallocations of existing water rights are considered. The study does look at ways to encourage or discourage certain types of reallocations or transfers. Because of current water use patterns and the realities of market economics, it is assumed that most future water transfers will come from irrigated agriculture, and the tools considered tend to be those that might slow, accelerate, or otherwise modify such transfers.

It should be reiterated that an examination and analysis of any tool does not imply approval or suggest that the tool be employed. Whether the use of any given tool is appropriate will depend on the projected consequences of its use, on the public perceptions as to the desirability of those consequences, on the trade-offs between different water uses, and on the magnitude of the legal or constitutional problems, if any, which occur with its use. Thus, the sole purpose of the legal analysis is to provide as full and complete a basis as is possible for a public discussion about available, or potentially available, ways to achieve alternative future water uses. In summary, the legal studies must be considered as just one volume of a series of reports. Although some of the legal studies may be valuable in and of themselves, the bulk of the material has meaning only when it is considered in the context of the water study as a whole.

This volume is organized into three sections: (1) a description of Colorado water law and the various water authorities; (2) an analysis of numerous means to influence water use, considering various governmental and private actions, and including a survey of the water laws of other states; and (3) an analysis and description of three separate legal issues concerning the benefits and obligations of

water rights under Colorado law. These issues do not fit into the second category above, but they are important and of significant interest to a large number of water users in the state.

Finally, one note of caution must be added. Throughout this volume of legal studies, the words "public interest" or "public interest values" will occur. The words were chosen for want of something better, and the meaning of the phrase is explained at length in chapter IV in this volume. In general, the phrase is intended to mean the economic or noneconomic values which are not taken into account by the present water rights system, which is a private market allocation system. As noted in chapter IV, the Colorado water rights system includes some values, and wholly or partially excludes others. Those that are excluded are often referred to in this volume as "public interest values." However, it should be reiterated that use of the phrase does not mean that operation of the Colorado water rights system is not "in the public interest" in the normal, broad sense of that phrase.



THE CURRENT LEGAL SYSTEM

## I. SUMMARY OF COLORADO WATER LAW.

### A. Introduction.

This summary is not intended to be a complete recitation of all the finer points of Colorado water law, but is merely a brief overview of the major components and principles of the appropriation doctrine in Colorado. In order to insure that the summary is brief and comprehensible, statutory and case citations have been omitted.

Colorado law affects water in two primary respects: in allocation and distribution to users, and in regulation of water quality, the latter being generally beyond the scope of this report. It should be noted, however, that water allocation (or supply) and water quality are intimately related. Particular diversions, impoundments, and uses of water may cause significant changes in downstream water quality. While some remedies may be available to affected downstream water right owners, the effectiveness of water quality regulations remains to be tested.

### B. Water to be Allocated.

Although Colorado contains the headwaters for many western rivers (e.g., the Colorado, Platte, Arkansas, and Rio Grande), not all of the waters of those rivers are available for allocation under Colorado law. International treaties, interstate compacts, and the water rights claimed by the federal government all combine to restrict the amount of water available for allocation under Colorado law.

International treaties allocate the water of both the Rio Grande and the Colorado between the United States and the Republic of Mexico. The respective states' shares of these rivers, as well as most other international streams, are further divided under numerous interstate compacts. As a result, substantial quantities of water must leave the state under treaty and compact obligations (e.g., almost 50 percent of the Colorado River's flow), with only the remainder being available for use in Colorado.

Furthermore, not all that water retained by Colorado may be used pursuant to Colorado law. During the last decade, the federal government has asserted pre-emptory claims to water based on the so-called reservation doctrine, causing considerable uncertainty as a result of the priorities and unknown quantities and uses for the reserved rights. Although still the subject of unending litigation, the doctrine stands for the proposition that the United States has a right to however much

water it needs to carry out the purposes of each reservation of lands (e.g., national forests, national parks, national monuments, Indian reservations, public springs and water holes, etc.) from the public domain, with a priority date as of the day of reservation. Because the federal "reserved rights" are so senior (e.g., the bulk of the national forests in Colorado were reserved before 1907), there are very few water rights awarded under Colorado law which are not potentially affected by federal claims.

### C. Initial Allocation of Water--Prior Appropriation.

With one possible exception, the rights to use Colorado water are established under the Colorado version of the prior appropriation doctrine. That doctrine stands for the general proposition that, when one uses water, at a particular time of year and for a particular purpose, that person has a water right--a right to always so use the water as against all subsequent users. Consequently, the popular characterization of the prior appropriation doctrine is "first-in-time is first-in-right." That common view is, however, deceptively simple and somewhat misleading since the continued exercise of such a water right is wholly dependent on appropriate judicial or administrative recognition and protection. There are at least two exceptions to the prior appropriation doctrine, both more apparent than real. The Colorado Constitution would appear to establish a set of preferences which would abrogate the prior appropriation doctrine in times of shortage by giving preference for the use of water to domestic, agricultural, and manufacturing purposes--in that order. Supreme court interpretations of that provision indicate, however, that the preferred use enjoys only the right of condemnation over a lesser preferred use. There is also a statute which appears to give the first right to use spring water to the owner of the land upon which the spring arises. By supreme court decision, it is now clear that the statute is effective only when the spring is not tributary to a natural stream.

In Colorado, water rights are obtained in a variety of ways depending on the legal classification of the water in which a right is sought. There are three such classifications: tributary water, designated ground water, and nontributary water.

#### 1. Tributary Water.

Tributary water is that which is hydrologically connected to a natural stream and includes not only the water flowing in the stream,



but also that ground water and other surface water which either supports or would eventually join the stream flow.

a. Creation and Adjudication of Water Rights.

Rights to use tributary water are obtained under a pure prior appropriation doctrine. One may obtain such a right merely by diverting or storing the water and applying it to some beneficial use.\* That right may be enforced, however, only if it is the subject of a judicial decree.

Since 1969, decrees have been obtained from the water courts in a process known as "adjudication."\*\* There are seven water courts, each of which has as its jurisdiction one water division, the boundaries of which follow the watershed of a major drainage system. Since 1969, adjudication has generally been as follows: An application is filed with the water clerk; it is referred to the water referee, and it is published in a resume; those wishing to oppose the application have 2 months in which to file a "statement of opposition"; after the period for opposition has ended, the referee may either rerefer the application to the water judge within 1 month or, after an informal investigation, may issue a ruling; anyone opposed to the ruling then has 20 days within which to file a protest; once an application has been rereferred or protested, the water judge then conducts a trial de novo, resulting in a decree; if there has been no rereferral or protest, the water judge usually then approves the referee's ruling and makes it a decree of the court.

A decree does three things: confirms the existence of the right, assigns it a priority, and acts as the warrant for the office of the state engineer to protect the water right in his enforcement of what has come to be known as the priority system.

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\*Construction permits for wells must be obtained from the state engineer. While the permits do not grant any right to use water, they will be issued only if there is unappropriated water available and if the proposed withdrawal will not injure vested water rights.

\*\*Prior to mid-1969, decrees were obtained from the various district courts which held adjudications for each of approximately 70 water districts.

b. Types of Water Rights.

Within the priority system, there are four types of water rights, which are not mutually exclusive: absolute, conditional, direct flow, and storage--all of which must be adjudicated in order to be enforceable.

Conditional water rights, originally envisioned to protect large water projects which would take years to complete, are the simplest to establish. All one must show is the intent to appropriate water (to divert or store water and to apply the water to a beneficial use), together with some physical act (usually a survey) which is demonstrative of that intent. Upon the coexistence of that intent and physical act, a conditional water right is created and is ripe for adjudication. Once adjudicated, however, a conditional water right must be kept alive by quadrennial findings of the water court that the water project is being taken to completion with "reasonable diligence."

Absolute water rights are established only by a completed appropriation, that is, the actual diversion or storage of water and its physical application to a beneficial use. A decree for an absolute water right may issue whether or not a conditional right has been previously decreed.

A storage right is for the storage of water which will be applied to beneficial use at a later time. A direct flow right, on the other hand, contemplates the immediate application of water to a beneficial use. A rough rule of thumb, for which there is scanty authority, is that the retention of water for 24 hours or more requires a storage right. Both direct flow and storage rights may be either conditional or absolute.

2. Designated Ground Water.

Ground water found in certain areas of Colorado's eastern plains is called designated ground water. Those areas are called designated ground water basins and are established by the Colorado Ground Water Commission. Designated ground water may be either tributary or non-tributary to a natural stream and gains its identity solely by being included within the boundaries of a designated ground water basin.

Rights to designated ground water are obtained under a modified appropriation doctrine, an approach similar to that in use in several surrounding states, where it has aptly been described as a "permit system." Under the Colorado permit system for designated ground water basins, water rights are obtained solely by permits issued by the Ground Water Commission.

In general, one desiring to appropriate designated ground water first applies for a conditional permit, which is granted if unappropriated

water is available and if the proposed appropriation will neither unreasonably impair vested water rights nor create unreasonable waste. After obtaining a conditional permit, one must proceed with due diligence to construct the well or other works necessary to make the appropriation envisioned by the conditional permit. The commission will then order the state engineer to issue a final permit, which may contain conditions necessary to prevent waste and to protect other appropriators.

### 3. Nontributary, Nondesignated Ground Water.

With respect to ground water which is not tributary to a natural stream and which is not located within a designated ground water basin, the law is quite uncertain. It is unknown whether the prior appropriation doctrine applies or whether the rights to extract and use the water belong solely to the overlying owners.

Over 10 years ago, the Colorado Supreme Court held that the prior appropriation doctrine did not apply and that the rights to use nontributary ground water belong to the overlying owner. Since then, however, the court has upheld the Colorado Ground Water Management Act (which imposed an appropriation doctrine on designated water--a great deal of which may be nontributary), held that the appropriation doctrine applies to nontributary surface water, and has affirmed a decree of the water court which awarded an appropriative right for the use of nontributary ground water. In addition, hundreds of other decrees have been issued by the court for the appropriation of nontributary ground water.

On balance, knowledgeable observers in the state are simply unable to say with certainty whether rights to use nontributary, nondesignated ground water are obtained by appropriation or by the ownership of overlying land. A full description of the problem of nondesignated, nontributary water is contained in chapter XVI of this volume.

#### D. Subsequent Allocation of Water.

Once the initial allocation of water is complete, subsequent allocations are made in two general ways: changes of water rights, and distribution by various water entities.

##### 1. Distribution Entities.

A large number of public and private entities are involved in the

distribution of water, primarily including ditch companies and numerous quasi-municipal districts and municipalities.

a. Ditch Companies.

Ditch companies are divided into "mutual" and "carrier" ditch companies. Mutual companies are nonprofit corporations which function for the benefit of their shareholders who are the owners of the water rights held by, and the water distributed by, the company. Carrier ditch companies are operated for the profit of their shareholders; the company merely leases water to the actual consumers and is a public utility regulated by county commissioners.

b. Municipalities and Quasi-municipal Districts.

There is a plethora of governmental districts and municipal entities responsible for the distribution of water. While generalizations are difficult, it is usually true that water service from those districts and municipalities is offered to all persons within their boundaries and, under special circumstances, to a limited number of persons outside of their boundaries. With the exception of certain water conservancy districts, there is usually no independent, speculative market for the rights to receive water from those districts.

2. Changes in Water Rights.

After the initial allocation of water by the water court or the Ground Water Commission, the holders of those water rights may wish to change them from their original point of diversion, or place of storage, type of use, place of use, time of use, etc. The general rule is that such a change will be allowed by the water court or the Ground Water Commission only if no injury will result to other water rights.

With respect to nontributary, nondesignated ground water, however, the answer is not clear. If such water is subject to the prior appropriation doctrine, the no-injury rule will probably apply. If, however, the water may be used only by the overlying owner, the right to change may well be without limitation. For further detailed discussion, see chapter XVI.

E. Administration of Water Rights.

1. Tributary Water.

The state engineer is responsible for the administration of the priority system, as established by court decrees. He acts through his division engineers and their local water commissioners. The water commissioners are usually responsible for a tributary to a major river or a segment of the major river's main stem. In their work, the commissioners act essentially as water policemen, making certain that senior water rights are completely satisfied before water is diverted or stored by junior water rights. One exception to this practice is the "futile call doctrine," under which a junior's storage or diversion will not be curtailed if it is not causing material injury to a senior water right.

2. Designated Ground Water.

While the law concerning the administration of designated ground water is not well developed, it is clear that administrative powers are vested in and shared by two entities: the Ground Water Commission, and local ground water management districts. The administration of designated ground water has two goals: the protection of vested water rights (probably in order of priority), and the conservation of ground water.

3. Nontributary, Nondesignated Ground Water.

There simply is no law with respect to the administration of water rights in nontributary, nondesignated ground water. Although permits to construct wells to withdraw such water must be obtained from the state engineer, there is no certainty as to the responsibility for the continued administration of nontributary, nondesignated ground water withdrawals.

## II. A (BRIEF) HISTORY OF COLORADO WATER LAW.

### A. Evolution of the Colorado Doctrine: Recognizing the Right of Prior Appropriation.

Colorado has established a system of water rights and legal controls on the exercise of those rights which is particularly adapted to the arid conditions in the West but is nonetheless unique among the western states. The origins of this system may be found in the experiences of the farmers and miners who first attempted to put the water to productive use.

#### 1. Early Irrigation.<sup>1</sup>

The first recorded attempt to irrigate land in Colorado occurred in 1787, when a group of farmers from the Spanish Province of New Mexico settled at the junction of the St. Charles and Arkansas rivers and began an irrigation project in cooperation with a tribe of Comanche Indians. This project lasted only a short time. In 1832, the Bent brothers irrigated about 40 acres of land on the north bank of the Arkansas River between the present towns of Las Animas and La Junta. Their attempt was also short-lived.

The early settlers in the Colorado region encountered conditions vastly different from those which prevailed in the humid East. Precipitation was scarce and limited to certain seasons of the year. Runoff from melting snows was confined to narrow stream channels and even the land adjacent to the riverbanks was too dry to farm using traditional methods. Water diversion was required before the land was capable of supporting crops.

It took a great deal of time and experience to develop dependable irrigation methods. Crop failures were not uncommon in these early days. Nevertheless, some attempts did succeed. A group of farmers sustained an irrigation project at the mouth of the Fountain River near Pueblo from 1841 until 1854, when the entire settlement was destroyed by local Indians. The San Luis People's Ditch on the Culebra and Conejos rivers, begun in the 1850s, is the oldest ditch in continuous use in Colorado.

Since early ditches were confined to the river bottoms, there was an adequate supply of water for all users; hence, there was no need for a formal definition of rights or a system for adjudicating competing demands for the same resource.

This idyllic situation changed dramatically in 1858 with the discovery of gold near Pikes Peak. The next few years witnessed an

invasion of miners who combed the hills and valleys in search of the precious metal. The techniques they used were developed in the California gold fields during the preceding decade, and they depended heavily on water for their successful operation. The first findings of gold were in placers and were worked by washing the gold out of the gravel in long sluice boxes constructed on the banks of the stream. A later development was the mining of quartz veins by crushing the rock in stamp mills and then panning out the gold. Long series of flumes and ditches were constructed to transport the water to the mills, which in later years were also operated by water power.<sup>2</sup> Although mining, as compared to agriculture, was not a highly consumptive use of water, it did have significant effects on water quality and, consequently, on water efficiency for mining purposes. An upstream user generally had a significant advantage over those downstream. In addition, different claimants located in the same vicinity on a stream competed for rights to divert the same water.

Huge mining camps sprang up in the richest canyons and mountain valleys. As the population in these areas increased, so did the demand for water and conflicts over its use. The miners, many of whom were veterans of the California gold rush,<sup>3</sup> developed a complex set of rules to govern their fledgling society. They looked for guidance, naturally enough, to their experience in California.<sup>4</sup>

## 2. The Development of Water Law in California.

The miners who rushed to California following the discovery of gold in 1848 were trespassers on the public domain.<sup>5</sup> There was no federal law to govern this newly acquired territory, although the new settlers brought with them their common-law heritage. They soon recognized the need to formulate a set of rules that would be applicable to the new situation which they encountered. In numerous local gatherings, reminiscent of the early New England town meetings, they drew up elaborate codes governing the acquisition and use of mineral claims and associated water rights.

The basic principle which was developed in these meetings was that the right to hold mineral and water claims was based on discovery and continued use, and that priority of appropriation determined priority of right.<sup>6</sup> This doctrine has roots in the civil law of Spain and Mexico, which in turn is founded on ancient Roman law.<sup>7</sup> It also finds a parallel in the federal land disposal laws of the latter 19th century, such as the Homestead Law of 1862,<sup>8</sup> which were designed to encourage the development of the public domain by creating and protecting private property rights in the land.

As applied to the use and development of water, however, this principle was in direct conflict with the common law, which protected the rights of riparian owners to a reasonable use of the water running through their lands and the maintenance of a continuous flow in those streams.<sup>9</sup> A statute of the newly formed State of California in 1850 adopted the common law of England as the basic law of the state,<sup>10</sup> but another statute in 1851 provided that the courts could take evidence of miners' customs in adjudicating local conflicts.<sup>11</sup> In the face of this conflict, the California Supreme Court in 1853 declined to adopt the new principle without more specific legislative guidance.<sup>12</sup> A few years later, however, the court held that a prior appropriator on the public domain could continue to divert water for mining purposes to the prejudice of a subsequent riparian owner.<sup>13</sup>

### 3. Colorado Mining Codes.

Although California subsequently developed its own peculiar mixture of the riparian and appropriation systems,<sup>14</sup> the principle of prior appropriation was an important element of mining tradition when the Colorado mining boom began. The Colorado miners, as had the Californians, formed mineral districts as the basic unit of local government. The laws of each district were adopted in general meetings attended by all interested persons within the district.

With regard to water rights, the most important question addressed by these early codes was the allocation of water among rival claimants. There is an interesting tension in the laws of certain districts between a strict priority system and a system of equitable apportionment among users. For example, a series of resolutions adopted by the Gregory Diggings District at a meeting held on the North Fork of Clear Creek on June 8, 1859, recognized that the priority of mining claims was to be respected, but declared that when two parties wished to use water from the same stream for quartz mining, the water was to be equally divided.<sup>15</sup> A later code, however, adopted in February, 1860, provided that any person intending to erect a quartz mill might cut a race from the stream and hold the water, provided that he did not interfere with vested rights, "all claims held under previous laws being regarded as vested property."<sup>16</sup>

This 1860 code also modified the earlier division of waters by recognizing the greater social utility of one strong enterprise as opposed to two weak ones, using the rule of prior appropriation as a tool to accomplish this goal: When water is claimed for gulch and quartz mining purposes on the same stream, neither shall have the right to more than one-half, unless there shall be insufficient for both when priority of claim shall determine.<sup>17</sup>



The code also addresses the problem of riparian rights: Other questions not settled by the provisions of this act, arising out of the rights of riparian proprietors, shall be divided according to the common law.<sup>18</sup> It is not at all clear, however, what riparian rights remained under this code.

Another provision, similar to those in all of the codes, grants water companies bringing water to the mines the right-of-way to pass over any claim, road, or ditch, "provided the water shall be so guarded as not to interfere with any vested rights."<sup>19</sup>

There was a great deal of borrowing of code provisions among districts and the laws of Gregory District may have served as a model for later enactments.<sup>20</sup> The laws of Lincoln District, adopted at Glenard City in November, 1860, simplified the rule of priority: In all gulches or ravines where water is insufficient for general use, the oldest claimant shall have priority of right to use of water.<sup>21</sup>

There was, however, some variation, and again the tendency toward a system of equitable apportionment is apparent. The Revised Laws of Spanish Bar District, adopted in January, 1861, provide that "all mill privileges, on either side of Clear Creek, shall be entitled to half the water in the creek."<sup>22</sup>

The requirement that mining claims be improved in order to be recognized, a precursor of the modern concept of beneficial use, was a common element in the mining codes. It was applied generally to all types of mining claims, including what was known as a "water claim." This was a claim to a certain number of feet up and down the stream, and included rights to construct facilities on the bank and rights to a certain amount of the water in the adjacent stream. "Water was scarce and a water claim confirmed a valuable right. Staking a water claim gave one a prior right to such water. Therefore, it was always provided that such water claims must be improved."<sup>23</sup>

#### 4. The Early Territorial Statutes.

In California, the legislative pronouncements on water rights reflected the dominance of the mining interests. The Act of 1851<sup>24</sup> recognized local mining customs concerning water rights, and the Possessory Act of 1852<sup>25</sup> gave miners access to the courts against those interfering with their rights. The Indemnity Act of 1855<sup>26</sup> required miners entering agricultural land to give a bond for whatever damages might be done to the improvements only of the agriculturalist. The use of water for irrigation was not a big factor at that time, and the law was essentially written by the miners themselves.

"For a time the miners insisted that the use of water for mining purposes was paramount to any other use, and the courts of the state, when organized, seemed imbued with the same idea."<sup>27</sup>

Gradually, however, the balance shifted, and the legislature begrudgingly recognized the farmers' interests. Interestingly, the law developed almost independently of miners' customs and was heavily influenced by the common law of riparian rights. A law of 1854<sup>28</sup> established a board of commissioners to regulate the use of the water and provided that water rising on land owned by one person was not subject to the act unless it passed beyond his lands. Diversions of water were not allowed to the detriment of riparian owners below. Most importantly, the act did not apply at all to appropriations of water for mining purposes, which essentially operated to grant miners a preference in the use of water.<sup>29</sup>

In Colorado, irrigation law also developed separately from mining law, although there was never such a great antagonism between the two enterprises as there was in California. The early political conflicts in Colorado, for the most part, involved competing irrigators and the use of water for mining was not perceived as a threat. This may be due in part to the fact that mining, while it used large quantities of water and dumped enormous loads of sediment into the stream, consumed a relatively small amount of the flow. Another factor may have been the geographical separation of the two industries. The first irrigation laws, however, were similar in many respects to the early miners' codes.

The first irrigation statute was passed by the legislature of Jefferson Territory in 1859.<sup>30</sup> This law recognized the right of farmers settling on streams to use the water for irrigation purposes,<sup>31</sup> and protected such claims from subsequent upstream appropriations.<sup>32</sup> However, it also recognized the rights of "agriculturalists remote from streams" to claim water rights<sup>33</sup> and to have the right-of-way, upon payment of damages,<sup>34</sup> to cross intervening lands.

Upon formation of the Colorado Territory in 1861, a new statute was passed<sup>35</sup> which took a different tack reminiscent of some of the miners' codes of that era. Although it recognized the right of all agriculturalists settling on the "bank, margin, or neighborhood of any stream"<sup>36</sup> to use the water thereof,<sup>37</sup> it provided:<sup>38</sup>

[t]hat in case the volume of water in said stream or river shall not be sufficient to supply the continual wants of the entire country through which it passes, the nearest justice of the peace shall appoint three commissioners as hereinafter provided, whose duty it shall be to apportion,

in a just and equitable proportion, a certain amount of said water upon certain or alternate weekly days to different localities, as they may, in their judgment, think best for the interests of all parties concerned, and with due regard to the legal rights of all.

It would seem that if the last clause is a tacit recognition of the rights of prior appropriators, then most of what precedes it would have to be construed very narrowly. Indeed, §10 of this act expressly provides that the prior vested rights of mills are not affected by other sections of the act, but is silent as to irrigation ditches. This uneasy blend of equitable distribution and prior appropriation must soon have come to a head because an 1868 amendment enlarged the proviso to protect "the prior vested rights of any mill or ditch owner, or other person, to use the waters of any such watercourse."<sup>39</sup> As applied in practice, this section appears simply to have created a mechanism for the administration of the priority system, an aspect of the law which is dealt with considerably in later years.

This law was further refined in the light of local conditions by a number of acts applicable only to certain counties. In 1872, it was expanded with regard to El Paso County by giving the commissioners authority to tax water users in the county to pay for their services and to establish rules and regulations to control the use of water for irrigation purposes, requiring them to keep records of the amount of water each user was entitled to receive.<sup>40</sup> In Pueblo County, however, the statute was restricted by requiring consent of a majority of riparian landowners before a commissioner, of their choosing, could be appointed.<sup>41</sup>

The 1861 act also touched on two other areas which were to become important elements in Colorado water law. Section 5 provided for the condemnation of rights-of-way for ditches, with damages to be determined by three commissioners appointed by a justice of the peace. Section 11 required all parties using water to manage and control said water carefully, "that in their waste they shall not injure anyone."

For a time, the legislature of Colorado Territory wavered between protecting the rights of prior appropriators and those of riparian owners. An 1851 act had adopted the common law until repealed by specific legislative authority.<sup>42</sup> A statute of 1862<sup>43</sup> concerning ditch companies forbade the water of any stream to be directed from its original channel "to the detriment of any miner, millmen, or others along the line of said stream, and there shall be at all times left sufficient water in said stream for the use of miners and farmers along said stream."

Two years later this was amended to include only these riparian owners "who may have a priority of right."<sup>44</sup> Notwithstanding this reversal, the declaration by the Colorado Supreme Court in 1882 that the doctrine of prior appropriation had never been obtained in the state<sup>45</sup> was not quite accurate.

The 1864 act also injected another element into the law, that of regulation by county commissioners of the rates charged by ditch companies.<sup>46</sup>

An act of 1866, applicable only to Costilla and Conejos counties, contained a variation of the 1861 administration system without any administrative discretion in apportioning the water. It created an administrative official responsible for supervising ditches and dividing the water "in such a manner that each and everyone will have the amount of water he is entitled to."<sup>47</sup>

Another important provision in this act was a preference in the use of water. The act provided that "public acequias [ditches], during the farming season, shall have preference over all ditches used for any mills, machinery, or any other ditch that may not be exclusively used for farming purposes."<sup>48</sup> This theme was to become important at the Constitutional Convention in 1876.

Subsequent enactments made minor amendments to the system just described and expanded the regulation of waste, requiring tail ditches to return excess flow to the stream<sup>49</sup> and irrigation ditches to be maintained,<sup>50</sup> and forbidding ditch owners to run more water in the ditches than they needed.<sup>51</sup>

Two other legal developments prior to the Constitutional Convention should be noted. The first was a federal statute in 1866 which recognized "that wherever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same. . . ."<sup>52</sup> The United States Supreme Court later declared that this statute merely confirmed existing rights and was not an independent grant.<sup>53</sup>

Second was a recognition by the Territorial Supreme Court in 1872 that persons desiring to divert water from a stream were entitled to a right-of-way across intervening lands.<sup>54</sup> Justices Hallett, Belford, and Wells agreed that the necessities of life in this "dry and thirsty land" required a departure from the common law, but each approached the problem somewhat differently. Hallett and Belford relied in part on the statute of 1861<sup>55</sup> which permitted such

rights-of-way on payment of damages. Wells, who was to play an important role in the Constitutional Convention, rejected this approach, asserting that "the right springs out of necessity and existed before the statute was enacted, and would still survive though the statute were repealed."<sup>56</sup>

#### 5. The Constitutional Convention: Background.

The 15 years following the adoption of the first water right statute by the legislature of Jefferson Territory in 1861 saw a great increase in the agricultural economy of the state and the use of water for irrigation purposes.<sup>57</sup> The small, haphazard diversions by individual farmers were giving way to cooperative efforts by groups of settlers and large diversions by organized ditch companies. The development of the water resources of the state was perceived to be the key to its economic success.

In 1873, Governor Elbert called a convention of governors of states in the arid region to discuss ways to encourage the construction of large canals and reservoirs on its own lands. Development was hampered for a time by the Panic of 1873 and the depression which continued through the next four years.

One of the most important developments in irrigated agriculture in Colorado was the establishment of the community of Greeley by Nathan C. Meeker and his Union Colony on the banks of the Cache la Poudre River.<sup>59</sup> This was a cooperative undertaking involving the pooled resources of all colony members, a factor which permitted the construction of large irrigation canals. One of these ditches, known as Colony Canal No. 2, was completed in 1872 and was the largest diversion on the Poudre at that time.

The Union Colony was highly successful in the 1872 growing season. In that year a similar venture was undertaken at Fort Collins 25 miles upstream on the Poudre. This Agricultural Colony, as it was known, built two large canals of its own and began to divert water out of the stream.

The inevitable conflict between these two groups was precipitated by a severe drought in 1874. During that summer the farmers in Greeley found that there was not enough water in the Poudre to fill both of their canals. They knew where the water was going. Meeker's Greeley Tribune demanded recognition of the right of prior appropriation and the creation of a river superintendent to divide the water according to the prior rights of all users.<sup>60</sup> Meeker felt that these steps were necessary in order to protect the investments of his colony and to assure the economic development of the area.

He further proposed the construction of a reservoir on the Poudre to capture the spring runoff and recommended that "every project for taking out more water shall be knocked in the head."<sup>61</sup>

On investigating the upstream diversions and finding that all the ditches were full, and in some cases carrying more water than could be used, the Greeley people brought suit to establish their right to the water. A meeting was held on July 15, 1874, which was attended by a number of irrigators up and down the Poudre, to discuss the situation. Although no progress was made toward resolving the ultimate issues of water allocation, the Fort Collins farmers did agree to release more water in exchange for the withdrawal of the suit. Heavy rains a week later ended the drought and, temporarily, the irrigation crisis. "But the Greeley people did not forget."<sup>62</sup>

#### 6. The Constitutional Convention of 1876.

On March 3, 1875, Congress passed an enabling statute allowing Colorado to draft a constitution and seek admittance to the Union.<sup>63</sup> Elections were held in counties throughout the territory to select delegates to the Constitutional Convention. Representing Weld County were two men from Greeley, S. J. Plumb and William Lee. These men were Grangers, and were designated by the state convention of the Grange as the convention delegates to whom individual members were to send their recommendations.<sup>64</sup>

On December 17, the Grange convention had resolved that the new constitution should contain a provision prohibiting legislators from giving away, selling, bonding, or granting charters to corporations by which they could control the waters of the state, except to organized companies of actual settlers upon whose land such water was intended to be used.<sup>65</sup> The Grangers, as farmers, lived in fear of a corporate monopoly of their most precious resource. They desired that the waters of the state be kept under state control for the benefit of the people.<sup>66</sup>

The Constitutional Convention first met on December 20, 1875, and promptly resolved itself into committees to begin the work of drafting various provisions. The Committee on Irrigation, Agriculture, and Manufacturers was chaired by S. J. Plumb of Greeley and also included his friend William Lee. No Fort Collins delegates were appointed to this committee.

The Constitutional Convention debated and resolved five central issues relevant to water law: (1) the ownership of the waters of the state, (2) the rule of prior appropriation, (3) preferences in

the use of water, (4) rights-of-way for ditches, and (5) rate-setting by county commissioners. Although these issues are related, they will be discussed separately.

a. Ownership of the Waters.

One problem with which the convention was soon confronted was the question of who owned and controlled the waters of the state. As evidenced by the Grange resolution in December, 1895, there was a widespread feeling that the waters should not be monopolized by private corporations.

There was, however, another sentiment, strongly held by many delegates, that the water not be subject to the control of the legislature. On January 5, 1876, Mr. Carr (of the minority view) suggested a provision that "[t]he primary right of ownership in the waters of all the streams in this state is and shall be at all times in the state, and the streams and waters therein are and shall be subject to the control of the legislature."<sup>67</sup>

The convention, led by Ebenezer T. Wells, who served on the Territorial Supreme Court, was generally opposed to this suggestion.<sup>68</sup> The first report of Plumb's committee on irrigation on February 11 provided that "[t]he water of every natural stream within the State of Colorado is hereby declared to be the property of the people of said state and the same is dedicated to their use forever."<sup>69</sup>

This draft encountered strong opposition from those delegates who felt that it threatened existing property rights. They perceived it as denying the legitimate interests of those who already had considerable investments in water diversions. They suggested an amendment making this provision "subject to the rights and privileges of private parties and municipalities to use the same as herein and by law provided."<sup>70</sup> Chairman Plumb tried to dispel some of the confusion over the nature of the state's interest in the water by explaining that this section was simply a declaration of existing law and was subject to private rights in the water. Nevertheless, an amendment was proposed limiting the declaration to the "unappropriated waters" of natural streams,<sup>71</sup> and was ultimately accepted by the convention.

Another concern over this provision was that it might include small streams which flowed entirely on one person's land. It was felt that these streams should be the unrestricted property of the landowner.<sup>72</sup> This sentiment echoed a California statute of 1854,<sup>73</sup> but it was a curious assertion of riparian rights given the general acceptance of the doctrine of prior appropriation in Colorado. It

drew considerable support until Wells pointed out that all water originated as a small stream on someone's land.<sup>74</sup>

Two final amendments were necessary before this provision could be adopted. The first clarified any possible conflict between the ownership of the waters by the public and the right of individuals to appropriate water pursuant to the following section by inserting the words "subject to appropriation as hereinafter provided" at the end of the section.<sup>75</sup>

The second, along the same lines, substituted the words "the use of the people of the state" for "their use." There is no record of any debate over a distinction between the words "public" and "people," and it appears that the delegates were not at all certain about the exact relationship between the two. This was clarified somewhat, however, in the next section on the right of appropriation.

It is interesting to note that some delegates to the convention believed that this entire section was meaningless, given the adoption of the prior appropriation rule, and that the property interest acquired by appropriation should be left to the courts to determine.<sup>76</sup> The farmers, however, wanted to keep the allocation of water out of both the courts and the legislature, and wanted it clearly understood that the water belonged to the people.<sup>77</sup>

Although some commentators have suggested that the assertion of public ownership in the waters was a repudiation of federal claims to the water,<sup>78</sup> there is no evidence in the record of such a concern. At the time, the federal government was not much concerned with western water and, as evidenced by the 1866 statute,<sup>79</sup> was willing to recognize individual appropriations on federal lands.

#### b. Prior Appropriation.

There was never much doubt that the constitution would recognize the doctrine of prior appropriation. Given the history of the state, the miners' codes, and the territorial statutes, the general doctrine was fairly well settled, except for certain preferences in the use of water which would restrict the doctrine in certain areas (see infra).

One issue which did arise was the meaning of the word "appropriate." Chairman Plumb and certain other delegates wanted to make certain that no rights in the water would vest in landowners simply by virtue of the acquisition of riparian lands.<sup>80</sup> Their intention was to assure the right of newcomers to the state to appropriate water which was not already in use, in order that the scarce resources of the state could be put to full use in developing its economy.<sup>81</sup>



With this in mind, Mr. Bromwell, a lawyer, moved on March 1 to amend this section by substituting the words "actual use" for "appropriation" in the committee's report, which at that time provided that "[e]xcept for domestic purposes, priority of appropriation shall give priority of right. . . ." <sup>82</sup> This amendment was further amended by Mr. Thatcher to read "appropriation by actual use" and was adopted by the convention. <sup>83</sup> However, this wording was discarded shortly thereafter with the adoption of an amendment by Mr. Pease, which provided that "[t]he right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right. . . ." <sup>84</sup> The origin of the term "beneficial uses" is uncertain, although it may be significant that Wells and Pease apparently conferred just before this section was proposed. <sup>85</sup> Two weeks earlier, on February 18, Wells had argued that this section should provide that priority of appropriation shall give priority of right "as long as the waters so appropriated are applied to beneficial uses." <sup>86</sup> He later cited California practice in attempting to define the word "appropriation," noting that it was considered to mean staking out a ditch and commencing work on it. <sup>87</sup> Other than this, and the miners' tradition of requiring all claims to be improved, there is little history on the intended meaning of this term.

#### c. Preferences in the Use of Water.

The constitutional provision creating preferences in the use of water for domestic, agricultural, and manufacturing uses, respectively, <sup>88</sup> was enacted after a stormy session of the convention in which a number of different preferences were proposed and rejected. No other water right provision elicited such a diversity of opinion among the delegates or differed so significantly in final form from the initial recommendation of Chairman Plumb's committee.

The committee report, presented on February 11, provided that priority of appropriation shall give priority of right, "except from the first day of June until the first day of September in each and every year, when lands used for agricultural purposes shall have the preference." <sup>89</sup> This echoed a territorial statute of 1866 which gave a preference to agricultural ditches (in Costilla and Conejos counties) during the farming season. <sup>90</sup>

On February 23, the committee of the whole convention released its report on Plumb's first draft. This amended version gave first preference to domestic users by exempting them from the priority rule: Except for domestic purposes, priority of appropriation shall give priority right, except from the last day of May until the first

day of September, in each and every year, when lands used for agricultural purposes shall have the preference over manufacturing establishments. <sup>91</sup>

This report was discussed on March 1. Bromwell led off by declaring that farming interests should have preference at all times, since raising staples of life was the primary interest of the territory. <sup>92</sup> Wells countered with an amendment which essentially abolished all constitutional preferences and provided only that "[p]riority of appropriation shall give priority of right between those using the water for the same purpose." <sup>93</sup> His intention was to leave to the courts the task of giving the farmers justice, "particularly as the people have the election of judges." <sup>94</sup> The convention, desiring to keep this matter out of the courts, rejected this approach. <sup>95</sup>

Wells next tried a reformulation of the committee's report by adding onto his defeated amendment the sentence: Those using water for the irrigation of cultivated lands for the purposes of agriculture shall be preferred to those applying it to manufacturing purposes. <sup>96</sup> Before this amendment could be discussed, the convention adjourned for lunch.

During lunch, apparently, the delegates worked on their strategy. On reconvening, Wells withdrew his amendment and Pease introduced the aforementioned beneficial use clause, followed by a preference section which read: Priority of appropriation shall give the better right as between those using the water for the same purpose, but when the waters of any natural stream are not sufficient for the service of all those desiring to use the same, those using the water for agricultural purposes shall have preference over those using the same for the purpose of manufacturers. <sup>97</sup>

The domestic use forces responded by inserting the words "domestic or" before the word agricultural, which was approved by the convention. <sup>98</sup>

Mr. Marsh then suggested including mining along with manufacturers as an inferior use. <sup>99</sup> Stone opposed this move. "It might operate to create a conflict between the agricultural and mining interests," he is reported as saying. <sup>100</sup> He admitted the importance of farming, but stated that mining was the paramount interest in the territory. "And the amendment might enable the owner of a garden or a small potato field in one of the gulches of the mountain region to monopolize the water to the serious injury of all the mines in the gulch." <sup>101</sup> He felt that in the mountain regions the miners' right to the use of the water should not be interfered with. This argument prevailed, and all references to mining were omitted, "an inference that it remained unrestricted." <sup>102</sup>

However, it is clear that Stone foresaw only a conflict between mining and agriculture, for he then suggested an amendment to the effect that water for domestic purposes should have preference "over any other purpose," followed by the agricultural preference over manufacturing.<sup>103</sup> This was adopted by the convention, and the section, as amended, was sent to the Committee on Revisions and Adjustments, which was chaired by Wells.

The March 6<sup>104</sup> and March 8<sup>105</sup> reports of this committee left the preference clause intact. On the 8th, however, Wells moved that the entire article on mining and irrigation be recommitted for final adjustment. It was in his committee that the preference clause was put into its present form, which, on its face, does leave mining completely unrestricted.

One other type of preference was suggested in the convention and its rejection has important implications for water law today. On February 18, Mr. Stone offered an amendment to the preference clause to the effect that "lands lying within the natural valley of any stream shall have preference in right to the use of the water of such stream, over lands lying without such natural valley."<sup>106</sup>

Bromwell supported this provision, interestingly enough, in order to provide some protection to riparian landowners.<sup>107</sup> However, this preference was rejected. Chairman Plumb's argument against it was probably representative of the prevailing sentiment. Many men, he said, had taken up lands lying along streams, holding them until they could see if the territory would be a success and allowing their neighbors to work to ensure that success. The land needed to be developed if the agricultural economy was to survive and his committee wanted to encourage settlers to make appropriations of water and reward those who built diversions, even if that involved transporting the water out of its basin of origin.<sup>108</sup>

The preference provision has been interpreted by the Colorado Supreme Court as conferring only the right of condemnation on the preferred user.<sup>109</sup> Some commentators have suggested that the framers of the constitution intended "true preference" without compensation.<sup>110</sup> In light of the recorded debates over this provision, and the specific inclusion of a compensation clause in the right-of-way section, this is probably correct. However, it is odd that the convention, which included several distinguished jurists and which sought recognition of the existing rights of private owners in the debates over the "property" section, should be so insensitive to those rights in this context.

d. Right-of-Way.

The right-of-way section of the constitution<sup>111</sup> was scarcely debated in the convention. Given the longstanding, consistent recognition of this principle in the early mining codes, statutes, and in the important decision in Yunker v. Nichols,<sup>112</sup> this is hardly surprising. The only changes made in the first draft reported by Chairman Plumb's committee were the insertion of the compensation provision and the recognition that a right-of-way could be condemned for domestic purposes.<sup>113</sup>

This section in the constitution is complemented by §14 of art. II, which provides that "private property shall not be taken for private use unless by consent of the owner, except for private ways of necessity, and except for reservoirs, drains, flumes, or ditches on or across the lands of others, for agricultural, mining, milling, domestic, or sanitary purpose." There are indications that the wording of this section may have been adapted from the Missouri Constitution of 1875.<sup>114</sup>

e. Rates Set by County Commissioners.

Another uncontroversial provision was that allowing boards of county commissioners to set rates to be charged for the use of water. The lack of debate on this topic may be explained by the successful operation of territorial statutes to this effect.<sup>115</sup>

There were some attempts at innovation. Mr. Bromwell introduced a resolution on January 19, 1876, which would have included sections in the constitution establishing the mode of determining these rates.<sup>116</sup> Mr. Beck went further and suggested a provision which would have given the legislature authority to prohibit "unjust monopolies of the natural streams of the state, and extortion of the prices charged for the use of the water taken therefrom."<sup>117</sup> Mr. White would have left the authority to set rates "inalienably in the state" and forbidden the transfer of such power to any private corporation, company, or person.<sup>118</sup> None of these suggestions was acted upon, and this section, the only direct expression of the convention's fear of corporate monopolies, remained fairly mild.

Indeed, the one substantive amendment to Plumb's first draft was even more lenient. It provided that the commissioners would only exercise this power "when application is made to them by either party interested."<sup>119</sup> With this amendment, this section was adopted without debate, 21-3.<sup>120</sup>

## B. Administration and Regulation of Water Rights.

The Constitutional Convention established a framework of general declarations of rights to the use of water. In doing so, it addressed the basic conflicts of that period at an organic level, reflecting the unique natural qualities of the land and formally departing from the tradition of the common law.

One of the forces which contributed to the evolution of the Colorado doctrine was the need to encourage investment in water diversion projects. In 1876, however, Colorado was already entering a new era in the use and development of water. The problems engendered by large-scale water projects were beginning to be felt and grand declarations of rights meant little to the farmers in Greeley who, back in 1874, had clamored for some practical system for protecting their rights.

### 1. Formulation of the "Colorado System."<sup>121</sup>

#### a. The 1879 Act.

Agricultural use of water was increasing at a rapid pace, along with the population and economic development of the state as a whole. In 1860, there had been roughly 35,000 acres in irrigation.<sup>122</sup> By 1876, that figure was increasing at the rate of approximately 60,000 acres per year.<sup>123</sup> Enterprising immigrants to the state, such as the Union Colony at Greeley, were accumulating capital and constructing larger and larger canals to bring water to the parched valleys of the South Platte basin.

On the Poudre in the spring of 1878, Benjamin Eaton began construction on the Larimer and Weld Canal.<sup>124</sup> This was the largest of any of the existing ditches in the valley and the farmers in both Greeley and Fort Collins feared that they would lose their water to this upstream behemoth. In October, 1878, a meeting was called in Greeley by a pair of freshman legislators from that vicinity to discuss possible action by the General Assembly.

A number of irrigators from the Poudre and St. Vrain valleys attended this meeting and agreed that a system of administering their constitutional rights of prior appropriation was needed. They recommended (1) the creation of an administrative officer to superintend the distribution of water, (2) the formation of water districts conforming to the boundaries of stream valleys, (3) provision for the measurement of streams, and (4) definition of what was meant in the constitutional provision concerning priority of appropriation.<sup>125</sup>

That meeting being sparsely attended, the participants decided to call a statewide convention to make a more detailed recommendation to the legislature. This convention opened in Denver on December 5, 1878, and was attended by about 50 farmers from the South Platte Valley.

An agenda committee, headed by David Boyd of Greeley, produced a report quite similar to that of the October meeting. Two members of the committee, reflecting a familiar attitude which was expressed at the Constitutional Convention and which was also to influence the ensuing events, opposed all legislation on water rights, preferring to leave the matter to the courts.

Nevertheless, the convention proceeded to discuss the proposals. While some form of centralized administrative control was generally favored, there were differences of opinion as to its structure. A commission similar to that established by the statute of 1861<sup>126</sup> was thought to involve excessive delay. The convention recommended that the existing State Board of Agriculture assume the duties of Commissioner of Irrigation, as it considered separate offices to be too expensive.<sup>127</sup>

Some delegates expressed doubts about the feasibility of accurately measuring stream flow. On hearing favorable accounts by several people, including E. S. Nettleton, who was presently to become the state engineer, a measurement provision was included. Also recommended was a system of water districts to be administered by district commissioners whose duties included collecting data concerning stream flow, maintaining records of the capacity and date of construction of ditches, and dividing the water according to the temporal priorities of these ditches. As farmers, the delegates to the convention desired local administrative control as opposed to judicial determination of their rights.

The convention included recommendations that the method of obtaining rights-of-way for ditches be simplified, the pollution of streams and ditches be prevented, and the storage of water in reservoirs be protected and encouraged.<sup>128</sup> A committee was appointed to draft a bill to be submitted to the legislature.

The bill drafted by this committee (which was chaired by David Boyd) generally incorporated the convention's recommendations. One issue is worth noting. There was a sharp difference of opinion among the members of this committee as to whether priority of right attached to the land on its being irrigated or to the ditch on its being constructed. Generally speaking, the farmers favored the former provision, the ditch companies the latter. By requiring water commissioners to prepare records of the application of the water to the land, the committee espoused the farmers' view.

The bill was introduced as H.B. 22 and was substantially revised by the House irrigation committee which included L. C. Mead, who had chaired the December convention, and H. P. Bromwell, a lawyer, who had been a delegate to the Constitutional Convention. The priority section was rewritten to provide that the right attached to ditches rather than land. The committee had heard arguments from the likes of Benjamin Eaton, who was constructing the giant Larimer and Weld Canal, in support of this change.

Another significant alteration in the bill, the work of Lawyer Bromwell, was in the method of determining priorities. Bromwell's amendments established the basis of the Colorado doctrine of adjudication of priorities by the courts, although, as will be seen, it gave the courts an innovative role in this regard.

Significant opposition to the bill, interestingly enough, came in the Senate from another lawyer, L. R. Rhodes of Fort Collins. He espoused the view held by many at the time that no water legislation was required and that the courts were the proper forum to determine rights in the water. The bill passed despite his efforts.<sup>129</sup> It provided for the creation of water districts under the supervision of a water commissioner who was to divide the water according to priorities and the determination of priorities on a water district basis by the district court. Each court was to function as a quasi-administrative agency by automatically appointing a referee to take testimony from water users as to the dates and capacities of their ditches, without waiting for a lawsuit to initiate the proceedings. The court was then to "examine" the report of the testimony prepared by the referee and issue a decree determining all priorities in the district. No provision was made for measuring stream flow or registering future appropriations, nor was an office of a commissioner of irrigation created. There was a provision guaranteeing the right to store unappropriated water in reservoirs, with plans to be approved by the county commissioners, but no adjudication of storage priorities was included. The right to introduce water from a reservoir into a stream, and take it out again, minus a deduction for seepage and evaporation, was also provided. The county commissioners were to fix the rates to be charged by ditch companies and the water of ditches was to be prorated among users in time of shortage "so that all owners and purchasers shall suffer from the deficiency . . . each in proportion" to his entitlement.

b. The 1881 Act.

The summer of 1879 was very dry, leading farmers in the South Platte basin to petition the governor to appoint water commissioners to administer what water was flowing in the streams. Although

several commissioners were appointed that summer, the first real steps toward implementing the Colorado system were taken in July and August, when referees were appointed in Water Districts No. 6 and No. 3 to begin taking testimony on ditch priorities.

The most important developments occurred along the Poudre in District No. 3. Harry N. Haynes, the referee, took testimony in Fort Collins and Greeley and heard evidence from surveyors and civil engineers as to the size, grade, and capacity of the rival ditches in those localities. He finished this task in January and submitted his report in April after an unusually dry winter. To everyone's surprise and great consternation, Judge Victor A. Elliot of the Second Judicial District refused to issue a decree. The judge believed that the 1879 act had created an unconstitutional procedure by requiring the court to act without the customary suits on the court dockets or personal service of process on the owners of rights affected by the decree. The Greeley farmers petitioned to the supreme court for a writ of mandamus to compel Judge Elliot to comply with the terms of the act.

Without a decree fixing the rights on the river, the conflict between Greeley and Fort Collins intensified during the dry summer of 1880. Although a water commissioner was appointed by the governor, there was little he could do in the absence of a legal record of priorities.

The farmers again turned to the legislature to create a workable system for adjudicating their rights along the river. Their anxiety was heightened by the continued construction of large irrigation canals by corporation ditch companies using foreign capital. The campaign for seats in the legislature revolved largely around irrigation issues.

Anticipating the supreme court's decision sustaining Judge Elliot's refusal to proceed under the 1879 act,<sup>130</sup> Senator James A. Freeman introduced legislation into the Third General Assembly which met the objections of the legal profession and largely completed the statutory framework recommended by the farmers' convention of 1878.

The 1881 legislation<sup>131</sup> provided that adjudication of priorities of ditches and canals, and also reservoirs, was to be commenced by petition of any claimant of an appropriation. Priorities were to be set by decree based on the time of construction of the ditch. Apparently, a decree could be obtained on the basis of the commencement of such construction; the act provided that the court should find, among other elements, "the time spent, severally, in such construction and enlargement, or extension, and re-enlargement, if any, the diligence with which the work was in each case presented, the nature of the work as to difficulty of construction, and all such other facts



as may tend to show compliance with the law."<sup>132</sup> The appointment of a referee to take testimony was left to the discretion of the court.

All owners of existing ditches and reservoirs were required to file a statement of their claim to priority with the court, which entitled them to notice of the proceedings and the right to present evidence in support of their claim. In addition, important progress was made in ascertaining future priorities by requiring each new ditch or reservoir owner to file with the county clerk a map and statement describing the construction of his facility.

The Office of the State Engineer was created, with authority to supervise the water companies and to measure the capacities of all the streams, ditches, and reservoirs in the state. The state engineer was also to supervise the construction and maintenance of measuring devices which were required on every ditch and reservoir. However, a provision requiring the state engineer to submit information concerning the capacities of all the ditches in the district to the court prior to its determination of priorities was deleted from the final bill.<sup>133</sup> There is evidence<sup>134</sup> that in creating the Office of the State Engineer, the legislature was greatly influenced by the experience in California, where a similar office had been created three years earlier.<sup>135</sup>

Another innovation was the creation of water divisions encompassing an entire watershed. This had been suggested in the Denver convention in 1878, but was not acted upon in the following year. While the 1881 act did create three such divisions, for the South Platte, Arkansas, and Rio Grande basins, respectively, they did not become operational until 1887 when each existing division was provided with a superintendent of irrigation.<sup>136</sup>

The farmers had found that the damages caused by the construction of rights-of-way were greater than expected. Consequently, the 1881 legislation put some controls on the exercise of the constitutional right of access by prohibiting more than one ditch to be built across anyone's land without his consent and requiring that the shortest possible route be chosen.

The first adjudication decree awarded under the Colorado system was, appropriately enough, in Water District No. 3 on the Poudre River. Judge Elliot appointed Henry P. H. Bromwell, a principal architect of the system, as referee. Bromwell filed his report on March 20, 1882, and the decree was issued on April 11.<sup>137</sup>

## 2. Encouragement and Control of Large-scale Irrigation Projects.

The next several decades witnessed a sharp increase in the number of large-scale water projects and corresponding adjustments in the system of adjudicating and administering water rights. Experience with the actual operation of the Colorado system led the legislature to make some necessary revisions in the statutory framework, but the basic structure remained unchanged. Irrigation was by far the major consumptive water use in the state and the law followed its development, although other uses gradually came to be recognized.

### a. Financing and Management.

In 1909, or thereabouts, the annual increase in the number of irrigated acres began to decline.<sup>138</sup> This trend was no doubt aggravated by the agricultural depression in the 1920s. A large factor, however, was the growing difficulty of bringing the water to the land. The river valleys and lowlands were, naturally enough, the targets of the first irrigation projects; however, these opportunities were in due course exhausted, forcing new development onto the fertile but arid bench lands. These projects required greater capital outlay than their predecessors, and new institutions evolved to make their construction possible.<sup>139</sup>

#### (1) Ditch Companies.

Private investment was channeled through large ditch corporations set up to construct canals and ditches and sell the water to the farmers. The traditional legislative concern with these companies was evidenced in a number of acts supplementing the constitutional regulation of rates by the county commissioners. Statutes of 1887<sup>140</sup> and 1893<sup>141</sup> required all persons owning or controlling any canal or ditch used for irrigation purposes to keep enough water in the ditch during farming season to supply all persons entitled to its use, within the limits of the ditch priority. Another act outlawed extortion and under-the-table bargains in the sale of water.<sup>142</sup>

#### (2) Irrigation Districts.

Another means of financing large projects was launched in 1901 with the first statute authorizing the formation of irrigation districts.<sup>143</sup> These organizations, as reconstituted by later

statutes in 1905<sup>144</sup> and 1921,<sup>145</sup> were given power to issue bonds, tax landowners with irrigable land, exercise the power of eminent domain, and contract with the federal government. However, since their tax base was limited, there was a limit to the type of projects which the districts could take on.<sup>146</sup> There were also problems of fairness, since "the entire burden was carried by the land irrigated, while reclamation plainly benefitted the entire community."<sup>147</sup>

### (3) Conservancy Districts.

This problem led to the Water Conservancy Act of 1937.<sup>148</sup> Conservancy districts were given the power to tax all property in the district, which allowed them to finance the larger and more complex projects which were needed to supply the state's growing demands.<sup>149</sup> One of the declared purposes of the act was to enable Colorado farmers to cooperate with the federal government in financing and constructing large reclamation projects.<sup>150</sup> Water conservancy districts were seen as the best way to buy federal water and deliver it to local users.

The district courts of the state were given special and exclusive jurisdiction by the act to entertain and approve petitions for the creation of conservancy districts.<sup>151</sup> The petition had to be signed by at least 1,500 owners of irrigated land located within the proposed district, and property within the district itself was required to have a total assessed valuation of at least \$20 million.<sup>152</sup> The petitioners were required to post a bond for costs in the event the petition was denied or declared invalid.<sup>153</sup>

After published notice, opponents of the proposed district could oppose its creation by signing a protesting petition. At least 1,000 signatures of protesting landowners were required, or 15 percent of the total owners of irrigated lands in the proposed district, whichever was lower. The valuation, with improvements of the protestors' lands, was required to total at least \$2 million.<sup>154</sup>

Very simply, the creation or failure of a proposed district depended upon the validity of the signatures and valuation of lands of those in favor of or opposed to the district. If a protesting petition had the requisite signatures and property valuation, the petition to create was denied, irrespective of the fact that the petition to create had the necessary signatures and valuation.<sup>155</sup>

Once the petition to create a district was granted, the district court appointed the first board of directors. Vacancies on the board were filled by court appointment.<sup>156</sup> The board, as the primary executive body of the district, was given the following general powers:<sup>157</sup>

- (1) To have perpetual succession.
- (2) To take, own, appropriate, convey, lease, and encumber water, water rights, and any and all real and personal property.
- (3) To exercise the power of eminent domain, provided, however, that it not be used to acquire vested water rights for transmountain diversions.
- (4) To construct and maintain water works and facilities on state lands.
- (5) To contract with the federal government for water or water works.
- (6) To fix rates and allot water to the landowners within the district.
- (7) To enter into contracts, employ agents, and adopt plans and specifications for water facilities.
- (8) To appropriate, acquire, store, and dispose of water.
- (9) To borrow and invest money, establish a sinking fund, and refund bonded indebtedness.
- (10) To adopt bylaws.

The board of directors was given separate power to levy and collect taxes and special assessments. Such taxes were divided into four classes:<sup>158</sup>

Class A. To levy and collect taxes upon all property within the district.

Class B. To levy and collect assessments for special benefits accruing to property within municipalities for which use of water is allotted.

Class C. To levy and collect assessments for special benefits accruing to lands within irrigation districts for which use of water is allotted.

Class D. To levy and collect assessments for special benefits accruing to lands for which use of water is allotted.

In 1939, the law was changed to allow the creation of conservancy districts having a total property valuation of less than \$20 million.<sup>159</sup> In this event, the petition must be signed by at least

25 percent of the owners of irrigated lands to be included in the district. Since conservancy districts were intended for the benefit of agricultural interests, the degree to which property in an incorporated city or town could be used was limited.

#### (4) Federal Involvement.

As Governor Elbert had foreseen in 1873, federal participation in western water development was necessary to provide the needed capital for reclaiming the land for agricultural use. The economic depression of the 1890s and populist demands for governmental relief finally spurred Congress into action.<sup>160</sup> The Reclamation Act of 1902<sup>161</sup> provided for federal development projects which would be financed by leasing the captured water to individual water users. This system proved to be economically unsound, however, and the act was amended in 1939 to allow repayment of construction costs by contract with users' organizations, with the federal government absorbing some of the expense.<sup>162</sup>

#### b. Transbasin Diversions.

In some areas, notably the South Platte basin, the natural flow of the stream had been entirely appropriated, and it occurred to a number of people that one solution to the shortage of water might be to divert water out of watersheds which were not heavily used and to introduce it into others which needed water. The state took an early lead in this type of project. A statute of 1889 appropriated funds to study "the sources of the Grand, Laramie, and North Platte river systems, with reference to turning the unappropriated waters thereof eastward, and causing them to flow into and through the tributaries of the South Platte and Arkansas river systems for the purpose of irrigation and other beneficial uses."<sup>163</sup>

This was not the first of these diversion projects, however. In 1860, water was brought across the Continental Divide to provide water for mining in the area around Fairplay. This project was extended in 1912 to supply the growing needs of the City of Denver.<sup>164</sup> In 1909, the historic Gunnison Tunnel was opened, bringing water from the Gunnison River into the Uncompahgre Valley.<sup>165</sup> This project was completed with federal funds provided under the Reclamation Act of 1902.

Transbasin diversions had been discussed at the Constitutional Convention on Mr. Stone's suggestion that they be denied priority of right; however, Chairman Plumb argued successfully that this type of

development should be encouraged.<sup>166</sup> A statute of 1897 permitted persons making such diversions to introduce water into a stream system and take it out at a later point, minus a deduction for seepage and erosion.<sup>167</sup>

#### c. Reservoirs.

The state also began to sponsor construction of numerous canals and reservoirs in the late 19th century,<sup>168</sup> using convict labor for many of these projects. Reservoirs were increasingly used to capture the spring runoff and augment water supplies during the farming season. The desirability of this type of development was noted by Nathan C. Meeker back in 1874 when he called for the construction of a reservoir on the Poudre to alleviate the increasing conflicts among users on that stream.<sup>169</sup>

The first legislative recognition of this development came in 1879 with a provision guaranteeing the rights to condemn lands for reservoirs and to store unappropriated water and requiring approval of the plans of dams in excess of 10 feet by the county commissioners.<sup>170</sup> This job became the responsibility of the state engineer in 1899;<sup>171</sup> in addition, the state engineer was to make an annual determination of the safe storage level for each reservoir.<sup>172</sup> Reservoir owners were also given the right to transport water in natural streams, "but not so as to raise the waters thereof above ordinary high water mark."<sup>173</sup> In 1897, exchange of water between reservoirs and streams was authorized.<sup>174</sup> Storage rights were integrated into the adjudication process in 1881,<sup>175</sup> but it was not until 1935 that the legislature recognized that a storage right would be superior to a later appropriation for direct use.<sup>176</sup> Instream reservoirs were required to be surveyed under statutes of 1901<sup>177</sup> and 1911.<sup>178</sup>

In 1937, a new form of state subsidy for reservoirs was enacted. Any landowner who constructed a reservoir on a normally dry stream channel, or who donated land to the state for a reservoir, was entitled to a property tax reduction proportional to the capacity of the reservoir.<sup>179</sup> This act was a means to stimulate agricultural development and help pull the state out of the Great Depression.

#### d. Conditional Rights.

One problem which soon developed with the increased construction of large reservoirs and diversion projects was the need to guarantee the water rights for the project at an early stage in the game.<sup>180</sup> It would, after all, be futile to invest millions of dollars in a

reservoir and canal system if five or ten years later, when the project was finally completed, there was no unappropriated water left to put in it. In response to this need for security, the legislature in 1919 established a procedure for adjudicating claims based on partially completed diversions and for issuing conditional decrees which would relate back to the date of the commencement of construction. The Adjudication and Limitation Act of 1919<sup>181</sup> required all claimants of water rights who had filed the required map and statement when the project was initiated, but who had not yet been awarded a decree, to file a supplemental statement concerning diligence in completing the project and the estimated time required to perfect the appropriation. Claimants were then permitted to appear in a subsequent general adjudication of rights within the district and prove their claims. Conditional decrees were to be issued, relating back to the date of commencement, conditioned on a biennial showing of due diligence and completion of the project within a reasonable time.

Prior to this act, a decree could be obtained relating back to the initial construction date, but was generally issued only after the appropriation was diligently completed.<sup>182</sup>

### 3. Nonirrigation Uses.

As Colorado's agricultural economy developed, its population and industrial base also expanded and gradually began to compete with irrigation for available water supplies. Both politics and institutional inertia inhibited the legal recognition of these new interests. Eventually, however, the law of water rights adapted to its new environment, although it did so by simply extending its coverage rather than by developing new principles more suited to modern times.

The constitution, of course, had given domestic use a preference over agriculture and manufacturing. A statute of 1887 protected "the priority of water for domestic use"<sup>183</sup> and another in 1891 prohibited the use of water claimed for domestic purposes from being used for irrigation or application to plants of any kind, but permitted municipal use for household, fire, and street sprinkling purposes.<sup>184</sup>

Not until 1903, however, did the legislature provide a means to obtain adjudication of an appropriation for nonirrigation uses. The act of 1881 provided that a suit might be brought within four years after a general decree for irrigation rights "to determine any claim of priority of right to water, by appropriation thereof, for irrigation or other purposes."<sup>185</sup> Since the procedures authorized by that act were available only with regard to irrigation rights, a domestic or industrial user apparently had to find a common-law form of action to protect his rights. This solution was obviously inadequate since

there was no provision made for administrative enforcement of whatever rights might be judicially recognized.

This problem apparently came to a head around the turn of the century and resulted in the enactment of a statute in 1903 which provided for nonirrigation rights to be established and decreed in the same manner as irrigation rights.<sup>186</sup> Claimants of such rights were required to file a map and statement of their appropriation, as were irrigators.<sup>187</sup> The court was to number all nonirrigation rights in order of priority and to note the purpose for which the water was appropriated. Irrigation rights, however, were to be numbered separately from nonirrigation rights,<sup>188</sup> a practice which was later to cause problems in administration.

As municipalities grew, the problems of obtaining a reliable supply of water increased. Many of the water projects built in this era were used for municipal purposes, and eastern slope communities were among the most eager initiators of transmountain diversions which tapped undeveloped water from the western slope.

In spite of its irrigation orientation, the law did make some adjustments in recognition of the problems of municipalities in securing sufficient water supplies for their future growth. A statute in 1931 provided that municipalities with populations in excess of 200,000 (i.e., Denver) could lease water not needed for immediate use without creating vested rights to the use of the water in the lessee.<sup>189</sup> This statute was one element relied on by the Colorado Supreme Court eight years later in the case of Denver v. Sheriff<sup>190</sup> in striking down restrictions on Denver's use of western slope water. The court distinguished sharply between water needed for irrigation of agricultural lands and that required for municipal purposes, noting that the practicalities of population growth required the prudent acquisition of water to meet future needs.

#### 4. New Sources of Water: Waste, Seepage, and Spring Water.

As water use increased and legislative controls on historically unregulated areas of water consumption became more accepted, the legislature extended its regulatory authority over new water sources. In 1889, foreshadowing a development which was to occur 75 years later with regard to ground water generally, a law was passed bringing the utilization of waste, seepage, and spring water under the system of adjudication and administration which had previously applied only to surface streams.<sup>191</sup> This act, Colorado's first attempt at ground water legislation, sought to encourage the full utilization of this water by providing a predictable means of resolving conflicts over its use.



The 1889 law contains an interesting proviso illustrating a sentiment which was widely held at the time of the Constitutional Convention and continues to be a factor, albeit one of diminishing influence, in Colorado water law today. The right to appropriate waste, seepage, and spring waters was made subject to the right of "the person upon whose lands the seepage or spring waters first arise" to use the water "if capable of being used upon his lands."<sup>192</sup> This blend of the riparian and full utilization doctrines did not purport to recognize any relationship between the spring and seepage water and the water in natural streams.

A 1911 statute, abandoning the traditional solicitude for riparian rights in spring water, added a degree of sophistication to ground water controls and established a principle which is still with us today. Apparently, water users felt the impact of spring water consumption on surface supplies and demanded protection of their right. The 1911 act provided that the waters of all naturally flowing streams could be appropriated for all beneficial uses, including domestic use, uses for private and public bathing, and bottling for various purposes. Claims were to be adjudicated in court "irrespective of whether or not the waters from any such spring or springs are tributary to any natural streams."<sup>193</sup> If the waters were found not to be tributary to a natural stream, then the decree was to be fixed among the users of that source. If, on the other hand, they were tributary, surface rights were to be protected.<sup>194</sup>

#### 5. Changes in Water Rights: New Points of Diversion.

Inevitably, as water usage increased in complexity and competing types of use broadened the market for water rights, owners of rights began to adjust their own patterns of use to suit their individual needs and also to transfer their rights to other users. Interestingly, it was in 1903, the year that nonirrigation rights were integrated into the adjudication process, that a law was passed providing for court approval of changes of points of diversion.<sup>195</sup> The procedure to be followed was identical to that provided for an original decree and the issue to be resolved was whether vested rights of others would be affected. This law was in effect until it was substantially revised in 1943.<sup>196</sup>

#### 6. Adjudication.

The procedure for adjudicating water rights under the acts of 1879<sup>197</sup> and 1881<sup>198</sup> essentially involved a simultaneous determination

of all water rights within the district. All claimants were required to file statements of their claims by a certain date and come into court and establish their priority right. The decree which issued after such a determination was binding after four years on all persons who later attempted to establish rights in conflict with the decree.<sup>199</sup>

There was a fundamental problem with this system. The provisions for filing claims<sup>200</sup> for notice of the proceedings<sup>201</sup> and for numbering of priorities<sup>202</sup> were all geared toward an original adjudication proceeding of all rights on the stream. Although a system of resolving future claims with the county clerk was established,<sup>203</sup> and there was a provision for late claims which might be read to authorize supplemental proceedings,<sup>204</sup> there was no procedure for adjudicating subsequent appropriations and, apart from the four-year statute of limitations, no indication of how the priority dates of later claimants were to be integrated into the list of priorities under the original decree.

It may be that the 1881 statute implicitly authorized subsequent proceedings. In any event, water users did go to court and establish priorities after a general decree had been issued, although there was no uniformity in procedure in these hearings.<sup>205</sup>

For many years the legislature was content with the de facto resolution of this problem and provided only slight guidance to the courts. The statute on changes in points of diversion in 1903<sup>206</sup> clearly contemplated a supplemental proceeding, but the courts were told to utilize the procedures for original determinations. In 1905, partially as a result of the needs created by the change proceedings, a statute was passed which recognized that supplemental individual proceedings were necessary and which dispensed with the requirement of personal notice to all users who held rights under an existing decree.<sup>207</sup> This, however, was only a partial solution to the problem.

The Adjudication and Limitation Act of 1919,<sup>208</sup> which permitted conditional decrees, also provided for a general determination of all claims for which the map and statement required under the 1881 act had been filed, but which had not yet been adjudicated. This act, however, like the 1881 act, required all claims to be submitted by a certain date and did not establish an ongoing procedure to remedy the problem of subsequent appropriations. The deadline for filing claims was, however, declared unconstitutional in 1948.<sup>209</sup> The effect of this ruling was to permit ongoing adjudications of claims, although the manner of integrating later decrees with existing practices was unsettled.

Finally, in 1943, the distinction between original and supplemental proceedings was clarified.<sup>210</sup> A supplemental adjudication

suit could be initiated by any claimant whose rights had not been settled in an original proceeding; however, all priorities decreed in supplemental suits, regardless of the actual date of appropriation, were to be given a priority number junior to the latest priority decreed in the original suit. Procedures and requirements of notice to existing rights for these supplemental suits were also clarified. The state engineer was required to certify to the court a list of all claimants who had filed maps and statements of their claims, a provision which had been omitted from the 1881 act.

The 1943 act also provided for the integration of irrigation and nonirrigation priorities. Separate tabulations of different types of decrees had become a problem in administering appropriations.<sup>211</sup> The act allowed a high degree of flexibility in numbering priorities; while different classes of rights might be numbered separately, they were no longer required to be done in that manner, as the 1881 act had provided.<sup>212</sup>

Another section of this act dealt with the increasing problem of coordinating the adjudication of priorities among districts<sup>213</sup> by permitting persons from another district to participate in water proceedings and be bound by the resulting decree. This restated a similar provision in a 1921 statute.<sup>214</sup>

The provisions in an act of 1903<sup>215</sup> for judicial approval of changes in points of diversion were expanded to include changes in the location of reservoirs. A petition requesting the change was to be submitted to the court, and provision was made for the inclusion of terms and conditions to prevent injury to the vested rights of others. This transfer proceeding, like the supplemental adjudication of rights, involved only the petitioner and those persons who desired to oppose the change.

The 1943 act was essentially a housecleaning law which gave legislative recognition to a number of practices which had developed in the courts since the 1881 and 1919 laws had been passed.<sup>216</sup> This revised system, with various additions to accommodate the increasing conflicts over ground water use, continued in effect until it was substantially modified in 1969.

## 7. Administration.

Another area of gradual adjustment in the period between 1881 and 1969 was that of administration of water rights. Administrative controls on water usage increased to the point that some commentators were heralding the demise of the prior appropriation doctrine.<sup>217</sup>

One of the most important changes occurred soon after the 1881 act, when superintendents of irrigation were provided for the existing irrigation divisions.<sup>218</sup> The superintendents were given authority over the water commissioners, were required to compile tabulations of all the priorities in the division, and were empowered to regulate water use in a division basin by shutting down competing users in different districts as necessary to protect prior rights.

These officers were named division engineers by an act of 1903<sup>219</sup> which added the measurement of streams and ditches within the division to their duties. Subsequent acts of 1911<sup>220</sup> and 1951<sup>221</sup> made only minor amendments to this framework. In 1969, the administration system was completely overhauled.<sup>222</sup>

The system of water districts and water commissioners was continually expanded until its abolition in 1969. As water usage and development spread throughout the state, more districts were created to accommodate the need for regulation of appropriations.<sup>223</sup> With regard to the water commissioners, the biggest problem was their failure to perform their duties.<sup>224</sup> An act of 1887 required the commissioners to post a bond to secure their faithful service.<sup>225</sup> They were made full-time employees in 1921.<sup>226</sup>

The functions of the Office of the State Engineer were constantly expanded as the state's regulation of water use increased. This office seemed to be the natural repository of new regulatory powers. Approval of plans for reservoirs was added in 1899,<sup>227</sup> control over headgates and measuring devices in 1901,<sup>228</sup> approval of maps and statements for new diversions in 1903,<sup>229</sup> and surveys of stream flows in 1909.<sup>230</sup> Later acts amended these duties to some extent, and the regulation of ground water in the 1960s and 1970s provided more opportunities for this office to expand its jurisdiction. A law of 1935 provided assistants and consultants to aid in the performance of these duties.<sup>231</sup>

The need to measure stream flows and ditch capacities was recognized in the farmers' convention of 1878.<sup>232</sup> Over the years, ditch and reservoir owners were required to install an increasingly elaborate array of hardware to keep track of their water consumption. Laws of 1901<sup>233</sup> and 1911<sup>234</sup> provided that priority to divert or store water would not be recognized until these requirements were met.

The control over the waste of water was another area of historical interest. As early as 1872,<sup>235</sup> and again in 1876,<sup>236</sup> the legislature had put restrictions on excessive use of water. In 1895, the water commissioners were given authority to shut down users found to be wasting water.<sup>237</sup>

These expanded administrative duties vested a considerable amount

of discretion in water officials to regulate water usage. They were empowered to interpret decrees, to make factual determinations in conflicts between users, to decide when to cut off ditches, to make deductions for seepage and erosion, to determine when water was being wasted, and to perform a myriad of other functions.

By and large we feel justified in saying that today the state through its executive officials doles out the water to users upon a consideration of many things, not the least of which are motives of policy and social interest, not the greatest, by far, of which are individual rights and the priority of the individual appropriation.<sup>238</sup>

#### 8. Interstate Compacts.

The headwaters of more major rivers are located in Colorado than any other state. Since all of these rivers flow from Colorado into neighboring (and distant) states, it was early recognized that Colorado could not expect to retain the benefit of their entire flow. Numerous early cases established a rough doctrine of equitable apportionment between Colorado and its neighbors.

In Kansas v. Colorado,<sup>239</sup> Colorado was allowed to retain the amount of water its appropriators were then taking out of the Arkansas River, but the Supreme Court noted that should those appropriations increase beyond an equitable share of the waters of the stream, Kansas would have a case entitling it to a decree to prevent the additional taking. Although precipitated by the actions of private parties, the suit was between the two states and fixed Colorado's delivery obligation in terms of state responsibilities.<sup>240</sup>

Although disputes over interstate streams which originate in Colorado may still be waged in the courts, Colorado and its neighbors early recognized that a nonadversary context was often the best way in which to secure the lawful interests of their citizens. One of the earliest results of this attitude was the Colorado River Compact, signed in 1922 by representatives of Arizona, Colorado, California, Nevada, New Mexico, Utah, and Wyoming, and by Herbert Hoover on behalf of the United States of America. The compact was approved by the General Assembly in 1924.<sup>241</sup>

The Colorado River Compact provided for the equitable division of the waters of the Colorado River among the states lying in the Colorado River Basin. A broad division was made between the "Upper Division" of the basin (including Colorado, New Mexico, Utah, and

Wyoming), and the "Lower Division" (including Arizona, Nevada, and California).<sup>242</sup> The upper division states were required to deliver 7,500,000 acre-feet of water annually for the benefit of the lower division. In anticipation of the increasing consumptive needs of the lower division states, the latter were given the right to increase their beneficial consumptive use by an additional one million acre-feet per annum.<sup>243</sup>

Recognizing the need for a standing panel to negotiate like agreements, the Colorado legislature established the Colorado Water Conservation Board in 1937.<sup>244</sup> The board was charged with support responsibility for commissioners appointed by the governor to negotiate compacts with other states.<sup>245</sup> In addition, the board was made responsible for encouraging the development of public irrigation projects such as conservancy and irrigation districts, prevention of floods, and cooperating with the federal government in flood prevention and irrigation projects, both inter- and intrastate.<sup>246</sup>

Since the Colorado River Compact in 1922, Colorado has negotiated numerous river compacts which make binding upon the citizens the division of the waters of the stream agreed to by the state's negotiators acting on behalf of the General Assembly. Among these are the Upper Colorado River Compact (1948),<sup>247</sup> the La Plata River Compact (1922),<sup>248</sup> the South Platte River Compact (1923),<sup>249</sup> the Rio Grande River Compact (1938),<sup>250</sup> the Republican River Compact (1942),<sup>251</sup> the Amended Costilla Creek Compact (1963),<sup>252</sup> and the Arkansas River Compact (1948).<sup>253</sup> In each case, the compact phrases delivery obligations in the form "it shall be the obligation of Colorado to deliver."

In 1969, the legislature placed responsibility for meeting the delivery requirements of the various interstate compacts upon the Office of the State Engineer.<sup>254</sup> The state engineer was given power to promulgate such rules and regulations as necessary to regulate distribution among Colorado appropriators in order to meet compact delivery requirements.<sup>255</sup> This regulatory authority is currently being challenged in the Colorado courts, where a principal issue is whether the regulatory authority given the state engineer, couched as it is in terms of "equitable distribution" does any violence to the Colorado constitutional rule of prior appropriation.<sup>256</sup>

In an effort to protect and preserve for use in Colorado the waters available to it under the various compacts to which the state is a party, the 1977 legislature enacted a system of apportionment credits which require that any diversion or transportation of water out of the state be credited to Colorado's compact obligations to the receiving state.<sup>257</sup> This measure, which seeks to protect Colorado against large diversions or uses for interstate coal slurry and other

types of mineral slurry pipelines originating in Colorado, requires the claimant of water to prove that a means accepted by each affected state exists by which the apportionment credit will be entered or recognized by each such state.<sup>258</sup> Any such method must be approved by the appropriate compact commission.<sup>259</sup> Whether this section, which certainly complicates, and arguably changes Colorado's preexisting compact obligations, is lawful is a question which should lead to some interesting controversy. The statute is, however, an honest effort by Colorado to protect waters assigned to it by lawful compacts.

#### 9. 1953 Codification.

In 1951, the state legislature adopted an act providing for the creation of a revision committee and a revisor of statutes.<sup>260</sup> The legislature charged the committee with the duty to collate, edit, and prepare the 1953 revised statutes for publication. For the first time, the revised statutes, upon their publication, became the positive law of the State of Colorado, rather than merely a compilation of the statutory law enacted and set forth in the various session laws. The changes made by the revisor of statutes in preparing the 1953 revised statutes fell into six categories:

- (1) Elimination of redundant words.
- (2) Correction of grammar, punctuation, and sentence structure.
- (3) Making references to previous sections and statutes more definite.
- (4) Changing the statutes to conform with the civil service amendment, administrative code, and other legislation adopted after the passage of the original sections.
- (5) Changes to coordinate the various sections.
- (6) Repeal of sections which were obsolete or which had been superseded by subsequent legislation.

The changes made to the water and irrigation statutes as a result of this action of the revisor were considered to have been of a house-cleaning nature only and to have had no effect upon the substantive effect of water and irrigation laws.<sup>261</sup>

#### C. Ground Water Management.

Although the state legislature had thought about the regulation

of ground water since the 1930s, conflicting opinions had precluded effective action.<sup>262</sup> Increasing ground water withdrawals began to interfere with surface supplies, and while surface right owners demanded regulation of underground water rights, the state engineer refused to act in the absence of clear statutory authority.<sup>263</sup>

1. Underground Water Act of 1953.<sup>264</sup>

In its first attempt at the regulation of ground water, the legislature enacted a permit program designed to conserve underground water resources and to prevent waste and pollution. This act established a permit and license system for well drillers, both private and commercial, but its emphasis was primarily upon insuring that wells were drilled according to set standards and not upon any regulation of the right to use underground water, which remained basically unfringed. The act also provided for the formation of local emergency districts designed to restrict the depletion of underground water basins. The Colorado Water Conservation Board was charged with administration of the act.

Aside from the regulation of well drillers, the emergency district provisions of the act met with little implementation. The act itself was repealed in 1957.

2. Ground Water Law of 1957.<sup>265</sup>

The Ground Water Law of 1957 established the Colorado Ground Water Commission, which was charged with the duty to investigate and designate "tentatively critical ground water districts," in areas where the withdrawal of ground water was approaching or exceeding normal annual recharge. The commission was empowered to designate such districts and their boundaries and to close districts to further development of ground water resources, if warranted. The commission was charged with the duty to conduct an election to select a district advisory board of five members, which would in turn cooperate with the commission and the state engineer in regulating the use of ground water in the district.

Unfortunately, the district advisory boards were given the power, upon unanimous vote, to remove the designation of "critical ground water area" from their district. This severely restricted the enforcement capabilities of the Ground Water Commission. Not surprisingly, the first district to be designated as a tentatively critical ground water district, the Bijou basin, did not remain so for very long. The local district advisory board was created according to statute and



promptly voted to remove the designation "critical ground water district." No other districts were established under the act, which was repealed in 1965.

The 1957 act represented the first of many legislative battles over whether ground water would be subject to the Colorado rule of prior appropriation.<sup>266</sup> The act, and the case law resulting from it, succeeded in establishing the main classes of ground water and the manner in which rights therein could be acquired and protected. Although these classes were further refined by later legislation, the 1957 act was significant for setting in motion the events leading to our present ground water law. The major classes of ground water in Colorado are tributary, nontributary, and designated ground water.

In Whitten v. Coit,<sup>267</sup> the Colorado Supreme Court was given an opportunity to determine the application of the Adjudication Act of 1943 and the 1957 act to nontributary underground water. In that case, a group of well owners claimed rights under a 1948 district court decree. Although it had been conceded by all parties that the water involved was not tributary to any stream, the court had proceeded to adjudicate their rights, claiming authority to do so under the 1943 act.

In 1957 some of the well owners brought suit to compel the state engineer to administer their rights in accordance with the 1948 decree. The case arrived before the Colorado Supreme Court in 1961. At issue in the case was whether the 1943 and 1957 acts gave the district courts jurisdiction over nontributary ground water. The court concluded that the 1943 act referred expressly to "waters of natural streams." By definition, said the court, this excludes nontributary water. Although the court recognized the presumption that underground water is tributary until proven otherwise,<sup>268</sup> it noted that this issue was not present in the case at bar, in which the parties had conceded the water to be nontributary. The court, therefore, held that the act gave jurisdiction to the district courts only for tributary waters, and that the 1945 decree was thus void and unenforceable.

Turning to the legislative history of the 1957 act, the court found that the first draft had attempted to subject nontributary water to the prior appropriation system, but that this effort was abandoned, all references to "appropriators" and "priorities" having been eliminated before passage. The court concluded that the legislature's intent in passing the 1957 act was to subject nontributary ground water to a rule of reasonable use:<sup>269</sup>

The legislative history as above stated shows that the legislature attempted to remove any

doubt as to its intentions and that it contemplated under the provisions of this bill that there would be an equitable and efficient use of nontributary underground water not pursuant to any theory of appropriation. [Emphasis in original.]

As essentially a police power act, the 1957 law did no more, under the interpretation of the Whitten v. Coit decision, than apply the doctrine of "reasonable use" to nontributary underground water, a doctrine which had been applied by the courts in nontributary surface water matters for some time.<sup>270</sup> For example, in San Luis District v. Rio Grande Drainage District, the Colorado Supreme Court loosely defined tributary water as water which constituted a "material part of the supply of a stream." Finding that the water at issue in that case was nontributary, the court went on to apply the doctrine of reasonable use to that water. Thus, while the 1957 act continued the provisions of the 1953 act with respect to the regulation of the drilling of wells and prevention of pollution and waste, the concept of nontributary water as private, rather than public, property remained paramount.

We have seen that the concept of "critical ground water districts," although originally introduced by the 1953 law, was continued in 1957. Since such districts were "designated" as critical, the water underlying them has come to be known as "designated" ground water.

Under the 1957 act, designated ground water could be either tributary or nontributary, since the only criteria established by the act was that depletion be approaching or exceeding annual recharge. In this sense, "designated" ground water is that water removed from both the operation of the prior appropriation system (to which it would have been subject if tributary) and from the Whitten v. Coit doctrine of reasonable use (to which it would have been subject if nontributary). The current definition of designated ground water continues to recognize that it may be either tributary or nontributary.<sup>271</sup>

Thus, by the passage of the 1957 act, it was clear that tributary ground water in the state was subject to district court (water) jurisdiction and the doctrine of prior appropriation. "Designated" ground water, whether tributary or not, was subject to the control of the Ground Water Commission, whose powers were soon to be expanded in 1965. Prior to 1965, however, the Ground Water Commission exercised little real control in practice over the water under its jurisdiction. Similarly, although the state district courts handed down decrees awarding priorities to tributary ground water, there was little practical enforcement of those priorities in the manner in which surface priorities were administered. Nontributary, nondesignated water was

left subject to very little real control, since it was outside both the jurisdiction of the district courts and the Ground Water Commission, and apparently subject only to the doctrine of reasonable use.

### 3. Ground Water Management Act of 1965.

#### a. Historical Background.

The ground water acts of 1953 and 1957 did nothing to cope with the problems caused by increased pumping of ground water resources. In many areas of the state, the conflicts between ground water appropriators and surface users were coming to a head. In a report to the Colorado General Assembly in 1964,<sup>272</sup> the Colorado legislative council summarized the results of a series of public meetings on ground water problems held throughout the state.

Highest on the list of concerns enunciated by the local water users was the increasing effect of ground water pumping on surface supplies, causing transportation losses for surface streams, which in turn resulted in the changing of stream priorities in practice. Further, the local users complained that abandoned and poorly drilled wells polluted surface streams. Many users argued for spacing between wells as was then practiced in New Mexico. In the San Luis Valley, the greatest problem was conflict between the use of shallow ditches to create a root-level water table and wells which pulled that water table down.

The increased use of underground water for agriculture resulted in problems for the users of both nontributary and tributary water. Nontributary users found that the rate of pumping far exceeded the annual rate of recharge of the aquifer upon which they depended, in addition to disparities caused by the improper or poor placement of wells. Although the 1957 act had intended to provide some relief for this situation through the designation of critical ground water management districts, the fact that they were permissive at the local level prevented them from materially alleviating the situation.<sup>273</sup>

Tributary water users of both surface and ground water increasingly began to realize that the prior appropriation system was not being applied to them uniformly. The Ground Water Management Act of 1965 was primarily intended to render assistance to users of nontributary ground water (whether designated or not). Users of tributary ground water were to wait until 1969 before being brought squarely within the framework of statutory water law.

b. Designated Ground Water.

(1) Prior Appropriation System Applied.

The Ground Water Management Act of 1965<sup>274</sup> was really a composite of a Senate bill and a House bill, both signed by Governor Love on May 3, 1965.<sup>275</sup>

Although, as we have seen, tributary ground water had long been subjected by the courts and the legislature to the prior appropriation rule,<sup>276</sup> the 1965 act was the first legislative declaration that designated ground water should also be subject to the Colorado prior appropriation doctrine. The act recognized, however, that designated ground water (which was, and still is, primarily nontributary) was subject to conditions of depletion not applicable to surface and sub-surface tributary water. Accordingly, the legislative declaration applying the prior appropriation doctrine to designated ground water is couched in terms of reasonable use:<sup>277</sup>

Declaration of Policy. It is hereby declared that the traditional policy of the State of Colorado, requiring the water resources of the state to be devoted to beneficial use and reasonable amounts through appropriation, is affirmed with respect to the designated ground waters of the state, as said waters are defined in §148-18-2(2). While the doctrine of prior appropriation is recognized, such doctrine should be modified to permit the full economic development of designated ground water resources. Prior appropriations of ground water should be protected and reasonable ground water pumping levels maintained, but not to include the maintenance of historical water levels. All designated ground waters in the state are therefore declared to be subject to appropriation in manner defined in this article. [Emphasis added.]

A major concern in the drafting of the 1965 legislation was the curtailment of junior water rights under the doctrine of prior appropriation. Because nearly any exercise by a junior appropriator of his pumping right would have some hydrologic effect upon the water level in senior appropriators' wells, the legislature's policy declaration<sup>278</sup> indicated specifically that, while appropriations of ground water would be protected and reasonable ground water pumping levels maintained, the prior appropriation doctrine would not operate to maintain historical water levels. It appears that the "reasonable pumping wells" policy was meant to apply equally to designated and nondesignated tributary water.

A case law precursor to the policy declaration in the 1965 act was City of Colorado Springs v. Bender.<sup>279</sup> In that case a senior appropriator (of tributary, nondesignated ground water) claimed that the wells of the junior appropriator (City of Colorado Springs) were lowering the water table such that his relatively shallow well was rendered incapable of producing. Observing that the plaintiff, although senior, could not reasonably control the entire use of the ground water table merely because his means of diversion was inefficient, the court reversed the lower court's order granting an injunction. The case was remanded to the lower court for determination of the steps the senior appropriator would have to take to efficiently divert his water right.

In keeping with the application of the rule of prior appropriation, all references in the 1957 act to "users" were changed in 1965 to read "appropriators."

## (2) Designated Ground Water Defined.

Designated ground waters were defined by the 1965 act in this manner:<sup>280</sup>

The term "designated ground water" is that ground water which in its natural course would not be available to and required for the fulfillment of decreed surface rights, or ground water in areas not adjacent to a continuously flowing natural stream wherein ground water withdrawals have constituted the principal water usage for at least 15 years preceding January 1, 1965; and which in both cases is within the boundaries, either geographic or geologic, of a designated ground water basin.

In examining this section, it is apparent that more than merely nontributary water can be included within the definition of designated ground water.<sup>281</sup> The second portion of the definition includes ground water which has constituted the principal water usage for at least 15 years in an area and which may well be tributary. Such water is brought within the definition of "designated ground water" by being included within the boundaries of a designated ground water basin.

Despite this seemingly clear interpretation of the definition, two opinions by Colorado Supreme Court Justice Groves shed some doubt upon the inclusion of tributary ground water within the term "designated ground water."<sup>282</sup>

It should be noted that in 1971 this definitional section was amended to read "geographic boundaries," instead of "boundaries either geographic or geologic. . . ."283 The definition left unresolved the question of whether the doctrine of prior appropriation applies to nontributary ground water not located in a designated ground water basin. In 1973, the question of nontributary, non-designated water was addressed by the legislature and the state's policy somewhat clarified.284 This category of ground water is further discussed at §c.(4), infra.

### (3) Ground Water Commission.

The 1965 act retained the Ground Water Commission originally established by the 1957 act. As in the 1957 act, the Ground Water Commission was required to determine designated ground water basins.285 Once a designated ground water basin determination had been made, the local advisory boards created by the commission were not given the power to remove the designation as had been the case under the 1957 act. The Ground Water Commission was given considerable administrative power to regulate the use of ground water within designated basins.286 Persons wishing to appropriate ground water for beneficial use in an area within a designated ground water basin were required to make their application to the Ground Water Commission, rather than the state engineer. An application, permit, and hearing procedure was established, allowing the commission to determine whether a proposed use would "create unreasonable waste or unreasonably affect the rights of other appropriators."

The power of the Ground Water Commission to deny well permit applications and to curtail, either in whole or in part, diversions from junior wells was limited by the overall directive that senior well appropriators are entitled only to a "reasonable ground water pumping level or levels in an area or areas having a common designated ground water supply."

The authority of the Ground Water Commission to prescribe rules and regulations, and to approve or deny well permits on the basis of depletion standards, has been upheld in the courts. In Fundingsland v. Colorado Ground Water Commission,287 the plaintiff sought court review of the commission's denial of his application for a permit to use ground water in the Northern High Plains designated ground water basin in Kit Carson County. The Colorado Supreme Court, upholding the lower court's refusal to approve the permit, held valid the test used by the commission to determine whether the proposed well would materially injure other water users. That test involved the use of a three-mile radius around the proposed well. The commission

found that a 40 percent or greater depletion of the aquifer would occur if the proposed well were pumped intermittently, and that the area was already over-appropriated. In addition to approving the commission's 40 percent, 25-year test, the court rejected the plaintiff's claim that he was being denied his constitutional right to make an appropriation of water for beneficial use.

The statutory procedure initiated by the 1965 act, while couched in terms of the doctrine of prior appropriation, recognizes the need to apply the consent of reasonable use to ground water management. Not unlike the "futile call" and "water wheel" doctrines which have been in use for many years with respect to surface diversions, the rule of "reasonable pumping levels" established by the 1965 Ground Water Management Act (and continued to the present day) recognizes that the rights of senior appropriators and junior appropriators can be accommodated without loss to either.

#### (4) Ground Water Management Districts.

There are now seven designated ground water basins in Colorado: the Northern High Plains, the Kiowa-Bijou, the Southern High Plains, the Upper Black Squirrel Creek, the Lost Creek, the Camp Creek, and the Upper Big Sandy. The Ground Water Commission has both primary regulatory authority within each of these seven ground water basins, in addition to secondary authority, unless local ground water management districts have been formed.<sup>288</sup> The 1965 act provided that local ground water management districts may be formed by application to the commission for boundary approval.<sup>289</sup> Thereafter, a petition and election process for the formation of local districts is utilized, not unlike the manner in which special taxing districts are established for purposes such as water and sanitation.

Each local district is managed by a board of directors who are empowered to govern the use of ground water in the district through regulations in the following subject areas:

- (1) Well spacing.
- (2) Restrictions on pumping.
- (3) Construction of dams, lakes, pumps, and other facilities to recharge the ground water reservoir.
- (4) Plans for efficient use of ground water.
- (5) Capping of unused wells.

- (6) Prohibition of use of ground water outside the district.
- (7) Protection and compensation of owners of domestic wells which may be injured by irrigation wells.

(5) Priorities to the Use of Designated Ground Water.

The 1957 ground water law provided only that the priority date of the ground water appropriation could not be postponed to a time later than its true date of initiation by reason of failure to adjudicate the right in a surface adjudication.<sup>290</sup>

In order to accomplish the task of awarding priorities to appropriators within designated ground water basins, the 1965 act provided for two classes of appropriators from such basins: (1) those persons who could claim water rights based on an actual taking of designated ground water for beneficial use prior to the effective date of the article and (2) those persons claiming beneficial use of designated water after the effective date of the 1965 act. Those persons claiming after the effective date of the act were given, as their priority date, the date of the filing of their application with the Ground Water Commission, unless their application had been rejected.<sup>291</sup>

In order to deal with those appropriators who claimed dates of appropriation prior to the effective date of the 1965 act (May 17, 1965), the Ground Water Commission was directed to establish a priority for each well based upon the time the water was first supplied to a beneficial use. The date shown in the records on file with the state engineer was established as prima facie evidence of the date the water was first applied to beneficial use. Based upon this and other information, the Ground Water Commission was required to establish tentative priority dates for the respective wells within each designated ground water basin. The commission was then required to publish those dates and hold hearings on the priority number, the priority date, the name of the claimant, the 40-acre subdivision in which the well is to be located, the average annual volume in acre-feet, the proposed maximum pumping rate, and the number of acres to be irrigated.<sup>292</sup>

(6) Powers of the State Engineer.

Although he was empowered under the 1957 ground water law to grant or deny permits to construct wells outside of designated



ground water basins, the 1965 act gave the state engineer substantial regulatory powers over designated ground water.<sup>293</sup> Those powers have been carried forward to the present date and include the authority to:

- (1) Require flowing wells to be equipped with valves.
- (2) Require efficient construction and maintenance so as to prevent waste.
- (3) Prescribe devices for the measuring of water levels in, and the amount of water withdrawn from, underground wells.
- (4) A right of ingress and egress upon all lands, both public and private, in order to inspect wells and related equipment.
- (5) Order the cessation of the use of a well pending the correction of any defect.
- (6) The right to sue or join legal actions involving the depletion of ground water which is contrary to state policy or which injures vested rights.<sup>294</sup>

(7) Exempt Wells.

Under the 1957 ground water law, the following wells in designated ground water areas were exempt from regulation:<sup>295</sup>

- (1) Wells used solely for stockwatering purposes.
- (2) Wells used for domestic purposes, having discharge pipes 2 inches or less in diameter.
- (3) All artesian wells with discharge pipes 3 inches or less in diameter.

The 1965 act made the discharge pipe limitation applicable to stock wells.<sup>296</sup>

In 1967, the exemption provisions of the 1965 act were repealed and reenacted with substantial revisions.<sup>297</sup> Rather than using a discharge pipe-size limitation, exempt wells were restricted to no more than 50 gallons per minute and then only for normal operations associated with (1) three single-family dwellings, (2) stockwatering purposes, and (3) commercial businesses. The 1965 act required prospective well users to submit applications to the state engineer, even though the water right applied for would be exempt from further regulation. Earlier legislation had made no provision for such an application process.

#### 4. Regulation of Nondesignated Ground Water.

As we have seen, statutory enactments and case decisions had created, by the passage of the 1965 act, three broad classes of water in the state. While the first two, tributary water and designated water, were the product of conscious acts on the part of the General Assembly and the Colorado Supreme Court, the third, nontributary, nondesignated water, owes its creation more to default than intention. Essentially, this is water "left over" after the other two are excluded. Nontributary, nondesignated water is significant, however. Tremendous amounts of this water underlie the eastern plains, locked in deep formations such as the Denver, the Dakota, the Fox Hills, the Arapahoe, and the Dawson-Arapahoe.

An examination of the development of the present law governing the use of nontributary, nondesignated water in Colorado reveals that the law is yet far from settled. The primary tension in the statute and case law in this field has been between two major water use theories: (1) the Colorado doctrine of prior appropriation, and (2) the doctrine of reasonable use. Both have found expression, to some degree, in the current regulation of nontributary, nondesignated water in Colorado.

##### a. Colorado Constitution.

The provisions of the Colorado Constitution, normally treated as the starting point for discussions of water law in this state, have no application to nontributary, nondesignated ground water.

Article XVI provides as follows in the indicated sections:

Section 5. Water of streams public property. The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.

Section 6. Diverting unappropriated water-priority preferred uses. The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. [Emphasis added.]

As can be seen from the emphasized sections, the constitution, drafted in an era prior to deep well drilling, applied only to the natural streams of the state; that is, surface water and water

tributary thereto. In a recent decision, however, the Colorado Supreme Court has implied that the language of the Colorado Constitution does not extend to ground water which is only "minimally tributary" to the stream.<sup>298</sup>

b. Whitten v. Coit.

The decision of the Colorado Supreme Court in Whitten v. Coit<sup>299</sup> declared that nontributary water belongs to the overlying owner.<sup>300</sup>

If . . . underground water does not belong to the river and does not contribute to a natural stream it is not subject to the doctrine of prior appropriation. [Emphasis added.]

We have seen that this early decision declared nontributary, nondesignated water to be outside the water jurisdiction of the Colorado courts.<sup>301</sup> More recent decisions in this field, however, have had the probable effect of overruling Whitten v. Coit on this point.

c. Subsequent Case Law.

In Fundingsland v. Colorado Ground Water Commission,<sup>302</sup> the supreme court reviewed the constitutionality of the Ground Water Management Act of 1965, which imposed a modified version of the appropriation doctrine on "designated ground water."

Without citing Whitten v. Coit, the court upheld the appropriation system as it applied to nontributary waters within designated ground water basins. In doing so, however, the court took the position that, since there was no unappropriated water remaining for appropriation, there was no constitutionally protected right to appropriate.

Again, without citing Whitten, in Preisser v. Smith Cattle, Inc.,<sup>303</sup> the Colorado Supreme Court upheld a water court decree which awarded a priority to what it appeared to consider nontributary ground water outside of a designated ground water basin on the theory that unappropriated water was available.

The Preisser decision was a natural extension of Perdue v. Fort Lyon Canal Co.,<sup>304</sup> in which a decree to nontributary surface water was challenged. The supreme court asserted that (1) no constitutional issues had been raised, (2) nontributary, nondesignated water was included within the "water matters" jurisdiction given district judges by the Ground Water Management Act of 1965, and (3) the lower

court had jurisdiction to adjudicate the subject nontributary water under former law. Preisser appears to be in direct conflict with the "reasonable use" doctrine applied to nontributary, nondesignated water by the 1928 decision in San Luis District v. Rio Grande Drainage District (discussed, supra, at §C.2.). It may well be that the reasonable use doctrine will be overridden by developing case law such as Preisser.

d. Minimally Tributary Water.

Two comparatively recent Colorado decisions have sought to define what nontributary, nondesignated ground water is. The second portion of the definition is relatively simple: nondesignated ground water is that water which underlies land outside the boundaries of any designated ground water basin. If that ground water is tributary to the stream, the prior appropriation system will be applied through the mechanisms set up by the 1965 and 1969 acts. If found to be nontributary, it will be governed by the somewhat confusing case law and legislation examined in this section.

In Hall v. Kuiper,<sup>305</sup> the court upheld the decision of the state engineer to deny two well permits where the water sought to be withdrawn would reach the stream within 40 years. The court applied the traditional tests of the prior appropriation doctrine: (1) unappropriated water available, and (2) no injury to vested water users. It would seem that this case establishes an inside figure for what will be considered tributary.

Two years later, in 1975, the court decided Kuiper v. Lundvall,<sup>306</sup> in which the state engineer contended that water taking 178 years to reach one stream and 356 years to reach another was tributary and subject to his administration. The court disagreed, saying:<sup>307</sup>

[W]e think the time has come to rule as to the effect of the tributary character of this water upon the constitutionality of the Act. . . .

We hold that as to the water taking over a century to reach the stream, the tributary character is de minimus and that this is not a part of the surface stream as contemplated by our Constitution. [Emphasis in original.]

Based upon Hall v. Kuiper and Kuiper v. Lundvall, water reaching the stream in less than 40 years would be considered tributary, while water taking more than 100 years would be considered nontributary.

e. Statutory Enactments.

(1) Senate Bill 81 (1969).<sup>308</sup>

In 1969, the General Assembly enacted the Water Right Determination and Administration Act of 1969 which established the procedure for adjudicating priorities in the water courts for appropriative water rights. The legislative declaration in the act provides:<sup>309</sup>

It is hereby declared to be the policy of the state of Colorado that all waters originating in . . . this state, whether found on the surface or underground, have always been and are hereby declared to be the property of the public, dedicated to the use of the people of the state, subject to appropriation and use in accordance with law.

The above-quoted language established that all water is subject to appropriation, departing from earlier language which had referred to the waters of "natural streams."

(2) Senate Bill 213 (1973).<sup>310</sup>

In 1973, the General Assembly specifically addressed nontributary ground water outside of designated ground water basins. The 1965 act was amended with respect to the authority of the state engineer to issue construction permits for wells. The amendment emphasized that the dual requirements (imposed by the 1965 act) of (1) water available for appropriation, and (2) no injury to other users, would continue to apply to applications for wells in designated ground water basins and to wells tapping tributary aquifers. This left nontributary, nondesignated water. The amendment went on to apply the following requirements to such water:<sup>311</sup>

[I]n considering whether the permit [to construct a well] shall be issued, only that quantity of water underlying the land owned by the applicant or by the owners of the area, by their consent, to be served is considered to be unappropriated; the minimum useful life of the aquifer is one hundred years, assuming that there is no substantial artificial recharge within said period; and no material injury to vested water rights would result from the issuance of said permit.

Since the enactment of this amendment in 1973, nontributary, non-designated ground water has been popularly referred to as "Senate bill 213 water."

Senate bill 213 has not completely filled the void caused by the historical lack of statutory and case law regarding nontributary, nondesignated ground water. Because the amendment used the language of the appropriation doctrine ("unappropriated," "no material injury to vested water rights"), it is still unclear whether prior appropriation applies to this water, after the model in Preisser v. Smith Cattle, Inc., supra. The common interpretation with respect to this amendment has been that the legislature intended to create a vested property right in the overlying landowner. Testimony during the present session of the Colorado legislature at hearings before the Senate Agriculture Committee<sup>312</sup> indicated that at least some of the senators involved with the passage of S.B. 213 intended to create a property right in nontributary, nondesignated ground water, vested in the overlying owner. If this is the case, the "reasonable use" doctrine inaugurated by Whitten v. Coit would seem to apply.

### (3) Duties of the State Engineer.

The 1957 act had required, for the first time, that no new wells could be drilled or the supply from existing wells increased or extended unless the user made an application in writing to the state engineer for a permit to use ground water.<sup>313</sup> However, the 1957 law gave the state engineer no discretion or authority to deny such applications. So long as the application was in proper form and accompanied by the required \$25 application fee, the state engineer was required to issue the permit to use ground water in an area outside the boundaries of a potentially critical ground water district.

This permissive state of affairs was radically changed by the 1965 act and the substance of those changes has continued to the present time. The state engineer is required by the 1965 act to determine whether the exercise of the requested permit will materially injure the vested water rights of others.<sup>314</sup> If he finds that others will not be "materially injured" by the granting of the permit, it must be issued. The permit itself must contain conditions for drilling, casing, and other facilities in order to prevent waste, pollution, or material injury to existing rights.

Although the basic requirement of noninjury to existing rights remains applicable to the present time, additional restrictions have been added since 1965 which further limit the situations in which permits to construct wells will be granted for wells in areas outside

of designated ground water districts. In 1967, a limitation was added requiring the proposed well to be located at least 600 feet from any existing wells unless the state engineer, after hearing, finds that the circumstances in the particular case allowed a variance.<sup>315</sup> In 1971, the legislature further amended this section by directing that, prior to the issuance of a permit to construct a well, the state engineer, in addition to his other findings, "shall find that there is unappropriated water available for withdrawal by the proposed well."<sup>316</sup>

#### D. 1969 Legislation.

In 1969, the legislature enacted a comprehensive statute which made major changes in both the adjudicative and administrative aspects of Colorado water law. This act began what has become a continuing attempt to integrate the priorities assigned underground water users with those assigned to surface water users. The administrative duties of the state engineer were broadened.

One change made by the 1969 legislation was perhaps more symbolic than any other of the fact that Colorado had entered a new era in the adjudication and determination of water rights. The statute dating back to the territorial laws of 1861 and guaranteeing the rights of riparian claimants on the banks of any stream, creek, or river, was repealed in favor of a section declaring all water to be the property of the public, subject to appropriation and use in accordance with the law of prior appropriation.<sup>317</sup>

##### 1. Sections of Old Law Repealed.

The 1969 act, in its effort to reorganize and simplify the adjudication and administration of water rights in Colorado, repealed numerous existing statutes, many dating back to territorial days. The major articles repealed were as follows:

- (1) The article dealing with the appointment of division engineers and irrigation divisions.<sup>318</sup> Essentially, the functions carried out by the former division engineers under appointment from the governor were absorbed into the new and expanded duties of the state engineer.
- (2) The article providing for 70 irrigation districts.<sup>319</sup>
- (3) The article giving special jurisdiction to some courts

in water matters,<sup>320</sup> in deference to the special water jurisdiction given to district courts throughout the state.

- (4) The article providing for water commissioners to serve under the former division engineers.<sup>321</sup>
- (5) The article requiring the filing of maps and plats of proposed ditches and reservoirs with the state engineer,<sup>322</sup> leaving only the requirement (carried forward into present law) that in-channel reservoirs must be surveyed, and the results of that survey placed on file with the state engineer.<sup>323</sup>
- (6) The Adjudication Act of 1943<sup>324</sup> as well as the Adjudication and Limitation Act of 1919.<sup>324</sup>

## 2. Expanded Duties of the State Engineer.

The 1969 act reorganized the Office of the Colorado State Engineer, placing the same under the jurisdiction of the Department of Natural Resources.<sup>325</sup> The recordkeeping duties and authority of the state engineer were expanded. The division engineers, who had formerly been appointed by the governor and had operated autonomously from the state engineer, were placed under the latter's direct control,<sup>326</sup> acting as the state engineer's deputies in the administration of the priority system.

The 1969 act added a significant new section under the duties of the state engineer which gave water users a degree of flexibility in the use of their water rights. Upstream junior storage right appropriators were allowed to store their water out of priority in years in which the state engineer determined that sufficient water would later be available for downstream senior appropriators. If the supply of water later in the season turned out to be less than expected, the junior storage right owners were required to release their out-of-priority water for the benefit of those senior appropriators. Also, the new section permitted junior appropriators to provide a substituted supply of water to appropriators senior to them, allowing the junior appropriator to divert waters which, in the normal operation of the priority system, would have been exclusively reserved for the senior.<sup>327</sup>



### 3. Water Right Adjudication and Administration.

In 1967, the Department of Natural Resources was directed to review existing water laws in Colorado and to propose new legislation which would comprehensively integrate surface and ground water resources. It was this study which laid the groundwork for the present water right adjudication system in Colorado. The legislature also directed the state engineer to issue no new permits for wells other than those for replacement wells or wells drilled in designated ground water basins pending the completion of the study.<sup>328</sup> The state engineer was allowed to issue well permits if, upon investigation, he determined that the proposed well would have no material effect upon vested water rights of existing water users.

#### a. Declared Policies of the 1969 Act.

In a lengthy section, the 1969 legislature repeated its earlier declaration that all waters of the State of Colorado originating in or flowing into the state, whether surface or underground, have always been and are declared to be the property of the public and available for appropriation. The policy of the state was further declared to be to integrate the appropriation, use, and administration of underground (tributary) water with surface water. The declaration section indicated that existing uses should be recognized to the full extent possible, subject to the preservation of other existing vested rights. However, the legislature emphasized that an appropriator must not be allowed to "command the whole flow of the stream merely to facilitate his taking a fraction of the whole flow to which he is entitled." This was an affirmation of the Colorado Supreme Court's decision in Colorado Springs v. Bender,<sup>329</sup> which had indicated that a senior appropriator could not rely upon an inefficient means of diversion.

The 1969 act defined "underground water" as all that water in the alluvial aquifer of a surface stream as well as all other waters hydraulically connected to it. In this definition, underground water was declared to be different from designated ground water as defined in the 1965 Ground Water Act.<sup>330</sup> Thus, the 1969 act was in no way intended to alter the system established by the 1965 Ground Water Act.

#### b. Duties of the State Engineer.

The 1969 legislation directed the state engineer to appoint one division engineer for each of the seven new water divisions, which

were located as follows:

- (1) Division 1: Greeley.
- (2) Division 2: Pueblo.
- (3) Division 3: Alamosa.
- (4) Division 4: Montrose.
- (5) Division 5: Glenwood Springs.
- (6) Division 6: Steamboat Springs.
- (7) Division 7: Durango.

The division engineers were mandated to carry out the policies and procedures as well as the regulations of the state engineer.<sup>331</sup>

In a new section, the state engineer and his division engineers were given sole authority to administer, distribute, and regulate the waters of the state.<sup>332</sup> As of the enactment of the 1969 legislation, the state engineer was charged with the duties delineated in §D.2., supra, as well as the following:

- (1) Ordering the total or partial discontinuance of diversion to the extent that the water being diverted is not necessary for application to beneficial use.
- (2) Ordering total or partial discontinuance of a diversion to the extent that the water being diverted is required by senior water users, but only in cases in which the diversion is causing or will cause them material injury.
- (3) Requiring that wells and other surface diversions be utilized to the extent feasible in order to satisfy senior water rights before junior water rights are discontinued.
- (4) Ordering the release from storage of any water found to have been illegally or improperly stored.
- (5) Administering the movement of water involved in any plan for augmentation or exchange.
- (6) Ordering any owner or user of a water right to install and maintain meters, gauges, or other measuring devices.

c. The Adjudication System.

The 1969 legislation supplanted the old district court jurisdiction over water matters and created a system for adjudication which involved essentially three sets of court officials: (1) water judges, specifically designated by the supreme court, (2) water referees, appointed by the water judges in each of the seven water divisions, and (3) water clerks, charged with the duty of administering only those files pertaining to water matters. The state was divided into seven water divisions, organized generally along the river system lines. The river systems of the state were divided as follows:

- (1) Division 1: The South Platte River, the Big Laramie River, the Arikaree River, the North and South forks of the Republican River, the Smokey Hill River, and Sandy and Frenchman creeks.
- (2) Division 2: The Arkansas River and the Dry Cimarron River.
- (3) Division 3: The Rio Grande, San Luis Creek, Saguache Creek, Tuttle Creek, Carnero Creek, La Garita Creek, Sand or Medano Creek, Big Spring and Little Spring creeks, Mosca Creek, and Sierra Blanca Creek (generally the San Luis Valley).
- (4) Division 4: The Gunnison River, the Little Delores River, and the San Miguel River.
- (5) Division 5: The Colorado River and its tributaries with the exception of the Gunnison River.
- (6) Division 6: The White River, the Yampa or Bear River, the Green River, and the North Platte River.
- (7) Division 7: The San Juan River, the Rio Piedra, Rio Las Animas, Los Pinos River, the Rio Mancos, and a portion of the Delores River.<sup>333</sup>

The 1969 act vested exclusive jurisdiction over water matters in water judges appointed by the supreme court to each of the seven water divisions. The water judges were to be existing district court judges, but would exercise jurisdiction over all of the waters within any given division.<sup>334</sup> This was a departure from earlier law in that jurisdiction was now vested in the district courts within any given water divisions collectively acting through the simple water judge appointed to that division.

In order to speed the resolution of water matters, the water judge was directed to appoint such referees as might be necessary to make investigations and preliminary rulings required elsewhere in the legislation. The first draft of this legislation gave this function to the division engineer. The water judge was required to refer promptly to his appointed referee all applications for water rights. A determination of a water right or a conditional water right, and the amount and priority thereof, was then made. Water jurisdiction also included determinations that conditional water rights had become absolute, and applications for approval of plans for augmentation or biennial findings of reasonable diligence.<sup>335</sup> This was later amended to require only quadrennial findings of due diligence.<sup>336</sup>

After receiving an application for a water right or a change of water right, the water clerk in each division was directed to publish a resume of all applications filed in the office of the water clerk for that month. The resume was to appear in a newspaper of general circulation once in each county (or portion thereof) in the division. The water clerk was required to mail a copy of the resume to each person who the referee had reason to believe would be affected by the application or who had requested that resumes be sent to him regularly.<sup>337</sup>

During the 60-day period following the end of the month in which the resume for the preceding month had been published, the referee was directed by the 1969 legislation to make such investigations and consultations as necessary to determine whether the statements in the application and any remarks in any "statements of opposition," if filed by that time, were true.<sup>338</sup> Then, within the month following the 60 days in which statements of opposition may be filed with respect to an application, the referee was required to make a ruling. That ruling was to be entered by the referee in the records and would become effective as a decree of court after 20 days unless a protest was filed during that time.<sup>339</sup>

In cases in which statements of opposition to the application had been filed within the 60-day period, the referee was permitted by the 1969 act to "re-refer" the application to the water judge for a determination, without making the initial investigations and ruling as otherwise required.<sup>340</sup> If the referee chose not to re-refer the matter, he was empowered to hold a hearing at which the applicant and the objector or objectors could attend and give evidence and testimony. The referee then made his ruling.

The 1969 legislation established a series of "water term days," at which all re-referred or contested water matters would be set for a trial. These water term days occurred in September and October and in March and April of each year, giving each water division

the opportunity to set its water matters for trial twice during the year.

With respect to rulings of the referee to which a protest was filed within 20 days of that ruling, as well as matters which were re-referred to the water judge by the referee, the water judge was directed by the 1969 legislation to hold hearings in accordance with trial practice, except that no pleadings were required. Again, all interested parties could participate at the hearing, either in person or by counsel, and they could present evidence and testimony. The water judge was required to make a decision which either confirmed, modified, reversed, or reversed and remanded the ruling of the referee. The water judge was not, and is not, in any way bound by the findings or ruling of the water referee. The 1969 legislation also provided for appellate review, in the normal manner, of decisions of the water judge, as well as for correction of clerical errors on motion of either the court or private parties.<sup>341</sup>

Rulings of the referee and decisions of the water judge were to be made in accordance with certain set standards in the 1969 act.<sup>342</sup> Those standards included the awarding of priority dates as the dates on which the appropriation was initiated, if it was later completed with reasonable diligence. Reasonable diligence was important in that if the water right, after initiation, was not completed with reasonable diligence, its priority date was moved to the date on which the appropriation was completed. The standards given the referee and the water judge allowed them to permit a particular means or point of diversion of any given water to also serve as a point or means of diversion for another water right or combination of rights.

Plans for augmentation were treated in a separate section of the 1969 legislation, which required that they be filed prior to July 1, 1971, and should be tried de novo to the water judge without referral to the water referee. Any further applications for plans for augmentation, not filed prior to July 1, 1971, were required to be delayed for filing until July 1, 1973.<sup>343</sup>

A 1975 amendment continued the provision of the 1969 act that a plan for augmentation would not be referred to the water referee by the water judge, though this was ultimately repealed by a 1977 amendment authorizing referees to hear applications for plans.<sup>344</sup> However, the state engineer was directed to review all proposed temporary plans for augmentation, and was given authority to approve them and allow them to be operated pending the water judge's review of the actual augmentation plan. That authority was also repealed by the 1977 statute, though existing rights were preserved.<sup>345</sup>

A plan for augmentation is a water use proposal whereby the

effect on senior appropriators of juniors' taking water out of priority (usually through wells) is offset by a series of timed releases of an alternate supply of water. These releases to the stream system have the effect of "restoring" the historical river conditions upon which other water users depend. The alternate supply is often obtained by "drying up," or halting irrigation on a parcel of farm land. The water no longer consumptively used for irrigation is available for release to the stream as a source of replacement water.

A common factual setting for a plan for augmentation would involve a planned residential subdivision, relying for its water supply upon wells which, when drilled, would divert water year-round and would be junior to all other rights on the stream. The effect of these wells on seniors' rights would be cancelled by timed releases of water into the stream from the alternate source.

Plans for augmentation, including water exchange projects, are subject to more specific requirements than other water right applications. Such changes or plans can be approved only if they will not injuriously affect the owners or other persons having absolute or conditional water rights. If this is the case, the water referee or the water judge is given authority to allow the applicant to propose "terms or conditions" which would prevent the injurious effect. Those terms and conditions may include limitations on the use of the water subject to the change, relinquishment (or abandonment) of a portion of the decree for which the change is sought in order to prevent an enlargement of historic use or diminution of return flow, and time limitations on the diversions of water for which a change is sought in terms of months per year. Any substituted water under a plan for augmentation is required to be of a quality and quantity to meet requirements for which the water of the senior appropriators has historically been used.

The 1977 amendments made significant changes in the standards applicable to adjudication and administration of plans for augmentation. The statute now requires that each plan approval be subject to reconsideration by the water judge on the question of injury to other vested rights.<sup>346</sup> The water judge is now required to consider:<sup>347</sup>

- (1) Depletions to the stream system which would be caused by the applicant.
- (2) The amount and timing of necessary replacement water.
- (3) Injury to owners of vested or decreed conditional rights.

Plans for augmentation must provide for water sufficient in quantity,

time, and location to meet the lawful requirements of senior users. Decrees approving plans must require the state engineer to curtail or "shut down" users under any plan not making sufficient replacement water available.<sup>348</sup>

d. Tabulations and Abandonment.

The 1969 legislation faced squarely for the first time the challenge posed by the integration of surface and underground priorities to the use of water. While the declared intention of the legislature since at least the 1957 ground water law had been to so integrate the waters of the state, as a practical matter that integration had resulted in two separate sets of appropriations and priority dates: one for surface water and one for underground water.

The new legislation directed the division engineers in each division to prepare, no later than July 1, 1970, a tabulation, in order of seniority, of all decreed water rights and conditional water rights in each division.<sup>349</sup> The division engineers were directed, in preparing these priority lists, to list only those water rights and conditional water rights which took or will take water from the same source, and were in a position to affect one another. The "common source" was defined to mean all of the waters in the division, either surface or underground, which, "if left in their natural state," would join together to form a single natural watercourse. This definition naturally excluded nontributary water, discussed at §C.4., supra. The integration of priorities was based upon the following standards:

- (1) Among water rights decreed in the same district and the same adjudication suit, the historic date of initiation of appropriation determined the relative priority.
- (2) Among the water rights decreed in the same water district, but in different adjudication suits, all rights decreed in the earlier adjudication suit would be senior to those decreed in subsequent adjudication suits.
- (3) Among water rights decreed in the various original adjudication suits in the various water districts of the same water division, the decreed date of initiation of appropriation determined the relative priorities.
- (4) Among water rights decreed in the various supplemental adjudication suits in the various water districts of

the same water division, the actual priority date of any decree would not extend back further than the day following the entry of the final decree in the preceding supplemental adjudication suit.

- (5) If any of the above four standards would cause, in any particular case, a substantial change in the priority of a particular water right, and when that water right had been "lawfully enjoyed" for greater than 18 years, the division engineer was allowed to designate the priority in accordance with historic practice.<sup>350</sup>

It appears that this provision was an effort to "grandfather" existing wells and existing unadjudicated surface rights into the system in order to protect the lawful expectations of the users of those rights.

The division engineer was required by the 1969 legislation to publish no later than July 10, 1970, the tabulation of water rights which he had prepared under the mandate of the law. Persons were given until September 10, 1970, in which to object to the manner in which a water right was listed in the tabulation, or the fact that the water right was omitted from the tabulation completely.<sup>351</sup>

The 1969 legislation further provided for a second tabulation to be completed by the division engineers by July 1, 1974, with similar dates during which interested persons could protest either the priority date given their water right, or the fact that it had been omitted and/or determined abandoned by the division engineer. The statute goes on to provide a hearing procedure whereby the water judge in each division would conduct hearings on the tabulation and any protest that had been filed with respect thereto.<sup>352</sup>

Because of the enormity of the task of integrating the priorities of underground and surface diversions in the state, the legislature in 1971 extended the date by which the division engineer was to have made revisions in the initial tabulation to and including October 10, 1973. The revised tabulation was then to be published by October 20, 1973.<sup>353</sup> In 1973, the legislature again amended the tabulation regulations, providing that the second tabulation must be completed by July 1, 1974, and July 1 every four years thereafter.<sup>354</sup> The time schedule given in this new amended version of the tabulation statute will apply in 1974, 1978, 1982, and so on, as follows:

- (1) July 1, 1978; 1982, etc.: division engineer prepares a new tabulation of all water rights and conditional water rights in his division.
- (2) July 10, 1978; 1982; etc.: division engineer publishes



a notice that the tabulation has been made and that it may be inspected or a copy obtained.

- (3) September 10, 1978; 1982; etc.: any person wishing to object to the manner in which a right or conditional water right is listed must file a statement of objection in writing with the division engineer.
- (4) October 10, 1978; 1982; etc.: the division engineer shall make revisions, if any, as he deems proper in the tabulation in response to matters raised by statements of objection.
- (5) November 30, 1978; 1982; etc.: any person who wishes to protest the manner in which a water right or conditional water right is listed in the tabulation, after revision by the division engineer, must file a written protest with the water clerk by this date.
- (6) Second week in December, 1978; 1982; etc., and thereafter: the water judge in each division shall conduct hearings on the tabulation and the protest or protests filed thereto, and shall make prompt decrees.

#### E. Conclusion.

The history of water law in Colorado has been one of satisfaction of economic needs and reliance upon established expectations. Surface water appropriators can look back upon long supremacy in the satisfaction of their needs from surface water resources. Underground water users have also traditionally been able to rely upon a seemingly inexhaustible source of supply.

It may well be that established expectations of both surface and underground water users will increasingly go unsatisfied as a result of the present trend in the law. That trend is clearly to integrate the surface and underground water resources of the state, and to administer the same as a unified whole. This development was inevitable, and merely recognizes the fact that all those in the western United States who rely upon water are inextricably tied to one another. Our sources of water are limited; our demands seemingly infinite. The Colorado Supreme Court, in Felhauer v. People,<sup>355</sup> approached the question in this manner:<sup>356</sup>

As administration of water approaches its second century the curtain is opening upon the new drama

of maximum utilization and how constitutionally that doctrine can be integrated into the law of vested rights. We have known for a long time that the doctrine was lurking in the backstage shadows as a result of the accepted, though oft violated, principle that the right to water does not give the right to waste it.

## II. A (BRIEF) HISTORY OF COLORADO WATER LAW

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277. Laws 1965, §1, at 1246 (codified at §37-92-102, C.R.S. 1973).
278. Id.
279. 148 Colo. 458, 366 P.2d 552 (1961).
280. Laws 1965, §1, at 1246.
281. See §C.2.e., supra.
282. In In re Water Rights in Irrigation Div. No. 1, 181 Colo. 395, 510 P.2d 323 (1973), Justice Groves raised, but did not answer, the question in this manner:

Intertwined are the questions not recorded here of . . . whether tributary water may be included in a designated ground water basin. 510 P.2d 323, at 328.

In Sweetwater Dev. Corp. v. Schubert Ranches, Inc., 188 Colo. 379, 535 P.2d 215 (1975), Justice Groves made the following statement:

Absent a showing to the contrary, prior to the creation of the [designated ground water] Basin, there was a presumption that the water here involved was tributary to a stream. Except for the creation of the Basin, no showing was made in the adjudication that it was not tributary water. 535 P.2d 215, at 218.

283. Laws 1971, §1, at 1311.
284. Laws 1973, §1, at 1250.
285. Laws 1965, §1, at 1249.
286. Laws 1965, §1, at 1254.
287. 171 Colo. 487, 468 P.2d 835 (1975).
288. Id. Note 284, supra.
289. Laws 1965, §1, at 1257-65.
290. Laws 1957, §9, at 870.
291. Laws 1965, §1, at 1252.
292. Id.
293. Laws 1965, §8, at 870.
294. Laws 1965, §1, at 1253.
295. Laws 1965, §1, at 1249.
296. Laws 1967, §3, at 276.
297. Laws 1957, §5, at 869.
298. Infra §C.4.d. and note 305.
299. Supra note 267.
300. Id. 385 P.2d 131, at 140.
301. Supra §C.2.
302. 171 Colo. 487, 468 P.2d 833 (1970).
303. \_\_\_\_ Colo. \_\_\_\_, 545 P.2d 711 (1976).
304. 184 Colo. 219, 519 P.2d 954 (1974).
305. 181 Colo. 130, 510 P.2d 329 (1973).
306. 187 Colo. 40, 529 P.2d 1328 (1975).
307. Id. 529 P.2d, at 1331.



308. S.B. 81 (1969); codified at §§37-92-101 et seq., C.R.S. 1973.
309. §37-92-102, C.R.S. 1973.
310. Laws 1973, §1, at 1520.
311. Id.
312. Hearings before the Senate Agriculture Committee on S.B. 82 (consideration postponed indefinitely on Feb. 17, 1978), and S.B. 108 (consideration postponed indefinitely on Feb. 17, 1978). Both bills proposed amendments to §37-90-137(4), C.R.S. 1973 (Old S.B. 213).
313. Laws 1965, §1, at 1265.
314. Laws 1967, §10, at 277.
315. Laws 1971, §3, at 1324.
316. Laws 1973, §1, at 1520.
317. Laws 1969, §2, at 1219. See note 309, supra.
318. Laws 1969, §20, at 1223.
319. Id.
320. Id.
321. Id.
322. Id.
323. §37-84-117, C.R.S. 1973.
324. Laws 1969, §20, at 1223.
325. Laws 1969, §2, at 1192.
326. Laws 1969, §15, at 1222.
327. Laws 1967, §1, at 249.
328. Laws 1967, §2, at 250.
329. Id. Note 273, supra.
330. Laws 1969, §1, at 1201.

331. Laws 1969, §1, at 1203.
332. Laws 1969, §1, at 1216.
333. Laws 1969, §1, at 1202.
334. Laws 1969, §1, at 1204. This, of course, excluded jurisdiction over designated ground water.
335. Laws 1969, §1, at 1208.
336. Laws 1973, §3, at 1523.
337. Laws 1969, §1, at 1207.
338. Id.
339. Laws 1969, §1, at 1208.
340. Id.
341. Id.
342. Laws 1969, §1, at 1211.
343. Laws 1969, §1, at 1212.
344. Laws 1977, §1, at 1702.
345. Id. §6, at 1704.
346. Laws 1977, §3, at 1703.
347. Laws 1977, §4, at 1703.
348. Id.
349. Laws 1969, §1, at 1214.
350. Id.
351. Laws 1969, §1, at 1212.
352. Id.
353. Laws 1971, §1, at 1335.
354. Laws 1973, §§3 and 4, at 1528.

355. 167 Colo. 320, 447 P.2d 986 (1969).

356. Id. 447 P.2d, at 994.

III. INVENTORY OF REGULATORY AND MANAGEMENT AUTHORITY OVER WATER  
IN COLORADO.

A. Introduction.

The preceding chapters detailed both the history and the current status of Colorado water law. The evolution of the water law system was traced and the present legal arrangement summarized. In essence, the present water rights system constitutes a private market approach to the distribution of a scarce resource. Individual water users, each acting to promote his own welfare and self-interest, make the basic decisions about how water in Colorado is used. Consistent with the free market underpinnings of this system, the role of government in water distribution and use is relatively limited. Only three specific government roles can be identified.

The first and foremost of these is to insure that private property rights in water are protected and that the necessary elements of an appropriation are satisfied. The state engineer and the courts carry out this function in response to basic rules established by the General Assembly or the constitution. The specific authority of each of the entities is described below. Even though considerable authority is available to both the water court and the state engineer, it should be reiterated that most decisions about the use, transfer, and distribution of water remain largely with the water users themselves, not with state or local government agencies.

The second governmental function is to regulate the use of certain ground water resources. Depending on physical and legal circumstances, this task is carried out by the state engineer, the Ground Water Commission, or the local ground water management districts. Agency authority in this regard is described below. In these singular circumstances, government can directly influence the location, rate, and amount of water used, but it still has a very limited role in specifying the uses of such water.

The final function of state government consists of formal or informal expressions of support for, or statements of reservation about, water development proposals by private parties, local government, or the federal government. Although the state normally has no final authority to approve or disapprove such proposals, this function is not unimportant and, in fact, constitutes a major role of the state in water policy matters. Several executive branch agencies are involved in these activities, and they are aided by numerous quasi-governmental entities (irrigation districts, conservancy districts, etc.) generally designed to foster water development. In addition, the legislature may become involved from time to time through the actions of individual legislators or through the passage of resolutions or memorials which express the formal opinion

of one or both houses of the General Assembly. The specific authority for each agency or quasi-government entity is summarized below as part of the inventory of regulatory and management authority over water in Colorado.

B. The Water Court.

The activities of the water court, along with those of the state engineer, typify Colorado's system of water allocation. As noted, the water court, like the state engineer, plays no part in the actual creation of water rights under the Colorado system. The water courts are, however, vested with the responsibility of confirming, through the issuance of decrees, the acquisition or change of water rights.

1. Establishment and Jurisdiction of the Water Court.

There are seven water divisions in the State of Colorado.<sup>1</sup> Each generally follows the natural hydrographic boundaries of the major river basins of the state. Three, division numbers 1, 2, and 3, are on the eastern slope of the state, while the remaining four are each located on the western side of the Continental Divide. Within each water division is established the position of water judge, who is a judge of the district court of all counties within the division.<sup>2</sup> The district courts, acting by the water judge, or judges,<sup>3</sup> has exclusive jurisdiction over water matters within the water division.<sup>4</sup>

To assist him, each water judge may appoint such referees as may be necessary within the judge's division.<sup>5</sup> The water judges may, however, elect to perform the functions which would be performed by a referee.<sup>6</sup>

2. Decrees for Water Rights, Changes of Water Rights, and Plans for Augmentation.

The most important function of the water courts is the issuance of decrees for water rights or changes thereof. As a part of these responsibilities, the water courts perform five separate functions:<sup>7</sup>

1. Issue decrees for absolute or conditional water rights.
2. Make findings that persons are pursuing the completion of a conditional right with reasonable diligence.

3. Find that conditional water rights have become absolute water rights.
4. Issue decrees authorizing changes of water rights.
5. Issue decrees authorizing plans for augmentation.

As will be described, each such determination is subject to somewhat different standards.

a. Summary of Water Court Procedures.

Any person desiring to apply for any of the above-described decrees or findings may apply to the appropriate water court, setting forth the information required by statute and by the forms of the water court.<sup>8</sup> The clerk of the water court is required to publish the pertinent information in each application in resume form, available from the clerk, in appropriate newspapers.<sup>9</sup> Statements of opposition to the applications may be filed by any person by the last day of the second month following the month of the application's filing.<sup>10</sup>

Each application is first ruled upon by the water referees, if any have been appointed.<sup>11</sup> In so ruling, the referee must consult with the appropriate division engineer and may consult with the state engineer.<sup>12</sup> The referee may then issue his written ruling, including the information specified by statute, as well as other pertinent information.<sup>13</sup> Under certain circumstances, the referee may rerefer an application to the water court.<sup>14</sup>

Protests to the rulings of referees may be filed within the time limits specified by statute.<sup>15</sup> The water court must then hold hearings upon all protested or referred matters.<sup>16</sup> All interested persons may appear at said hearing.<sup>17</sup> The division engineer may also appear to provide pertinent information, and he may be examined by either party.<sup>18</sup> Subsequent to the hearing, the water judge may confirm, modify, reverse, or reverse and remand any protested or referred application.<sup>19</sup> The judge may also, without a hearing, confirm and approve, reverse, or reverse and remand any other ruling of the referee.<sup>20</sup> Pending such judicial review, a stay of the referee's ruling may be obtained if any person will be materially damaged by the operation of the ruling.<sup>21</sup> The judgment and decree of the water court is then to be properly filed.<sup>22</sup> Such must include all specified information as well as other pertinent information.<sup>23</sup> Appellate review is allowed as in other civil actions.<sup>24</sup>

b. Decrees for Absolute or Conditional Water Right.

A decree for an absolute water right will be awarded under current law if an appropriation of the water right has been lawfully made. To make an appropriation, a prospective water user must intend to appropriate water<sup>25</sup> and must actually put that water to beneficial use.<sup>26</sup> A conditional decree will be awarded under current law if a person has the intent to appropriate water and has made a "first step" toward putting the water to beneficial use.<sup>27</sup> An absolute decree will ultimately be awarded to the holder of a conditional right who actually puts the water which is the subject of the conditional decree to beneficial use with reasonable diligence.<sup>28</sup> These standards are the only standards for the award of an absolute or conditional decree. Such a decree only confirms the existence of the water right, which right is created by the action of the water user, not by the action of the water court.

c. Decrees for Changes of Water Rights and Plans for Augmentation.

No change of water right of any kind or plan for augmentation is allowed without an approving decree of the water court. The water court is required to approve any application for either, so long as the proposed change or plan will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional right.<sup>29</sup> A decree for either may be conditioned to eliminate potential injury. The following terms and conditions are specified by statute for changes and plans for augmentation.<sup>30</sup>

1. A limitation on the use of the water which is subject to the change, taking into consideration the historic use and the flexibility required by annual climatic differences.
2. The relinquishment of part of the decree for which the change is sought or the relinquishment of other decrees owned by the applicant which are used by the applicant in conjunction with the decree for which the change has been requested, if necessary to prevent an enlargement upon the historic use or diminution of return flow to the detriment of other appropriators.
3. A time limitation, in terms of months per year, on the diversion of water for which the change is sought.
4. Such other conditions as may be necessary to protect the vested rights of others.

With respect to a plan for augmentation, the following must be considered by the water court and referee in imposing terms and conditions:<sup>31</sup>

1. Depletions from an applicant's use or proposed use of water, in quantity and time.
2. The amount and timing of augmentation water to be provided.
3. The existence of injury to any owner of or person entitled to use water under a vested water right or decreed conditional right.

Case law has long confirmed that changes of water rights may be permitted only when no injury to junior or senior appropriators will occur.<sup>32</sup> The enumerated statutory and case law standards are the only standards expressly defined by law.

d. Findings of Reasonable Diligence and Decrees Making Conditional Rights Absolute.

Every four years after the award of a decree for a conditional water right, the decree holder must show, and the water court find, that the holder is pursuing the development of his appropriation with reasonable diligence.<sup>33</sup> In general, the court will consider all pertinent factors in making said finding.<sup>34</sup> When the appropriation is completed, the holder of a conditional decree may apply for a determination that his right has become absolute.<sup>35</sup> The reasonable diligence finding, though based upon all pertinent factors, requires and is based solely upon the finding that a conditional decree holder is pursuing his appropriation with reasonable diligence. No provision for reviewing the manner in which the appropriation is proceeding is contemplated by the statute.

3. Tabulation Decrees.

Under existing law, the division engineer for each water division, by July 1, 1978, is to compile a tabulation of all decreed water rights in order of seniority in his division.<sup>36</sup> Water rights determined by the division engineer to be abandoned are to be omitted from said tabulation and included in a separate listing.<sup>37</sup> Protests to the tabulations may be filed with the water courts of the appropriate divisions.<sup>38</sup> Following a hearing on the protests,<sup>39</sup> the water court is to enter a judgment and decree incorporating the tabulations and modifying and incorporating them.<sup>40</sup> If no protest is filed, the



tabulations must be decreed without modification.<sup>41</sup> The judgment and decree of the water court is conclusive as to date of adjudication, appropriation, and abandonment.<sup>42</sup>

The tabulations are designed to reflect information included in prior lawfully issued decrees. Those decrees cannot be altered by administrative action of the division engineers or by the water courts except in accordance with established procedures.<sup>43</sup> The tabulations are not intended to affect special provisions of court decrees.<sup>44</sup>

#### 4. Enforcement of Administrative Orders.

The division and state engineers have significant authority to issue waste orders, to order the curtailment of diversions by persons not entitled to water, to order releases of stored water, to administer plans for augmentation, and to do other acts and issue other orders in the administration of the waters of the state.<sup>45</sup> Any such order pertaining to diversions or releases from storage may be enforced by the state or division engineer by injunctions issued by the water court.<sup>46</sup> In determining whether to issue an injunction, the water court must consider:<sup>47</sup>

1. Whether the water to be affected by the injunction is being applied to beneficial use.
2. Whether the diversion is causing injury to one who owns or is entitled to use senior decreed rights.
3. Whether the release of improperly stored water would benefit other water users.

#### 5. Authority with Respect to Underground Water.

There are several different types of underground water. Water court authority with respect to each varies.

##### a. Designated Ground Water.

With respect to that water known as "designated ground water," it does not appear that the water court has any jurisdiction whatsoever. Authority to review decisions determining rights therein seems to be vested in the various district courts generally, rather than in the water judge of the district court.<sup>48</sup> Thus, judicial authority over

such water, whether tributary or nontributary, is beyond water court jurisdiction.

b. Tributary, Nondesignated Ground Water.

Rights to use nondesignated ground water tributary to a natural stream are acquired just as rights to surface water, that is, according to the doctrine of prior appropriation. Since all water in Colorado is presumed to be tributary to a natural stream,<sup>49</sup> that conclusion is quite significant. It is also significant that certain water which is tributary in fact will not be considered to be tributary in the contemplation of the law.<sup>50</sup> When water is legally tributary, however, rights to its use will be acquired as rights to surface water.

c. Nontributary, Nondesignated Ground Water.

The threshold questions with regard to nontributary, nondesignated ground water are what rules apply, and whether the water court has jurisdiction over such water.

In Whitten v. Coit,<sup>51</sup> the Colorado Supreme Court held that rights to use nontributary water were to be assigned upon a theory of reasonable use. Prior appropriation did not apply. The water courts were without jurisdiction to adjudicate such rights. More recently, statutory<sup>52</sup> and case law<sup>53</sup> has at least implied that the rule of Whitten may be dead, and that the water court may have jurisdiction to decree rights to use nontributary underground water according to the prior appropriation doctrine. There are a variety of unsettled questions with respect to this water, and they are described in detail in the final chapter (XVI) of this volume.

d. Exempt Wells.

Certain small wells are exempted from the adjudication and administration requirements generally applicable to tributary water.<sup>54</sup> Nevertheless, no such well may be constructed without first obtaining a permit from the state engineer.<sup>55</sup> The state engineer may issue the permit only if vested rights will not be materially injured.<sup>56</sup> The water court has jurisdiction to review the decision of the state engineer,<sup>57</sup> but a limited standard of review applies.

C. The State Engineer.

The state engineer is head of the Division of Water Resources,<sup>58</sup> which is part of the Colorado Department of Natural Resources. The state engineer is charged with the general administration, distribution, and regulation of the surface and subsurface waters of the state.<sup>59</sup> The responsibilities of the Division of Water Resources and/or the state engineer are set forth in tit. 37, arts. 80-84, 87, and 89-92, and in water decrees entered in various courts throughout the state. In addition, the division is responsible for the administration of various interstate and international compact commitments, as set forth in tit. 37, arts. 63 and 65-69.

The responsibilities of the division include, but are not limited to:

1. Supervising the distribution of water to senior and junior vested water rights.
2. Assisting the various water users in time of drought.
3. Assisting the various ditch companies in time of flood to alleviate all possible damage to structures, crops, and land, and in seeking repairs of diversion structures damaged as a result of the floods.
4. Determining annually the safe storage levels for all existing reservoirs, and approving new dam structures.
5. Granting or denying well permit applications based on possible interference with existing water rights.
6. Insuring safe and sanitary construction of domestic and municipal wells.
7. Approving plans and specifications for construction of livestock water tanks and erosion control structures.
8. Analyzing and appropriating action on applications for subdivisions and development of geothermal resources, in order to determine their effect on, and assure protection of, vested water rights.
9. Conferring with the various water courts and making recommendations on applications for new water rights and changes in water rights.
10. Collecting, compiling, maintaining, and reviewing all

records pertaining to water such as court decrees, diversions, storage, utilization, stream flow, climatology, well diversion and aquifer characteristics, and storage structures.

Obviously, specific and detailed discussion of each of the above responsibilities could consume a full volume. Therefore, detailed analysis is provided below only for those responsibilities which most directly influence water use, distribution, and management. Some of the functions of the division are included in the discussion of the division engineer, at §D., infra. The following discussion is organized around three general areas of responsibility: (1) administration of water rights, (2) ground water, and (3) dams and reservoirs.

#### 1. Administration of Water Rights.

Colorado law provides that "The state engineer shall be responsible for the administration and distribution of the waters of the state. . . ."60 "In the distribution of water, the division engineer in each division and the state engineer shall be governed by the priorities for water rights and conditional water rights established by adjudication decrees. . . ."61

As is made clear by the section quoted above, the basis of administration of water rights is the priority system. The state engineer has authority to curtail diversions by junior appropriators to the extent necessary to prevent "material injury" to senior users.<sup>62</sup> This means, in practice, that the state engineer considers the amount of water which would reach the senior appropriator's headgate if the junior were shut down. The criteria applied is of necessity flexible: The materiality of the injury depends on all factors which will determine in each case the amount of water such discontinuance will make available to such senior priorities at the time and place of their need.<sup>63</sup>

Another responsibility of the state engineer is determining whether water diverted under an existing decree is presently being applied to a beneficial use.<sup>64</sup> However, under current law, almost any type of domestic, municipal, agricultural, or industrial use is considered to be beneficial, and the practical effect of the beneficial use requirement is to prohibit waste. In fact, the statutory definition of beneficial use specifies that the amount must be ". . . reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made."<sup>65</sup>

In addition to prevention of injury to senior users, and determinations of beneficial use, the state engineer is to be guided by a policy of maximizing the beneficial use of all the waters of the state.<sup>66</sup> Consistent with these directives, the state engineer is authorized to permit upstream storage out of priority<sup>67</sup> and is allowed the "widest possible discretion" to permit the use of wells as alternate points of diversion.<sup>68</sup> This is consistent with the statutory requirement that alternate points of diversion be utilized to the fullest extent possible before a call is made on junior appropriators.<sup>69</sup>

In carrying out his responsibilities for the administration of the waters of the state, the state engineer has broad authority to enter upon private land to inspect various means of diversion, transportation and storage, and the uses to which the water is being put.<sup>70</sup> The primary benefit of this provision is to facilitate enforcement of the rules regarding waste of water. "Each division engineer shall order the total or partial discontinuance of any diversion . . . to the extent the water being diverted is not necessary for application to a beneficial use. . . ."71

In addition to the above duties, the state engineer is responsible for approving the tabulations of all the water rights in the state prepared by the division engineers.<sup>72</sup> The tabulation will ultimately provide a listing of priorities of all water rights taking water from a common source, and they are the means by which abandoned water rights are removed from the list of priorities. The statute provides that 10 years of nonuse creates a rebuttable presumption of abandonment. However, the state engineer or the division engineer may waive the presumption if special circumstances negate the intent to abandon.<sup>73</sup>

As part of his general authority for the administration of water, the state engineer also exercises authority over plans for augmentation in two general areas:

1. Administration of plans for augmentation, §37-92-502(4), C.R.S. 1973, including determination of reasonable dedications for withdrawals subsequent to water transfers to compensate for seepage and erosion. §37-83-101, C.R.S. 1973.
2. Encouragement of plans for augmentation. §37-92-307(7), C.R.S. 1973.

## 2. Ground Water Administration.

The state engineer is involved in the administration and distribution of ground water in four general areas:<sup>74</sup>

1. Issuing permits for wells outside of designated ground water basins.<sup>75</sup>
2. Within designated ground water basins, issuing permits for
  - a. wells approved by the Ground Water Commission,<sup>76</sup> and
  - b. small-capacity wells otherwise exempt from regulation.<sup>77</sup>
3. Regulating the drilling, construction, and operation of wells.<sup>78</sup>
4. Administering the withdrawal of ground water according to the priority system.

As far as wells outside designated ground water basins are concerned, the statutes provide that the state engineer shall make a determination whether the requested well would materially injure the vested water rights of others. Only if he finds 1) that there is unappropriated water available for withdrawal, 2) that the vested water rights of others will not be materially injured, and 3) that these findings are substantiated by hydrological and geological facts, shall he issue a permit for such a well.<sup>79</sup> In practice, this provision is applied to all applications for well permits to pump from tributary aquifers. A somewhat different statutory scheme is applied to nontributary, nondesignated aquifers<sup>80</sup> (see chapter XVI).

Within designated ground water basins, as defined in §37-90-103(7), C.R.S. 1973, the state engineer has limited authority since the statute established the Ground Water Commission to administer water in designated basins.<sup>81</sup> The statute does provide that the state engineer shall issue a conditional permit for a well in such a basin if the commission finds that the proposed appropriation will not unreasonably impair existing water rights from the same source and will not create unreasonable waste.<sup>82</sup> In addition, the state engineer has the authority to approve permits for certain types of small-capacity wells in designated ground water basins, without regard to the criteria applied by the commission.<sup>83</sup>

The state engineer is responsible for requiring flowing ground water wells to be equipped with valves to control the flow,<sup>84</sup> regulating the construction and maintenance of both flowing and nonflowing wells to prevent the waste of water.<sup>85</sup> Together with the Board of Examiners of Water Well and Pump Installation Contractors, the

state engineer is responsible for the promulgation of regulations to control the drilling and construction of wells to prevent waste, injury, or destruction of other water resources.<sup>86</sup>

Finally, the state engineer is responsible for the administration and distribution of the waters of the state,<sup>87</sup> and is specifically authorized to commence actions to enjoin the illegal opening of wells or use of water therefrom and to become a party to all actions affecting the ground water resources of the state or the vested rights of other appropriators.<sup>88</sup>

### 3. Dams and Reservoirs.

The state engineer exercises broad authority over the construction and operation of all types of dams and reservoirs. His present authority consists of the following:

1. Approval of dam and reservoir design.
  - a. Approval of plans for reservoirs. §37-87-105, C.R.S. 1973.
  - b. Approval of plans for small exempt dams in relation to property tax reduction. §37-87-116, C.R.S. 1973.
  - c. Approval of applications for small erosion control dams. §37-87-122, C.R.S. 1973.
  - d. Approval of plans for stockwatering reservoirs. §35-49-114, C.R.S. 1973.
  - e. Approval of plans for livestock water tanks. §35-49-107, C.R.S. 1973.
  - f. Requiring drainage facilities in oversized stock tanks. §35-49-105, C.R.S. 1973.
  - g. Issuance of standard specifications for erosion control dams. §37-87-122(4), C.R.S. 1973.
2. Regulation of use.
  - a. Issuance of orders for release of water from streambed reservoirs to compensate for evaporation. §37-84-117(5), C.R.S. 1973.
  - b. Annual determination of safe storage levels. §37-87-107, C.R.S. 1973.

- c. Enforcement of safe conditions and levels. §37-87-109, C.R.S. 1973.
  - d. Issuance of orders to keep streams clear of unnecessary dams and obstructions. §37-92-502(7), C.R.S. 1973.
  - e. Approval of storage of water in streambed reservoirs, conditioned on required survey and measuring devices. §37-84-117(3), C.R.S. 1973.
3. Control over measuring devices.
- a. Approval of survey of streambed reservoirs. §37-84-117(1), (2), (3), C.R.S. 1973.
  - b. Enforcement of requirements as to survey and measuring devices. §37-87-117(4), C.R.S. 1973.

D. The Division Engineers.

The state engineer, with the approval of the executive director of the Department of Natural Resources, shall appoint one division engineer for each division.<sup>89</sup> The division engineers perform those functions specified by statute and carry out the instructions and orders issued to them by the state engineer.<sup>90</sup> In many cases, the division engineers' authority is exercised in conjunction with the state engineer's.

1. Administration of Water Rights.

The division engineers are required to administer, distribute, and regulate the waters of the state.<sup>91</sup>

- 1. The division engineers are required to order total or partial discontinuance of any diversion which is not being applied to beneficial use.<sup>92</sup>
- 2. The division engineers are required to order the discontinuance of a diversion by a junior appropriator where diversion is causing or may cause material injury to a senior appropriator.<sup>93</sup>
- 3. When a well has been approved as an alternative means of diversion for a water right having a surface diversion, the division engineer can require the use of both means of



diversion to satisfy the water right before requiring the junior appropriator to discontinue his diversion.<sup>94</sup>

4. In order to inspect the means of diversion, transportation, or storage, and the use to which the water diverted, transported, or stored is put, the division engineers have the right to enter onto private property.<sup>95</sup>
5. The division engineers have the duty and power to keep the streams of the state clear of unnecessary dams or other obstructions which may restrict or impede the flow of water.<sup>96</sup>
6. Though the division engineers have no direct authority over the approval of plans for augmentation, they are required, along with the state engineer, to encourage and develop such plans and to exercise the broadest latitude possible in the administration of waters under their jurisdiction.<sup>97</sup> The division engineers are delegated the authority, consistent with water decrees establishing the basis for approval of plans for augmentation, to make rules and regulations and take such other reasonable action as may be necessary to allow the continuance of existing uses and to assure maximum beneficial use of the waters of the state.<sup>98</sup>
7. Certain tabulation functions devolve upon the division engineers. The division engineers are required to prepare a tabulation of the decreed water rights on each stream of their district in order of seniority. They are required to revise such tabulation every four years thereafter to reflect the changes in such tabulation due to partial and total abandonments of water rights and the granting of new water rights or changes in water rights.<sup>99</sup>
8. Finally, the division engineers are required to withdraw from reservoirs the amount of water above the storage level determined to be safe by the state engineer and to close the inlets to insure that the reservoir is not refilled.<sup>100</sup>

Other duties and responsibilities of the division engineers are exercised separately from those of the state engineer.

a. Stored Waters.

The division engineers are required to order the release from storage any water they find has been improperly impounded.<sup>101</sup> In performing that duty, the division engineers are empowered to formulate

such orders as are necessary to insure that the released waters are delivered to those users who are entitled to them, making certain in said orders that the release will not cause damage.<sup>107</sup> Under the statute, the division engineers, upon learning that water is being improperly stored, are required to order its release.

The General Assembly has given the division engineers broad authority over the manner of such release. The engineers are allowed to make all orders necessary to insure that the waters are delivered to their rightful owners or users.<sup>103</sup> They are also required to insure that such releases will not cause "damage."<sup>104</sup> The extent and nature of the "damage" which the General Assembly intended to prevent under the statute is undefined.

b. Water Exchange.

The division engineers are required to recognize water exchanges or loans by appropriators on the same stream if such arrangements are made for the purpose of saving crops or using water in a more economical manner.<sup>105</sup> The courts have interpreted this provision to allow temporary exchanges or loans of water without the prior obtaining of a decree.<sup>106</sup> No such loan or exchange may, however, injure the vested rights of other appropriators.<sup>107</sup> Exchanges may also be implemented as plans for augmentation, though such exchanges must be decreed prior to their implementation.<sup>108</sup> No decree for a plan will issue unless it can be shown that the decree will cause no injury to vested rights or to decreed conditional rights.<sup>109</sup> With respect to these latter exchanges, the division engineers must exercise the broadest latitude possible in the administration of waters under their jurisdiction to encourage and develop temporary plans for augmentation and voluntary exchanges.<sup>110</sup> They may also make rules and regulations and take such other reasonable action as may be necessary to assure the maximum utilization of the waters of the state.<sup>111</sup>

c. Court Proceedings.

The division engineers are specifically charged with the duty to appear to furnish "pertinent information" in water matters in which a protest has been filed.<sup>112</sup> In those cases, the division engineer may be examined by any party. When so acting, the appearance of the division engineer is for informational purposes; he is not a party to the proceeding. The division engineers may become parties, however, under separate statutory authority. Like all other "persons,"<sup>113</sup> the division engineers may file written protests to any ruling of the water

referee.<sup>114</sup> Even if they have not timely filed a protest, the division engineers would also appear authorized to appear as "interested persons" in a hearing on a protest if they file an entry of appearance prior to the hearing.<sup>115</sup> It should be noted that, as a practical matter, the division engineer's authority to become a party in a water matter may often remain unexercised in lieu of appearance by the state engineer. But the division engineer must be made a party to an appeal of a water matter arising in his division.<sup>116</sup>

In addition, the water referee is required to consult with the state and division engineers to determine if the statements made in applications and statements of opposition are true and to become "fully advised" with respect to the subject matter of the applications and statements of opposition.<sup>117</sup>

#### d. Ground Water.

With respect to tributary ground water at least, the division engineers possess the same responsibility for administration as they do with respect to surface waters. The division engineers are called upon to administer the withdrawal of ground water according to the priority system.<sup>118</sup>

The division engineers possess no authority over the administration of designated ground water.<sup>119</sup> Whether they possess any administrative authority under existing law over nontributary or de minimis tributary<sup>120</sup> ground water is unsettled. While the ground water act seems to assure different treatment of nontributary (or de minimis tributary) water than for surface or tributary ground water, recent case law tends to support the argument that standard procedures will be followed in the acquisition of rights to the former.<sup>121</sup> See chapter XVI for a full discussion of the problems associated with nontributary, nondesignated ground water.

#### E. The Ground Water Commission.

The history of ground water regulation in Colorado cannot be said to benefit from the relative certainty which has evolved in the adjudication and administration of surface water rights. The first major legislative effort to alleviate that uncertainty came with the enactment of the 1957 Ground Water Act. That act was supplanted in 1965 by the Colorado Ground Water Management Act. It is by the latter act that the powers and duties of the Colorado Ground Water Commission were established.

1. Policy of Ground Water Management Act and Creation of the Ground Water Commission.

In enacting the Ground Water Management Act (hereafter referred to in this section as the "Act") in 1965, the legislature declared the following:<sup>122</sup>

It is declared that the traditional policy of the state of Colorado, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the designated ground waters of this state, as said waters are defined in section 37-90-103(6). While the doctrine of prior appropriation is recognized, such doctrine should be modified to permit the full economic development of designated ground water resources. Prior appropriations of ground water should be protected and reasonable ground water pumping levels maintained, but not to include the maintenance of historical water levels. All designated ground waters in this state are therefore declared to be subject to appropriation in the manner defined in this article.

The Ground Water Commission is chiefly responsible for carrying out this policy, having overall responsibility for its administration. The commission is comprised of 12 members, including the state engineer, the director of the Department of Natural Resources, and the director of the Water Conservation Board.<sup>123</sup> The remaining nine members are appointed by the governor and must include seven ranchers or farmers and two representatives of municipal or industrial water users.<sup>124</sup> The commission's staff is the staff of the office of the state engineer.

2. Scope of Commission Authority: Designated Ground Water.

The Act relates solely to that water known as "designated ground water."<sup>125</sup> As such, the scope of the commission's authority is limited to designated ground water only. With respect to such water, its authority is extensive.

Designated ground water is defined by the Act as follows:<sup>126</sup>

"Designated ground water" means that ground water which in its natural course would not be available

to and required for the fulfillment of decreed surface rights, or ground water in areas not adjacent to a continuously flowing natural stream wherein ground water withdrawals have constituted the principal water usage for at least fifteen years preceding the date of the first hearing on the proposed designation of the basin, and which in both cases is within the geographic boundaries of a designated ground water basin.

It appears to be widely held that designated ground water includes both tributary and nontributary underground water. Certainly the definition of designated ground water is sufficiently broad to encompass both kinds of water. Recent case law, however, throws some doubt upon that assumption. In In re Water Rights in Irrigation Division No. 1,<sup>127</sup> the Colorado Supreme Court noted, without deciding, the question of the extent to which rights to use designated ground water may be changed. The court said that, in considering such a question, it would need to determine whether the precise water in question was tributary and whether tributary water may be included in a designated ground water basin. In Sweetwater Development Co. v. Schubert Ranches, Inc.,<sup>128</sup> the supreme court, in discussing whether the water in question was tributary or nontributary, noted the presumption that water was tributary and stated that except for the fact that the water was located in a designated ground water basin, no showing had been made to overcome the presumption. While Sweetwater does not answer the question posed in the Division No. 1 case, it may be read to support the concept that such water may include nontributary water only. Thus, while it seems clear that designated ground water should include both tributary and nontributary water, decisions of the supreme court leave that question open. Until this question is settled, the precise jurisdiction of the commission will remain uncertain.

### 3. Determination of Designated Ground Water Basins.

The commission is required, as adequate data becomes available, to determine designated ground water basins in the manner provided by statute.<sup>129</sup> A hearing precedes its determination.<sup>130</sup> In making its determination, the board is to consider the following factors:

1. The name of the aquifer or aquifers within the proposed designated basin.
2. The boundaries of each aquifer being considered.
3. The estimated quantity of water stored in each aquifer.

4. The estimated annual rate of recharge.
5. The estimated use of the ground water in the area.

4. Issuance of Permits to Use Designated Ground Water.

Unlike rights to other types of water in Colorado, the right to use designated ground water is acquired by permit issued by the Ground Water Commission. The Act requires the prospective user to obtain both a conditional and final permit.

a. Conditional Permit.

Any person desiring to appropriate water for a beneficial use in a designated ground water basin must make an application for a permit to the commission, which application must include certain statutorily required information.<sup>131</sup> Following submission of the application, the commission is to make a preliminary evaluation to determine if the application may be granted.<sup>132</sup> If the commission feels it can, the application is published.

Procedure following publication depends upon whether objection to the application is filed. If no objection is filed, the commission must grant the application for a conditional permit if:<sup>133</sup>

1. The proposed appropriation will not unreasonably impair existing rights.
2. The proposed appropriation will not create unreasonable waste.<sup>134</sup>

Reasonable terms and conditions may be appended to the permit.

If objections are filed, a hearing on the application is held in the basin area.<sup>135</sup> Following the hearing, the application must be denied if:

1. No unappropriated water exists in the designated source.
2. The proposed appropriation will unreasonably impair vested rights.
3. The proposed appropriation will create unreasonable waste.

Each of the foregoing tests illustrates the Act's acceptance of the

modified doctrine of prior appropriation. The commission is guided by several specified statutory criteria. Thus, in making its determination regarding whether a proposed appropriation will create unreasonable waste or unreasonably affect the rights of other appropriators, the commission must consider:<sup>136</sup>

1. The area and geologic conditions.
2. The average annual yield and recharge rate of the water supply.
3. The priority and quantity of existing claims.
4. The proposed method of use.
5. All other appropriate matters.

With respect to whether a proposed use will impair uses under existing rights, "impairment" shall include the unreasonable lowering of the water table, or deterioration of water quality, beyond reasonable economic limits of withdrawal or use.<sup>137</sup> Whether or not objections are filed to an application to appropriate designated water, the permit is to be denied if the proposed appropriation will impair existing rights.

Finally, the commission may deny an application without publication if it finds that the application cannot be given favorable consideration.<sup>138</sup> While the Act specifies no particular standards for this determination, it must be assumed that the same standards are to be used by the commission in this determination as in the full-scale review of applications subsequent to publication.

b. Final Permit.

The final permit recognizes that diligent action has been taken under a conditional permit. After obtaining a conditional permit, a permit holder must proceed with due diligence to construct the well or other works necessary to beneficially use the water appropriated under the permit.<sup>139</sup> Upon completion thereof, the permit holder must notify the commission and furnish evidence that water has been put to beneficial use. If the commission finds that the water has been put to beneficial use and that other terms of the conditional permit have been met, the commission shall order the state engineer to issue a final permit containing such conditions as the commission deems necessary to prevent waste and protect other appropriators.<sup>140</sup>

## 5. Establishment of Priorities.

Priority of claims for the appropriation of designated ground water is determined by the doctrine of prior appropriation.<sup>141</sup> Claims based upon application of water to beneficial use prior to May 17, 1965 (the Act's effective date), are protected.<sup>142</sup> Priority of subsequent claims relates back to the date of filing of an application with the commission, unless, of course, the application is rejected. The determination of priorities, like the determination of designated ground water basins, is a ministerial act allowing little discretion to the commission so long as a water user has met statutory requirements.

## 6. Changes in Place of Use.

Rights to water from a designated ground water basin extend only to the particular land designated or the application therefor.<sup>143</sup> The place of use of the water may be changed only upon the consent of the Ground Water Commission. This procedure seems to have been confirmed by the Colorado Supreme Court.<sup>144</sup>

The commission's review authority with respect to change applications is explained in the case law cited above and in Cherokee Water District v. Kuiper (Colo. Sup. Ct., No. 27716, August 21, 1978). Recent guidelines issued by the commission prohibit changes if there is an increase in the number of acres proposed for irrigation.<sup>145</sup> Requests for expansion of irrigated acreage are reviewed by the commission according to the standards established by the Act for review of an application for a conditional permit, which standards are described at §4.a, supra.

Whether the review standards expressed by the commission's guidelines are intended to be exclusive is uncertain. The supreme court has hinted that the same change of use rules which apply to surface water may apply to designated ground water.<sup>146</sup> If so, the commission may review a proposed change to determine potential injury to other appropriators and may expressly condition the grant of a change request at least if those standards are included in its guidelines.<sup>147</sup>

## 7. Waste Control.

As noted in §4.a., supra, the commission has the authority to deny an application for a permit to use water of a designated basin if the proposed use will result in unreasonable waste. The commission has other waste control authority as well.



In order to conserve the state's designated ground water resources and for the protection of vested rights therein, the commission is empowered to order the total or partial discontinuance of any diversion not necessary for application to beneficial use,<sup>148</sup> and to require measuring devices for withdrawals in those areas where management districts have not been formed.

In addition, the commission, in cooperation with the state engineer, is empowered to regulate the drilling and construction of all wells in the state to prevent the waste of water and injury to water resources.<sup>150</sup>

#### 8. Regulation of Withdrawals.

In order to protect vested rights and to conserve the state's designated ground water, the commission may control the exercise and administration of all rights to such water.<sup>151</sup> In doing so, the commission may specifically prohibit or limit withdrawals of water from wells which would cause unreasonable injury to vested rights of prior appropriators. Such authority is similar to the general administrative authority of the state engineer.<sup>152</sup> One interesting provision of the cited section of the Act states that the commission may not control or administer rights to require the maintenance of historic water levels or levels above which water may be economically extracted when the total economic pattern of the particular basin is considered.<sup>153</sup>

The scope of the commission's power to administer rights to designated ground water seems somewhat uncertain. It would appear that the power goes beyond the one specific item described by the Act, that is, administration to protect vested rights. At a minimum, the Act expressly authorizes the commission to administer designated ground water to conserve the state's supply thereof.

The commission is also empowered to establish reasonable pumping levels in areas of common designated ground water supply.<sup>154</sup> Water in wells is not deemed available to fulfill a right if withdrawals would unreasonably affect any prior right or result in withdrawing ground water at a rate materially in excess of reasonably anticipated recharge of the aquifer.

No supplemental wells or alternate point of diversion wells may be allowed in a designated ground water basin in which those proposed wells would deplete the aquifer in excess of the rate of depletion prescribed by the commission.<sup>155</sup>

9. Authority With Respect to Ground Water Management Districts.

Ground water management districts are agencies separate and distinct from the Ground Water Commission. The commission oversees the use of ground water in all areas of the state, while the districts have authority only in the basin in which they are located.

a. Authority Over Formation of Districts.

Districts may be formed in those areas determined by the commission to be designated ground water basins.<sup>156</sup> A proposal for the formation of a district must first be submitted to the commission which, after review, may make any changes in the proposed boundaries justified by its review.<sup>157</sup> Until the commission's consent to the boundaries of a district is given, no further steps toward formation thereof may be taken. When the commission's consent has been given, a petition for the formation of a district conforming to statutory requirements<sup>158</sup> may be submitted.<sup>159</sup> If the petition is proper, the commission sets a hearing thereon<sup>160</sup> at which it may hear objections to, and order changes in, the boundaries of the proposed district, if the changes would be hydrologically, geologically, and geographically sound.<sup>161</sup> If it is determined that the district should be organized, final election<sup>162</sup> and filing requirements<sup>163</sup> may be carried out.

b. Consultation.

The board of each district has the duty and responsibility of consulting with the commission on all ground water matters affecting the district.<sup>164</sup> The Act requires that consultation be made to:

1. Determine whether proposed regulations or restrictions are suitable for such area.
2. Determine whether the area of the district should be expanded or contracted.
3. Cooperate with the commission and state engineer in data accumulation regarding aquifers in the area and in the enforcement of regulations or restrictions imposed on the districts.
4. Assist the commission and the state engineer in conserving ground water supplies in the area for the maximum beneficial use thereof.

By the same token, the commission, in the exercise of any of its powers, must consult with the board of any district before promulgating orders or regulations which would affect the district generally.<sup>165</sup>

c. Review of Proposed District Regulations and Control Measures.

The district boards have the authority to regulate the use, control, and conservation of ground water within the district by various statutory methods.<sup>166</sup> If objection is made to proposed regulations of the district, the commission has the final authority to review and approve the proposed regulations.<sup>167</sup>

The districts may also adopt control measures to insure proper conservation of ground water within the district after conferring with the commission and area ground water users.<sup>168</sup> The commission also has final review and approval authority over any control measures proposed by the district when objection is made to a proposed control measure.<sup>169</sup> It should be stressed that commission authority is over proposed regulations and control measures only.<sup>170</sup> It does not extend to the review of specific applications thereunder.

F. The Colorado Water Conservation Board.

The Colorado Water Conservation Board was created to "aid in the protection and development of the waters of the state for the benefit of the present and future inhabitants of the state."<sup>171</sup> The board is charged with the general duty to promote the conservation of the waters of the State of Colorado to secure the greatest utilization of such waters and the utmost prevention of floods.<sup>172</sup> The statutory duties and authority of the board are contained in art. 60 of tit. 37, C.R.S. 1973, and art. 92, tit. 37-102(3), C.R.S. 1973.

In general, the board is an inventorying, investigational, promotional, development, and coordinating agency. The primary functions are (1) to promote and further state policy with respect to water development programs; (2) to promote the conservation of the waters of the state in order to secure the greatest utilization of water, minimize waste, and prevent floods; (3) to assist various types of districts, mutual companies, etc., to obtain financing for water projects; (4) to enter into contracts for the construction of projects, authorized by the General Assembly, to conserve and utilize the water and power resources of the state; and (5) to conduct water resource investigations and coordinate with related studies and investigations

undertaken by other state agencies or federal agencies. These major functions are discussed in greater detail below.

1. Duties Concerning the Conservation and Development of Water Resources.

The board is specifically charged with a duty to foster and encourage various kinds of districts and entities which may be formed for the conservation, development, and utilization of water.<sup>173</sup> The board is to assist such entities in their financing, but it is not permitted to pledge the credit of the state or make the state liable for any debt.<sup>174</sup>

The board is given the power to appropriate, acquire, or perfect water rights for projects which it sponsors.<sup>175</sup> The board's enabling legislation authorizes it to acquire real property or an interest therein by eminent domain, for a federally authorized flood control project.<sup>176</sup> Although the enabling authority does not specifically grant the power of eminent domain for the acquisition of water rights, such authority may be implied with respect to necessary water rights for sponsored projects.<sup>177</sup>

In 1971 the General Assembly established the Colorado water conservation board construction fund to finance the construction of water projects in the state.<sup>178</sup> The board is required to submit annual reports to the General Assembly concerning the construction fund. The reports are to contain a list of proposed contracts for construction of water projects, and the contracts are to be listed in order of priority recommended by the board.<sup>179</sup> The General Assembly will then select such projects as it feels to be of advantage to the people of the state, and will direct the board to proceed with construction of the projects according to the priorities established by the General Assembly.<sup>180</sup> Monies expended from the construction fund are to be in substantial conformity with the state water plan.<sup>181</sup> The board may enter into contracts concerning various aspects of the construction of water projects.<sup>182</sup> These powers enable the board to contract for the use of water or power conserved by a project.<sup>183</sup> The board is also entitled to charge for the water and power in an amount which the board feels is needed for the reasonable and necessary maintenance of the project. The board may include amounts which it believes provide a reasonable return to the state for the project.<sup>184</sup>

Finally, the board is given the power to appropriate or acquire the water of natural streams and lakes that may be required to maintain the natural environment to a reasonable degree. Before making an appropriation of water for this purpose, the board must consult with the Division of Wildlife and the Division of Parks.<sup>185</sup> The statute does not

give the board the authority to acquire water for these purposes through the use of eminent domain.

## 2. Duties Concerning Planning.

The water conservation board is entrusted with planning responsibility under several provisions of the state statutes. The board is charged with devising methods, means, and plans for greater utilization of the waters of the state.<sup>186</sup> The board is given the related duty of gathering data and information, and making investigations and surveys, which look toward greater utilization of the waters of the state.<sup>187</sup>

The board is also required to develop a state water plan in compliance with the Water Resources Planning Act (12 U.S.C. tit. 42, ch. 19B). Under the federal act, the state is granted funds to help in the development of a "comprehensive water and related land resources plan."<sup>188</sup> The board is required to develop a program which provides for comprehensive planning with respect to intrastate or interstate water, or both, to meet the needs for water and water-related activities.<sup>189</sup> This requires taking into account the demand for all activities served through or affected by water and related land development.<sup>190</sup>

Under the terms of state law, the board is required to make a continuous study of the water resources of the state, specifically including an analysis of the extent to which water may be transferred from one watershed to another within the state without causing potential injury to the economic development of the natural watershed.<sup>191</sup>

## 3. Duties Concerning Federal/State Relations.

The Colorado Water Conservation Board is directed to cooperate with the United States government and other states for the purpose of achieving greater utilization of the waters of the state.<sup>192</sup> The board is also the state agency empowered to approve commissioners appointed by the governor to represent the state in the negotiation of interstate water compacts.<sup>193</sup> The board is further required to furnish the commissioner with all the assistance it feels he may require in order to carry out his duties.<sup>194</sup>

The board is additionally empowered to cooperate with the United States in preliminary surveys of proposed water conservation projects, including, when necessary, the sharing of expenses where the project is designed to bring about the greater utilization of the waters of the state.<sup>195</sup>

The board is also designated to appear and confer with the officers, representatives, boards, bureaus, committees, commissioners, or other agencies of other states or the federal government.<sup>196</sup> It is directed to protect and assert the authority, interests, and rights of the State of Colorado and its citizens with respect to the waters of interstate streams.<sup>197</sup>

#### 4. Duties Concerning Flood Plains.

The board has several distinct statutory duties concerning management, study, and mapping of flood plains. These duties are not described here because floodplain issues and management are outside the scope of this study.

#### 5. Operations of the Water Board.

The operating sections of the Colorado Water Conservation Board generally correspond to the duties set out in §§1-4, supra. The water projects construction section initiates planning and construction of water projects within the state. This section provides technical assistance and enters into contracts for construction of water conservation projects with towns, cities, or special water districts.

The hydrologic section establishes the criteria for minimum stream flows, together with the Division of Wildlife, and files for the appropriation of water for such flows. This section also investigates wild and scenic river proposals under the Federal Wild and Scenic Rivers Act, and conducts the appropriate hydrologic studies for any matter designated as a matter of state interest under the Colorado Land Use Act.<sup>198</sup>

The administration section assists in the formulation of any organization for the intent of utilizing state water, and formulates and prepares state and federal legislation on beneficial use of state waters. This section also develops plans, does investigations, and coordinates Colorado activities with other states and the federal government on water matters of state concern.

#### G. Water Conservation Districts.

##### 1. General Discussion.

##### a. Purposes.

There are three water conservation districts in the State of

Colorado, each of which was created by action of the General Assembly.<sup>199</sup> These three districts are: the Colorado River Water Conservation District,<sup>200</sup> the Southwestern Water Conservation District,<sup>201</sup> and the Rio Grande Water Conservation District.<sup>202</sup> While the enabling legislation of the three districts varies somewhat, the basic purposes, powers, and general duties remain substantially the same from district to district.

In creating the water conservation districts, the General Assembly declared as their purpose the conservation of water for various beneficial uses within the districts in order to promote the welfare of the citizens of the district and the state.<sup>203</sup> To achieve this purpose, the General Assembly created each conservation district to safeguard all water from the river system to which the state is entitled and granted them all the powers necessary to do so.<sup>204</sup>

To achieve these purposes, water conservation districts have traditionally focused their energies upon two basic areas of activity. These are:

1. Litigation opposing the diversion of water from the district.
2. Filings for decrees confirming appropriation of water to insure its availability for use within the district.

The Colorado River district has been particularly active in this regard.

## 2. Formation and Organization of Districts, Including Subdistricts.

Each district is composed of lands described by the General Assembly, and which fall within designated drainage basins.<sup>205</sup> The districts are governed by a board of directors whose members represent each of the counties within the district.<sup>206</sup> The board of county commissioners of each county within the district designates one person to represent that county. That person must reside within that portion of the county which is within a particular district.<sup>207</sup>

Within the conservation districts, separate subdistricts may be formed to carry out certain projects directly benefiting only portions of the districts.<sup>208</sup> The subdistricts are formed for those areas which will benefit from a particular project.

The formation of a subdistrict may be initiated by either of two means:

1. A majority of the landowners situated within a proposed subdistrict may petition for its formation.
2. The board of directors of the conservation district may petition for its formation.

If the formation of a subdistrict is initiated by action of the board of directors, the petition must contain a statement to the effect that a majority of the landowners of the proposed subdistrict have petitioned the board to organize the subdivision. Formation may be approved only following a court hearing in which a majority of landowners within the proposed district favor its formation.<sup>209</sup>

If the court finds that a petition for formation of a subdistrict is true and that a majority of landowners favor formation of the subdistrict, then it must enter an order establishing the district.<sup>210</sup> Upon formation of the subdistrict, the board of directors of the district becomes the board of the subdistrict.<sup>211</sup> A major advantage of this system, recognizing that there may exist concurrent disadvantages, is the opportunity to coordinate district and subdistrict decision-making.

### 3. Powers of the Districts and Subdistricts.

#### a. Property Acquisition.

Each district is generally given the power to acquire real and personal property necessary to carry out its duties.<sup>212</sup> Each is also authorized to sell, convey, or otherwise dispose of property which is no longer needed by the district.<sup>213</sup> In addition to these general authorizations, each district is expressly authorized to file upon and initiate filings for the use and benefit of ultimate appropriations.<sup>214</sup>

The cited statutes clearly authorize the districts to acquire water rights needed to carry out their essential purposes. They also seem to provide the districts with sufficient authority to acquire water rights necessary to carry out future development plans and to file upon water in anticipation of subdistrict formation in order to ensure that water will be available to carry out subdistrict projects.

#### b. Eminent Domain.

Water conservation districts may exercise the power of eminent domain.<sup>215</sup> That power is expressly granted to the districts for use in acquiring ditches, reservoirs, or other works or land or rights-of-way.<sup>216</sup> There is no specific authorization, however, allowing



its use for acquiring water rights. The enabling legislation, however, does allow each district to exercise the power of eminent domain as it is conferred upon certain other agencies.<sup>217</sup> Those other agencies are expressly granted the right to acquire water rights by condemnation.<sup>218</sup> It is logical, therefore, that conservation districts should possess the same authority.

#### c. Appropriation of Minimum Flows.

Conservation districts are authorized to file upon, and hold for public use, sufficient water of any natural stream to maintain a constant stream flow in an amount necessary to preserve fish, and to use such water in connection with retaining ponds for the propagation of fish.<sup>219</sup> The authority allows the districts to appropriate water to maintain a minimum flow in the stream to preserve the fish. Although the supreme court, in the Rocky Mountain Power decision, has rejected such an interpretation of the statute,<sup>220</sup> its decision was rendered prior to changes made in other water law statutes by the General Assembly and appears now to be of no effect. At the time of the court's decision, the statutory definition of the term "appropriation," the definition used by the court, required that an appropriation be manifested by both a diversion and an application to beneficial use.<sup>221</sup> Since that time, the General Assembly has changed the definition of the term "appropriate" to require only the application of water to a beneficial use.<sup>222</sup> In addition, the definition of beneficial use now includes the appropriation of water by the state to maintain minimum flows between specific points to preserve the natural environment.<sup>223</sup>

As a result, the General Assembly seems to have overruled the Rocky Mountain Power<sup>224</sup> case by statute. If this is true, the water conservation districts may be free to file on available water to preserve and maintain minimum stream flows for the fish population. The final answer to the question of minimum flow appropriations will not come until the current litigation testing S.B. 97 (1973) is decided by the Colorado Supreme Court.

#### 4. Funding, Taxing, and Financial Powers of the District.

In order to make them capable of carrying out all other powers granted to them and of fulfilling the purposes for which they were established, each district is given the power to fix assessments upon the property within the district.<sup>225</sup> Such assessments are to be used to pay salaries of officers, expenses of organization, surveys, and plans, and other incidental expenses.<sup>226</sup> The assessments are not to exceed five-tenths of one mill for every dollar of evaluation. These

taxing powers must be exercised uniformly. The assessments are intended to be uniform taxes based solely upon the value of property within the districts and not upon the benefit which may be conferred by various projects of the districts.

Alternatively, the board of directors may levy special assessments upon the real estate within the districts to raise funds to pay expenses of organization, salaries, to prepare a general plan for maintenance of constant stream flow and adequate water supplies within the district, and to provide for future development of the district and insure water therefor.<sup>227</sup> This latter assessment is levied in proportion to the benefit to individual tracts of land accruing as a result of the district's adoption of a comprehensive plan for development of the natural resources of the district and its provision of sufficient water to carry out that power.<sup>228</sup> To determine the benefit conferred upon each tract, the board may make an appraisal of the benefits to all parcels of real estate within the district.<sup>229</sup>

#### 5. Contracting Powers.

Each district is authorized to contract in ways which will affect water use and availability within its boundaries. Each of the water conservation districts may contract with other water users in order to determine the relative rights of the district and other water users seeking to divert water from any stream within the district.<sup>230</sup>

The districts are also authorized to enter construction contracts with the United States. Thus, each district may contract with the United States to obtain services or to initiate construction of irrigation works, canals, reservoirs, or retaining ponds within a district.<sup>231</sup> Each district may also contract with the United States for the construction of any works and for the issuance of such obligations as the special improvement districts may be empowered to issue to pay for construction costs.<sup>232</sup>

#### 6. Planning Powers.

To fully utilize the contracting powers that they are granted, the districts must create plans for development. Districts are granted the power to make surveys and conduct investigations to determine the best manner of utilizing stream flows within their boundaries.<sup>233</sup> They are also required to determine the amount of stream flow within their boundaries and the best methods of utilizing that flow.<sup>234</sup> In developing these plans, the districts are authorized to determine the location

of ditches, irrigation works, and reservoirs to store or use water for irrigation, mining, manufacturing, or other purposes.<sup>235</sup> This broad authority allows the districts to develop comprehensive water development plans for their jurisdictions. In order to assure that their planning efforts will not result in merely an abstract enterprise, the districts are further granted the power to carry out all plans by acquiring water rights and by doing all other acts necessary to insure that adequate water supplies are available to supply present and future users within the district.<sup>236</sup>

Not only are the districts authorized to develop plans for their entire jurisdiction, but they are also authorized to develop comprehensive plans for each subdistrict included therein.<sup>237</sup> Those plans are to show the nature of each subdistrict improvement, including an estimate of the costs of each principal part of the system.<sup>238</sup>

#### 7. Water Allocations.

In order to assist subdistricts in supplying water for various purposes, the boards of the Colorado River and the Southwestern districts, prior to the time that an appraisal of benefits is made in a subdistrict, may enact a resolution setting forth the amount of water or kind of service which will be allocated to specified classes of uses or geographic areas.<sup>239</sup> The limitations specified by the resolution are to be considered by district appraisers determining the benefit accruing from a district project.<sup>240</sup> Through the use of this authority, the Colorado River and Southwestern districts can increase the accuracy of the ultimate appraisal of benefit and assure that those water users who receive the benefit will be assessed the burden.

It should be noted that, while the Rio Grande Water Conservation District is not expressly granted the described powers, the authority to so act may perhaps be implied from its authority to formulate reasonable rules and regulations for conduct of district business.<sup>241</sup>

#### 8. Rules and Regulations.

Each district is granted the authority to formulate rules and regulations for the conduct of business by the districts and their subdistricts, including rules which provide for the rental of water by subdistricts to municipalities, public irrigation districts, private irrigation districts, or other quasi-municipal corporations.<sup>242</sup> Such power also includes the right to make contracts for payment of rentals to be charged for water services.<sup>243</sup>

## H. Water Conservancy Districts.

### 1. General Powers.

The General Assembly created water conservancy districts for the purpose of providing for the conservation of the state's waters in order that the "greatest beneficial use" thereof might be made.<sup>244</sup> Conservancy districts are granted general powers necessary to achieve these purposes.

#### a. Property Acquisition and Disposition.

The districts are granted broad powers to acquire water rights and waterworks within or without the state<sup>245</sup> by appropriation, grant, purchase, bequest, devise,<sup>246</sup> or by exercise of the power of eminent domain.<sup>247</sup> The power of eminent domain may, however, be exercised only with respect to vested water rights which will not be used by a district in a transmountain diversion.<sup>248</sup>

In addition to the power to acquire water rights, districts are authorized to sell, lease, or otherwise dispose of water for any beneficial use.<sup>249</sup> Disposition for domestic and irrigation purposes is to be made only within the district.<sup>250</sup>

#### b. Administration of Water.

Conservancy districts have the power to make all reasonable rules and regulations for the management, control, delivery, use, and distribution of water.<sup>251</sup> Under this broad power, the board of directors is free to formulate rules and conditions for the use of water held by the district.

#### c. Contracting Powers.

Conservancy districts have been delegated various contracting rights and powers. The districts are given the power to contract with the United States or any agency thereof for the construction, maintenance, preservation, and operation of all necessary works, to acquire perpetual rights to use the water from such works, and to sell and otherwise dispose of the right to use such waters.<sup>252</sup> Additionally, the board of directors of the conservancy district has the authority to sell or dispose of water by term or perpetual contracts.<sup>253</sup>

The board of a district may declare forfeiture of rights to use

district water upon default or failure to comply with any order, contract, or agreement for purchase, lease, or use of water.<sup>254</sup> Under this provision, districts can require adherence to water leasing contracts, or terminate the right to water which was granted thereby. Failure to comply with the contract would result in the forfeiture of any water supplied thereunder.

The board has the power to list in separate ownership those lands which are susceptible to irrigation from district sources and make an allotment of water not to exceed the amount which can be beneficially used in such lands.<sup>255</sup> Under this section, the board is also given the power to allot the amount of water which can be beneficially used on a tract of land and to levy an assessment against the property based on the water allocated. In this way, the district may set the value of assessed water throughout the district.

The board of directors is additionally given the power to fix rates for water which is sold or leased, rather than allotted to lands within the district.<sup>256</sup> Such rate-making must be equitable, although not necessarily equal or uniform, for like classes of service throughout the district.<sup>257</sup> The courts have defined conservancy districts as state agencies and public or municipal corporations.<sup>258</sup> However, whether district boards possess the unregulated discretion to utilize a pricing tool is uncertain. For example, if classified as public utilities, conservancy districts would be subject to regulation by the Public Utilities Commission (PUC).<sup>259</sup> The language of the enabling legislation granting the rate-making power to the districts seems to grant the authority without subjecting the rates to regulation by the PUC.<sup>260</sup> The only limits placed on the rates set by the district are that they be equitable for like classes of service throughout the district.<sup>261</sup> The absence of case law on this point indicates that the districts may be free from rules and regulations by the PUC.

As a carrier and supplier of water, a conservancy district's rates might also be subject to regulation by the board of county commissioners of the county in which it operates. Whether or not the districts are free from regulation by the board of county commissioners is at present unclear,<sup>262</sup> but the possibility of regulation by the county commissioners must be noted. The grant of power to the districts would appear to give them discretion to set rates, guided only by the requirement of establishing equitable rates.<sup>263</sup>

#### I. Other Decision-making Entities.

In the preceding sections, several of the major entities responsible for making water use and distribution decisions within the state were

inventoried and their authority set out in detail. There also exist a number of other entities whose decisions affect water use and distribution, but whose impact has been of less importance than the entities already discussed. In this section, the authority of each of these entities is briefly inventoried.

#### 1. Ground Water Management Districts.

Ground water management districts have the duty to consult with the Ground Water Commission on all ground water matters affecting the district to evaluate the suitability of proposed regulations or restrictions for its area and to cooperate with the commission and state engineer for the enforcement of such rules.<sup>264</sup>

In addition, such districts have certain regulatory powers over the use, control, and conservation of designated ground water within the district. Such regulations and controls are subject to approval by the Ground Water Commission.<sup>265</sup> Such controls and regulations can take the form of:

- a. Well-spacing requirements and limits on production from the ground water aquifer to minimize the lowering of the water table or reduction of artesian pressure.<sup>266</sup>
- b. Acquiring lands to construct dams, to drain lakes, draws, depressions, and creeks, and to install pumps and other equipment necessary to recharge the ground water reservoir.<sup>267</sup>
- c. Developing comprehensive plans for most efficient use of water of the ground water aquifer and for control and prevention of waste (requires a detailed analysis of the aquifer and its recharge capacity and limitations).<sup>268</sup>
- d. Requiring the capping of an open or uncovered well.<sup>269</sup>
- e. Promulgating reasonable rules and regulations to conserve pressure and to protect and recharge the ground water aquifer.<sup>270</sup>
- f. Controlling and administering the quantity of ground water extracted from the aquifer.<sup>271</sup>
- g. Promulgating reasonable rules and regulations to protect and compensate owners of domestic wells injured by irrigation wells.<sup>272</sup>

## 2. Irrigation Districts (1905).

The purpose of the Irrigation District Law of 1905 is to provide a means, at the expense of landowners within a district, to cultivate the arid lands of such district by a process of irrigation. The board of directors of such district organized under this law has the following powers:

- a. An irrigation district may cooperate and enter into contracts and obligations with the United States under federal reclamation laws or any other federal laws enacted by the Congress of the United States which do not conflict with the constitution and laws of the State of Colorado for the purposes of constructing irrigation works, including drainage works necessary to maintain the irrigability of the land, or for the acquisition, purchase, extension, operation, or maintenance of constructed works, or for the assumption as principal or guarantor of indebtedness to the United States on account of district lands.<sup>273</sup>
- b. The board of directors has power, and it is its duty, to adopt a seal, manage and conduct the affairs and business of the district, make and execute all necessary contracts, employ such agents, attorneys, officers, and employees as may be required, and prescribe their duties and establish equitable rules and regulations for the distribution and use of water among the owners of said land. The board is to generally perform all such acts as are necessary to fully carry out the purposes of tit. 37, art. 41.<sup>274</sup>
- c. In addition to the means to supply water to said district proposed by the petition submitted for the formation of said district, the board has power to construct, acquire, purchase, or condemn any canals, ditches, reservoirs, reservoir sites, water, water rights, rights-of-way, or other property necessary for the use of the district, or to acquire by condemnation, or otherwise, the right to enlarge any ditch, canal, or reservoir already constructed or partly constructed.<sup>275</sup>
- d. The rules and regulations for the irrigation district are to be printed in convenient form as soon as they are adopted for distribution in the district. All waters distributed are to be apportioned to each landowner pro rata to the lands assessed under tit. 37, art. 41, within such district. But all water which has been acquired by the district by virtue of the laws of Colorado may be

distributed and apportioned according to the terms of any contract entered into between the district and the United States, until the obligation due the United States is paid or the obligation to pay is discharged in any manner.<sup>276</sup>

- e. The board of directors of an irrigation district has power to lease or rent the use of water, or contract for the delivery thereof, to occupants of other lands within or without the said district at such prices and on such terms as it deems best, but the rental shall not be less than one-half times the amount of the district tax for which said land would be liable if held as a freehold. No vested prescriptive right to the use of such water shall attach to said land by virtue of such lease or such rental; except that any landowner in said district, with the consent of the board of directors, may assign the right to the whole or any portion of the water so apportioned to him for any one year where practicable to any other bona fide landowner, to be used in said district for use on his land for said year, but such owner shall have paid all amounts due on assessments upon all such lands.<sup>277</sup>
- f. The board of directors further has power to lease or rent the use of water, or to contract for the delivery thereof, to settlers upon or occupants of the public domain, whose entries shall not have been subordinated to the district through compliance with the act of Congress approved August 11, 1916, on the terms as provided in this section; except that in such case, the board of directors has the further power to make a contract on behalf of the district with such settler or occupant to the effect that such settler or occupant, upon receiving full title to his lands and upon the payment of his proportionate share of the bond assessments, as provided in §37-41-136, C.R.S. 1973, shall include his lands within said district and, upon such inclusion, shall be entitled to all the rights and privileges of a member of said district.<sup>278</sup>
- g. The board also has a statutory right to acquire all lands, water rights, franchises, and other property necessary for the construction, use, maintenance, repair, and improvement of its canals, ditches, reservoirs, and waterworks; and it shall also have the right, by purchase or condemnation, to acquire rights-of-way for the construction or enlargement of any of its ditches, canals, or reservoirs, and lands for reservoir sites.<sup>279</sup>



- h. In case the volume of water in any canal, reservoir, or other works in the district shall not be sufficient to supply the continual wants of the entire district susceptible to irrigation therefrom, then it is the duty of the board of directors to distribute all available water upon certain or alternate days to different localities, as it may in its judgment think best for the interests of all parties concerned.<sup>280</sup>
- i. The board of directors of an irrigation district may sell, dispose of, and convey real property not needed for use by the irrigation district nor essential to its operation.<sup>281</sup>

### 3. Irrigation Districts (1921).

The Irrigation District Law of 1921 provides that the board of directors of such district formed under this law may:

- a. Acquire, by appropriation, purchase, or condemnation, water rights and water facilities.<sup>282</sup>
- b. Enter into contracts or obligations with the United States for construction, operation, and maintenance and necessary works for delivery and distribution of water, drainage of lands, or rental of water.<sup>283</sup>
- c. Adopt plans to carry out purposes of the district.<sup>284</sup>
- d. Lease surplus water.<sup>285</sup>
- e. Conduct drainage surveys and work.<sup>286</sup>
- f. Sell surplus water.<sup>287</sup>

### 4. Irrigation Districts (1905 and 1921).

One responsibility of an irrigation district is to provide drainage for district lands as is made necessary by its irrigation projects.<sup>288</sup> An irrigation district enjoys, however, a preferential right to seepage or wastewater collected or conveyed by drainage works constructed within the district.<sup>289</sup>

Irrigation districts are granted authority to:

- a. Sell water rights and property.<sup>290</sup>
- b. Refuse to deliver water to land for which there are delinquent or unpaid assessments.<sup>291</sup>
- c. Contract with the United States to fund or refund any and all of the outstanding indebtedness of the district in order to allow them to carry out this function.<sup>292</sup>

5. Drainage Districts.

Drainage districts are established to reclaim, by drainage, lands which at present are not cultivatable or useful.<sup>293</sup> The authority of such districts is as follows:

- a. The directors, agents, and employees have the right to enter upon land in the district to make surveys and to locate drainage ditches or laterals.<sup>294</sup>
- b. The board of directors has the power to make surveys for drainage or irrigation ditches to be constructed, to acquire by purchase or condemnation other property needs and to appropriate, divert, and use the waters for beneficial purposes, including water gathered in the discharge of its ditches.<sup>295</sup>
- c. The district has the power to assess property within the district to obtain funds necessary for the district to meet current expenses for the coming year.<sup>296</sup>
- d. The district has the power to enter into contracts with the State of Colorado or the United States, or both, for the survey, plans, specifications, or construction of a drainage project. The district is to pay the state or United States the actual cost of the work done.<sup>297</sup>
- e. The board of directors has the power to sell real property taken by tax deed.<sup>298</sup>
- f. The directors may enter into contracts for construction of a drainage project with the lowest responsible bidder.<sup>299</sup>
- g. The district is granted the power of eminent domain to construct its works across private lands inside or outside drainage district boundaries.<sup>300</sup>

- h. The district is given the right-of-way to construct and maintain its works on or across public lands.<sup>301</sup>

6. Grand Junction Drainage District.

The board of directors of the Grand Junction Drainage District is vested with all powers necessary for the accomplishment of the purposes for which the district is organized.<sup>302</sup> The district is organized to construct, operate, and maintain systems of drains and drainage works sufficient to reclaim and protect all lands and property within the district from seepage and wastewaters. To this end, the directors may make surveys and acquire property necessary for said district to be laid out or constructed by purchase or condemnation.<sup>303</sup> The district has further rights to:

- a. Contract with the State of Colorado or the United States for the survey, plans, development of specifications, and construction of proposed drainage systems.<sup>304</sup>
- b. Enter upon private land to make surveys and locate drainage ditches and laterals.<sup>305</sup>
- c. Tax property within its boundaries to enable it to carry out the purposes for which it was established.<sup>306</sup>
- d. Exercise its power of eminent domain to enable it to construct its works across private lands.<sup>307</sup>
- e. Contract for the use and control of existing drainage ditches within the district.<sup>308</sup>
- f. Sell any real estate or personal property which it no longer needs to accomplish its purposes.<sup>309</sup>

7. Department of Natural Resources.

The director of the Department of Natural Resources shall establish rules, regulations, provisions, and qualifications concerning licensing of the conduction of weather modification activities in the state.<sup>310</sup> The director also has the power to issue permits to people wishing to engage in weather modification and to establish rules and regulations concerning the conducting of research and development of commercial operations in weather modifications.<sup>311</sup> In addition, the director may participate in or promote continuing research and development of

weather modification.<sup>312</sup> Finally, the director of the department may represent the state, with the approval of the governor, in matters concerning plans, procedures, or negotiations for interstate compacts relating to weather modification. Such compact must be approved by the General Assembly.<sup>313</sup>

The Oil and Gas Conservation Commission (within the department) may issue permits for geothermal exploration wells and geothermal development wells.<sup>314</sup>

The State Board of Land Commissioners (within the department) may:

- a. Sell lands to the United States for irrigation works.<sup>315</sup>
- b. Grant rights-of-way across state lands for ditches, reservoirs, pipelines, etc., for any public use or purpose.<sup>316</sup>
- c. Sell state lands to procure irrigation.<sup>317</sup>
- d. Acquire water rights for state land.<sup>318</sup>
- e. Drain state lands.<sup>319</sup>

#### 8. River Basin Authorities.

Though a potentially major water use agency, no river basin authority has ever been formed under the enabling legislation. Nevertheless, their powers are as follows:

- a. The basins are created to promote stability of ground and surface water supplies and to encourage maximum utilization and benefit from all water supplies.
- b. The authorities have the power to construct and operate wells, dams, ditches, reservoirs, water conveyances, and storage irrigation, or other structures, which includes the power to condemn land for physical construction of such structures, or rights-of-way or easements.<sup>320</sup>
- c. The authority may raise revenue by taxing property within the basin's boundaries.<sup>321</sup>
- d. The authority has the power to satisfy vested rights, within or without the river basin, with water from sources other

than natural river flow and to appropriate unappropriated waters, all in accordance with general law.<sup>322</sup>

- e. The authority may establish standards for proper utilization of water within the territorial limits of the authority, with violation of such standards being prima facie evidence of waste.<sup>323</sup>

#### 9. Internal Improvement Districts.

The purpose of the Internal Improvement Districts Law of 1923 is to provide a means to landowners in a district to supply storage water for irrigation and to prevent flooding. Such districts may:

- a. Provide for the drainage of lands whether lying within or without the boundaries of such district.<sup>324</sup>
- b. Acquire by condemnation or otherwise such lands as are necessary for the construction, operation, and maintenance of such ditches, canals, drains, or other works as are required for the drainage of such lands.<sup>325</sup>
- c. Accept grants or loans of money from the federal government, or any department or agency thereof, for the construction of such drainage ditches, canals, drains, or other works, and enter into contracts for the maintenance of such drainage system as are necessary to procure any such grant of money or other federal aid in the construction of such drainage system.<sup>326</sup>
- d. Contract with the federal government, or any department or agency thereof, in such manner as shall be found necessary or advisable in order to procure federal aid<sup>327</sup> in any form in the construction of any drainage system.
- e. Provide means for the maintenance of and to maintain and operate such drainage system when so constructed or acquired.<sup>328</sup>
- f. Construct, acquire, purchase, or condemn any drainage canals, reservoir sites, reservoir drainage system, or irrigation system.<sup>329</sup>
- g. Promulgate rules and regulations concerning the use of water owned by the district.<sup>330</sup>

- h. Lease or rent the use of water by contract.<sup>331</sup>
- i. Construct works across streams of water, water-courses, streets, and avenues. Districts are additionally granted the power of eminent domain over right-of-way to construct its works.<sup>332</sup>

III. INVENTORY OF REGULATORY AND MANAGEMENT AUTHORITY OVER WATER  
IN COLORADO

REFERENCES

1. §37-92-201, C.R.S. 1973.
2. §37-92-203(1), C.R.S. 1973.
3. Section 37-92-203(2), C.R.S. 1973, provides for the appointment of more than one water judge in a water division if circumstances warrant. No division currently has more than one water judge.
4. Note that the water judge for Water Division No. 5 has jurisdiction over waters in the White River basin, though for certain purposes they are considered to be a part of Division No. 6.
5. §37-92-203(4), C.R.S. 1973.
6. §37-92-203(5), C.R.S. 1973.
7. §§37-92-302(1)(a) and 37-92-305, C.R.S. 1973.
8. §§37-92-302(1)(a) and (2), C.R.S. 1973.
9. §37-92-302(3), C.R.S. 1973.
10. §§37-92-302(1)(b) and (c), C.R.S. 1973.
11. §37-92-301(2), C.R.S. 1973, as amended by Sess. Laws (1977), at 1702, §1. See also §§37-92-302(4) and 37-92-303, C.R.S. 1973.
12. §37-92-302(4), C.R.S. 1973.
13. §37-92-303(1), C.R.S. 1973.
14. §37-92-303(2), C.R.S. 1973.
15. §37-92-304(2), C.R.S. 1973.
16. §37-92-304(3), C.R.S. 1973.
17. Id.
18. Id.

19. §37-92-304(5), C.R.S. 1973.
20. Id.
21. §37-92-304(1), C.R.S. 1973.
22. §37-92-304(7), C.R.S. 1973.
23. Id.
24. §37-92-304(9), C.R.S. 1973.
25. Four Counties Water Users Ass'n v. Colorado River Water Conservation Dist., 161 Colo. 415, 425 P.2d 259 (1967), cert. denied, 389 U.S. 1049 (1968). See §37-92-103(3), C.R.S. 1973.
26. §37-92-103(3), C.R.S. 1973.
27. See, e.g., Twin Lakes Reservoir & Canal Co. v. City of Aspen, \_\_\_\_\_ Colo. \_\_\_\_\_, 557 P.2d 825 (1976); Central Colorado Water Conservancy Dist. v. City and County of Denver, \_\_\_\_\_ Colo. \_\_\_\_\_, 539 P.2d 1270 (1975).
28. See §37-92-305(1), C.R.S. 1973.
29. §37-92-305(3), C.R.S. 1973.
30. §37-92-305(4), C.R.S. 1973.
31. S.B. 4, Colo. Sess. Laws (1977) adding new §37-92-305(8), C.R.S. 1973.
32. See, e.g., Seven Lakes Reservoir Co. v. New Loveland & Greeley Irr. & Land Co., 40 Colo. 382, 43 P. 485 (1908); Diez v. Harrbauer, 46 Colo. 599, 105 P. 868 (1909); Downing v. Copeland, 126 Colo. 373, 249 P.2d 539 (1952).
33. §37-92-301(4), C.R.S. 1973.
34. Colorado River Water Conservation Dist. v. Twin Lakes Reservoir & Canal Co., 171 Colo. 561, 468 P.2d 853 (1970).
35. §§37-92-302(1) and 37-92-305(1), C.R.S. 1973.
36. §§37-92-401 and 37-92-402, C.R.S. 1973.
37. §37-92-402(1)(a), C.R.S. 1973.



38. §37-92-401(5), C.R.S. 1973.
39. §37-92-402(6), C.R.S. 1973.
40. Id.
41. §37-92-402(7), C.R.S. 1973.
42. §37-92-402(1)(b), C.R.S. 1973.
43. See §37-92-304(1), C.R.S. 1973.
44. §37-92-402(1)(b), C.R.S. 1973.
45. §37-92-502, C.R.S. 1973.
46. §37-92-503(1), C.R.S. 1973.
47. §37-92-503(2), C.R.S. 1973.
48. See §37-90-115, C.R.S. 1973. *Larrick v. District Court*, 177 Colo. 237, 493 P.2d 647 (1972).
49. *Safranek v. Town of Limon*, 123 Colo. 330, 228 P.2d 975 (1951). The presumption is rebuttable.
50. *Kuiper v. Lundvall*, 187 Colo. 40, 529 P.2d 1328 (1975); *Hall v. Kuiper*, \_\_\_\_\_ Colo. \_\_\_\_\_, 510 P.2d 329 (1973). These cases establish an imprecise line between tributary and nontributary water. Thus, water taking 40 years to reach a stream is tributary, that taking 100 years is not. Where the demarcation falls between those periods is not decided.
51. 153 Colo. 157, 385 P.2d 131 (1963).
52. §37-90-137(4), C.R.S. 1973.
53. *Preisser v. Smith Cattle, Inc.*, \_\_\_\_\_ Colo. \_\_\_\_\_, 545 P.2d 711 (1976); *Perdue v. Fort Lyon Canal Co.*, 184 Colo. 219, 519 P.2d 954 (1974).
54. §37-92-602(1), C.R.S. 1973.
55. §37-92-602(3), C.R.S. 1973.
56. §37-92-602(3)(b)(I), C.R.S. 1973. See also §37-92-602(3)(b)(II), C.R.S. 1973.
57. §37-92-602(3)(f), C.R.S. 1973.

58. §§37-80-102(1)(g) and (k), C.R.S. 1973.
59. §§37-92-501 and 37-80-102(1)(h), C.R.S. 1973.
60. §37-92-301, C.R.S. 1973.
61. §37-92-301(3), C.R.S. 1973.
62. §§37-92-502(2) and 37-92-102(2)(d), C.R.S. 1973.
63. Id.
64. Id.
65. §§37-92-103(4) and 37-92-602(2), C.R.S. 1973.
66. §§37-92-102(1) and 37-92-501(2)(d), C.R.S. 1973.
67. §37-80-120, C.R.S. 1973.
68. §37-92-301(3)(d), C.R.S. 1973.
69. §37-92-502(2), C.R.S. 1973.
70. §37-92-502(6), C.R.S. 1973.
71. §37-92-502(2), C.R.S. 1973.
72. §37-92-402, C.R.S. 1973.
73. §37-92-402(11), C.R.S. 1973.
74. §§37-90-110(1)(e) and 37-92-301(1), C.R.S. 1973. See also §34-70-102(2), C.R.S. 1973, with regard to geothermal wells.
75. §§37-90-137(2), (3) and 37-92-602(2), (3), C.R.S. 1973. In addition, the state engineer makes a similar determination with regard to permits for geothermal wells. §34-70-107(4), C.R.S. 1973.
76. §§37-90-107(3) and 37-90-108(2), C.R.S. 1973.
77. §37-90-105(1), C.R.S. 1973.
78. §§37-90-138 and 87-90-110(1)(a)-(d), C.R.S. 1973.
79. §§37-90-137(2) and 37-92-602(2), C.R.S. 1973.
80. See §37-90-137(4), C.R.S. 1973.

81. §37-90-104, C.R.S. 1973.
82. §37-90-137(3), C.R.S. 1973.
83. §37-90-105(1), C.R.S. 1973.
84. §37-90-110(1)(a), C.R.S. 1973.
85. §37-90-110(1)(b), C.R.S. 1973.
86. §37-90-138, C.R.S. 1973.
87. §37-92-301, C.R.S. 1973.
88. §37-90-110(1)(e), C.R.S. 1973.
89. §37-92-202(1)(a), C.R.S. 1973.
90. §37-92-202(2), C.R.S. 1973.
91. §37-92-501(1), C.R.S. 1973.
92. §37-92-502(2), C.R.S. 1973.
93. Id.
94. Id.
95. §37-92-502(6), C.R.S. 1973.
96. §37-92-502(7), C.R.S. 1973.
97. §37-92-307(7), C.R.S. 1973.
98. Id.
99. §37-92-402, C.R.S. 1973.
100. §37-87-108, C.R.S. 1973.
101. §37-92-502(3), C.R.S. 1973.
102. Id.
103. Id.
104. Id.

105. §37-83-105, C.R.S. 1973.
106. Fort Lyon Canal Co. v. Chew, 33 Colo. 92, 81 P. 37 (1905).
107. Bowman v. Virdin, 40 Colo. 247, 90 P. 506 (1907); Fort Lyon, note 106 supra.
108. See §§37-92-103(9) and 37-92-305(3), C.R.S. 1973.
109. §37-92-305(3), C.R.S. 1973.
110. §37-92-307(1)(b), C.R.S. 1973.
111. Id.
112. §37-92-304(3), C.R.S. 1973.
113. §37-92-103(8), C.R.S. 1973.
114. §37-92-304(2), C.R.S. 1973.
115. §37-92-304(3), C.R.S. 1973.
116. Rule 1(e), Colo. App. Rules.
117. §37-92-302(4), C.R.S. 1973.
118. §37-92-301(1), C.R.S. 1973.
119. See §37-90-101 et seq., C.R.S. 1973.
120. Kuiper v. Lundvall, 184 Colo. 40, 529 P.2d 1328 (1974).
121. See Priesser v. Smith Cattle, Inc., \_\_\_ Colo. \_\_\_, 545 P.2d 711 (1976). See also Perdue v. Fort Lyon Canal Co., 184 Colo. 219, 519 P.2d 954 (1974).
122. §37-90-102, C.R.S. 1973.
123. §37-90-104(4), C.R.S. 1973.
124. §37-90-104(3)(b), C.R.S. 1973.
125. See Sweetwater Dev. Corp. v. Schubert Ranches, Inc., 188 Colo. 379, 535 P.2d 1328 (1975). See also §37-90-102, C.R.S. 1973.
126. §37-90-103(b), C.R.S. 1973.
127. 181 Colo. 395, 510 P.2d 323 (1973).

128. Note 125, supra.
129. §37-90-106, C.R.S. 1973.
130. §37-90-106(2), C.R.S. 1973.
131. §37-90-107(1), C.R.S. 1973.
132. §37-90-107(2), C.R.S. 1973.
133. §37-90-107(3), C.R.S. 1973.
134. "Waste" is defined at §37-90-103(20) as causing, suffering, or permitting any well to discharge water unnecessarily above or below the surface of the ground.
135. §37-90-107(4), C.R.S. 1973.
136. §37-90-107(5), C.R.S. 1973.
137. Id.
138. §37-90-107(2), C.R.S. 1973.
139. §37-90-108(1), C.R.S. 1973.
140. §37-90-108(2), C.R.S. 1973.
141. §37-90-109(1), C.R.S. 1973.
142. Id. Larrick v. District Court, 177 Colo. 237, 493 P.2d 647 (1972). The delegation of this function to the commission neither violates the doctrine of separation of powers nor results in an unlawful delegation of judicial powers. In re Water Rights in Irrigation Div. No. 1, 181 Colo. 395, 510 P.2d 323 (1973).
143. §37-90-107(1), C.R.S. 1973.
144. See In re Water Rights, note 142, supra.
145. Policy Guidelines of the Colorado Ground Water Commission, Feb. 6, 1976, Guideline No. 10.
146. In re Water Rights, note 142, supra.
147. §§37-92-305(3) and (4), C.R.S. 1973.
148. §37-90-111(1)(e), C.R.S. 1973.

149. §37-90-111(1)(f), C.R.S. 1973.
150. §37-90-138(1), C.R.S. 1973. The state engineer is actually mainly responsible for this task. See the definition of waste in note 134, supra.
151. §37-90-111(1)(a), C.R.S. 1973.
152. See §37-92-301, C.R.S. 1973.
153. §37-90-111(1)(a), C.R.S. 1973.
154. §37-90-111(1)(b), C.R.S. 1973.
155. §37-90-111(2), C.R.S. 1973.
156. §37-90-118, C.R.S. 1973.
157. §37-90-119, C.R.S. 1973.
158. §37-90-121, C.R.S. 1973.
159. §37-90-120, C.R.S. 1973.
160. §37-90-122, C.R.S. 1973.
161. §37-90-123, C.R.S. 1973.
162. §37-90-124, C.R.S. 1973.
163. §37-90-125, C.R.S. 1973.
164. §37-90-130(1), C.R.S. 1973.
165. §37-90-111(1)(d), C.R.S. 1973.
166. §37-90-130(2), C.R.S. 1973. The specific types of regulations are found at §37-90-130(2)(a)-(g), C.R.S. 1973.
167. §37-90-130(2), C.R.S. 1973.
168. §37-9--131(1), C.R.S. 1973.
169. Id.
170. North Kiowa-Bijou Management Dist. v. Ground Water Comm'n, 180 Colo. 314, 505 P.2d 377 (1973).

171. §37-60-102, C.R.S. 1973.
172. §37-60-106, C.R.S. 1973.
173. §37-60-106(1)(a), C.R.S. 1973.
174. §37-60-106(1)(b), C.R.S. 1973.
175. §§37-60-106(1)(m) and (n), C.R.S. 1973.
176. §37-60-106(1)(j), C.R.S. 1973.
177. §37-60-106(1)(n), C.R.S. 1973.
178. §37-60-121, C.R.S. 1973.
179. §37-60-122(1)(a), C.R.S. 1973.
180. §37-60-122(1)(b), C.R.S. 1973.
181. §37-60-123, C.R.S. 1973.
182. §37-60-106(1)(c), C.R.S. 1973.
183. §37-60-119, C.R.S. 1973.
184. Id.
185. §37-92-102(3), C.R.S. 1973.
186. §37-60-106(1)(c), C.R.S. 1973.
187. §37-60-106(1)(d), C.R.S. 1973.
188. 42 U.S.C.A. 1962c(a) (1965).
189. 42 U.S.C.A. 1962c-2(1) (1965).
190. Id.
191. §37-60-116, C.R.S. 1973.
192. §37-60-106(1)(c), C.R.S. 1973.
193. §37-60-109(1), C.R.S. 1973.
194. §37-60-104(2), C.R.S. 1973.

195. §37-60-106(1)(f), C.R.S. 1973.
196. §37-60-106(1)(i), C.R.S. 1973.
197. Id.
198. §24-65.1-202(2)(a)(I), C.R.S. 1973.
199. §§37-46-103, 37-47-103, and 37-48-102, C.R.S. 1973.
200. §37-46-103, C.R.S. 1973.
201. §37-47-103, C.R.S. 1973.
202. §37-48-102, C.R.S. 1973.
203. §§37-46-101, 37-47-101, and 37-48-101, C.R.S. 1973.
204. Id.
205. Id.
206. §§37-46-104, 37-47-104, and 37-48-103, C.R.S. 1973.
207. Id.
208. §§37-46-110 and 37-47-110, C.R.S. 1973; §37-48-108, C.R.S. 1973 (1976 Supp.).
209. §§37-46-112(1) and 37-47-112(1), C.R.S. 1973; §37-48-108, C.R.S. 1973 (1976 Supp.).
210. §§37-46-114(4) and 37-47-114(4), C.R.S. 1973; §37-48-125(4), C.R.S. 1973 (1976 Supp.).
211. §§37-46-110(2) and 37-47-110(2), C.R.S. 1973; §37-48-108(2), C.R.S. 1973 (1976 Supp.).
212. §§37-46-107(1)(b), 37-47-107(1)(b), and 37-48-105(1)(h), C.R.S. 1973.
213. Id.
214. §§37-46-107(1)(c), 37-47-107(1)(c), and 37-48-105(1)(d), C.R.S. 1973.
215. §§37-46-107(1)(i) and 37-47-107(1)(i), C.R.S. 1973; §37-48-105(1)(i), C.R.S. 1973 (1976 Supp.).



216. Id.
217. Id.
218. See Water Conservation Board Power, §37-45-118(c), C.R.S. 1973.
219. §§37-46-107(1)(j), 37-47-107(1)(j), and 37-48-105(1)(j), C.R.S. 1973.
220. See Colorado River Water Conservation Dist. v. Rocky Mountain Power Co., 158 Colo. 331, 406 P.2d 798 (1965).
221. See Rocky Mountain Power, note 220, supra. Also §148-21-3(6 and 7), C.R.S. (1966 Supp.).
222. §37-92-103(3), C.R.S. 1973.
223. §37-92-103(4), C.R.S. 1973.
224. Note 220, supra.
225. §§37-46-109(1), 37-47-109(1), and 37-48-107(1), C.R.S. 1973.
226. Id.
227. §§37-46-109(2) and 37-47-109(b), C.R.S. 1973; §37-48-148, C.R.S. 1973 (1976 Supp.).
228. Id.
229. Id.
230. §§37-56-107(1)(d), 37-47-107(1)(d), and 37-48-105(1)(d), C.R.S. 1973.
231. §§37-46-107(1)(h) and 37-47-107(1)(h), C.R.S. 1973; §37-48-146, C.R.S. 1973 (1976 Supp.).
232. §§37-46-107(1)(g), 37-47-107(1)(g), and 37-48-105(1)(h), C.R.S. 1973. See also power granted in §37-48-161, C.R.S. 1973 (1976 Supp.).
233. §§37-46-107(1)(c), 37-47-107(1)(c), and 37-48-106(1)(d), C.R.S. 1973.
234. Id.
235. Id.

236. Note 233, supra.
237. §§37-46-115 and 37-47-115, C.R.S. 1973; §37-48-126, C.R.S. 1973 (1976 Supp.).
238. Id.
239. §§37-46-132 and 37-47-132, C.R.S. 1973. This specific authority was not granted to the Rio Grande Water Conservation District.
240. Id.
241. §37-48-112, C.R.S. 1973.
242. §§37-46-111, 37-47-111, and 37-48-112, C.R.S. 1973.
243. Id.
244. §37-45-102, C.R.S. 1973.
245. §37-45-118(1)(j), C.R.S. 1973.
246. §37-45-118(1)(b)(I), C.R.S. 1973.
247. §37-45-118(1)(c), C.R.S. 1973.
248. Id.
249. §37-45-118(1), C.R.S. 1973.
250. §37-45-118(1)(b)(II), C.R.S. 1973.
251. §37-45-134(1)(d) and (e), C.R.S. 1973.
252. §37-45-118(1)(e), C.R.S. 1973.
253. §37-45-131, C.R.S. 1973.
254. §37-45-134(1)(c), C.R.S. 1973.
255. §37-45-118(1)(f), C.R.S. 1973.
256. §37-45-118(1)(g), C.R.S. 1973.
257. Water may be allotted to irrigable acreage and such property assessed by the board. §37-45-118(1)(f), C.R.S. 1973.
258. People ex rel. Rogers v. Letford, 102 Colo. 284, 79 P.2d (1938).

259. §§40-3-102 and 40-1-103, C.R.S. 1973.
260. §37-45-118(1)(g), C.R.S. 1973.
261. Id.
262. §§37-85-101 and 37-85-103, C.R.S. 1973.
263. §37-45-118(1)(g), C.R.S. 1973.
264. §37-90-130(1), C.R.S. 1973.
265. §37-90-130(2), C.R.S. 1973.
266. §37-90-130(2)(a), C.R.S. 1973.
267. §37-90-130(2)(b), C.R.S. 1973.
268. §37-90-130(2)(c), C.R.S. 1973.
269. §37-90-130(2)(d), C.R.S. 1973.
270. §37-90-130(2)(e), C.R.S. 1973.
271. §37-90-130(2)(g), C.R.S. 1973.
272. §37-90-130(2)(h), C.R.S. 1973 (1976 Supp.).
273. §§37-41-101(2) and 37-41-113(2), C.R.S. 1973.
274. §37-41-113(1), C.R.S. 1973.
275. §37-41-113(3), C.R.S. 1973.
276. §37-41-113(6), C.R.S. 1973.
277. §37-41-113(7), C.R.S. 1973.
278. §37-41-113(8), C.R.S. 1973.
279. §37-41-114, C.R.S. 1973.
280. §37-41-130, C.R.S. 1973.
281. §37-41-156, C.R.S. 1973.
282. §37-42-113(1), C.R.S. 1973.
283. §37-42-113(2), C.R.S. 1973.

284. §37-42-117, C.R.S. 1973.
285. §37-42-135, C.R.S. 1973.
286. §37-42-136, C.R.S. 1973.
287. §37-42-137, C.R.S. 1973.
288. §37-43-122, C.R.S. 1973.
289. §37-43-123, C.R.S. 1973.
290. §37-43-124, C.R.S. 1973.
291. §37-43-143, C.R.S. 1973.
292. §37-43-152, C.R.S. 1973.
293. §37-20-101, C.R.S. 1973.
294. §37-21-111, C.R.S. 1973.
295. §37-21-114(1), C.R.S. 1973.
296. §37-23-107, C.R.S. 1973.
297. §37-21-114(2), C.R.S. 1973.
298. §37-23-117, C.R.S. 1973.
299. §37-24-101, C.R.S. 1973.
300. §§37-24-103 and 37-24-104, C.R.S. 1973.
301. §37-24-106, C.R.S. 1973.
302. §37-31-105, C.R.S. 1973.
303. §37-31-119, C.R.S. 1973.
304. §37-31-124, C.R.S. 1973.
305. §37-31-127, C.R.S. 1973.
306. §37-31-137, C.R.S. 1973.
307. §37-31-152, C.R.S. 1973.

308. §37-31-155, C.R.S. 1973.
309. §37-31-156, C.R.S. 1973.
310. §36-20-107(1), C.R.S. 1973.
311. §36-20-108(2), C.R.S. 1973.
312. §36-20-108(15), C.R.S. 1973.
313. §36-20-108(4), C.R.S. 1973.
314. §34-70-106, C.R.S. 1973 (1976 Supp.).
315. §36-1-123, C.R.S. 1973.
316. §36-1-36, C.R.S. 1973.
317. §36-1-37, C.R.S. 1973.
318. §§36-4-101, 36-4-104, and 36-4-105, C.R.S. 1973.
319. §37-30-102, C.R.S. 1973.
320. §37-93-103, C.R.S. 1973.
321. §37-93-105(1)(b)(I), C.R.S. 1973.
322. §37-93-105(1)(c)(III), C.R.S. 1973.
323. §37-93-105(1)(f), C.R.S. 1973.
324. §37-44-103(1)(c), C.R.S. 1973.
325. §37-44-103(1)(b), C.R.S. 1973.
326. §37-44-103(1)(c), C.R.S. 1973.
327. §37-44-103(1)(d), C.R.S. 1973.
328. §37-44-103(1)(e), C.R.S. 1973.
329. §37-44-108(1), C.R.S. 1973.
330. §37-44-108(3), C.R.S. 1973.
331. §37-44-108(4), C.R.S. 1973.
332. §37-44-141, C.R.S. 1973.

THE COLORADO WATER RIGHTS SYSTEM  
AND THE PUBLIC INTEREST

#### IV. "PUBLIC INTEREST" VALUES AND THE COLORADO WATER RIGHTS SYSTEM.

##### A. Introduction.

As pointed out briefly in the earlier chapters of this volume, Colorado water law has two distinct phases of application. The law operates in the first instance to facilitate the initial appropriation and use of water from a stream. After the waters of a stream have been nearly or fully appropriated, the law acts to facilitate the transfer of water rights from one user or use to another. On the premise that most of Colorado's reliable surface waters have been finally or conditionally appropriated, most of this chapter, and indeed this volume, deal primarily with various aspects of the transfer of water rights. Although the legal and economic principles are often the same for both phases of the water rights system, any changes in the system must deal with the water rights transfer mechanisms if the changes are to be effective. This chapter therefore focuses primarily on the legal and economic principles involved in the transfer of water rights, rather than on the principles involved in the appropriation of water.

The first and third chapters above point out that the salient characteristics of the Colorado water rights system, as applied to both transfers and the initial appropriation of water, are that (1) individual water users, each acting to promote his own welfare, decide how water in Colorado will be used, and (2) state or local government authority over the use of water is generally restricted to insuring that vested water rights are not injured. In short, the present water rights system constitutes a free market approach to the allocation of a scarce resource. Such a market system is, of course, a commonly employed means for the allocation of water and other resources among competing uses.

In principle, a market system weighs the relative value of the competing uses for the resource through the prices at which the resource is exchanged. Market prices establish a scale of consumer preferences and measure the relative scarcity of a resource. An "efficient" system, in an economic sense, requires that a resource be allocated to its highest valued use, which is determined by the user's willingness to pay and is based upon economic forces of supply and demand. Theoretically, this allocation process will eventually tend toward equimarginal value of use--the point at which the marginal value of all uses is equal.

When the ownership of a resource is exercised in the market through the development or subsequent sale of the resource--while all other consumers are excluded from the use of the same good--this competitive market system functions properly. The pivotal concept,

however, is ownership. Property rights to the resource in question must be defined by, and enforceable under, the legal system. If such property rights cannot be, or have not been, defined, the values associated with various uses of a resource will not be recognized in the marketplace because potential users have no way to express their preference by acquisition and exchange of the resource. Without definable property rights in the resource, there is no market in the resource and no market price to establish a scale of consumer preference.

For example, when water is diverted from a stream, it is a resource capable of private ownership. In fact, the Colorado water rights system is devoted to defining and protecting private property rights in water which is so diverted. These rights can be defined because (1) water is physically diverted from the stream and is divisible into discrete quantities which can be obtained in any amount desired, (2) consumption of water is rival and subject to exclusion such that nonpayers can be prevented from benefiting from its use, and (3) water can be obtained at a positive marginal cost.

In the case of common property resources, the three elements of ownership cannot be easily established. Common property resources (e.g., air) are resources equally available to all consumers. In other words, they are "public goods." Because common property resources are in joint supply, the use of the good by one person does not exclude or subtract from the use of that good by another person. Furthermore, additional users can be added at zero marginal cost.

The common property analysis applies to instream uses of water, but not to water diverted from the stream, thereby classifying water as a quasi-public good. Thus, people cannot be excluded from viewing a river (in the absence of entrance fees to land bordering the river) because water exhibits the property of jointness in supply. Second, within limits short of congestion, the marginal cost of an additional user is zero, without diminishing the value to others. Finally, use of the river for recreational purposes by one individual leads to no subtraction from use of the river by another individual.

When resources have any common property or public good characteristics about them, individuals can benefit from use of the resource without any direct payment. Such is the case with all instream uses of water, where each individual is not required to respond to a market price in order to enjoy whatever value he places on instream uses. More importantly, since use is not contingent upon payment, due to the nature of public goods, consumers cannot reveal their preferences through the existing water rights system of competing uses. The effect of not having a market-determined parametric price per unit for instream uses is that only those values associated with the diversion of water from a stream are accounted for, while all values which people place



on instream uses are ignored by the present water rights system.\*

While it is something of a misnomer, the values associated with instream uses of water are frequently referred to as "public interest" values. As a matter of convenience, that phrase will be used in this and all subsequent chapters. In this context, "public interest" values refers in the first instance to all values (economic, social, cultural, recreational, aesthetic, ecological, etc.) associated with instream uses of water when the rights to such uses cannot be reduced to private ownership. It should be emphasized that the distinction between "public interest" values and the values accounted for by the market system is not simply one of noneconomic versus economic values. "Public interest" values also refers to a series of generally held societal values, such as equity, maintenance of public health, and economic stability, which are related to the existence of something economists call "externalities." Externalities are discussed in the following paragraphs.

The existence of externalities--costs and benefits not included in the market price--compounds the need to recognize public interest values in the water transfer system as well as the appropriation system. Externalities can affect other individuals in both positive and negative manners. A positive externality arises when the action of one person or group affects another--effects which cannot completely be captured by the producer of the external value. A negative externality arises when the action of a person or group adversely affects another by shifting costs from one user to another. An example of a positive

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\*It is a common misconception that only economic values (e.g., the production of income) are taken into account by a market system. On the contrary, a market system recognizes any of the values which people place in a resource (be they economic, ecological, aesthetic, social, cultural, or recreational) so long as property rights to the resource in question can be defined by the legal system. A good example is the use of water to irrigate lawns and gardens. The values associated with this use are essentially noneconomic, yet the water rights system clearly affords the opportunity to preserve these aesthetic values to the extent desired, as measured by people's willingness to pay for municipal water service. By the same token, it is often thought that instream uses encompass only noneconomic values. To the contrary, instream uses can reflect economic values just as a market reflects economic values. For example, a commercial rafter benefits from the maintenance of instream flows in a pecuniary sense, for his livelihood depends upon maintenance of stream flow. The difference, however, is that the rafter cannot guarantee his livelihood by a free market purchase of a minimum flow right.

externality is the enhancement of an urban environment by maintaining open space. The classic example of negative externalities is the polluting manufacturer who imposes costs on others in terms of dirty air, poor visibility, and higher cleaning bills.

Many contemporary water problems can be linked to the fact that the existing system of property rights in water does not include the right to appropriate the benefit a right holder may provide to others, defined as external benefits, or the duty to bear the burden of the costs a water user may impose on others, defined as external costs. The solution to these problems is impeded by the high cost of identifying, quantifying and developing a mechanism for assigning the liability for external costs and providing for the appropriation of external benefits.<sup>1</sup>

The interrelatedness of water implies the potential for several externalities to arise from water use. Among the possible positive externalities resulting from water transactions are increased return flow from transbasin diversions, preservation of agricultural land as open space, temporary retention of water in irrigated land to provide constant summer water flow, provision of minimum stream flow because downstream users are capable of calling water over stream channels, and increased assimilative capacity for water pollutants and phreatophyte growth and for wildlife habitats along diversion ditches and unlined canals.

As far as negative externalities are concerned, water right owners are capable of diverting water below the flow level necessary to maintain recreational, aesthetic, and ecological values. Unless laws regulate the quality of return flow, water users also can impose negative externalities on downstream water owners by discharging residuals into the water. Furthermore, unless regulatory action is taken, water diversions can cause erosion, flood hazards, and higher operational and maintenance costs for downstream users if the lower water level concentrates pollutants, as is the case in the highly saline Arkansas River. Water diversions also are capable of producing negative externalities. Reduced stream flow can lower the capacity of a stream to assimilate municipal wastes and thereby impose increased water treatment costs on the public. Phreatophyte growth along diversion ditches is capable of reducing the return flow for future appropriation. Therefore, water right transactions are capable of producing several negative externalities and imposing costs on others.

When the value of a resource is overestimated or underestimated through failure to internalize all costs or capture all benefits, a misallocation of resources is possible. Therefore, intervention into

the market transfer and appropriation systems can be justified to prevent net social loss by compensating those producing positive externalities or penalizing those producing negative externalities.

In practice, severe limits have been placed on water right transfers, further impeding market allocation and efficient resource use.<sup>2</sup>

Water rights have proven difficult to purchase, and there has been surprisingly little transfer of water rights from agriculture to higher economic uses.

Several writers have advocated improving the market system in water transfers to allow economic forces to allocate water resources efficiently to their highest use.<sup>3</sup> The generally recommended improvements consist of removing the financial, legal, and administrative impediments to water transfers and increasing the accuracy and availability of information to allow buyer and seller to negotiate directly. However, it should be clear that this "efficiency" solution fails to recognize the public interest externalities and impacts caused by public good characteristics of water. "Efficient use" in an economic welfare analysis actually occurs when allocation of water between users equalizes the marginal values of water use among all users, considering all benefits and costs (market, public interest, and opportunity costs).

Even if the system of water rights transfers were efficient and included an accounting for the externalities, one must examine the equity aspects of who will be affected by the distribution of water and the extent of the effect. The current water transfer system assumes that the senior, but less efficient, appropriator will sell his right to those who can put the right to a higher use. However, the equitable and social questions of water allocation, especially when public uses are involved, are still ignored. Industrial interests are able to purchase agricultural rights, a transaction which may or may not be in the best interests of the public as a whole. Therefore, under current law, equitable considerations between competing uses are not the basis for allocation of water and represent another public interest value worthy of consideration.

The statutory policy of Colorado is "to maximize the beneficial use of all waters of this state."<sup>4</sup>

Maximum utilization would appear to involve a sharing of water resources among senior and junior users to foster intensive and efficient use of water for the overall benefit of the state. It is not a quantity of use concept, but one of quality of use. Maximum utilization would appear to involve an analysis as to the best means and patterns of allocation for the state

and its people. Such a concept does not lend itself to a system designed to protect private property in water where the protection of vested rights is the paramount concern.<sup>5</sup>

The concept of "maximum utilization"--balancing private and public interests for an efficient and equitable solution--conflicts with Colorado water law which emphasizes protection of private interests. The cost of this conflict, which applies to both water appropriation and water rights transfers is high in terms of foregone public uses of water. Regarding the impact of Colorado law on public uses of water, Carlson's 1973 study<sup>6</sup> concludes that:

Research does not disclose one case where changes were restricted or denied in order to accommodate the proprietary interest of the "public" or the "people" in water. The litigation on changes has been purely a guard between private interests, with the express interest of protecting vested rights.

Therefore, either the Colorado statute requiring maximum beneficial use of all waters is not defined in the above manner, or the state laws and policy do not effectively regulate "maximum utilization," despite the statute.

In summary, "maximum utilization" of water in an economic analysis includes maximizing public welfare by sharing public and private use efficiently and equitably. Changes in the transfer system of water rights might remove the impediments for achieving efficient allocation of water to economic uses. However, the quasi-public good characteristics of water resources and the ability of transactions to produce externalities support the conclusion that the market system fails to account for all the effects of water right transactions when computing the cost of a water right or the market price of a transfer. A system designated to maximize benefits must recognize this divergence between private and social costs. Thus, when the full costs of private use are understated through failure to account for all costs, a misallocation of resources away from public uses can occur, depriving both present and future generations of the public uses of water.

The above discussion establishes the legal and economic framework necessary for an understanding of the public interest values involved in any resource allocation system. The following section of this chapter is a more specific analysis of the extent to which these public interest values are accounted for in the Colorado water rights system.

B. The Ability of the Colorado Water Rights System to Take Account of Public Interest Values.

1. Values Associated with Instream Uses of Water.

A conspicuous omission from the pure appropriation doctrine of water law is a provision for instream water rights for aesthetic, recreational, economic, social, or any other purpose. As explained above, values which depend on instream flows are not included in the market mechanism because of the quasi-public goods characteristics of the resource. However, as consumer preferences change, leisure time becomes more available, and population and income increase, there will be greater demands placed on the public, instream uses of water. We must ask to what extent the current Colorado water rights system is able to take account of the recreational, aesthetic, economic, ecological, and other values which depend upon instream uses of water.

The twin barriers to recognition of instream uses have traditionally been the requirement of a physical diversion and the requirement that the use be beneficial, i.e., non-wasteful. With the exception of the watering cases, instream uses for fish propagation have been denied. Likewise, diversions for the maintenance of a waterfall for a scenic resort, fish preservation and duck hunting have been held non-beneficial.<sup>7</sup>

Prior to the Water Right Determination and Administration Act of 1969,<sup>8</sup> water rights for recreational, scenic, and fish and wildlife purposes were not recognized as beneficial. However, the 1969 act stated that:

Beneficial use . . . includes the impoundment of water for recreational purposes, including fishery or wildlife.

Thus, water for recreation was finally recognized as a beneficial use, but only if impounded.

In addition, the 1969 act provided for protection of fish and wildlife habitats from disturbance by any state agency. The act states:<sup>9</sup>

It is hereby declared to be the policy of this state that its fish and wildlife resources, and particularly the fishing waters within the state, are to be protected and preserved from the actions of any state agency to the end that they may be available, for all time and without change, in their natural existing

state, except as may be necessary and appropriate after due consideration of all factors involved.

Thus, after 1969, it was clear that impoundments for recreation water use were legal. However, the second barrier to recognition of instream uses is the alleged diversion requirement which stems from art. XVI, §6, of the constitution, which says that ". . . the right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied." It should be clear from the above discussion that a diversion is necessary in order to make the resource susceptible to private ownership and remove it from the public goods category. However, there is a substantial question as to whether a physical diversion is legally required for perfection of a water right. An understanding of this problem requires some discussion of the development of Colorado water law on the question of diversion.

Prior to 1969, the definition of diversion lacked any statutory guidance, although several cases had discussed the problem. In Town of Genoa v. Westfall,<sup>10</sup> the Colorado Supreme Court held that:

The only indispensable requirements are that the appropriator intends to use the water for a beneficial purpose and actually applies them to that use.

On the basis of this and some earlier decisions, one could argue that instream water uses, without a diversion, are legal. However, in 1965, the Colorado Supreme Court ruled otherwise in Colorado River Water Conservation District v. Rocky Mountain Power Co.<sup>11</sup> In that case, the conservation district sought to protect instream values under a specific enabling statute permitting them to do so. However, the court ruled that:<sup>12</sup>

There is no support in the law of this state that a minimum flow of water may be "appropriated" in a natural stream for piscatorial purposes without a diversion for any portion of the water "appropriated" from the natural course of the stream.

It appears that this 1965 ruling eliminated the possibility for instream water appropriations under the then applicable laws. Carlson concludes from the ruling that:<sup>13</sup>

The present Colorado water law does not afford protection for non-economic values. By virtue of express constitutional provision all water is available for appropriation by diversion to beneficial uses. The Colorado Supreme Court has refused to permit an "appropriation" for an in-stream fishery on the

grounds that it did not involve a diversion. This decision probably bars any "appropriation" to protect in-stream non-economic values.

In 1969, the legislature provided a definition of "diversion" which required removal of water from its natural course, or controlling the water in its natural course, by means of a ditch, canal, flume, reservoir, etc.<sup>14</sup> Thus, from 1965 until 1973, a diversion of water was clearly a requirement of an appropriative water right.

In 1973, the General Assembly passed S.B. 97, which was intended to provide ". . . some reasonable preservation of the natural environment. . ."<sup>15</sup> by providing a mechanism for the acquisition or purchase of minimum stream flow rights by the Colorado Water Conservation Board. The changes in S.B. 97 are significant in that the bill removed the requirement of a diversion from the definition of an appropriation so that an appropriation is now defined as ". . . the application of a certain portion of the waters of the state to a beneficial use."<sup>16</sup> In other words, the statute did not change the constitutional requirement, if any, for a diversion, but it did alter the definition of an appropriation to no longer require a diversion. The statute also added a clause to the definition of beneficial use in order to permit minimum flow appropriations or acquisitions by the state.<sup>17</sup> It should be noted that the beneficial use definition limits minimum flow uses to the state on behalf of the people of the state. The clear implication is that a private minimum flow appropriation would not be deemed beneficial. On the other hand, the elimination of the diversion requirement for an appropriation is applicable to all water users and would implicitly permit an instream water right for a private party. Private minimum flow rights are discussed at greater length in §VI.B.6.

The 1973 minimum flow statute (S.B. 97) is currently in litigation. The litigation should provide an answer as to whether there is a constitutional requirement for a diversion, as well as answers to a number of other issues raised by the statute.

As of mid-1978, the S.B. 97 litigation was on appeal to the supreme court. The trial court decision upheld the statute, and pertinent portions of the decision<sup>18</sup> are quoted below.

Nonetheless, the language set forth in the above cases is sufficiently broad to support a claim for water where no diversion is contemplated, provided that the water is put to beneficial use.

The court concludes that an appropriation without diversion was intended by the legislature, is not forbidden by the Constitution and is permitted by decisions of the Supreme Court. As discussed above,

those decisions requiring an actual physical diversion do so for a variety of reasons not related to the constitutional terminology.<sup>19</sup>

In summary, it is clear that the law has changed since 1973 when the Carlson report concluded (see text at n. 13 above) that Colorado water law does not protect instream uses of water. However, it is still uncertain as to the extent of protection afforded by the 1973 law. The final analysis of the ability of the Colorado water rights system to accommodate public interest values will depend heavily on whether S.B. 97 is upheld by the supreme court. If the statute is not upheld, and a diversion is ruled to be a constitutional requirement, then the Carlson conclusion will stand. On the other hand, if the trial court ruling is upheld, it will be clear that at least some protection is afforded to instream uses, and that the water rights system, as amended, is able to accommodate some of the public interest values identified in this report. Even assuming that S.B. 97 is constitutional does not, however, assure complete protection for instream uses of water. There are several legal and practical problems remaining, each of which precludes the conclusion that filings under S.B. 97 will fully protect instream uses. These problems are briefly enumerated below.

(1) Senate bill 97 was passed in 1973, and the bill specifically authorized new appropriations of water for minimum flow purposes. Therefore, any new appropriation will carry a 1973 or later priority date. To the extent that these appropriations are on the upper reaches of streams and rivers above existing diversions, they will effectively reserve minimum flows, even though the rights are relatively junior. However, on streams where pre-1973 rights are already depleting flows below minimum levels, such appropriations will be of limited utility. It is thought that the possibility of state objections to water right changes by others will act as a deterrent to changes which might otherwise adversely affect reaches of stream covered by S.B. 97 rights. In summary, however, the mere existence of a minimum flow appropriation on a reach of stream is no guarantee that the stream will always have water in it.

(2) As noted in (1), above, the mere appropriation of water will not guarantee minimum flows. Perhaps for this reason, S.B. 97 permits the state to acquire (i.e., purchase) water rights for minimum flow purposes. However, the statute specifically excludes the use of condemnation authority for acquisition of minimum flow rights. So the failure to permit the exercise of condemnation authority for minimum flows may effectively prevent preservation of minimum flows and recognition of instream uses on some reaches of some streams in the state. It is possible, although not necessarily likely, that there would be no willing sellers of water rights which would flow through a particularly critical reach of stream. The state has the authority



to purchase such rights and might have the money and desire to do so, but could not do so unless willing sellers were available.

(3) Another potential limitation on the usefulness of S.B. 97 is the failure of the legislation to address the question of marshland preservation. The bill is specifically designed to protect minimum stream flows and lake levels. Marshlands and wetlands generally have little measurable flow and probably cannot be construed as lakes. However, marshlands have valuable recreational, aesthetic, and ecological qualities, and their use may be an example of an "instream" use which is not protected, or inadequately protected under the existing law.

(4) A fourth observation about the instream flow values and S.B. 97 is that the statute appears to set up a scheme for minimum flow water rights which is outside the market system. This may be good or bad, depending on one's point of view, but the fact remains that the statute does not explicitly permit a citizen to purchase a minimum flow water right as he would any other right. This scheme is generally inconsistent with the free market underpinnings of the water rights system. However, as noted in the introduction to this chapter, and in the subsequent paragraph, there are significant problems in attempting to define and administer a private property right in instream flows.

(5) Finally, there may be administrative problems with any water right which is designed to remain in the stream. The difficulties are those which stem from trying to define a property right for instream flow rights. The entire body of Colorado water law is designed to deal with (a) the physical removal of water from the stream, and (b) the consumptive use of all or a portion of the water so removed.

The concept of instream uses, however, requires neither a diversion nor consumptive use of water. For example, S.B. 97 allows the Water Conservation Board to appropriate water for minimum flows ". . . between specific points . . . on natural streams."<sup>20</sup> The water so appropriated is not consumed as a consequence of the use. How does the state engineer administer such an appropriation, particularly if there are other vested rights along the reach of stream sought to be protected? Is the minimum flow water subject to appropriation once it reaches the lower of the two points on the stream? On the other hand, could the water be sold once it reached that point? Common sense would say that it could, but Colorado water law permits the sale of only the consumptive use portion of the prior right. Furthermore, what is to prevent the state, or a private party, (if such rights are allowed) from specifying the state border as the lower of the two points on the stream? Could such a specification prevent the appropriation of the water before it reached the border?

The above problems apply to both public and private ownership (should such ownership be permitted) of minimum flow rights. In addition, there is a host of problems applicable to private minimum flow rights. In general, these problems are related to the disincentive to acquire a minimum flow right, because of the public goods nature of the water when it is in the stream. A private owner of minimum flows cannot exclude others from the recreation, aesthetic, or ecological benefits that accrue through maintenance of the flow. The owner therefore cannot profit from the right, and therefore has no incentive to acquire the right. The same problems, of course, do not apply to acquisitions by government or by quasi-public entities acting on behalf of, and for the enjoyment of, the public as a whole.

In summary, public interest values which depend upon instream uses of water are partially accommodated under the Colorado water rights system, provided that S.B. 97 is upheld. Impoundments for recreation are deemed to be beneficial and are available to all appropriators. Fishing waters are protected from damage by any state agency. Senate bill 97 permits state acquisition of water for minimum flow purposes and provides some protection for at least the upper reaches of streams and rivers. However, the junior status of appropriated minimum flows and the difficulty and cost of acquiring senior rights may limit the reaches and streams which can be protected. In addition, the apparent exclusion of marshlands from protection, and a political climate which is occasionally hostile to minimum flow rights, add to the difficulties of recognizing and accommodating instream uses. Finally, the legal and conceptual problems of defining a property right in a quasi-public resource makes administration of minimum flow rights difficult and probably negates the incentive for private acquisition of instream flow rights, even if the law is construed to allow such private rights.

## 2: Fishing and Boating Rights.

In addition to public interest values which depend upon instream uses of water, many believe that there is significant public value in public access to, and use of, water for fishing and boating purposes. Both issues frequently center around the question of streambed ownership. There are a limited number of case law precedents on this subject. The legality of public fishing rights was litigated in Hartman v. Tresise,<sup>21</sup> where the court ruled against the public's rights despite the constitutional provision that:<sup>22</sup>

the water of every natural stream, not heretofore appropriated within the State of Colorado, is hereby declared to be the property of the public, . . . dedicated to the people of the state.

The court ruled that the constitutional provision does not authorize:<sup>23</sup>

. . . the right of fishing in the natural streams of this state, or any easement over the public domain for its enjoyment . . . ; nor has any authority to grant the same to its citizens been conferred upon by the state or claimed by it, except in the statute cited.

The court also held that:<sup>24</sup>

The owners of lands which border on a navigable river, above the ebb and flow of the tide and the owner of lands along a non-navigable fresh water stream . . . owns the bed of the stream and the exclusive right of fishery therein to the middle thereof; and if he owns the land bordering upon both sides, he has the exclusive right of fishing in the entire stream, to the extent that it flows through his lands.

Furthermore, the court stated that the riparian landowner owns land:<sup>25</sup>

to the middle thread of the river until repealed by legislative authority.

The result of this decision still applies.<sup>26</sup>

The holding of the case dealing with fishing rights has not been readjudicated since [the Hartman] decision. The position that a landowner along a stream owns the land to the middle or threadline of the stream was reaffirmed in Twin Lakes Reservoir and Can Company v. Bond, 157 Colo. 10, 410 P.2d 586 (1965).

The obvious result of this action is to affirm the private landowners' fishing rights along private riparian lands by denying public use which might generate greater benefits. However, the Hartman decision deals with "non-navigable" streams. Public fishing and boating rights can be reserved by a navigation servitude (easement) if a stream is deemed to be navigable. The test of navigability refers to a stream's historical or potential use for interstate commerce as spelled out in the Daniel Ball decision.<sup>27</sup>

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are

susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

The Daniel Ball test has been subsequently refined.<sup>28</sup>

The capability of use by the public for purposes of transportation and commerce affords the true criteria of the navigability of a river, rather than the extent and manner of that use. . . it must be generally and commonly useful to some purpose of trade or agriculture.

In United States v. Appalachian Electric Power Co.,<sup>29</sup> the court further expanded the navigability test.

A waterway, otherwise suitable for navigation, is not barred from that classification merely because artificial aids must make the highway suitable for use before commercial navigation may be undertaken. . . . When once found to be navigable, a waterway remains so.

Presently, no "navigable" streams exist in Colorado under this federal test of navigability, but the possibility of opening up some rivers to public fishing and boating through the navigation servitude is conceivable. This possibility is examined in detail in chapter VIII infra.

An attempt to resolve the navigation issue on the Colorado River is presently before the courts. Using the Hartman case as a precedent,<sup>30</sup> a county judge ruled in April, 1977, that three rafters were guilty of third-degree criminal trespass when floating over privately-owned streambeds. The case is presently on appeal. Thus, the battle over navigable rivers in Colorado is still in question, and the extent of public fishing and boating rights over privately-owned streambeds remains in doubt.

In 1977, the state legislature introduced two bills (neither was enacted) to further limit public fishing and boating rights. House bill 1304 sought to prohibit boating along sections of rivers designated as restricted areas for artificial lure and/or fly fishing only. If enacted, this bill would prohibit boaters from sections of the Arkansas, Blue, Dolores, North Platte, Poudre, Rio Grande, Roaring Fork, and South Platte rivers.

The intent of the second bill (S.B. 360) affecting public use of waters was to solidify riparian owners' claims to streambeds and channels,

thereby prohibiting public fishing and boating in streams with private riparian owners. The bill defines trespassable premises as "stream banks and beds of any fresh water stream flowing through such real property." Whether or not the passage of this bill would alter existing law is doubtful since the public is currently prohibited from the right to walk or touch stream banks and beds in private ownership. Obviously, a law clarifying public rights to waters for nonconsumptive uses would be helpful in resolving this issue.

### 3. Protection for the Basin of Origin.

There is a relatively widespread belief that the basin or drainage in which water originates should be entitled to the benefits of that water. There are obvious differences of opinion as to whether protection for the basin of origin is a public interest value which should be protected under the Colorado water rights system. In any event, transbasin diversions are designed to move water from one basin to another, and they are capable of transferring water, a valuable resource, away from economic development in the basin of origin. To avoid this problem in Texas, the state legislature requires a review of future water needs before water can be exported from the basin of origin. Colorado has no such authority to require this review process.

From the earliest reported cases to the present day, the Colorado Supreme Court has upheld an appropriator's right to make use of water without geographical limitation.<sup>31</sup>

Transbasin diversions are also capable of disrupting the natural environment (wildlife, aquatic life) and instream recreational values. Colorado water law protects these values from disruption only to a limited extent. The first means of protection is S.B. 97, as discussed above. The second means is "compensatory storage" which regulates the amount required to fulfill anticipated uses in the originating basin.<sup>32</sup> The limitation on this restriction is that it only applies to water conservancy districts affecting the Colorado River and its tributaries and not to private appropriators or municipalities such as the Denver Water Board.<sup>33</sup> In summary, public interest values are protected only to a limited extent from the negative externalities imposed by transbasin diversions.

### 4. The Preservation of Open Space.

Open space preservation produces the positive externality of visual enhancement to the landscape. Agricultural land, a natural provider of

open space, also produces a positive externality regarding water. Irrigated land temporarily retains water for constant summer flow which benefits downstream users. The provider of this benefit is unable to capture the value of his water retention--a classic example of positive externalities.

The public interest value of preserving agricultural open space and the opportunities for rural life may be under pressure from increased demands for water. The view is generally held that since water in agricultural use is less productive than industrial use, agricultural use at the margin will gradually shift to more productive uses. The result may be that the most economically productive uses produce or contribute to negative externalities (e.g., pollution, adverse visual impacts, and urban sprawl) which are neither socially acceptable nor prohibited by the water rights transfer system.

Compounding the problem of preserving agricultural land is the preference system of Colorado water rights whereby:<sup>34</sup>

Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

However, as John Carlson notes in a report to Governor Love:<sup>35</sup>

Case law indicates that the preference system is only a grant to preferred users of a right to exercise the power of eminent domain.

The end result is that irrigated agricultural land use, which encompasses open space and rural lifestyles, is squeezed by both domestic and industrial uses. Domestic users are given the power of eminent domain over agricultural users, and the more economically productive industrial users are capable of pricing agricultural use out of the market.

In 1975, the state legislature sought to alleviate the pressure of municipal growth on agricultural water rights by passing S.B. 1555.<sup>36</sup>

No municipality shall be allowed to condemn water rights, as provided in section 38-6-207, for any

anticipated or future needs in excess of fifteen years, nor shall any municipality be allowed to condemn water rights that are appropriated to a prior public use.

In effect, a small environmental impact statement is required of municipalities using eminent domain as a means to expand their water supplies. The statement shall include a growth development plan, a detailed description of the "economic and environmental effects," and "unavoidable adverse and irreversible effects" resulting from the condemnation.<sup>37</sup>

The application is then submitted to three commissioners, appointed by a water judge, to recommend whether the condemnation is to be permitted, and if so, what the fair compensation will be. The recommendation is subject to the court's approval. The entire procedure is an attempt by the legislature to account for public interest impacts associated with the preservation of agricultural land. The law was declared unconstitutional as to home rule cities in mid-1978.<sup>38</sup>

Transbasin diversions may also contribute to the destruction of open space and agriculture by extending the limits of growth through importation of water. The new water source may (or may not) make continued growth possible at the expense of urban fringe agricultural lands. However, it is not asserted here that a limitation of water resources would automatically forestall additional growth. This difficult subject is treated at length in another volume of the Colorado Water Study.

##### 5. Protection of Vested Rights in Water Quantity.

Despite indications that Colorado water law ignores many public interest values, there have been legislative attempts to ameliorate this situation. From its inception, Colorado water law has protected vested water rights from the negative externalities of decreased water availability caused by appropriation of new water rights or changes in rights. Vested rights are protected from junior users under the appropriation doctrine by virtue of the constitution and subsequent statutes and case law. Changes in water rights are allowable subject to the provision that these changes shall not "injuriously" affect vested rights.<sup>39</sup>

A change of water right or plan for augmentation, including water exchange project, shall be approved if such change or plan will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional right.

To further protect vested rights, the 1969 act holds that:<sup>40</sup>

In the case of plans for augmentation including exchange, the supplier may take an equivalent amount of water at his point of diversion or storage if such water is available without impairing the rights of others. Any substituted water shall be of a quality and quantity so as to meet the requirements for which the water of the senior appropriator has normally been used.

The interrelationship between ground water and surface water is also recognized by statute in order to prevent the operation of wells from depleting surface water streams.

The existing use of ground water, either independently or in conjunction with surface rights, shall be recognized to the fullest extent possible, subject to the preservation of other existing vested rights. . . .<sup>41</sup>

No reduction of any lawful diversion, because of the operation of the priority system, shall be permitted unless such reduction would increase the amount of water available to and required by water rights having senior priority.<sup>42</sup>

The result of these statutes has been that:<sup>43</sup>

The courts have totally forbidden a senior appropriator from exercising his right to change if such exercise would have any injurious effect which cannot be adequately mitigated by imposing conditions on the change.

To date, the limitation on changes has been on the narrow basis of the effect on other private rights. No reported case indicates that the change may be denied on the basis of its effect on the public's property right in water.

The Water Right Determination and Administration Act of 1969 departed from historical trend by allowing "any person who wishes to oppose the [water right or change in right] application" to file a statement of opposition.<sup>44</sup> Additionally, "all persons interested shall be permitted to participate in the hearing."<sup>45</sup>

This provision appears to allow interests other than vested rights to be represented in water rights hearings. The statute was recently interpreted to allow a protest by the state engineer. In Wadsworth v.



Kuiper,<sup>46</sup> the state engineer was granted standing to protest on the basis that the definition of person included the state engineer.<sup>47</sup> In practice, however, the 1969 act does not expand the power to oppose water rights allocation since grounds for acceptable objections were not established.<sup>48</sup>

New claims still turn on the claimant's proof of diversion and beneficial use, in terms of priority of use. The 1969 Act does not authorize denial of claims on the ground that the use of the water may be inconsistent with state policy on growth or land use, or that the claimant's use is less desirable in social terms than no use at all, or that use will wreak environmental damage.

#### 6. Protection of Water Quality.

Water quality is another public interest value which should be addressed. Colorado water law recognizes this water resource issue in several major cases and statutes.

Case law has established the rights of senior and junior downstream water appropriators to water of reasonable quality. Humphreys Tunnel and Mining Co. v. Frank<sup>49</sup> recognized that the rights of appropriators were subject to prior appropriations and that these rights are entitled "to have the natural waters and all accretions travel down the natural channel undiminished in quality as well as quantity."<sup>50</sup> In this case, a mineral processing plant located upstream from a senior appropriator proceeded to dispose of tailings which could have washed into the stream to degrade the water quality. The court noted:<sup>51</sup>

Upon general principle of law it is so entirely clear that defendant is liable for damages for this pollution of the stream which has injured plaintiff, that we do not cite authorities or deem it necessary to argue such a self-evident proposition.

On the basis of this decision, the court held:<sup>52</sup>

. . . that it was entirely practical and feasible for the defendant, with a comparatively small expenditure and within a few weeks time, to take care of the tailings and waste material upon its own premises.

In general agreement with the rights of senior appropriations to

water quality free from unreasonable degradation was Game and Fish Commission v. Farmers' Irrigation Co.<sup>53</sup> This case did not involve specific physical pollutants, but concerned the water quality degradation caused by water flowing through a hatchery before being used by the senior plaintiffs for domestic purposes. The court ruled in favor of the plaintiffs in a class action suit and issued injunctive relief and monetary damages on the basis that "private property shall not be taken or damaged, for public or private use, without just compensation."<sup>54</sup>

It is interesting to note that neither of the above cases applied the statutory provision of prohibiting new rights from injuriouly affecting vested rights of others.<sup>55</sup> In the past, this phrase has been construed as pertaining to water quantity.

The rights of junior appropriators to receive water of reasonable quality were decided in an earlier case, Suffolk Gold Mining and Milling Co. v. San Miguel Consol Mining and Milling Co.<sup>56</sup> The San Miguel Co. determined that its electrical power generation equipment was being damaged by the upstream residual discharges of the Suffolk mine. Despite the fact that the Suffolk right was senior in time, the court ruled that the polluter had caused waste and his water right was subject to several limitations. The court stated that:<sup>57</sup>

The title and rights of the prior appropriating company were not absolute but conditional, and they were obligated to so use the water that subsequent locators might, like lower riparian owners, receive the balance of the stream unpolluted, and fit for the uses to which they might desire to put it.

Thus, the court ruled that the Suffolk Co. was "entitled to the water free from any pollutants which can be prevented by reasonable means."<sup>58</sup>

A recent case of the Colorado Supreme Court has decided that, under Colorado law, the owner of a decreed water right has the right to receive water and silt carried thereby in such quantity and quality as has historically been received under that right. The case, A-B Cattle Co. v. United States of America (the Bessemer Ditch case),<sup>59</sup> also stated that any change which denies the existing appropriators their complete rights, whether by the addition of pollutants, or by the removal of a naturally occurring beneficial element such as silt, constitutes injury. As of early fall, 1978, the Supreme Court has granted a rehearing on the initial 4-3 decision, and, therefore, the final result of the case is unknown at this time.

Case law therefore illustrates that junior and senior water appropriators are entitled to receive water of sufficient quality and quantity for application to a beneficial use.

Several statutes are now responsible for protecting Colorado's

water quality on a more comprehensive level. Federal and state legislation became necessary as more people began to use Colorado's waters for a wide variety of purposes. The Federal Water Pollution Control Act of 1972 (referred to as FWPCA or Pub. L. 92-500), and its subsequent amendments, has as its broad goals the elimination of pollutant discharges in the nation's waters by 1985 and an interim goal of waters that are fishable and swimmable by 1983 wherever attainable. Recently enacted legislation has provided that all waters within the state must recognize the 1983 goal by becoming classified as suitable for fisheries, or fisheries and body contact recreation. The classification system under consideration by the Water Quality Control Commission, however, recognizes broader beneficial uses for which the water quality may be protected, such as aquatic life, water supply, recreation, agriculture, and wildlife. This system has recently been adopted by the commission.<sup>60</sup> The FWPCA establishes effluent standards and a permit system for persons discharging pollutants in waters of the United States. The act requires that:<sup>61</sup>

all "point-source" dischargers, including certain agricultural users, obtain a permit from the state agency or federal EPA regional office in the event the state program had not been approved.

This discharge permit system operates in conjunction with the Colorado Water Quality Control Act of 1973 which declares the state policy to:<sup>62</sup>

. . . conserve state water and to protect, maintain and improve the quality thereof for public water supplies, for protection and propagation of wildlife and aquatic life and for domestic agricultural, industrial, recreational and other beneficial uses.

Regarding the protection of water quality, the Colorado act provides:<sup>63</sup>

. . . that no pollutant be released into any state water without first receiving treatment or other corrective action necessary to protect the legitimate and beneficial uses of such waters and prevent, abate and control new or existing water pollution and to cooperate with other states and the federal government in achieving these objectives.

Together, the federal and state acts allow interested persons, in addition to vested water right holders, the ability to protest a permit request, water quality standard, control regulations, or suspected violation and to request a public hearing on the subject matter.

The Department of Health, Water Quality Control Division, has been

granted the authority to enforce and administer many significant sections of the acts. The water quality standards enforced by the division have recently been revised by the Water Quality Control Commission. Penalties for discharging without a permit or violations of permit conditions are decided by the commission and take the form of monetary penalties, emergency orders, or suspensions and revocations of violators' permits. Violations are also punishable by civil or criminal court action. Control of nonpoint sources of pollution are addressed by both the federal and state acts.<sup>64</sup>

In addition to the federal and state water quality acts, Colorado law requires plans for agumentation, including exchange, to insure that:<sup>65</sup>

substituted water shall be of a quality and quantity so as to meet the requirements for which the water of the senior appropriator has normally used.

The interaction of ground water quality and surface water quality also has not been ignored by Colorado and federal water law. In recognition of section 208 of the federal act, Colorado must develop:<sup>66</sup>

a process to control disposal of pollutants on land or in subsurface excavations within such area to protect ground and surface water quality.

In actuality, the process of controlling ground water quality under 208 is in the initial planning stages; however, several other existing laws pertain to the protection of ground water quality. Among these laws are the State Solid Waste Disposal Act, the Safe Drinking Water Act, and the U.S. Resource Conservation and Recovery Act, to be enforced by late 1979. Together, the laws will identify disposal materials, require treatment practices, initiate underground injection control procedures, and locate landfill areas away from aquifer recharge areas. Violators of the hazardous materials requirements under the federal acts will be subject to fines of up to \$25,000 and/or up to a year's imprisonment for each day of noncompliance. Violators of the respective state acts are subject to a \$100 fine and 30-day imprisonment. In further protection of ground water from the negative externalities of disposal practices, minimum standards for septic tanks are required under §25-10-101, C.R.S. 1973. Another Colorado statute protecting ground water quality states:<sup>67</sup>

It is unlawful for any person to discharge, deposit, generate or dispose of any radioactive, toxic or other hazardous waste underground in liquid, solid, or explosive form unless the Commission, upon application of the person desiring to undertake such activity, and after investigation and hearing, has

found beyond a reasonable doubt that there will be no pollution resulting therefrom or that pollution, if any, will be limited to waters in a specified limited area from which there is no risk of significant migration and that the proposed activity is justified by public need.

The Water Quality Control Commission, in coordination with the Water Quality Control Division, has authority to administer the state ground water, septic tank, and nonpoint-source pollution water quality programs. The state engineer's office, although granted the responsibility to issue ground water permits, has no jurisdiction in water quality issues except relating to the construction of wells, the insulation of pumps, and the approval of surface disposal of radioactive waste.<sup>68</sup>

Public drinking water supplies are also protected from contamination through the Safe Drinking Water Act and the National Interim Drinking Water Regulations. Together, these statutes and regulations control water quality degradation as it may affect drinking water. Included in the latter statute is a provision authorizing the respective states to initiate programs to control underground waste disposal practices which may adversely affect water quality.

In summary, when federal and state regulations regarding water quality are considered, including planning provisions, recent revisions in state water quality standards, the administration of a discharge permit system, water quality monitoring, and the Resource Conservation and Recovery Act, it appears that Colorado water law takes account of the negative externalities of water quality degradation on a very comprehensive level. However, it is apparent that many conflicts between water quality laws and programs, and water quantity interests and vested rights, may emerge in the future. A complete identification and description of the present laws and potential conflicts will be included in one of the later volumes of the water study.

One notable exception to the observation that water quality is accommodated in the current system is the effect of decreased water quantity on water quality degradation. Reduced stream flow not only reduces the capacity of the stream to assimilate discharged wastes, but also is responsible for increasing the salinity content of the stream. No laws presently recognize the link between reduced stream flow and the capacity of a stream to assimilate discharged wastes. The salinity issue is presently being addressed in the Colorado River basin as a result of the 1972 Environmental Protection Agency Enforcement Conference of the Pollution of Interstate Waters of the Colorado Basin, the International Agreement with Mexico (Minute 242), and Pub. L. 92-500, which has been interpreted to require numerical salinity standards on the river. As a result of these decisions,

the Colorado River basin states have agreed on numeric criteria for the river and a plan to achieve these criteria, and has established monitoring points along the river. Despite the authority granted by §208 of Pub. L. 92-500 to states to administer the salinity<sup>69</sup> control programs, little has been accomplished. Section 208 requires:

a process to (i) identify, if appropriate, salt water intrusion into rivers, lakes, and estuaries resulting from reduction of fresh water flow from any cause . . . and (ii) set forth procedures and methods to control such intrusion to the extent feasible where such procedures and methods are otherwise a part of the waste treatment management plan.

One limitation to salinity content which is foreseeable under existing law is the public policy:<sup>70</sup>

to protect, maintain, and improve the quality thereof for public water supplies, for protection and propagation of wildlife and aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses.

The question as to whether or not salinity will be defined as a water pollutant in other river basins in Colorado will probably depend upon whether or not damages can be determined and identified. Where and if they are, the legal precedent (i.e., the Colorado River) probably exists for the establishment of standards, but not necessarily for the administrative enforcement of those standards.

In recognition of the limited ability of downstream users to identify the source of increased salinity, the Environmental Defense Fund has filed suit against the Environmental Protection Agency protesting the lack of salinity control in the seven-state Colorado River Basin. Perhaps this litigation will resolve the problems raised by Colorado water law and the negative externalities related to water quality.

#### 7. Equity.

Another public interest value which Colorado water law recognizes is the priority of domestic uses in times of insufficient supply. Without this provision, the equitable distribution of water would not be recognized at all. The Colorado Constitution states:<sup>71</sup>

. . . when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose. . . .

John Carlson points out that:<sup>72</sup>

Case law indicates that the preference system is only a grant to preferred users of a right to exercise the power of eminent domain. What has been expressly decided is that the preference cannot be invoked to divest other rights without payment of compensation. No reported case involves a condemnation of a water right with payment of compensation tendered. Accordingly, the precise operation of the preference system is an unknown.

Despite virtual nonuse of the constitutional provision recognizing the social priority of domestic use, its inclusion in Colorado water law may someday limit inequitable distribution of water to uses other than domestic, where domestic supplies are insufficient to meet demand.

Other equity aspects of water rights distribution are ignored by the transfer system. For instance, a diversion of water for a public vegetable garden in an impoverished area would undoubtedly be regarded as a beneficial use. However, this use may be foreclosed by an earlier (senior) appropriation for a private, less equitable use (i.e., a private swimming pool) if unappropriated water is no longer available. Therefore, the relative equity between competing water demands is not a basis for the distribution of water under the Colorado doctrine. Furthermore,

. . . the amount of water that complaisant courts will recognize as being used "beneficially" is a function of, among other things, the amount of land that the user has to apply it to. So this doctrine, like the riparian, tends to distribute public water to those who already own private land in proportion to the size of the landholding.<sup>73</sup>

Therefore, valuable public resources are granted to landowners in proportion to the size of the landholding, making the equity of water allocation a substantial public interest concern.

In summary, except for the preference clause in the constitution, equity considerations are not part of the basis for allocation of water supplies under the Colorado water rights system.

### C. Conclusion.

Water is a quasi-public good used to produce both private and public benefits. A purely competitive system of market transfers ignores the presence of externalities and public interest values associated with a common property resource. The presence of externalities makes a mis-allocation of resources possible, away from uses whose values are understated in the market and toward uses whose values are overstated, through failure of the market to include all costs and capture all benefits. Therefore, the quasi-public nature of water renders a market price unrepresentative of public values. The Colorado water rights system has been adjusted to partially account for those public interest values which depend on instream uses of water. The final analysis of the extent to which instream uses are protected depends on the outcome of current litigation. Even if the constitutionality of S.B. 97 is upheld, there remain significant problems and limitations on the recognition and protection of instream uses and values.

Questions concerning public access to, and rights on, streams for fishing and boating purposes are unclear, pending further legislation and court proceedings. It cannot be said with certainty that under current law there is a public right to float or fish all the streams and rivers in Colorado.

The basin of origin for transbasin diversions may receive some protection from S.B. 97 and from the compensatory storage provisions in state law. However, both statutes have severe practical or legal limitations on their usefulness. Neither the public interest values related to irrigated agriculture, nor the public values in open space are well protected under the existing water rights system.

In contrast to the above problems, the historic quantity of water diverted and put to beneficial use by water appropriators is guaranteed and protected by the water rights system. New rights and transfers of existing rights are permitted subject to the provision that vested rights are not injured. As to water quality, state law, federal law, and recent cases all provide substantial protection against degradation in water quality. However, the recently decided Bessemer Ditch case<sup>73</sup> points up potential conflicts between the Colorado water rights system and federal law; state law on appropriation may require continued delivery of silty water, while federal law apparently requires the removal of silt before it is released to the stream. If Bessemer is read narrowly, Colorado waters are probably protected from the negative externalities of degradation in water quality, one notable exception being increases in pollutant concentrations from removal of high quality waters for transbasin purposes.

Finally, the Colorado water rights system recognizes various equity



questions involved with water transactions only through the preference clause in the constitution. All other equitable considerations are ignored.

In summary, Colorado has made some attempts to adjust the appropriation doctrine of water allocation in order to account for public interest values, which stem from external effects and from the nature of common property resources. The effectiveness of some of these adjustments depends on the outcome of current litigation involving public boating rights in streams and rivers, the minimum flow legislation, and on the interpretations and future developments which result from the Bessemer case. Even if the outcome of these events generally furthers recognition of public interest values, numerous deficiencies remain before it can be concluded that all public interest values are protected and accommodated by the Colorado water rights system.

IV. "PUBLIC INTEREST" VALUES AND THE COLORADO WATER RIGHTS SYSTEM

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72. Carlson, supra note 6, at 315.
73. See note 59, supra.

V. SURVEY OF THE PUBLIC INTEREST LAWS OF OTHER STATES.

A. Introduction.

An analysis of how Colorado water law might be changed to promote the public interest should naturally begin with a review of how other states have approached the question. Although not all states were surveyed, the following review of most of the states shows that:

--Colorado is behind many other states in the consideration of the public interest in water resource allocation.

--In the context of what has been done in other states, it is difficult to imagine that Colorado could take any significant step in recognition of the public interest which has not already been taken elsewhere.

--The extensive police power regulation of water in other states belies the notion that water rights are special property rights immune from such regulation.

The method of water appropriation employed in each state will be included in this survey, along with other significant public interest statutes and judicial decisions. In addition, the current definition of navigability, as related to the individual states' protection of both the public interest and the public trust, will be examined. A more detailed analysis of navigability will appear in chapter VIII of this report.

The review of other states has been divided into two major categories. The first category consists of arid western states which have water problems similar to those in Colorado, and which have an appropriation system, in some form, for allocating water. The second category consists of other states, which have had riparian systems in the past, but which are changing these systems to conform to a growing awareness of the public interest in water resources. If for no other reason, a review of the states from the latter group is valuable because it reveals the appreciable extent to which these states are overhauling their previous water law systems to account for the public interest.

As with the whole of the water study, this survey is mainly concerned with the surface waters of the various states. Because the authors of this study are not practitioners in the states reviewed, this study cannot, and could not, purport to be an exhaustive summary of these states' laws, nor could it reflect the subtle nuances of

such laws which are only evident to those intimately involved with such laws on a working basis.\*

B. Arid Western States.

1. California.

California is perhaps the leading example of a state that has taken many innovative steps to insure that the public interest is asserted in the administration of its water resources. It has formulated an exhaustive State Water Plan that surveys the available water supplies and water needs, sets goals for water projects, and recommends the optimum uses of the water. Applications for water are approved on the basis of the public interest, which includes consideration of the State Water Plan and, interestingly, consideration of the effect on water quality. Several court decisions exist which have clarified and upheld the power of the state to deny applications for water based on the public interest. California has adopted a State Wild and Scenic Rivers Act, a State Environmental Policy Act, and a Power Facility and Site Certification Act, and it has aggressively protected the public trust over navigable waters. A commission is currently reassessing California's water rights law in light of the need for water conservation and reuse and the need to protect recreational stream flows. Such a comprehensive review or revision has not been undertaken since 1913.

Calif. Const. art. X, §5, declares that the use of all water appropriated is a public use and "subject to the regulation and control of the State, in the manner prescribed by law." Calif. Const. art. X, §4, provides that public access or navigation of navigable waters in the state shall not be obstructed.

Calif. Const. art. X, §2 (formerly art. XIV, §3), contains especially strong language prohibiting unreasonable or wasteful methods of use of any type of water right:

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\*The authors gratefully acknowledge the input provided by the following resource material:

- National Water Commission, A Summary-Digest of State Water Laws, edited by Richard L. Dewsnap and Dallin W. Jensen, and distributed by the U.S. Government Printing Office (1973).
- WELUT Project 23, Identification, Description and Evaluation of Strategies for Reserving Flows for Fish and Wildlife, a report prepared for the U.S. Fish and Wildlife Service, Richard L. Dewsnap and Dallin W. Jensen (February 10, 1977).

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. . . . This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

This constitutional provision has been used as a potent vehicle for requiring the conservation of water. In the case of Environmental Defense Fund, Inc. v. East Bay Municipal Utility District, 52 Cal. App. 3d 838, 125 Cal. Rptr. 60 (1975), the superior court held that an action could be brought under this provision to force a municipality to recycle its water, since to do otherwise would constitute an unreasonable and wasteful use of its existing water rights.

However, the California Supreme Court reversed the lower court on appeal on the basis that the controversy should have been heard by the Water Resources Control Board in the first place. 20 Cal. 3d 327, 572 P.2d 1128, as modified by 20 Cal. 3d 652a, \_\_\_ P.2d \_\_\_ (1978).

California recognizes three types of rights: riparian, appropriation, and Pueblo (water rights which originated in Spanish and Mexican law and which give certain municipalities [e.g., San Diego and Los Angeles] paramount rights for municipal uses on certain rivers).

Between appropriators and riparians on the same watercourse, riparians have paramount rights to the extent that they are being beneficially used. Calif. Const. art. XIV, §3. The riparian right includes reasonable prospective use, although an appropriative use is allowed pending future riparian use. The right is a part and parcel of the riparian land and remains appurtenant unless lost by prescription or transfer.



Prior to the Water Commission Act of 1913, appropriative rights could be obtained by the diversion and use of water, and priority of use would relate back to the date of appropriation. The Water Commission Act of 1913 now requires an appropriator to apply for a permit before the State Water Resources Control Board.

The application for an appropriative right must contain specific data, which include the effect on fish and wildlife resources.<sup>1</sup>

For the board to issue a permit to appropriate, it must find, inter alia:

1. that there is unappropriated water available, including water available from lost rights and return flows;<sup>2</sup> and
2. that the use would "best conserve the public interest."<sup>3</sup>

The board may approve the application under such terms and conditions as in its judgment will best develop, consume, and utilize in the public interest the water sought to be appropriated.<sup>4</sup>

When comparing competing applications, the board is directed to act upon the policy that domestic use is the highest use and irrigation is the next highest use.<sup>5</sup> In determining the public interest, the board:<sup>6</sup>

[s]hall give consideration to any general or co-ordinated plan looking toward the control, protection, development, utilization, and conservation of the water resources of the State, including The California Water Plan, prepared and published by the Department of Water Resources or any predecessor thereof and any modification thereto as may be adopted by the department or as may be adopted by the Legislature by concurrent resolution or by law.

In acting upon applications to appropriate water, the board shall also:<sup>7</sup>

[c]onsider the relative benefit to be derived from (1) all beneficial uses of the water concerned including, but not limited to, use for domestic, irrigation, municipal, industrial, preservation and enhancement of fish and wildlife, recreational, mining and power purposes, and any uses specified to be protected in any relevant water quality control plan, and (2) the reuse or reclamation of the water sought to be appropriated, as proposed by the applicant.

and:<sup>8</sup>

[s]hall consider water quality control plans. . . .

The board may take into account the amount of water required for fish and wildlife. In this regard, the board notifies the Department of Fish and Game of new applications, and the department is to recommend the amount of water required for the preservation and enhancement of fish and wildlife resources.<sup>9</sup>

As noted above, the board must also consider the application in light of the California Water Plan and any water quality control plans. In 1957, the Department of Water Resources formulated the California Water Plan which was later adopted by the state legislature.<sup>10</sup> The plan, together with its periodic revisions, attempts to set a comprehensive master plan for the management of the state's water by the various state agencies. The plan<sup>11</sup>

- (1) evaluates the available water supply;
- (2) estimates the present and future requirements for water;
- (3) identifies watersheds with surplus water over and above the future needs for local development;
- (4) identifies existing and potential water problems in specified areas of the state;
- (5) describes the uses to which waters would be most beneficially put;
- (6) proposes projects for the development and distribution of water for the maximum benefit of the people; and
- (7) proposes objectives toward which future development of the water resources should be directed.

Water quality control plans do not become part of the California Water Plan until they have been reported to the legislature.<sup>12</sup> These plans have been formulated for each water basin by the Water Resources Control Board in conjunction with the applicable regional water quality control boards.<sup>13</sup> These basin plans are currently being integrated with the federal requirements for 208 planning.<sup>14</sup>

Recently, the Department of Water Resources has undertaken a Water Action Plan to update the water plan.<sup>15</sup> The Water Action Plan is re-evaluating water needs throughout the state in light of the current concerns for the protection of the environment and the need to preserve instream flows for wildlife, recreation, and aesthetics.

The action plan is also designed to reassess the need for and the advantages of more intensive water conservation, wastewater reclamation and reuse, and other management methods aimed at achieving optimum use of the resources. Another major part of the action plan is the study of 10 areas of the state which have critical water problems, such as those involving the maintenance of fish habitat, the allocation of water from federal projects, and the implementation of drainage control. Finally, the action plan is to more fully integrate and unify the water quality control efforts of the Water Resources Control Board with the water management and allocation activities of the Department of Natural Resources.

The foregoing plans, then, must be considered by the State Water Rights Board in approving permits for the appropriation of water. However, the plan is not binding upon the board. Johnson Rancho County Water District v. State Water Rights Board, 235 Cal. App. 2d 863, 45 Cal. Rptr. 589 (1965).

Several court decisions have addressed the question of when the board can deny or condition a permit for public interest reasons. For example, in East Bay Municipal Utility District v. Department of Public Works, 1 Cal. 2d 476, 35 P.2d 1027 (1934), the Supreme Court of California upheld the board's decision to subrogate a permit for power purposes to future appropriations of water for agricultural or municipal purposes. The court held that the legislature, and by its authority, the board, can prescribe reasonable conditions and priorities in such distribution of water as the interests of the public welfare dictate, although an application cannot be arbitrarily rejected.

In Johnson, supra, the court upheld the board's decision to award a permit to one water project and deny a permit to a competing water project on the basis of the public interest. The court held that the board did not violate its statutory duty by awarding a water right to a comprehensive water project even though it precluded construction of a project enumerated in the California Water Plan; the court held that the plan was meant to be merely a guide to, but not determinative of, the board's decision. The court stated that public interest is the primary statutory standard that guides the board in acting upon applications to appropriate water. In addition, the court held that the board need not make an express finding that the approved project would put the river to its most beneficial use, as that factor was not determinative in weighing the public interest; also important, according to the court, was consideration of financial capacity, engineering feasibility, and ability to complete the project.

In Bank of America National Trust & Savings Association v. State Water Resources Control Board, 42 Cal. App. 3d 198, 116 Cal. Rptr. 770 (1974), the California Appeals Court invalidated the board's attempt to condition a permit with the imposition of a right of public access

to a reservoir. The board has the power to so condition a permit when substantial evidence supports such an inclusion. As to this particular condition, the court could find no such evidence in the record made by the board in their consideration of the permit application. The court also noted that the board supposedly imposed the condition in order to offset diminished recreational values resulting from depletion of stream flow caused by the appropriation. Further, the board itself imposed other conditions which ensured a satisfactory flow in the stream for recreational use. This court decision also stands for the proposition that great weight is given to the Department of Fish and Game's recommendations concerning fish and wildlife and instream recreational needs.<sup>16</sup>

In another recent decision of the State Water Resources Board, the board conditioned a permit for the appropriation of water for a federal reclamation project.<sup>17</sup> The board determined that the U.S. Bureau of Reclamation had no definite plan as to when or how project water would be used or needed, and that the project would have an adverse effect on a river's use for recreation, white-water boating, and fishing. The board also decided that the application of the water for power purposes was not justified in view of the injury to the recreational use of the river. The board therefore decided to issue a permit providing certain minimum storage; but any enlargement of the storage right would be subject to a finding that a need for such storage is demonstrated.

However, the United States requested declaratory relief in the federal courts, and the federal district court voided the board's decision to the extent that it attempted to impose terms and conditions required by state law on the bureau's acquisition of water under federal law. United States v. California, 403 F. Supp. 874 (E.D. Cal. 1975). The court held that the board had jurisdiction only to determine whether unappropriated water existed. The Ninth Circuit Court of Appeals affirmed the decision. United States v. California, 550 F.2d 1239 (9th Cir. 1977). The case was appealed to the United States Supreme Court and certiorari was granted. The case was decided on July 3, 1978. The Supreme Court reversed the Court of Appeals and found that a state could impose any condition on the control, appropriation, use, or distribution of water in a federal reclamation project, provided that the conditions were not inconsistent with any congressional directives respecting the project (slip opinion, No. 77-285). Conditions that could be imposed included water diversion methods, various construction techniques, amounts of natural flow, preservation of flora and fauna, and preservation of all recreational opportunities (46 U.S.L.W. 3614).

California has adopted many acts and regulations to aid in the protection of the public interest. The California Environmental Policy Act requires state agencies to prepare an environmental impact report on any project they propose to carry out or approve which may

have a significant effect upon the environment.<sup>18</sup> California has also enacted a Power Facility and Site Certification Act to provide a coordinated program for the siting of proposed power plants and related facilities.<sup>19</sup>

California has adopted a State Wild and Scenic Rivers Act.<sup>20</sup> This act protects the natural flow of certain designated rivers, or sections of rivers, in order to preserve their scenic character and recreational value. The act designates three classes of rivers which are included in the system: (1) "wild rivers" that are essentially in their primitive condition and are only accessible by trail; (2) "scenic rivers" that are free from impoundments and are largely undeveloped, but are accessible by road; and (3) "recreational rivers" that are readily accessible by highway or rail and have undergone some development. No dam or reservoir may be constructed on any of the rivers designated as part of the wild and scenic rivers system. Also, no further diversions are allowed unless such diversion is necessary for domestic supply and the diversion will not adversely affect the natural free-flowing character of the river. This act is administered by the secretary of the resource agency, who is to prepare a management plan and submit it to the legislature for approval.

The State Water Plan and all projects constructed in connection with the plan must limit any exports from a basin to the water not reasonably necessary to supply the future beneficial needs of the originating basin, although it is possible to export water until such time as the area of origin needs it for its development.<sup>21</sup>

Channel changes must be approved by the Department of Fish and Game,<sup>22</sup> in order that fish and game resources are not impacted. No dredging may take place as part of a surface mining operation within the channel of a nonnavigable stream without obtaining the approval of the board of supervision of the county in which the dredging is to be done.<sup>23</sup>

The Supreme Court of California has ruled that any person who by artificial means prevents loss by means of evaporation, seepage, or percolation is entitled to the benefit of the waters thus saved from loss. Pomona Land & Water Co. v. San Antonio Water Co., 152 Cal. 618, 93 P. 881 (1908). No case is reported, however, which integrates this old principle with more recent detailed statutory provisions written since 1913 governing appropriation of water.

Navigable waters must also be considered with respect to public interest. Navigable waters are defined by the California legislature as ". . . waters and all streams of sufficient capacity to transport the products of the country . . . [and are] . . . public ways for the purposes of navigation and of such transportation."<sup>24</sup> The legislature has also designated specific waters as being navigable

waters of the state.<sup>25</sup> The California Supreme Court has held that the failure of the legislature to designate a body of water as navigable does not mean that it was not a navigable water of the state. Newcomb v. City of Newport Beach, 7 Cal. App. 2d 393, 60 P.2d 825 (1936). Further, the California Court of Appeals held that, notwithstanding the legislative definition of navigability, a river capable of use by pleasure boats is a navigable water. People v. Mack, 19 Cal. App. 3d 1040, 97 Cal. Rptr. 448 (1971). The court went on to state that the public trust in navigable waters extends not only to the use of such waters for navigation, but also for boating, swimming, fishing, hunting, and all recreational purposes.<sup>26</sup> In a significant case, Marks v. Whitney, 6 Cal.3d 251, 98 Cal. Rptr. 790, 419 P.2d 374 (1971), the California Supreme Court held that the public trust expands to meet contemporary needs and includes the power to protect ecosystems, open space, and scenic beauty. Therefore, the public trust in California is broader than boating, recreation, swimming, and fishing.<sup>27</sup>

The power of the state to regulate navigation and the accompanying public trust subjects navigable waters and their beds to a public navigation servitude which is paramount to any private rights which may have been established in such waters. Thus, the navigation servitude may be exercised without regard to the damage that might be inflicted on such private property interests. California has adopted the rule that such private interests are not entitled to compensation for such injury, even though the regulation had nothing to do with navigation so long as some public interest is served. Colberg, Inc. v. State of California, 67 Cal. 2d 408, 432 P.2d 3 (1967).

## 2. Oregon.\*

Oregon has adopted a form of water policy planning for future water use for each water basin in the state. It classifies beneficial uses for which water may be appropriated in each basin and prohibits appropriations for water for other purposes. It also has legislation permitting the state to withdraw unappropriated water from further appropriation while study of future water projects is completed, legislation establishing scenic waterways and minimum stream flows to support aquatic life and minimize pollution, and legislation expressly recognizing the appropriation of surface water for recharging ground water basins for storage for future use.

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\*The Colorado Department of Natural Resources recognizes the work of Chris Wheeler, deputy director of the Oregon Department of Water Resources, who aided in the revision of this section.

In 1909, Oregon rejected the doctrine of riparian rights and enacted legislation which implemented the appropriation doctrine as the exclusive method of acquiring water rights in the state. Prior vested rights were protected to the extent that they were put to beneficial use.<sup>28</sup> Appropriation rights must be initiated by the filing of an application with the water resources director.<sup>29</sup>

The water resources director may approve an application if the contemplated use puts water to a beneficial use and if it does not conflict with existing rights.<sup>30</sup> If, in the judgment of the water resources director, the proposed use "may prejudicially affect the public interest, or is to develop hydroelectric power in excess of 100 theoretical horsepower," he can refer the application to the Water Policy Review Board<sup>31</sup> for determination of whether the proposed use should be approved. In determining whether the proposed use would impair the public interest, the board is to have "due regard for":<sup>32</sup>

- (a) Conserving the highest use of the water for all purposes, including irrigation, domestic use, municipal water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire protection, mining, industrial purposes, irrigation, scenic attraction or any other beneficial use to which the water may be applied for which it may have a special value to the public.
- (b) The maximum economic development of the waters involved.
- (c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.
- (d) The amount of waters available for appropriation for beneficial use.
- (e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
- (f) All vested and inchoate rights to the waters of this state or to the use thereof, and the means necessary to protect such rights.
- (g) The state water resources policy.

With regard to the last consideration, the board is charged with developing a coordinated and multi-purpose water resource policy designed to secure the maximum beneficial use of water.<sup>33</sup> Subject to existing rights, the board may classify water sources according to

their highest and best use and quantities of use, and may also designate preferences for future uses. In prescribing such preferences, the board is to consider "the natural characteristics of such sources of water supply, the adjacent topography, the economy of the affected area, seasonal requirements of various users of such waters, the type of proposed use as between consumptive and non-consumptive uses and other pertinent data." Classification by the board has the effect of restricting the use and quantities of use of the unallocated water in accordance with the classification adopted.<sup>34</sup>

Oregon was divided into 18 drainage basins for convenience of administration about 70 years ago, and a program or policy statement has been issued for each basin.<sup>35</sup> The North Coast Basin Statement is typical of such a basin policy.<sup>36</sup> The statement makes general findings with respect to the demands for water in the basin, the current and anticipated water supplies in the basin, the suitability of such supplies for various uses, the likelihood that certain uses could be made of the water in light of hydrologic and economic factors, and the peculiar problem relating to water within the basin. The statement then classifies the subbasin water supplies according to the uses that would most beneficially utilize the water and limits the future application for water to those uses. In addition, the statement sets minimum perennial stream flows for aquatic life in most streams in the basin. For purposes of distribution, the minimum flows are treated like a water right with water kept in the specific stream segment on the basis of a date of priority as of the date of the board's order.

The policy statements which the board adopts are binding upon every state agency and public corporation in carrying out their duties.<sup>37</sup> No agency can take action which conflicts with the board's announced water policy without obtaining the approval of the board.<sup>38</sup>

When approving an application, the director may condition the permit with restrictions to its use, including the specification of minimum releases to protect the public interest.<sup>39</sup>

Applications for municipal water supplies may be approved to the exclusion of all subsequent applications, if the exigencies of the case so demand.<sup>40</sup>

The Water Policy Review Board may withdraw any unappropriated water from appropriation if it deems such action necessary to ensure compliance with the state water policy or that it is necessary in the public interest to conserve the water resources of the state for maximum beneficial use thereof.<sup>41</sup> The order of withdrawal shall specify the waters withdrawn, the uses for which the water are withdrawn, the reason for the withdrawal, and the duration of the withdrawal. The order may be revoked or modified at any time. Such order



is intended for the benefit of a project being investigated. It has also been used for creating minimum flows out of storage releases outside of authorized purposes.

The Oregon legislature has withdrawn certain lakes and streams, or sections thereof, from appropriation to preserve scenic, recreational, and fish values.<sup>42</sup> In addition, the legislature has enacted a Scenic Waterways Act which declares a policy of retaining the free flowing character of a stream for recreation, fish, and wildlife uses. The primary purpose of the act was to restrict the manner to which the adjacent land may be used and makes provision for acquiring land to protect the scenic character of the waterway.<sup>43</sup>

Oregon's development of a definition of navigability has been aided by the courts as well as by the state legislature. The Supreme Court of Oregon, in an early case,<sup>44</sup> had determined four classifications of navigability:

1. Technically navigable streams. Those in which the tide ebbs and flows. The state owns the streambed and all rights to use of the stream belong to the public.
2. Larger rivers susceptible to greater volumes of commerce. Here, the title to the bed of the stream remains in the state for the benefit of the public.
3. Navigable in fact streams. Those used for commerce, boating, fishing, etc. The public has an easement to use these streams. The title to the soil bed remains to adjacent owner subject to the superior rights of the public to use the water for purposes of transportation and trade.
4. Nonnavigable streams. Those streams with no existing public rights therein.

A current statutory definition states that navigability is a question of fact and that a stream is navigable in fact if it was susceptible to being used in its ordinary condition as a highway for commerce, trade, and travel in the customary mode of trade and travel on water on the date Oregon was admitted to the Union.<sup>45</sup> The Division of State Lands regulates the manner in which the beds of navigable streams and other streams may be changed, filled, or used.<sup>46</sup> The public trust in the navigable water of the state may include, as navigational uses, navigation for recreational purposes.<sup>47</sup>

Efficient use of water may be required and inefficient practices and programs discouraged.<sup>48</sup> In Oregon, as is true in other states, beneficial use is the basis, the measure, and the limit of all rights to the use of water. The Oregon Supreme Court has used this principle

numerous times extending back prior to the adoption of the Water Code in 1909 in decreeing that efficient use of water is one of the frameworks of Oregon water law.

A permit must be obtained from the Division of State Lands before any action is taken to remove material from natural streambeds or to fill any waters of the state.<sup>49</sup> Before approving a permit, it must be found that the proposed action would not unreasonably interfere with the use of the water for navigation, fishing, or public recreation. Fishing may be required in dams and other obstructions in natural waterways.

Oregon has adopted an act relating to the siting of major industrial facilities. An application for a facility must be approved by the Energy Facility Siting Council after other agencies have had a chance to make their recommendations and after the council makes a finding that the facility is in the best interest of the public health and welfare.<sup>50</sup>

Legislation expressly recognizes the appropriation of surface water for recharging ground water basins or reservoirs as a beneficial use.<sup>51</sup> The person or public agency who obtains a permit for such an appropriation can then obtain a permit for its subsequent withdrawal if it is determined that water is available as a result of the recharge.

### 3. Montana.

Montana has taken a number of creative steps to modify its water right administration in order to comply with recent amendments to the State Constitution requiring the preservation of both the environment and the state's natural resources. The environmental impact of large, new appropriations must be assessed before a permit can be granted for the appropriation. Any political subdivision of the state can apply for a reservation of unappropriated waters for future uses. Moratoria have been placed on new permits for water from one river system so that water can be reserved for future use and studies can be completed to assess the impacts of any further diversions. The moratoria placed on new beneficial water use permits apply to: (a) a reservoir with total planned capacity of 14,000 acre-feet or more, or (b) a flow rate greater than 20 cubic feet per second (cfs). Consequently, smaller appropriations are allowed in the river system.<sup>52</sup> Montana has also enacted uniform restrictive measures to prevent certain large changes of existing water rights from agricultural to industrial uses.<sup>53</sup>

The prior appropriation system was adopted early in Montana's history. Reflecting this fact, Mont. Const. art. IX, §3(3), states

that all waters within the state are "the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law." Mont. Const. art. IX, §3(4), also states that the "legislature shall provide for the administration, control, and regulation of water rights. . . ."

It should be noted that Mont. Const. art. IX, §1, imposes a duty on the state to "maintain and improve a clean and healthful environment in Montana for present and future generations" and to provide "adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources."

Until recently, water rights could be established in two ways. A statutory procedure existed by which an appropriation could be made by posting notice of the intent to appropriate, filing a certificate with the county clerk, and thereafter applying the water to a beneficial use. When an appropriation was being sought on a stream which had been the subject of an adjudication of water rights, the appropriator would have to petition the court for the right to appropriate and join all claimants on the stream in the suit.

Beginning in 1973, legislation now requires a prospective appropriator to apply for a permit from the Department of Natural Resources and Conservation.<sup>54</sup> The department is to issue a permit if it finds that:<sup>55</sup>

- (1) there are unappropriated waters in the source of supply;
- (2) the rights of a prior appropriator will not be adversely affected;
- (3) the proposed means of diversion or construction are adequate;
- (4) the proposed use of water is a beneficial use;
- (5) the proposed use will not interfere unreasonably with other planned uses or developments for which a permit has been issued or for which water has been reserved. . . .

An applicant for an appropriation of 15 cfs or more must prove by "clear and convincing evidence" that the rights of a prior appropriator will not be adversely affected.<sup>56</sup>

Significantly, a permit cannot be issued if it would unreasonably interfere with other planned uses or developments for which water has been reserved. Legislation authorizes the state or any political

subdivision (any county, city, town, public corporation, or district) or agency to apply to the department to reserve water for "existing or future beneficial uses" or to "maintain a minimum flow, level, or quality of water throughout the year or at such periods or for such length of time" as the department designates.<sup>57</sup> The department must find that the reservation is in the "public interest" and that no existing rights would be adversely affected.<sup>58</sup> If it grants the reservation, it must review the reservation every 10 years to ensure that the objectives of the reservation are being met.<sup>59</sup> A reservation is a conditional water right protected by law as is a permit to appropriate water, and the holder of the reservation has standing to object to any application on the basis that the reservation would be threatened.<sup>60</sup>

When the department considers a permit to appropriate or is asked to approve a change of use or place of use, a state environmental impact statement might have to be prepared by the department, for which the applicant is charged on a graduated basis.<sup>61</sup> The department is to determine if such a statement is needed under the Montana Environmental Policy Act<sup>62</sup> for applications or approvals that involve at least the use of 10,000 acre-feet of water per year or 15 cfs of water.<sup>63</sup> Consequently, although environmental protection is not specifically mentioned as a criteria for rejecting an application for an appropriation or transfer, the applicability of this act would seem to indicate that permits or approvals can be conditioned or denied according to environmental concerns. However, this has not yet been tested in a court of competent jurisdiction.<sup>64</sup>

Legislation prohibits the change of water of more than 15 cfs from an agricultural to an industrial use.<sup>65</sup> This represents a significant departure from prior law which recognized a person's right to change his use or place of use so long as no injury occurred to other appropriators;<sup>66</sup> in fact, the burden was even on the other appropriators to prove such injury.<sup>67</sup>

Further, the Department of Natural Resources and Conservation is also authorized to formulate a state water plan, a comprehensive, coordinated multiple-use water resources plan. The department is to inventory the water resources and adopt a plan for each "hydrologic division" of the state.<sup>68</sup> The plan is to propose the most effective means by which the water can be applied for the benefit of the people, with due consideration of alternative uses and combinations of uses. The plan must be submitted to the legislature for approval.

The legislature imposed a three-year moratorium on new applications for large appropriations from the Yellowstone River basin pursuant to its authority under art. IX of the State Constitution.<sup>69</sup> The purpose of such a moratorium was to determine the extent of existing rights and to permit reservations of water to be made for

future beneficial uses, especially municipal water supplies, irrigation systems, and minimum stream flows.<sup>70</sup> The act permits the department to suspend all pending applications should it find that necessary.<sup>71</sup> To date, about 30 applications have been made to reserve water for future beneficial uses in the Yellowstone basin.<sup>72</sup> Such applications include reservations for instream uses for fish and wildlife filed by the Montana Fish and Game Commission, reservations for water quality filed by the Department of Health, reservations for irrigation filed by several conservation districts, and reservations for municipal use filed by several cities. However, such reservations, if approved, would leave little or no water for pending applications for industrial uses of water, including coal development.<sup>73</sup>

If the Department of Natural Resources and Conservation believes that a person is wasting water, as measured by a means reasonably considered sufficient by the department, it can petition the district court to regulate the controlling works of an appropriator as may be necessary to prevent the wasting of water.<sup>74</sup> "Waste" is defined to mean the "unreasonable loss of water through the design or negligent operation of an appropriation or water distribution facility."<sup>75</sup>

Montana has, in addition, enacted a Major Facility Siting Act which requires the siting of major power and energy conversion facilities to be approved by the Board of Natural Resources and Conservation.<sup>76</sup> The board can approve the site only if the facility represents the minimum adverse environmental impact, when considering factors such as water resource impacts, adequacy of water supply, impacts on stream flow and quality, scenic and wildlife impacts, effects of changes on water use by others, and relationships to projected uses.

With respect to navigability, Montana statutes provide that the state is the owner of all land underlying the water of a navigable lake or stream and that the rights of the owner of the land adjacent to the navigable water takes to the edge of that water at the low-water mark.<sup>77</sup> One other statute provides that all waters and streams of sufficient capacity to transport the products of the country are public ways for the purpose of navigation.<sup>78</sup> Case law indicates that such public ways are public waters in which the people of the state have the general right to use, except as restrained by law.<sup>79</sup>

#### 4. Wyoming.

Wyoming is currently formulating plans to inventory the water resources of the state, to identify the prospective needs for water, to promote projects to develop water for such needs, and to enunciate goals and objectives for the most desirable uses of the water.

Wyoming is also conducting studies for a state scenic and recreational stream preservation system to protect the stream flows and other natural characteristics of certain streams. Such planning could conceivably help the state engineer in the determination of whether a new application for water is in the public interest. No application for a permit to appropriate water has yet been denied on the basis that it violates the public interest.<sup>80</sup> Wyoming is particularly noteworthy for its regulation of changes in uses or places of use of water rights. New statutes permit the state engineer to consider whether such transfers would result in a net economic gain to the community and whether better alternate sources are available. Wyoming also has a statute imposing a duty of water for irrigation, an industrial siting act requiring an assessment of water resource impacts, a statute providing a method for compulsory exchanges of water, and a statute regulating coal slurry pipelines.

In reference to the appropriation of water, the Wyoming Constitution declares that the water of all streams, springs, lakes, and other collections of still water is the property of the state,<sup>81</sup> and that priority of appropriation for beneficial uses shall give the better right.<sup>82</sup> Significantly, it also states that no "appropriation shall be denied except when such denial is demanded by the public interests."<sup>83</sup> (Emphasis added.)

Anyone seeking to acquire a new appropriation must first make application to the state engineer. Waters are distributed in accordance with adjudicated rights (those decreed in a statutory adjudication proceeding), although distribution can proceed on the basis of a permit until it is adjudicated. The application can be denied if there is no unappropriated water in the proposed source of supply, if the proposed use conflicts with existing rights, or if the proposed use threatens to prove detrimental to the public interest.<sup>84</sup> The same criteria govern the granting of a permit to appropriate underground water.<sup>85</sup>

To aid in the determination of the public interest in the issuance of water permits, the state engineer is required to formulate water and related land resources plans for the state and for appropriate regions and river basins. The plans shall:<sup>86</sup>

- (i) Identify, describe, and inventory the occurrence, amounts, availability and quality of water resources, current uses of water, activities that affect the quality of water, and activities that are dependent on, affected by, or relate to water and uses of water;
- (ii) Identify and describe prospective needs and demands for water and opportunities for water development, control, withdrawal, storage, supply, distribution, drainage, and disposal;

(iii) Identify and specify for each plan appropriate state, regional, and local goals and objectives for management of water resources, including the obtaining of economic efficiency and a desirable distribution of income, the protection of the health, safety, and welfare of the people, the protection and encouragement of particular industries and activities and the protection and enhancement of the environment; and

(iv) Evaluate and compare prospective and anticipated uses and projects, including combinations and coordinations thereof, uses of alternative sources of water and alternative uses of water, in terms of goals identified pursuant to subparagraph (iii) of this section.

Prior to recent statutory amendments, legislation provided that water rights for the direct use of the natural unstored flow of any stream could not be detached from the land, place, or purpose for which they were acquired.<sup>87</sup> This legislation reversed the ruling of a 1904 Wyoming Supreme Court decision which held that water rights were generally transferable.<sup>88</sup> However, the legislature recognized certain exceptions to its rule prohibiting changes. For example, changes could be made when the new use would be a preferred use as extensively defined by statute:<sup>89</sup> uses for domestic, transportation, steam power, and industrial purposes. A statute also allowed changes of rights<sup>90</sup> when the appurtenant lands were submerged by reservoir construction. Another statute permitted temporary transfers for highway or railroad bed construction.<sup>91</sup>

This legislation was recently amended to generally allow changes in use or place of use if the State Board of Control finds that other appropriators would not be injured. The board is also authorized to consider other pertinent facts which can include the following:<sup>92</sup>

- (i) The economic loss to the community and the state if the use from which the right is transferred is discontinued;
- (ii) The extent to which such economic loss will be offset by the new use;
- (iii) Whether other sources of water are available for the new use.

The occasions for which changes were previously permitted as of right are exempted from these change procedures. A new exception provides that water rights on lands taken out of agricultural production as a result of land acquisition for railroads, highways, energy, or indus-

trial sites or lands taken by eminent domain can be transferred as a matter of right to other lands owned by the original owner; the petition for such a change must occur within five years of the date the land went out of production.<sup>93</sup>

Legislation also expresses a state policy of encouraging exchanges.<sup>94</sup> In fact, an appropriator can petition the board for an order to force an exchange of his water for that of another source. Such a petition can be made when the source of the appropriation is insufficient to satisfy the appropriation, or when better conservation and utilization of the state's water can be accomplished, or when the appropriator can develop appropriable water but cannot economically convey it to its point of use.<sup>95</sup> Such exchanges may be allowed for any combination of direct flow, storage, and ground water rights, so long as the exchange will not prejudice other appropriators, not be too difficult to administer, or not be adverse to the public interest.

The use of any water outside of the state, or as a medium of transporting minerals or other products outside of the state, without the approval of the legislature, is prohibited.<sup>96</sup> Furthermore, no such use can be made in an adjoining state unless that state recognizes a reciprocal right to the use of its waters in Wyoming.<sup>97</sup> Pursuant to these provisions, the legislature has approved a plan to use 20,000 acre-feet annually in a coal slurry pipeline to Arkansas, subject to certain conditions which assure that the water is withdrawn entirely from a deep aquifer, that other appropriators are protected, and that the water table remains undisturbed.<sup>98</sup>

One Wyoming statute also imposes a duty of water for irrigation purposes of a maximum of 1 cfs per 70 acres of land irrigated.<sup>99</sup>

A Wyoming water development process exists for studying, planning, and promoting projects or facilities for the optimum development of the state's water resources in the public interest. The program is to encourage public irrigable facilities, abatement of floods, abatement of pollution, preservation of fish and wildlife, improvement of public lands, and the development of waters for all beneficial purposes. On the basis of the state water plan, a 14-member committee call the Interdepartmental Water Conference is to meet monthly to identify and select projects to be studied for their feasibility and desirability for inclusion in the Wyoming water development program. The conference will then make findings as to the feasibility of the various projects, and secure financing of such projects, either through private efforts or by legislation.<sup>100</sup>

The Interdepartmental Water Conference is composed of representatives of the various state agencies, the legislature, and the public. The conference is to determine methods and criteria for preserving the scenic and recreational quality of Wyoming rivers and streams.<sup>101</sup> The charge of the study committee was:<sup>102</sup>



1. To define the character, quality, recreational, scenic, historical, aesthetic, fish and wildlife potential, and other values to be considered in preserving streams for public use and benefit.
2. To plan a state scenic and recreational stream preservation system.
3. To evaluate the streams which meet the criteria of the preservation system.
4. To recommend to the legislature a stream preservation system for the state.

The study was completed but, as of yet, has not received the endorsement of the legislature.<sup>103</sup>

One other statute also permits water users to rotate their supply of water to bring about a more economical use of the available water, if the state engineer approves their plans and no injury occurs to either appropriator.<sup>104</sup> The statute provides that water users owning lands to which water rights are attached may rotate in the use of their collective supply, provided their use of their rights is in priority.

Legislation also expressly authorizes the developers of "by-product" water to put it to beneficial use upon application to the state engineer.<sup>105</sup> "By-product" water is defined as water developed as a by-product of a nonwater-related economic activity, such as water resulting from the operation of oil well separator systems or mining activities. The water is to be considered as part of the surface supply, subject to existing priority rights.

Wyoming has adopted a Development and Siting Act administered by the Industrial Siting Council.<sup>106</sup> The act requires the owners of large energy generating and conversion plants and other industrial facilities costing more than \$50,000,000 to secure a permit before commencing construction.<sup>107</sup> The council must find that the proposed facility is environmentally acceptable in such terms as the water supply and quality.<sup>108</sup> The council is specially authorized to consider scenic impacts, water resource impacts, recreational impacts, adequacy of water supply, impacts on stream flows and other waters, water quality, and effects of changes in quantity and quality on water use by others.<sup>109</sup>

The Wyoming Supreme Court has not announced a judicial test of navigability, though one case suggests that only those waters which would support endeavors of some economic value would be considered to be navigable.<sup>110</sup> Here, the navigability question does not determine

the instances in which Wyoming citizens may use the waters, even if navigability did determine the title to the land underlying such waters.<sup>111</sup> The court, in the same case, however, held that the public could use watercourses of the state for boating, fishing, and public recreation, irrespective of their navigability. The court based its opinion on the provision in the Wyoming Constitution that declared all waters of the state to be owned by the public.

#### 5. Idaho.

Idaho has several statutes of particular importance to this study. The state has a statutory duty of water for irrigation; it permits the governor to appropriate in trust certain unappropriated waters because of their scenic beauty and value; and it has incorporated public interest criteria for evaluating appropriations for large impoundments of water. Of special interest, however, is Idaho's attempt to complete an extensive water plan which was required by a 1964 amendment to the State Constitution. A tentative draft of the water plan has taken the remarkable step of trying to formulate recommended quantities of water for certain types of future uses and to predict the consequences of such an allocation. The current version of the water plan is oriented toward preserving water for agricultural use.

Certain constitutional provisions in Idaho must be considered when reviewing its regulation of water rights. Article XV, §3, provides that the right to divert and appropriate the unappropriated water of any natural stream shall never be denied, except that the state may regulate and limit the use thereof for power purposes. Article XV, §1, states that the "use of all waters now appropriated, or that may thereafter be appropriated . . . is hereby declared to be a public use, and subject to the regulation and control of the State in the manner prescribed by law." (Emphasis added.)

Idaho has now repudiated the riparian doctrine and has established a system of prior appropriation. Prior to 1971, an appropriation could be accomplished by simply diverting the water and putting it to a beneficial use; the priority of the right dated back to the time water was actually placed to a beneficial use. In 1971, legislation was enacted which made the statutory method, which previously had been only an alternative method, the exclusive means for acquiring new rights.

In order to initiate an appropriation under the statutory method, the water user is required to file an application to appropriate with the director of the Department of Water Resources.<sup>112</sup> The director can approve the application provided that:<sup>113</sup> (1) the proposed use will not reduce the quantity of water under existing water rights, or

(2) the water supply is not already insufficient in the area, or (3) the application is made in good faith and is not made for delay or speculative purposes, or (4) the applicant has sufficient financial resources to complete the project. Of special significance is the newly added amendment to the aforementioned standards which provides that the director must determine if there are any conflicts with local public interest. Any such conflicts are alone capable of causing an application for an appropriation to be denied.<sup>114</sup> Public interest here is defined as the affairs of the people in the area directly affected by the proposed use.<sup>115</sup>

If the proposed appropriation is for irrigation, the applicant is limited to no more than 1 cfs for each 50 acres of land, or no more than 5 acre-feet per acre of stored water per year, unless it can be shown to the satisfaction of the director that a greater amount is necessary.<sup>116</sup>

Applications for the impoundment of water in a reservoir with an active storage capacity in excess of 10,000 acre-feet must be referred to the Water Resource Board for its approval or disapproval, based on the following criteria:<sup>117</sup>

1. Conserving the highest use of the water for all purposes.
2. The maximum economic development of the waters involved.
3. The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.
4. That sufficient water is available for appropriation for beneficial uses.
5. The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
6. That all vested and inchoate rights to the waters of this state or to the use thereof have been protected by the issuance of a permit for the project by the director of the department.
7. The state water policy formulated under other laws of this state.

Two older Idaho Supreme Court decisions aid in the determination of the appropriator's rights and duties. An appropriator in Idaho is entitled to the additional water that is made available as a result of the appropriator saving water from loss by evaporation or seepage in the stream channel. Reno v. Richards, 32 Idaho 1, 178 P. 81 (1918). However, the appropriator bears the burden of proving that the water

he claims to have salvaged is not a source of supply for the rights of prior appropriators. Hill and Gauchay v. Green, 47 Idaho 157, 274 P. 110 (1928).

The issues in subsequent cases have involved public trust waters as well as definitions of navigability. Legislation has authorized the governor to appropriate in trust the unappropriated water of certain named water sources for the benefit of the public because of their scenic beauty, health, transportation, commercial and recreational values.<sup>118</sup> The Idaho Supreme Court has construed this legislation and concluded that the use of water for these purposes is a beneficial use and that such an appropriation can be made without an actual diversion. State v. Idaho Department of Water Administration, 96 Idaho 440, 530 P.2d 924 (1974).

In Southern Idaho Fish and Game Association v. Picabo Livestock, Inc., 96 Idaho 360, 528 P.2d 1295 (1974), the Idaho Supreme Court upheld a lower court's definition of navigability, which declared that a stream is navigable if in its natural state it will float logs or any other commercial or floatable commodity, or is capable of being navigated by oar or motor-propelled small craft for commercial or pleasure purposes. The 1976 legislature amended the statutory definition of navigability to substantially conform with the court's definition:<sup>119</sup>

Any stream which, in its natural state, during normal high water, will float cut timber having a diameter in excess of six (6) inches or any other commercial or floatable commodity or is capable of being navigated by oar or motor propelled small craft for pleasure or commercial purposes is navigable.

The Idaho Supreme Court also ruled that the public trust in the navigable waters of the state extends to the use of such waters for other public purposes, such as boating, swimming, hunting, and all recreational purposes. Southern Idaho Fish, supra. The Idaho legislature adopted this definition of the public trust in 1976:<sup>120</sup>

Navigable rivers, sloughs or streams within the meander lines or, when not meandered, between the flow lines of ordinary high water thereof, and all rivers, sloughs and streams flowing through any public lands of the state shall be open to public use as a public highway for travel and passage, up or downstream, for business or pleasure, and to exercise the incidents of navigation--boating, swimming, fishing, hunting and all recreational purposes.

Recently, the Idaho Department of Water Resources completed a draft of the State Water Plan to satisfy a 1964 constitutional amendment which directed that a state water plan be formulated.<sup>121</sup> The plan was recently adopted, as amended, by the Idaho legislature.<sup>122</sup>

The water plan quantifies and evaluates the available water supplies in the state, estimates current water needs, estimates instream flow requirements, projects future water needs, and recommends new legislation. Specifically, the plan

- forecasts and recommends the most desirable allocation of water to future uses, with the bulk of new water recommended for irrigation of new agricultural land;
- evaluates the effect on river flows of several alternative plans for development of the state's unappropriated water;
- recommends that minimum stream flows be reserved for fish and wildlife along the tributaries of the Snake River, but not along its main stem;
- recommends legislation that would allow the consideration of the public interest when acting upon applications for water;
- suggests that the state consider, as a matter of public interest, the impact of any proposed appropriation of water on the ability of the state to maintain its agricultural lands in production;
- formulates legislation for a state natural and recreational river system and earmarks specified rivers or river segments for inclusion in the river system;
- estimates the need for electrical energy and recommends reliance on thermal power because of the impact of future withdrawals of water on the production of hydroelectric power;
- recommends statutory amendments to combine the programs of water quantity and water quality;
- recommends land use legislation for the prevention of floods and for the preservation of greenbelts along certain rivers to provide public access and use of these rivers; and
- recommends the establishment of a water supply bank to acquire surplus water rights and facilitate the large-scale transfer of such rights or the interim leasing of such rights.

Interestingly, the Idaho legislature passed legislation to establish minimum stream flows within the state.<sup>123</sup>

#### 6. Utah.

Utah has a number of interesting features which permit the public interest to be asserted in water allocations. For example, Utah requires that the public welfare be considered in determining whether applications for water should be granted. A useful set of rules has been drafted that established criteria for determining the public welfare based upon impacts on environmental and recreational values, on future uses of the water, and on economic activity in the state. The governor may also suspend the right to appropriate water from specific sources in order to preserve water for future use. Finally, Utah has recently authorized the granting of permits for water for specific and limited periods of time in cases where the water is appropriated for industrial power, mining development, or manufacturing purposes.

The Utah Constitution states that all existing rights to the use of any water of the state for any useful or beneficial purpose are recognized and confirmed.<sup>124</sup> Legislation has subsequently declared all water in the state to be public property<sup>125</sup> and declared that the beneficial use of the water is a public use.<sup>126</sup>

All applications to appropriate water must be approved by the state engineer. To approve an application, the engineer must find, inter alia, that there is unappropriated water available, that it will not impair existing rights, and that it will not interfere with a more beneficial use of the water. The engineer must reject the application if he finds that the proposed appropriation "will interfere with its more beneficial use" or "will unreasonably affect public recreation or the natural stream environment," or "prove detrimental to the public welfare."<sup>127</sup>

Based upon these broad statutory directives, the state engineer has prepared a draft set of rules which provide that the state engineer will consider:<sup>128</sup>

- (1) The public interest aspects of the proposal contained in the application to appropriate, including positive and negative impacts on the economic, social, recreational and environmental values that would result from the proposed use;

(2) The benefits to the applicant that would result from the proposed appropriation and use of water;

(3) The benefits to the State, region, and locality that would result directly or indirectly from the economic activity that would result from the proposed appropriation and use of water;

(4) Alternative future uses of the water sought to be appropriated;

(5) Alternative sources of water to satisfy the applicant's needs; and

(6) Recommendations and data developed by the Utah Board of Water Resources as part of the state water planning process.

After considering, weighing, and balancing the various elements of the public interest as set forth above and the criteria contained in Utah Code Ann. §73-3-8, the state engineer shall approve the application if, in his judgment, it is in the general public interest.

In Tanner v. Bacon, 103 Utah 494, 136 P.2d 957 (1943), the Utah Supreme Court affirmed the approval of a subsequent application for a large multi-purpose project over a prior application filed for power purposes where the engineer concluded that it was in the best public interest to take such action.

Additional recent legislation has authorized the state engineer to approve applications for industrial, power, mining development, or manufacturing purposes for a specific and limited period of time. Such period must be for at least the time necessary to satisfy the essential and primary purpose of the application.<sup>129</sup> Provision is also made for a limited extension of the initial period for which the application was approved. Once the permit expires, the water reverts to the state.

The governor, upon recommendation by the state engineer, may suspend the right to appropriate water from specific sources in order to preserve the unappropriated water for future use when he concludes that such a moratorium would be for the general public welfare.<sup>130</sup> When the purpose of the moratorium is satisfied, the water may be restored by proclamation of the governor upon the recommendation of the state engineer. Applications filed following the restoration order are given priority according to the engineer's determination of what applications are most conducive to the public interest.<sup>131</sup>

The state engineer can initiate a statutory adjudication of all water rights on a stream. He can recommend a duty of water for irrigation, which, if adjudicated and then adopted by the court, can be imposed on users to require a higher degree of efficiency than their historical irrigation practices.<sup>132</sup>

Utah has a statutory procedure which allows a water user to turn his water into a natural watercourse or reservoir across the stream, and take a like quantity of water at some other point along the watercourse.<sup>133</sup>

Several Utah Supreme Court cases are most informative. One early Utah Supreme Court case stated that the party whose efforts result in the salvage of water is entitled to its use, and the user whose water is being lost has no preferential right to salvage it.<sup>134</sup> The court, in another early case, found that the burden is upon the person claiming he has saved water to prove it, and also to show that he has done so without impairing other water rights.<sup>135</sup>

The Utah Supreme Court has recognized the authority and responsibility of the state to regulate the navigable waters of the state.<sup>136</sup> This power of regulation was incidental to the state's sovereignty.<sup>137</sup> In a recent case, the court has followed the federal test of navigability for title purposes of the beds of navigable streams, but has not yet decided if the same test should apply in determining what waters are subject to the public trust.<sup>138</sup> Further, an opinion of the attorney general indicates that the navigational servitude might, in fact, apply in Utah.<sup>139</sup>

Another statute provides that before the approval of any application for the appropriation of water from navigable lakes or streams of the state which contemplates the recovery of salts and other minerals therefrom by precipitation or otherwise, the applicant is to file with the state engineer a copy of a contract for the payment of royalties to the State of Utah.<sup>140</sup>

Furthermore, modification or alteration of streambeds can be accomplished only by permit from the state engineer.<sup>141</sup> The engineer must determine whether the proposal would impair vested water rights, unreasonably affect recreation or the natural stream environment, or endanger aquatic wildlife. Projects for flood control, soil erosion, and water diversion are exempted from the operation of the act.

## 7. Alaska.

In 1966, Alaska adopted a water code which implemented a permit system for appropriating water. Permits are evaluated in light of the public interest, and the Alaskan water code serves as a very



useful model for showing what specific criteria can be considered in defining the public interest.

The Alaska Constitution specifically considers the public interest. Alaska Const. art. VIII, §1, states that the policy of the state is to develop its resources by making them available "for maximum use consistent with the public interest." Accordingly, Alaska Const. art. VIII, §2, gives the legislature the specific power to provide for the utilization, development, and conservation of the waters of the state "for the maximum benefit of its people." (Emphasis added.)

Alaska Const. art. VIII, §13, provides that

All surface and subsurface waters reserved to the people for common use, except mineral and medicinal waters, are subject to appropriation. Priority of appropriation shall give prior right. Except for public water supply, an appropriation of water shall be limited to stated purposes and subject to preferences among beneficial uses, concurrent or otherwise, as prescribed by law, and to the general reservation of fish and wildlife.

In determining whether to issue a permit, the Commissioner of the Department of Natural Resources is required, by statute, to consider many items, including whether the proposed appropriation is in the public interest. For example, he must find that:<sup>141a</sup>

- (1) rights of a prior appropriator will not be unduly affected;
  - (2) the proposed means of diversion or construction are adequate;
  - (3) the proposed use of water is beneficial; and
  - (4) the proposed appropriation is in the public interest.
- (b) In determining the public interest, the commissioner shall consider:
- (1) the benefit to the applicant resulting from the proposed appropriation;
  - (2) the effect of the economic activity resulting from the proposed appropriation;
  - (3) the effect on fish and game resources and on public recreational opportunities;

- (4) the effect on public health;
- (5) the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;
- (6) harm to other persons resulting from the proposed appropriation;
- (7) the intent and ability of the applicant to complete the appropriation; and
- (8) the effect upon access to navigable or public waters.

Applications of water for a public water supply have preference over competing applications from the same source of water, and then preference is given applications which alone or in combination with other foreseeable uses will constitute the most beneficial use.<sup>142</sup> Applicants for a public water supply may also condemn existing appropriations.<sup>143</sup>

The commissioner may issue a permit for less than the amount of water requested, but in no case can he issue a permit for more water than can be beneficially used. Further, the commissioner may issue a permit subject to such terms, conditions, restrictions, and limitations as he may consider necessary to protect the rights of others, as well as to protect the public interest.<sup>144</sup>

Beneficial use is defined to mean:<sup>145</sup>

A use of water for the benefit of the appropriator, other persons or the public, that is reasonable and consistent with the public interest, including, but not limited to, domestic, agricultural, irrigation, industrial, manufacturing, mining, power, public sanitation, fish and wildlife, and recreational uses.

This statutory definition of beneficial use assures a wide range of uses in the public interest that are not necessarily limited to purely economic endeavors.

A water right is appurtenant to the land or place where the water is beneficially used. Alaska Stat. §46.15.160. With the permission of the commissioner, the water right may be severed from the land and used for other purposes or on other lands.<sup>146</sup> However, the statutes do not provide any specific procedure for securing such approval.

Interestingly, the commissioner of the Department of Fish and Game is authorized to designate waters which are important to the

spawning or migration of fish. Before these waters are used, obstructed, or changed, the commissioner can require the submission of plans to protect the fish and game resources.<sup>147</sup>

In Alaska, navigable waters are defined, by statute, as:<sup>148</sup>

any water of the state forming a river, stream, lake, pond, slough, creek, bay, sound, estuary, inlet, strait, passage, canal, sea or ocean, or any other body of water or waterway within the territorial limits of the state or subject to its jurisdiction, that is navigable in fact for any useful public purpose, including but not limited to water suitable for commercial navigation, floating of logs, landing and takeoff of aircraft, and public boating, trapping, hunting waterfowl and aquatic animals, fishing or other public recreational purposes.

Constitutional provisions state that the public access and use of navigable waters of the state shall be protected, except that the legislature may by general law regulate and limit such access for other beneficial uses or public purposes.<sup>149</sup> In fact, legislation has been enacted to regulate and limit such access.<sup>150</sup>

Recently adjudicated cases have included consideration of the following issues: general navigability questions,<sup>151</sup> state versus federal navigable water rights,<sup>152</sup> access to navigable waters,<sup>153</sup> and judicial interpretation of Congress's Submerged Land Act, as well as the Outer Continental Shelf Lands Act.<sup>154</sup>

#### 8. Washington.

Washington has legislated broad goals and policies for future water resource management in the state, including the requirement that the public interest be considered at all stages of water planning and allocation. The state has also enacted a state environmental policy act. With these two pieces of legislation, environmental and other public interest factors are assured recognition in water allocations. A novel statute provides that any person may condemn an inferior use of water for a superior use when it is determined that the latter use would be for the greatest public benefit. Other statutes permit the state to reserve waters for future beneficial use, to establish minimum stream flows below which future appropriations cannot be made, to approve or reject the siting of thermal power plants on the basis of their impacts on water resources, and to preserve from harmful diversions a certain segment of the Columbia River as a fish sanctuary.

In 1917, Washington adopted the appropriation doctrine as the exclusive means of acquiring rights to unallocated waters; prior riparian rights were preserved.<sup>155</sup> Wash. Const. art. XXI, §1, merely provides that the use of the waters of the state for irrigation, mining, and manufacturing purposes shall be deemed a public use. Prior to 1917, the riparian doctrine was the controlling water law of the state.

Recent amendments to the water code have created a Department of Ecology which has responsibility for the allocation and distribution of water as well as for water quality control.<sup>156</sup> New legislation has also been enacted to ensure the public interest in preserving the environment in water resource decisions.

For example, the Water Resources Act of 1971 sets forth legislative guidelines for future water resource management:<sup>157</sup>

1. Beneficial uses are to include the traditional uses of water, together with "fish and wildlife maintenance and enhancement, recreational . . . and preservation of environmental and esthetic values."
2. Allocation of waters among potential uses and users is to be based generally on the securing of the maximum net benefits for the state. "Maximum net benefits shall constitute total benefits less costs including opportunities lost."
3. Base flows are to be retained for the preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values. Water quality is not to be reduced, except where it is clear that the public interest will be served.
4. Domestic water supplies are to be preserved and enhanced.
5. Multi-purpose impoundment structures are to be preferred.
6. Governmental and private entities are encouraged to carry out practices of conservation.
7. Water supply systems to provide water to the public generally are encouraged.
8. Surface and ground waters are to be jointly administered.
9. Expressions of public interest are to be brought at all stages of water planning and allocation decisions.
10. Water management programs for control of water quality and drainage are deemed to be in the public interest.

In addition to these legislative guidelines, the Washington Environmental Policy Act<sup>158</sup> declares that all agencies are to consider certain environmental factors in their decision-making and planning. Such factors include the recognition of the responsibilities of the state as trustee of the environment for future generations, the attainment of the widest usage of beneficial uses of the environment without degradation, the achievement of a balance between population and resource use, and the maximum attainment of the recycling of depletable resources.

These broad legislative directives play an important role in decisions concerning the allocation of water, as the subsequent discussion will indicate.

With respect to the initiation of new water rights, an application to appropriate must first be filed with the director of the Department of Ecology. In order to approve an application, the director must find that there is unappropriated water in the source and that the proposed use would not conflict with existing rights or prove detrimental to the public interest.<sup>159</sup>

The Washington Supreme Court has addressed the scope of the powers of the director to deny an application which proves detrimental to the public interest.<sup>160</sup> An application to appropriate water from a lake was challenged by a group of cabin owners who claimed that the domestic use of the water would pollute the lake. The court held that the provisions of both the Water Resource Act and the Washington Environmental Policy Act applied to the director's decision-making on water use applications, so that he was obligated not only to consider the traditional criteria governing applications, but also relevant environmental criteria established by these two acts, including prevention of pollution.

In addition, the Department of Ecology may reserve and set aside waters for future beneficial uses or withdraw water from appropriation while data are developed for sound decision-making.<sup>161</sup> Subject to existing rights, the department may also establish minimum stream flows and lake levels for protecting wildlife, recreational, or aesthetic values whenever such protection is in the public interest, and for preserving the water quality of streams.<sup>162</sup>

The legislature has established the Columbia River Fish Sanctuary to preserve sufficient water in a certain segment of the river and its tributaries to maintain the game fish resources of the water.<sup>163</sup> Further, dams or diversions are prohibited which would reduce the stream flow below the annual average flow of the river. The Department of Fisheries and the Department of Game can condemn any existing water right which conflicts with the preservation of the sanctuary.<sup>164</sup>

A statute provides that any person may condemn an inferior use of water for a superior use.<sup>165</sup> The statute does not designate the relative importance of different uses, but provides that a court is to determine the superior use by determining which use will be for the greatest public benefit. However, a right cannot be condemned for irrigation purposes when it will deprive the owner of the water necessary to irrigate land that he has already put into production.

Interestingly, water may be appropriated for use in another state, so long as that state has a reciprocal arrangement for the use of its water in Washington.<sup>166</sup>

One example of the increased importance of the public interest can be observed in Washington's adoption of an act relating to the siting of thermal power plants so as to produce minimum adverse effects on, inter alia, the state water resources.<sup>167</sup> A council of members of various state agencies must determine if the proposal is consistent with county and regional land use plans as well as existing state policy and statutes. The council's recommendation is then approved or rejected by the governor in deciding on the application for the plant.

The Supreme Court of Washington has determined that navigable waters include such waters as are navigable for commercial purposes.<sup>168</sup> The determination of navigability is usually a question of fact in the courts.<sup>169</sup> Later cases have determined that the public trust extends to fishing, boating, swimming, and general recreation.<sup>170</sup> As stated, "the public has the right to go where navigable waters go, even if the navigable waters lie over private lands."<sup>171</sup>

#### 9. New Mexico.

The appropriation doctrine has existed in New Mexico since before the state was admitted into the Union. New Mexico Const. art. XVI, §2, states that all waters of the state are subject to appropriation for beneficial use "in accordance with the laws of the State, and that priority of appropriation shall give the better right."

Since 1907, an appropriation can only be initiated by filing an application with the state engineer.<sup>172</sup> The state engineer may reject an application if there is no unappropriated water available or if, in his opinion, the approval would be contrary to the public interest.<sup>173</sup>

In the case of Young and Norton v. Hinderlider, 15 N.M. 666, 110 P. 1045 (1910), the question of when an application could be denied on the basis of the public interest was addressed. Hinderlider made an application for water to irrigate 14,000 acres, including 5,000 acres owned by Young and Norton. Subsequently, Young and

Norton filed an application to irrigate their own land. The New Mexico Supreme Court upheld the power of the engineer to reject the Hinderlider application on the basis that it would be contrary to the public interest because it requested more water than was available and would therefore result in an over-capacity irrigation system. The court refused to limit the power of the engineer to rejecting only those applications which actually pose a "menace to public health and safety." The court also held that the engineer can give consideration to the relative economic costs of the competing applications.

Three important statutes aid in the understanding of the appropriation process in New Mexico. One statute provides that water may be delivered into any ditch, stream, or watercourse to supply appropriators therefrom and, in exchange, an equivalent quantity of water may be taken either above or below the point of delivery. This right of exchange is subject to the condition that other rights are not injured.<sup>174</sup> The second statute provides that if private parties initiate a statutory procedure for adjudicating all of the rights on a stream, then the attorney general may intervene on behalf of the state, if he is notified by the state engineer that the public interest requires such intervention.<sup>175</sup> Thirdly, the state engineer may require additional information to be submitted to justify an application seeking more than 500 cfs or for the construction of any dam in excess of 30 feet in height.<sup>176</sup>

The Supreme Court of New Mexico has found that the waters in New Mexico, irrespective of their navigability, may extend to all public uses, such as fishing and other recreation, and not just to navigational uses.<sup>177</sup> The court reasoned that the public waters of the state, by legislative and constitutional authority, have been dedicated to use by the public.<sup>178</sup>

A later New Mexico Court of Appeals ruling stated that the proper criterion to determine the navigability of waters was their capability or susceptibility for use by the public as a highway for trade and travel.<sup>179</sup> The court added that the type of craft used to accompany the trade and travel over the water is of no particular significance.<sup>180</sup>

#### 10. Nevada.

Nevada has no constitutional provisions relating to water, except that Nev. Const. art. 8, §8, prohibits the state from restricting the power of municipalities in procuring water supplies.

Nevada statutes<sup>181</sup> provide that all sources of water belong to the public and, subject to existing rights, are available for

appropriation to a beneficial use. The use of water for any recreational purpose is one legislative definition of a beneficial use.<sup>182</sup> The exclusive procedure for currently initiating an appropriation is by filing an application with the state engineer.<sup>183</sup> The state engineer will approve the application if there is unappropriated water available, if the use does not impair the value of existing rights, and if the proposed use will not be detrimental to the public interest.<sup>184</sup> Changes in the point of diversion, place of use, or purpose of use are subject to similar statutory criteria.<sup>185</sup>

For example, Carson City had a serious water shortage, and the city made an application to appropriate water from a nearby valley which is essentially irrigated farm land. The permit was denied because, among other things, it was adverse to the public interest, as it would involve a tremendous expenditure of funds to pipe in the water; and in the event of interference with existing water rights, the appropriation would have to be curtailed, thereby potentially rendering useless the investment in wells, pipelines, and pumps.<sup>186</sup>

In Tonkin v. Winzell, 27 Nev. 88, 73 P. 593 (1903), the Supreme Court of Nevada held that an appropriator is entitled to the water he saves by using more efficient diversions and is entitled to the water he develops by his own enterprise. However, no matter how much water is saved, an appropriator may not exceed the established duty upon the land, nor increase the established place of use, nor exceed any other terms of the permit to appropriate.<sup>187</sup>

While there is no statutory definition of navigable waters, the legislature has declared that specific rivers or segments of rivers are navigable, and that the state holds title to the banks and beds thereof below the high-water mark.<sup>188</sup> However, the Nevada Supreme Court has ruled that the statutory determination of navigability is not conclusive, and it declared a lake nonnavigable in spite of the legislature's declaration to the contrary.<sup>189</sup> It appears that the Nevada courts would interpret the public trust to permit recreational uses and would broadly define navigability, even to include past use of a stream for logging purposes, as evidence of navigability.<sup>190</sup>

## 11. Arizona.

Arizona Const. art. XVII, §§1 and 2, rejects riparian rights and recognizes the use of public waters for beneficial purposes. All waters flowing in natural channels and springs or underground channels belong to the public and are subject to appropriation.<sup>191</sup> Percolating ground water is excluded from public ownership and is not subject to appropriation, but it is subject to the rule of reasonable use in relation to the rights of other property owners using the same water supply.<sup>192</sup>



Prior to 1919, water was acquired by appropriation to a beneficial use. In 1919, the state water code was enacted, which required the filing of an application to appropriate with the State Land Department in order to obtain a right. This method is now exclusive but subject to judicial review.<sup>193</sup>

Many Arizona statutes govern the standards for appropriation to a beneficial use. A survey of several of the statutes follows.

An application for appropriation to a beneficial use can be approved except when it conflicts with vested rights, is a menace to public safety, or is against the interest and welfare of the public.<sup>194</sup>

When there are two or more conflicting applications for the use of the same available water, the department must give preference to the application according to the relative values to the public, as defined by statute in the following order: (a) domestic and municipal uses, which include gardens not exceeding one-half acre to each family; (b) irrigation and stockwatering; (c) power and mining uses; and (d) recreation and wildlife, including fish.<sup>195</sup>

Applications for municipal use must be approved to the exclusion of others if it is determined that the estimated future needs of the municipality justify it.<sup>196</sup>

By authority of these laws, a prior application, although not detrimental to the public welfare, may be rejected in deference to a subsequent application which makes a greater contribution to the public welfare.<sup>197</sup> However, no specific definition of "public welfare" is given.

Applications for water for generating electric energy in excess of 25,000 horsepower must be authorized by the legislature.<sup>198</sup>

The state land commissioner may require additional information from applicants seeking to appropriate more than 10 cfs of water. The applicant may be required to furnish such information to demonstrate that he has the financial capacity to complete the appropriation and to show his large appropriation will not harm other rights.<sup>199</sup>

In McClellan v. Jantzen, 26 Ariz. App. 223, 547 P.2d 494 (1976), a decision considering the general issue of appropriation, the Arizona Court of Appeals held that the legislative recognition of appropriation for fish and wildlife purposes removed the diversion requirement and allowed for the in situ appropriation of water.

One important statute considered water rights, stating that the transfer of water rights is permitted if other vested rights are not affected or interfered with.<sup>200</sup> The statute then provided that a

water right in a watershed or drainage area which supplies or contributes water for the irrigation of lands within an irrigation district, agricultural improvement district, or water users' association cannot be transferred to another without the approval of the governing body of such entity.<sup>201</sup>

Obstructing a navigable stream is deemed a public nuisance,<sup>202</sup> but there is no legislative definition of navigability. On the question of the boundary between the state and riparian owners on navigable waters, see State v. Borrelli Cattle Co., 107 Ariz. 465, 489 P.2d 699 (1971); 108 Ariz. 258, 495 P.2d 1310 (1972), reversed and remanded, 414 U.S. 313, 94 Sup. Ct. 517, 38 L. Ed. 2d 526 (1973). One other decision of the Arizona Court of Appeals stated that a navigable stream is dedicated to the public for both its use and enjoyment.<sup>203</sup>

## 12. Nebraska.

Nebraska has adopted an appropriation system for the allocation of its water resources.<sup>204</sup> Nebraska Const. art. XV, §6, however, declares that the "right to divert the unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest." (Emphasis added.)

The right to appropriate water can be obtained by applying for a permit before the Department of Natural Resources.<sup>205</sup> If unappropriated water exists, the department may approve the application if it would not be detrimental to the public welfare.<sup>206</sup>

A Nebraska statute<sup>207</sup> limits the maximum allowable "duty of water" for irrigation purposes to no more than 1 cfs for each 70 acres of land and no more than 3 cfs/year/acre of land. These restrictions do not apply to storage waters or to very minor appropriations.

Nebraska Const. art. XV, §7, prohibits the alienation of water rights granted for power purposes.

Except for waters from large rivers, no water may be taken out of its basin of origin.<sup>208</sup>

The legislature has recently enacted the Nebraska Water Conservation Act in an attempt to promote both water conservation and more efficient water utilization.<sup>209</sup> The act is intended to produce long-term benefits in the public interest.<sup>210</sup>

### 13. South Dakota.

South Dakota is unique among the states because it requires legislative approval of applications for certain large appropriations of water. The state also permits the rejection of applications for water on the basis of the public interest and permits the state to reserve any unappropriated water pending investigation into its most complete utilization. Legislation also specifies a duty of water for irrigation purposes.

No relevant constitutional provision exists in South Dakota concerning water allocation. Legislation to implement an appropriation system was enacted in 1955, although riparian rights in actual use were preserved.

The State Water Resources Commission is the agency charged with granting permits to divert unappropriated water. The commission may reject an application if there is no unappropriated water available or if its approval would be contrary to the public interest.<sup>211</sup>

Many statutory provisions control the many powers of the commission. Some provisions follow below. Irrigation rights cannot be transferred apart from the land to which they are appurtenant.<sup>212</sup> However, the commission may approve a change in the place of use if at any time it becomes impractical to use all or part of the water economically for irrigation of the land to which the rights were originally appurtenant.

The commission is authorized to withdraw certain unappropriated waters of the streams from appropriation, pending an investigation related to their most complete utilization.<sup>213</sup>

All applications for more than 100,000 acre-feet/year must be submitted to the legislature for approval.<sup>214</sup> Applicants for permits to divert more than 500 cfs or to construct a dam of more than 30 feet in height may be required to supply more detailed information concerning the proposed project.<sup>215</sup>

Legislation specifies the duty of water for irrigation purposes to be not in excess of the rate of 1 cfs for each 70 acres and not to exceed .3 acre-feet per acre for a specified time each year.<sup>216</sup>

While much of the South Dakota law of navigability has evolved from judicial decisions, a portion has developed from statutes.<sup>217</sup> The South Dakota Supreme Court has held that the beds of navigable streams and waterways are placed in trust for the public by the state, and therefore all navigable waters are considered to be public waterways for the use and enjoyment of the public for navigation, boating, fishing, and other public purposes.<sup>218</sup> A later South Dakota Supreme

Court case held that a waterway is navigable if it is suitable and adapted to a public use.<sup>219</sup> The determination of navigability depends upon the natural availability of waters for public purposes, taking into account the natural character and surroundings of the lake or stream.<sup>220</sup>

#### 14. North Dakota.

The only constitutional provision in North Dakota concerning water is art. XVII, §210, which provides that all flowing streams shall forever remain the property of the state for mining, irrigating, and manufacturing purposes.

The riparian doctrine was initially applicable in North Dakota until a 1905 act declared that the appropriation doctrine was to be used. The act stated that all "waters within the limits of the state . . . belong to the public and are subject to appropriation for beneficial use."<sup>221</sup> The abolition of unused riparian rights has been upheld by the North Dakota Supreme Court.<sup>222</sup>

Appropriation rights are acquired by obtaining a permit from the state engineer, subject to the review of the Water Conservation Commission. The state engineer must reject an application if there is no unappropriated water, and he may refuse an application if, in his opinion, its approval would be contrary to the public interest.<sup>223</sup> However, in determining the public interest, the state engineer is limited to "those considerations within his jurisdiction."<sup>224</sup> It is unclear what restrictions this places on the state engineer for denying an application contrary to the public interest. The North Dakota Supreme Court has held that the engineer should at least consider whether an application should be denied because competing applications for the same water would otherwise be inequitably deprived of any use of water.<sup>225</sup>

In North Dakota, the Water Conservation Commission has the power to construct, maintain, and regulate dams and other watersheds, both public and private, in order to control the low water flow as well as the flood flow of streams, the power to improve stream channels, the power to develop water supplies for beneficial uses and for recreation and wildlife, and the power to provide sufficient water flow in streams to aid pollution abatement.<sup>226</sup> The commission is declared to have full control over the unappropriated waters of the state.<sup>227</sup> The commission is not required to initiate a right to use water by filing an application but need only file a declaration in writing with the engineer describing the water claimed.<sup>228</sup>

In reference to potential appropriation conflicts of water rights, a statutory adjudication proceeding involving all users on a stream may be initiated to resolve the conflicting claims. If such

proceedings are initiated by a private party, the attorney general may intervene on behalf of the state.<sup>229</sup>

Furthermore, the Little Missouri State Scenic River Act<sup>230</sup> preserves the Little Missouri River in its natural condition without impoundment, diversion, straightening, or other modification. With some exceptions, the act prohibits new diversions from the river.<sup>231</sup> It is administered by a commission composed of state and local officials.<sup>232</sup>

The legislature has defined a "navigable lake" to include any lake which has been meandered by the federal government in a public land survey.<sup>233</sup> However, the North Dakota Supreme Court has ruled that navigability is a question of fact to be determined in each case and that the legislative declaration will not be controlling.<sup>234</sup>

#### 15. Kansas.

In Kansas, as of 1945, all unallocated water was subject to being appropriated, though prior riparian rights were preserved and protected. Prior to making an appropriation, the user must obtain a permit from the chief engineer. The permit will be approved if the proposed use will not impair a use under an existing water right "nor prejudicially and unreasonably affect the public interest."<sup>235</sup> In asserting whether a proposed use will prejudice the public interest, the chief engineer can take into consideration "the area, safe yield and recharge rate of the appropriate water supply, the amount of each such claim to use water from the appropriate water supply, and all other matters pertaining to such question."<sup>236</sup>

The Kansas Supreme Court, in an early case, found that for any water to be considered to be navigable, it must be susceptible to commercial uses, or it must possess the capacity for valuable floatage. The waters must also be of practical usefulness to the public as a public highway without the aid of any artificial means.<sup>237</sup>

#### C. Other States.

##### 1. Florida.

Florida bears witness to the extent to which a state may exercise its police powers to overhaul its water law in order to maximize the use of the water resources of the state. Florida enacted comprehensive legislation which revolutionized its water law by establishing a permit system for determining water rights in lieu of its previous riparian right system. This legislation requires a state water plan

which will eventually specify what particular uses of water will be permitted in the various watersheds of the state. The plan will therefore be a form of water right zoning. Emergency plans are also to be formulated for times of extended water shortage so that all water permits can be restructured in such a manner that the available water supply will be most beneficially used.

By the enactment of the Florida Water Resources Act of 1972,<sup>238</sup> Florida changed from a riparian right system to a permit system in the allocation of its water resources. Permits are required for consumptive use, wells, storage and impoundment, pollution discharges, and aquifer discharges. The act places virtually all water under the jurisdiction of the state.<sup>239</sup>

The Department of Natural Resources is given the authority to administer the act at the state level. Five water management districts are also created throughout the state, whose boundaries follow as nearly as practicable the natural river basin boundaries. One of the major functions of the water management districts and their governing boards is that of reviewing and acting on applications for permits. However, the Department of Natural Resources is authorized to exercise any of the powers granted to the water management districts and may rescind, modify, or approve any regulation or order of the water management districts.<sup>240</sup>

The Department of Natural Resources is authorized to develop a state water use plan that would be designed, inter alia, to obtain the "maximum reasonable and beneficial use of water."<sup>241</sup> As part of the plan, the department is to divide areas in the water management districts into hydrologically controllable areas for the purpose of describing all water resources within the area, and for the purpose of establishing minimum flows and levels for streams, lakes, and aquifers to prevent harm to the water resources or ecology of the area and to protect nonconsumptive uses of such waters. The department is also to establish a system of priorities or preferences in types of use for certain areas designated by the department, which would protect recreation and fish and wildlife uses, which would prohibit or regulate objectionable uses with respect to a certain source of supply of water, and which would promote uses that would result in the enhancement of the water resources. This state water use plan, in conjunction with the state's water quality standards and water quality management plan, will constitute the Florida Water Plan.

After a permit system has been implemented in an area by the water management districts and/or the Department of Natural Resources, the act states that "no person shall make any withdrawal, diversion, impoundment, or consumptive use of water" without obtaining a permit, although an exception is made for domestic consumption by individual users.<sup>242</sup> All existing users must apply for a permit within two years

following implementation of the permit system, or their uses will be conclusively presumed abandoned.<sup>243</sup>

A permit will be issued for existing uses if the use is "reasonable-beneficial" and allowable under the common law of the state.<sup>244</sup> A "reasonable-beneficial" use is defined as "the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the "public interest."<sup>245</sup> It would appear therefore that an existing riparian user could face loss of his pre-existing rights if his use did not amount to a reasonable beneficial use, or is not renewed at the end of the duration of the permit, or is subjected to requirements for minimum stream flow.

As to proposed uses, a permit can be approved only if: (1) it is a reasonable beneficial use, (2) it will not interfere with present existing legal uses, and (3) it is consistent with the public interest.<sup>246</sup> Of particular significance, especially for a former riparian right jurisdiction, is the express authorization that a permit may be issued to use water beyond the overlying land or outside its natural watershed if such use is consistent with the "public interest."<sup>247</sup> In approving or issuing a permit, the department or governing board is to be guided by the State Water Plan. It is also authorized to reserve water in such location, quantities, and seasons as may be required for protection of fish, wildlife, and public health and safety, though all existing legal uses are to be protected so long as such uses are not contrary to the public interest.<sup>248</sup> Permits may be issued for any period of time not to exceed 20 years.<sup>249</sup> Renewal applications are processed in the same manner as initial permit applications.

When two or more applications are made for the same water, the department or board has the right to approve or modify the application which "best serves the public interest."<sup>250</sup> If the competing applications serve the public interest equally, preference is given to renewal applications over initial applications.

Permits can be restricted during emergencies which result from water shortages when there is insufficient water to satisfy permit requirements or when a reduction in use is necessary in order to protect water resources from serious harm.<sup>251</sup> The permits are restricted according to a predesigned plan that sets priorities and methods of use on the basis of the source, method of diversion, and nature of use.

Florida has also recently enacted expansive environmental control legislation.<sup>252</sup> Entitled as the "Florida Air and Water Pollution Control Act," this major act is an exercise of Florida's broad police powers to protect the public interest from harm due to air and water pollution.<sup>253</sup> The power and duty to control and prohibit pollution of the air and water is vested in the Department of Environmental Regulation.<sup>254</sup>

The department has a diverse array of judicial as well as administrative remedies to effectuate its statutory charge. Perhaps the strongest remedy is a civil action to impose monetary penalties<sup>255</sup> for each violation in an amount not greater than \$10,000 per offense. Each day during which such violation occurs is considered a separate offense.<sup>256</sup> The department has additional administrative and injunctive remedies as well.<sup>257</sup>

One very controversial section of the act provides for a mechanism for unannounced inspections of sites where the source of air or water contaminants are found.<sup>258</sup> Fourth Amendment questions in reference to the constitutionality of such inspections have thus far been upheld in the Florida courts.<sup>259</sup>

The act, in addition, contains extremely broad definitions and provisions for pollution enforcement.<sup>260</sup> Violation of the act occurs when pollution injures human health or welfare, animal, plant, or aquatic life, or property.<sup>261</sup> Any violation is a first degree misdemeanor that is punishable by either fine, jail term, or both. The intent of the Florida legislature in imposing such civil penalties and criminal fines is to ensure immediate and continued compliance with the provisions of the act.<sup>262</sup>

Other sections of the act include provisions on electrical power plant siting, interstate environmental control, resource recovery and management, drinking water, as well as mechanisms to aid the department in carrying out its environmental regulation responsibilities.<sup>263</sup>

Another chapter of the Florida statutes pertains to the Florida Land Acquisition Trust Fund.<sup>264</sup> Monies from the sale of certain state lands are placed in the State Internal Improvement Trust Fund.<sup>265</sup> Power to administer the fund is granted to the fund's board of trustees.<sup>266</sup> Title to all Florida's tidal and submerged bottom lands of navigable freshwater lakes, rivers, and streams is vested in the board.<sup>267</sup> The board may sell, convey, or lease such submerged lands if such action is determined to be in the public interest.<sup>268</sup> The board, in making such a determination, will consider the lawful rights of riparian owners, the proposed sale's effect on navigability, as well as any possible interference the action would have with existing or future conservation efforts.<sup>269</sup>



The control and management of navigable, meandered freshwater lakes is covered in another section of the trust fund act.<sup>270</sup> Here, the sovereign and riparian boundary lines of these lakes are to be ascertained as of the date that the lake first came under the jurisdiction of the state.<sup>271</sup> The legislature apparently assumes that nonmeandered lakes are not to be regarded as navigable.<sup>272</sup> If such lakes were intended to be classified as nonnavigable by the legislature, then the public has no right to their use.

A recent decision of the Florida Supreme Court considered certain sections of the trust fund act.<sup>273</sup> Also considered in the case were questions of the state's power to enact public interest related water policy legislation, as well as the current status of the state's definition of navigability. The court recognized Florida's inherent police power to enact such legislation as might be necessary to protect the public interest, as related to the use and development of all private as well as public waters within the state.<sup>274</sup>

The status of the current definition of navigability was also considered. The court found that the determination of navigability is a question of fact that is dependent upon:<sup>275</sup>

[w]hether or not the body of water is permanent in character and, in its ordinary and natural state, is navigable for useful purposes and is of sufficient size and so situated and conditioned that it may be used for purposes common to the public in the locality where it is located.

Also, general recreational capacities were found to occasionally constitute a body of water as navigable.<sup>276</sup> The court added that meandering is also evidence of navigability which creates a rebuttable presumption thereof.<sup>277</sup> As related to the public trust, the court determined that Florida holds the title to the waters, shores, and beds of all navigable waters in trust for the people of the state for the general purposes of navigation, commerce, fishing, bathing, and other such easements as allowed by law.<sup>278</sup>

## 2. Texas.

The Texas water law system is of particular interest because it contains a true preference provision for deciding priorities between competing applications. Significantly, water use for recreation and pleasure is relatively low on the preference scale.

Texas Const. art. 16, §59, provides that:

(a) The conservation and development of all of the natural resources of this State, including the control, storing, preservation and distribution of its storm and flood waters, the waters of its rivers and streams, for irrigation, power and all other useful purposes, the reclamation and irrigation of its arid, semi-arid and other lands needing irrigation, the reclamation and drainage of its overflowed lands, and other lands needing drainage, the conservation and development of its forests, water and hydro-electric power, the navigation of its inland and coastal waters, and the preservation and conservation of all such natural resources of the State are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto.

The three state agencies concerned with water--Texas Water Quality Board, Texas Water Development Board, and Texas Water Rights Commission--were recently consolidated into one agency, the Texas Department of Water Resources.<sup>279</sup> The jurisdiction of the new agency is subdivided on the basis of legislative, executive, and judicial functions.

Legislative functions are now performed by the Texas Water Development Board, a citizens panel which meets monthly. Executive functions are performed by the executive director of the Texas Department of Water Resources, which includes the majority of the agency staff. The executive director is party to all proceedings before the quasi-judicial arm of the agency--the Texas Water Commission. The primary function of the Texas Water Commission is to issue nearly all of the permits and orders and to conduct water rights adjudication.

Of particular significance to this analysis is the Office of Public Interest Advocate, which was recently created by the statute that consolidated the water agencies.<sup>280</sup> The public interest advocate is automatically party to all proceedings before the State Water Development Board or before the State Water Commission. The advocate's express duty is to represent consumer and environmental interests. However, by statute, the advocate has no right of appeal from an adverse decision.<sup>281</sup>

A right to use water may be acquired by obtaining a permit from the aforementioned Texas Water Rights Commission to initiate an appropriation. The commission may grant the application if there is unappropriated water available, if the proposed use is a beneficial use, and if it is not "detrimental to the public welfare."<sup>282</sup>

The commission must give preference to applications according to the order established by statute and to applications which will effectuate "the maximum utilization of water and are calculated to prevent the escape of water without contribution to a beneficial public service." <sup>283</sup> The statutory preference as between competing applications is as follows: <sup>284</sup>

- (1) domestic and municipal uses, including water for sustaining human life and the life of domestic animals;
- (2) industrial uses, meaning processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including the development of power by means other than hydroelectric;
- (3) irrigation;
- (4) mining and recovery of minerals;
- (5) hydroelectric power;
- (6) navigation;
- (7) recreation and pleasure;
- (8) stock raising.

The Texas Supreme Court recently upheld the commission's decision to prefer a water right application of one city as against another where the preferred applicant would have used the water within its original basin and where the other applicant had alternative sources for its water demands. <sup>285</sup>

Texas law includes a wide array of both statutory and decisional law pertaining to navigability. A Texas statute defines a navigable stream as a stream "which retains an average width of thirty feet from the mouth up." <sup>286</sup> Many Texas courts have cited this definition as controlling. <sup>287</sup> The definition of a navigable lake or pond has been derived from case law. Courts have determined that a lake is navigable when it is generally useful as a highway for the transportation of goods or passengers. <sup>288</sup>

A recent opinion of the Texas attorney general has stated that, in general, the state is the owner in trust for the people of Texas of the water, bed, subsurface, minerals, and wild aquatic life within the navigable rivers of Texas. <sup>289</sup> Texas case law also enforces such an opinion. <sup>290</sup>

### 3. Minnesota.

In Minnesota, an important distinction is made between "public waters" and "waters of the state." "Waters of the state" applies to all surface and underground waters in the state. The definition of "public waters" is more restrictive and applies only to waters of the state that are put to "material beneficial public purpose."<sup>291</sup> That is, waters for municipal, industrial, and agricultural use; for recharge of underground supplies; for erosion and flood control; for recreation; for public navigation; for wildlife habitat; or for designated natural areas.<sup>292</sup>

Minnesota has adopted a permit system for the regulation of public waters of the state.<sup>293</sup> The commissioner of natural resources is responsible for granting permits for appropriation of waters of the state, although applications for minimum amounts as established by the commissioner are processed at the municipal, county, or regional level.<sup>294</sup> Permits are to be awarded according to certain priorities:<sup>295</sup>

First Priority. Domestic water supply, excluding industrial and commercial use of municipal water supply.

Second Priority. Consumptive uses of water involving less than 10,000 gallons of water per day. Consumption is defined as water withdrawn from a supply which is lost for immediate further use in the area.

Third Priority. Agricultural irrigation, involving consumption of more than 10,000 gallons of water per day and processing of agricultural products.

Fourth Priority. Power production, involving consumption of more than 10,000 gallons of water per day.

Fifth Priority. Other uses consuming more than 10,000 gallons of water per day.

Furthermore, no permit is to be issued unless it is consistent with state, regional, and local water and related land resource management plans, provided that regional and local plans are consistent with statewide plans.<sup>296</sup> Such plans are to make provision for regulating land development along streams, the reclamation or preservation of wetlands, the alteration of streambeds, the maintenance of water flow, the control of waterworks, and the management of game and fish resources.<sup>297</sup>

Diversions of water for out-of-state use are discouraged.<sup>298</sup>

Applicants for permits are required to furnish data on  
(1) changes in water and related land resources that are anticipated;

(2) unavoidable, but detrimental, environmental effects; and (3) alternatives to the actions proposed in the permit.<sup>299</sup>

Permits may be canceled at any time for any cause if deemed necessary by the commissioner for the protection of the public interest,<sup>300</sup> but such must first be qualified by administrative law procedures.<sup>301</sup>

Several 1950 Supreme Court cases held that navigable waters over which the state may assert ownership as an incident of statehood must be determined by federal law.<sup>302</sup> The appropriate federal law is the often-cited commerce test that streams are navigable by law when they are used or are susceptible to use in their ordinary natural condition as highways for commerce.<sup>303</sup>

It is interesting to note that prior to the 1950s, there was a progressive state judicial test of navigability. Navigability was broad enough, stated an 1893 Minnesota Supreme Court opinion, to include all public uses of water, even including boating for pleasure and other recreational uses.<sup>304</sup> So long as the waters were capable of being put to any public use, they were considered to be navigable.<sup>305</sup> However, the 1893 decision has been declared to no longer be applicable, and now the federal definition of navigability is controlling.

In reference to the public trust, the Minnesota Supreme Court also found the state to own the beds of navigable waters beyond the low-water mark in trust for the people for public uses.<sup>306</sup> Such uses include commercial navigation, drawing of water for various public and private purposes, recreational activity, and other similar water-connected uses.

#### 4. Iowa.

In 1957, Iowa enacted a rather comprehensive statute which applies to all water, whether surface or underground, and which requires that water use permits be obtained from the State Water Commission before any water is withdrawn, diverted, or stored.

Iowa Code Ann. §455A.2 recognizes the principle that the state's police powers pertain to water resources:

Water occurring in any basin or in any watercourse, or other natural body of water of the state, is hereby declared to be public waters and public wealth of the people of the state of Iowa and subject to use in accordance with the provisions of this chapter, and

the control and development and use of water for all beneficial purposes shall be in the state, which, in the exercise of its police powers, shall take such measures as shall effectuate full utilization and protection of the water resources of the state of Iowa.

Several statutes are important as related to Iowa's awareness of public interest protection.

One statute states that a permit issued for a depleting use must protect the average minimum flow of a stream.<sup>307</sup>

Secondly, another statute provides that the applicant must prove the proposed use would not be detrimental to the public interest.<sup>308</sup>

Another statute states that as part of the permit procedure, notice of the proposed use and hearing thereon must be published and must be sent to various agencies (e.g., Conservation Commission, Commission of Public Health, Soil Conservation Committee, Secretary of Agriculture, and Geological Survey) for their comments.<sup>309</sup>

The Iowa Supreme Court has held that the legal title to the beds of all navigable lakes, to the high-water mark, is vested in the state in trust for the use and benefit of the public.<sup>310</sup>

##### 5. Hawaii.

In Hawaii, ownership of the surface water flowing in the state's natural watercourses is uncertain because of recent litigation in state and federal courts. The uncertainty exists concerning the ownership of surplus water, as well as riparian water rights. The controversy began in 1959, worked its way through the Hawaiian state courts, the United States District Court, and is currently pending appeal in the Ninth Circuit Court of Appeals.<sup>311</sup>

The Hawaii Supreme Court, in a 1973 water rights case, determined that the state owned all surplus waters within its boundaries, subject only to the appurtenant riparian rights that existed under English common law.<sup>312</sup> Such riparian owners were found to have the right to the use of the water, but had no property right in the water itself. Further, the court held that as no person could individually claim any title or interest in property owned by the state, no prescriptive rights to the water could exist for the use of any landowner. The court also found, in effect, that water could not be transferred from its original location to a new unconnected parcel.

The water laws that were in effect in Hawaii before the decision were as follows:<sup>313</sup> (1) normal surplus water was always private property; (2) the water rights, as private property, could be bought, leased, and sold freely; (3) prescriptive use to surplus water was clearly allowable; and (4) water could be transported from the lands where the rights thereto originated to other lands separate from the original lands.

The significance of the court's decision was multifold. First, the supreme court ruled upon issues that were not connected with the original basis of the appeal.<sup>314</sup> Second, the decision itself was without precedent and was based upon public policy considerations.<sup>315</sup> Third, the dissenters argued that the decision was totally contrary to the long-established and unique principles of Hawaiian water law.<sup>316</sup> Last, and most importantly, it was claimed that the decision of the court completely restructured what was considered to be the then well-settled water laws of the state.<sup>317</sup>

As a result of the ruling, many of the existing water rights within the state were rendered worthless.<sup>318</sup> Companies which had expended substantial funds for irrigation systems for their sugar lands, found their systems to be worthless, because without prescriptive rights no person or corporation had the right to transfer water rights from original lands to other nonconnected lands. The water was not transferable because the respective person or corporation had no ownership of the previously transferable water.<sup>319</sup> In addition, the state acquired, at no cost, all of the running waters within the state, subject only to the existing riparian rights as defined by common law.<sup>320</sup>

Due to the substantial impact that the decision would immediately have upon the water rights within the state, the case was taken to the United States District Court for the district of Hawaii.<sup>321</sup> The court ruled, *inter alia*, that the Hawaii Supreme Court decision was void, as the decision was a clear denial of procedural due process. The supreme court decision was found to amount to an unconstitutional taking of property without just compensation. This occurred by the retroactive conversion of private property rights in the state's waters into public property rights.

Federal review was justified on the basis that major constitutional questions were at issue.<sup>322</sup> The federal district court reviewed Hawaiian judicial precedents, common law, and many constitutional arguments in reaching its conclusion.

The district court decision is now on appeal to the Ninth Circuit Court of Appeals, and a decision is pending. Until this litigation has run its full course, Hawaiian water law will apparently be in turmoil.

The recent litigation did not concern ground water. In Hawaii, certain designated ground water basins are subject to a permit

system for water usage. After designation of a ground water area, the withdrawal of water therefrom can be made only by permit, except for existing uses and new domestic uses.<sup>323</sup> Permits are approved according to certain criteria, one of which is that the most beneficial use and development of the state's water resources will not be impaired.<sup>324</sup>

The interesting feature of this permit system is that the governing board can force the relinquishment of a permit upon payment of reasonable compensation if it is determined that there are other applicants who would make a more beneficial use of the water and who would provide a more complete utilization of the available water.<sup>325</sup> In essence, this procedure permits a private right of condemnation when it is determined by the governing board that the proposed use is a better use of available water.

One recent Hawaii Supreme Court case has held that land below the high-water mark, similar to flowing water, is a natural resource owned by the state subject to, but in some sense in trust for, the enjoyment of public rights.<sup>326</sup> However, it should be noted that the significance of navigability and of the public trust is uncertain, pending the outcome of the aforementioned litigation.

#### 6. Maryland.

In 1934, a permit system was introduced in Maryland, which requires a permit for the appropriation or use of surface and ground water and for the construction of waterway obstructions. A later act exempted prior riparian uses in existence before 1934, any domestic or farming uses, and any municipal uses existing before 1969.<sup>327</sup>

Within one month after filing an application for a permit, the Department of Natural Resources determines a date for a public hearing on the application. The applicant for the permit is required to give notice in person or by mail to every adjacent property owner and to certify such to the department. In addition, the applicant must publish a notice about the application and public hearing in newspapers circulated in the areas to be affected by the proposed appropriation. The applicant is also required to notify certain officials of each city and county affected by the permit, as well as any other political agencies that may have an interest in the application. Any interested party may participate at the hearing.<sup>328</sup>

Before acting on the application for a permit, the Department of Natural Resources must weigh "all respective public advantages and disadvantages."<sup>329</sup> The application is to be granted if the department determines that the plans of the applicant would provide for the greatest feasible utilization of the waters of the state and will



adequately preserve public safety and will promote the general public welfare.<sup>330</sup> The application is to be denied if the plan would be "inadequate, wasteful, dangerous, impracticable, or detrimental to the best public interest."<sup>331</sup> Further, any party adversely affected by the granting of a permit may pursue a formal adjudicatory proceeding.<sup>332</sup>

The Maryland Department of Natural Resources reviews triennially all permit appropriations to determine if the conditions of the permit are being met. The department also adjusts any permits where it finds all the water appropriated is not needed or is not being used.<sup>333</sup>

Navigability in Maryland is currently defined by the Maryland Court of Appeals to include all surface waters where the tide ebbs and flows.<sup>334</sup> Riparian owners own the land under navigable waters up to the mean high-water mark.<sup>335</sup> The navigable waters are held by the state for the benefit of the public.<sup>336</sup> Accordingly, the public is considered to have an easement on the navigable waters within the state for navigational purposes and for hunting and fishing.<sup>337</sup>

#### 7. Mississippi.

In its 1956 Water Code, Mississippi adopted a permit system for the use of unappropriated water of the state. Prior riparian rights were expressly exempted, at least to the extent of their actual beneficial use.<sup>338</sup>

Before approving a permit, the State Board of Water Commissioners must find that there is unallocated water available and must conclude that the proposed appropriation is for a beneficial purpose and not detrimental to the public interest.<sup>339</sup>

One statute provides that an appropriation may be approved only as to water in excess of the average minimum stream flow or lake level.<sup>340</sup> Another statute states that no appropriation of water is to be authorized that will impair the effect of stream standards set under the pollution control laws that are based upon a minimum average stream flow.<sup>341</sup>

The legislature of Mississippi has enacted several statutes concerning navigability. The first defines the navigable waters of the state as including:<sup>343</sup>

all rivers, creeks and bayous in this state, twenty five miles in length, that have sufficient depth and width of water for thirty consecutive days in the year for floating a steamboat with carrying capacity of two hundred bales of cotton.

This legislative definition has recently been upheld by the Mississippi Supreme Court.<sup>343</sup>

Another statute declares that all navigable waters within the state are considered to be public waterways.<sup>344</sup> Also to be considered is the statute which states that no appropriation shall be made that will impair in any manner the navigability of any navigable watercourse.<sup>345</sup> The public, by statute, shall have the right of free transport and the right to fish and to engage in water sports on any public waterway.<sup>346</sup>

#### 8. Oklahoma.

In Oklahoma, riparian rights for domestic use may be acquired by purchasing riparian land, and riparian rights for nondomestic purposes may be acquired by purchasing riparian land with a pre-1963 water use.<sup>347</sup>

Appropriation rights may be obtained through the Oklahoma Water Resources Board. Upon approval of an application, the board grants one of four types of permits to appropriate stream water: regular, seasonal, temporary, or term.<sup>348</sup> The board may approve an application for an appropriation right if there is unappropriated water available, if the applicant has a present or future need for the water, and if the proposed use would not interfere with existing rights.<sup>349</sup>

By statute, appropriated stream water not put to beneficial use is forfeited to the public.<sup>350</sup> The board may make a provision in the permit for a time schedule within which certain percentages of the total amount authorized must be put to beneficial use.<sup>351</sup>

The board may also approve transbasin diversions, but it must reserve sufficient water to adequately supply the beneficial needs of all users within the originating basin.<sup>352</sup> The board is to review the needs of the basin of origin every five years.

In addition, Oklahoma has enacted a scenic rivers act to preserve for the future benefit of the people of the state certain streams which possess unique natural beauty. The designated streams are preserved in their free-flowing condition.<sup>353</sup>

The Oklahoma Supreme Court has determined that the navigability of a watercourse cannot be determined by any formula which fits every type of stream, under all circumstances, at all times.<sup>354</sup> Thus, the determination of navigability must be accomplished on a case-by-case basis, with the diverse array of definitions of navigability used as guidelines for the court.

9. New Jersey.

New Jersey employs a permit system to control the use of waters in certain designated watersheds of the state where it is determined that regulation is required for the protection of the interests and rights of the residents in that watershed area.<sup>355</sup> In other areas, the right to use water is based on the riparian right doctrine.

Before granting a permit, the statutorily empowered Water Policy and Supply Council must determine whether the permit is in the public interest, whether it provides for proper and safe construction of all works involved, whether it provides for proper protection of the watershed from contamination, whether it will unduly injure private interests, and whether it will be just and equitable to all persons concerned.<sup>356</sup>

If a person had been diverting water prior to the time the area is designated a permit area, the council is to grant a permit to the extent the prior use of water was reasonably necessary to meet the user's needs, and it will be given priority over any other demands that are to be made on the water supply.<sup>357</sup>

However, if the water is to be diverted for irrigation of farm crops, the permit application must be accompanied by a recommendation from the Agricultural Extension Service as to optimum rates of application and total amounts of water required by the crops and soil types involved.<sup>358</sup>

By statute, all permits, except for nonconsumptive uses, are limited to a period not to exceed 25 years.<sup>359</sup> In determining the permit period, the council takes into account the time required to amortize any capital investment. Also, permits for the diversion of surface water for private consumptive use can only be issued for periods of time when water is available in excess of the average minimum daily flow of the watercourse as determined by the council.<sup>360</sup>

Water may not be condemned or acquired for a public water supply without first securing permission and approval from the Water Policy and Supply Council. The council determines whether the additional water supply is justified by public necessity, whether it provides for the proper and safe construction of all works involved, whether it provides for protection against contamination, whether it will unduly injure public or private interests, and whether it is just and equitable to the other persons and municipalities which may be affected thereby.<sup>361</sup>

In addition, New Jersey entered into the Delaware River Basin Compact in 1961 with New York, Pennsylvania, Delaware, and the United States. This interstate compact provides for "the allocation of waters of the Delaware River basin among the signatory states in

accordance with the doctrine of equitable apportionment.<sup>362</sup>

In regard to navigability, one recent decision of the New Jersey Supreme Court has determined that the public rights in tidal lands are not limited to navigation and fishing, but extend to recreational uses including bathing and swimming.<sup>363</sup>

V. SURVEY OF THE PUBLIC INTEREST LAWS OF OTHER STATES

REFERENCES

1. Cal. Water Code §1260(j)(5).
2. Cal. Water Code §§1201, 1202.
3. Cal. Water Code §1255.
4. Cal. Water Code §1253.
5. Cal. Water Code §1254.
6. Cal. Water Code §1256.
7. Cal. Water Code §1257.
8. Cal. Water Code §1258.
9. Cal. Water Code §1243.
10. Cal Water Code §10004 et seq. See also The California Water Plan, California Department of Water Resources Bull. No. 3 (May, 1957).
11. The California Water Plan, supra note 10, at 244.
12. Cal. Water Code §13141. However, this formal step has not yet been taken as to any plan. See letter dated April 27, 1978, from James T. Markle, staff counsel for the California Water Resources Control Board.
13. Cal. Water Code §13200 et seq.
14. Letter dated Nov. 23, 1976, from W. Don Maughan, vice chairman, State Water Resources Control Board.
15. Newsletter, Water Action Plan, Vol. 1, No. 1 (Oct. 3, 1975) (published by the Department of Water Resources). See also the pamphlet entitled "Water Action Plan," published by the California Department of Water Resources.
16. Markle, supra note 12.
17. "American River and Delta Water Rights" cases, California State Water Resources Control Board, decision 1379 (July, 1971) and decision 1400 (April, 1972), as reported in National Water Commission, A Summary-Digest of State Water Laws, at 137.

18. Cal. Pub. Res. Code §21000 et seq.
19. Cal. Pub. Res. Code §25500.
20. Cal. Pub. Res. Code §5093.50 et seq.
21. Cal. Water Code §§108, 232, 10505, and 11460 et seq.; and Markle, supra note 12.
22. Cal. Fish & Game Code §1601.
23. Cal. Water Code §7047.
24. Cal Harb. & Nav. Code §100.
25. Cal. Harb. & Nav. Code §101 et seq.
26. See also Mallon v. City of Long Beach, 44 Cal.2d 199, 282 P.2d 481 (1955), involving a public trust of the City of Long Beach and the oil and gas produced thereon from the tide and the submerged lands.
27. Letter dated March 27, 1978, from E. Clement Schute, Jr., California assistant attorney general.
28. Or. Rev. Stat. §§537.120 and 537.010.
29. Or. Rev. Stat. §§537.120 and 537.130.
30. Or. Rev. Stat. §537.160.
31. The board is composed of seven members appointed by the governor.  
Or. Rev. Stat. §536.230.
32. Or. Rev. Stat. §537.170(3).
33. Or. Rev. Stat. §536.220.
34. Or. Rev. Stat. §536.340.
35. Letter dated Sept. 27, 1976, from James Sexson, director, Oregon Water Resources Department.
36. North Coast Basin Statement, May 9, 1973.
37. Or. Rev. Stat. §§536.350 and 536.360.
38. Or. Rev. Stat. §§536.370 and 536.400.
39. Or. Rev. Stat. §§537.170(2) and 537.190(1).

40. Or. Rev. Stat. §537.190(2).
41. Or. Rev. Stat. §536.410.
42. Or. Rev. Stat. ch. 538.
43. Or. Rev. Stat. §390.805 et seq.
44. *Luscher v. Reynolds*, 153 Or. 625, 56 P.2d 1158 (1936).
45. Or. Rev. Stat. §274.029.
46. Or. Rev. Stat. 274.005 et seq.
47. See *Luscher v. Reynolds*, supra note 44; and *Thornton v. Hay*, 254 Or. 584, 462 P.2d 671 (1969), where the Oregon Supreme Court stated that the state has an equitable right to protect the public enjoyment of the dry sand area contained within the legal description of all ocean front property.
48. Or. Rev. Stat. §536.310.
49. Or. Rev. Stat. §541.605 et seq.
50. Or. Rev. Stat. §469.010 et seq.
51. Or. Rev. Stat. §537.135.
52. Letter dated April 5, 1978, from Donald D. MacIntyre, chief legal counsel, Montana Department of Natural Resources and Conservation.
53. Mont. Rev. Code §89-892(3) (1975 Supp.).
54. Mont. Rev. Code §89-880 (1975 Supp.).
55. Mont. Rev. Code §89-885 (1975 Supp.).
56. Mont. Rev. Code §89-885(6) (1975 Supp.).
57. Mont. Rev. Code §89-890(1) (1975 Supp.).
58. Mont. Rev. Code §89-890(3),(5) (1975 Supp.).
59. Mont. Rev. Code §89-890(6) (1975 Supp.).
60. Water Reservation Rules, §36-2.14R(1)-S1490, promulgated by the Montana Board of Natural Resources and Conservation (Feb. 6, 1976).
61. Mont. Rev. Code §89-8-103.3 (1975 Supp.).
62. Mont. Rev. Code §69-6501 et seq. (1975 Supp.).

63. Mont. Rev. Code §89-8-102.2 (1975 Supp.).
64. Supra note 52.
65. Mont. Rev. Code §89-892(3) (1975 Supp.).
66. Mont. Rev. Code §89-803.
67. See Lokorvich v. City of Helena, 46 M. 575, 129 P. 1063 (1912).
68. Mont. Rev. Code §89-132.1 (1975 Supp.).
69. Mont. Rev. Code §89-8-103 (1975 Supp.).
70. Mont. Rev. Code §89-8-107 (1975 Supp.).
71. Mont. Rev. Code §89-8-106(1) (1975 Supp.).
72. Information supplied in a memorandum attached to a letter dated Dec. 8, 1976, from William Throm, assistant administrator, Montana Water Resources Division.
73. Id.
74. Mont. Rev. Code §89-897 (1975 Supp.).
75. Mont. Rev. Code §89-867(10) (1975 Supp.).
76. Mont. Rev. Code §70-802 et seq. (1975 Supp.).
77. Mont. Rev. Code §§67-302 and 67-712 (1975 Supp.).
78. Mont. Rev. Code §89-501 (1975 Supp.).
79. Herrin v. Sutherland, 74 M. 587, 241 P. 328 (1925).
80. Letter dated April 14, 1978, from Jack D. Palma II, Wyoming assistant attorney general.
81. Wyo. Const. art. 8, §1.
82. Wyo. Const. art. 8, §3.
83. Id.
84. Wyo. Stat. §41-203.
85. Wyo. Stat. §41-139.
86. Wyo. Stat. §§41-1.18 to 41-1.21 (1975 Supp.).



87. Wyo. Stat. §41-2.
88. Johnson v. Little Horse Creek Irr. Co., 13 Wyo. 208, 79 P. 22 (1904).
89. Wyo. Stat. §41-4.
90. Wyo. Stat. §41-9.
91. Wyo. Stat. §41-10.1.
92. Wyo. Stat. §41-4.1 (1975 Supp.), and J. Palma, supra note 80.
93. Wyo. Stat. §41-9.1 (1975 Supp.).
94. Wyo. Stat. §41.5(d) (1975 Supp.).
95. Wyo. Stat. §41.5(a) (1975 Supp.).
96. Wyo. Stat. §§41-4.2, 41-10.5 (1975 Supp.).
97. Wyo. Stat. §41-10.5(c) (1975 Supp.).
98. Wyo. Stat. §41-10.5(d) (1975 Supp.).
99. Wyo. Stat. §41-10.3 (1975 Supp.).
100. Wyo. Stat. §§41-1.42 to 41-1.46 (1975 Supp.).
101. Wyo. Stat. §41-1.12 (1975 Supp.).
102. Wyo. Stat. §41-1.14 (1975 Supp.).
103. Palma, supra note 80.
104. Wyo. Stat. §41-70 (1975 Supp.).
105. Wyo. Stat. §41-121.2 (1975 Supp.).
106. Wyo. Stat. ch. 9.2 (1975 Supp.).
107. Wyo. Stat. §35-502.76(c) (1975 Supp.).
108. Wyo. Stat. §35-502.87 (1975 Supp.).
109. Wyo. Stat. §35-502.84 (1975 Supp.).
110. Day v. Armstrong, 362 P.2d 137 (Wyo. Sup. Ct. 1961).
111. For an analysis of Wyoming navigability and of the Day v. Armstrong case, see chapter VIII of this report.

112. Idaho Code §42-220.
113. Id.
114. Idaho Code §42-203, as amended, ch. 306, enacted March 29, 1978.
115. Id.
116. Idaho Code §42-220.
117. Idaho Code §42-1737(b).
118. Idaho Code §67-4301 et seq.
119. Idaho Code §36-1601(a) (1976 Supp.).
120. Idaho Code §36-1601(b) (1976 Supp.).
121. See the Summary Report, Conclusions and Recommendations for the State Water Plan--Part II, Snake River Basin, Idaho Department of Water Resources (March, 1976).
122. Idaho Code §42-1736 and Idaho House Concurrent Resolution No. 48.
123. Idaho S.B. 1622, 44th Legislature; see Idaho Code §§42-1736, 42-1736A, 42-1736B, and 42-1501ff., as amended.
124. Utah Const. art. XVII, §1.
125. Utah Code Ann. §73-1-1.
126. Utah Code Ann. §73-1-5.
127. Utah Code Ann. §73-3-8 (1975 Supp.).
128. Preliminary Draft, Rules to Supplement Rules of Utah State Engineer, adopted Feb. 8, 1974.
129. Utah Code Ann. §63-3-8.
130. Utah Code Ann. §73-6-1.
131. Utah Code Ann. §73-6-2.
132. See In re Water Rights of Escalante Valley Drainage Area, 10 Utah 2d 77, 348 P.2d 679 (1960).
133. Utah Code Ann §73-3-20.
134. Big Cottonwood Ditch Co. v. Shurtliff, 56 Utah 196, 189 P. 587 (1919).

135. Howcroft v. Union and Jordan Irr. Co., 25 Utah 311, 71 P. 487 (1903).
136. State v. Rolio, 71 Utah 91, 262 P. 987 (1927).
137. Id.
138. Utah State Rd. Comm'n v. Hardy Salt Co., 23 Utah 2d 143, 486 P.2d 391 (1971).
139. Attorney General Opinion, July 5, 1972.
140. Utah Code Ann. §73-3-8.
141. Utah Code Ann. §73-3-29(1).
- 141a. Alaska Stat. §46.15.080.
142. Alaska Stat. §47.15.090.
143. Alaska Stat. §47.15.150.
144. Alaska Stat. §46.15.260(3).
145. Id.
146. Alaska Stat. §46.16.160.
147. Alaska Stat. §§16.05.870 to 16.05.900.
148. Alaska Stat. §38.05.365(22).
149. Alaska Const. art. VIII, §14.
150. Alaska Stat. §38.05.127 (1976).
151. State Dep't of Natural Resources v. Pankrantz, 538 P.2d 984 (1975).
152. United States v. Alaska, 9th Cir. 423 F.2d 764 (1970).
153. Wernberg v. State of Alaska, 516 P.2d 1191 (1976).
154. State of Alaska v. Bundrant, 546 P.2d 530 (1976). See also United States v. Alaska, 422 U.S. 184, 95 Sup. Ct. 2240, 45 L. Ed.2d 109; and United States v. City of Anchorage, 437 F.2d 1081 (1971).
155. Wash. Rev. Code §90.03.010.
156. Wash. Rev. Code §43.21A.060 (1976 Supp.).
157. Wash. Rev. Code §90.54.020 (1976 Supp.).

158. Wash. Rev. Code §43.21C.020 (1976 Supp.).
159. Wash. Rev. Code §90.03.290.
160. *Stempel v. Dep't of Water Resources*, 82 Wash. 2d 109, 508 P.2d 166 (1973).
161. Wash. Rev. Code §90.54.050 (1976 Supp.).
162. Wash. Rev. Code §90.22.010 (1976 Supp.).
163. Wash. Rev. Code §75.20.010.
164. Wash. Rev. Code §75.20.020.
165. Wash. Rev. Code §90.03.040.
166. Wash. Rev. Code §90.03.300.
167. Wash. Rev. Code §80.50.010 et seq. (1976 Supp.).
168. *Kemp v. Putman*, 27 Wash. 2d 530, 288 P.2d 837 (1955).
169. Id.
170. *Kemp v. Putman*, supra note 168; and *Wilbour v. Gallagher*, 77 Wash. 2d 306, 462 P.2d 232 (1969).
171. *Wilbour v. Gallagher*, supra note 170.
172. N.M. Stat. Ann. §§75-5-1 to 75-5-37.
173. N.M. Stat. Ann. §75-5-6.
174. N.M. Stat. Ann. §75-5-24.
175. See N.M. Stat. Ann. §§75-4-2 to 75-4-11.
176. N.M. Stat. Ann. §75-5-1.
177. *State v. Red River Valley Co.*, 51 N.M. 207, 182 P.2d 421 (1945).
178. Id.
179. *Wreyford v. Arnold*, 80 N.M. 156, 477 P.2d 332 (1970).
180. Id.
181. Nev. Rev. Stat. §§533.025 and 533.030.
182. Nev. Rev. Stat. §533.030.

183. Id.
184. Nev. Rev. Stat. §533.370.
185. Id.
186. Conversation with Roland Westergard, Nevada state engineer, by Gail Homerding, staff employee for the Colorado Department of Natural Resources water study (as amended by George Campbell, Nevada deputy attorney general).
187. Tonkin v. Winzell, 27 Nev. 88, 73 P. 593 (1903); and letter dated March 29, 1978, from George Campbell, Nevada deputy attorney general.
188. Nev. Rev. Stat. §§537.010, 537.020, and 537.030.
189. State Eng'r. v. Cowels Bros., Inc., 86 Nev. 872, 478 P.2d 159 (1970).
190. State v. Bunkowski, 503 P.2d 1231 (Nev. Sup. Ct. 1972).
191. Ariz. Rev. Stat. §45.101.
192. Southwest Eng'r. Co. v. Ernst, 79 Ariz. 403, 291 P.2d 764 (1955).
193. Ariz. Rev. Stat. §§45-101 and 45-103.
194. Ariz. Rev. Stat. §45-143.
195. Ariz. Rev. Stat. §45-157 (1977 Supp.).
196. Ariz. Rev. Stat. §§45-141 and 45-143.
197. Interview by Gail Homerding, staff member for the Department of Natural Resources water resources study, with Fritz Ryan, director, Water Rights Division of Arizona.
198. Ariz. Rev. Stat. §45-146.
199. Ariz. Rev. Stat. §45-145.
200. Ariz. Rev. Stat. §45-172.
201. Id.
202. Ariz. Rev. Stat. §13-601.
203. Brasher v. Gibson, 2 Ariz. App. 91, 406 P.2d 441 (1965).
204. Neb. Const. art. XV., §§4-7.

205. Neb. Rev. Stat. §§46-208 to 46-214.
206. Neb. Rev. Stat. §46-235.
207. Neb. Rev. Stat. §46-231.
208. Neb. Rev. Stat. §46-206.
209. S.B. 450, Neb. Sess. Laws, enacted May 11, 1977.
210. Id.
211. S.D. Compiled Laws Ann. §§46-5-22 and 46-5-18.
212. S.D. Compiled Laws Ann. §§46-5-33 to 46-5-35.
213. S.D. Compiled Laws Ann. §46-5-41.
214. S.D. Compiled Laws Ann. §46-5-20.1.
215. S.D. Compiled Laws Ann. §46-5-11.
216. S.D. Compiled Laws Ann. §46-5-6.
217. S.D. Compiled Laws Ann. §§43-17-1 to 43-17-19.
218. *Tlstrand v. Madson*, 35 S.D. 457, 152 N.W. 786 (1913).
219. *Hillebrand v. Knapp*, 65 S.D. 414, 274 N.W. 821 (1937).
220. Id.
221. N.D. Cent. Code §61-01-01.
222. *Baeth v. Hoisveen*, 157 N.W.2d 728 (N.D. 1968).
223. N.D. Cent. Code §61-04-07 (as amended).
224. Id.
225. Baeth v. Hoisveen, supra note 222.
226. N.D. Cent. Code §61-02-14.
227. N.D. Cent. Code §61-02-29.
228. N.D. Cent. Code §61-02-30.
229. N.D. Cent. Code §61-03-16.
230. N.D. Cent. Code §61-29-03.

231. N.D. Cent. Code §61-29-06.
232. N.D. Cent. Code §61-29-04.
233. N.D. Cent. Code §61-15-01.
234. State v. Brace, 76 N.D. 314, 36 N.W.2d 330 (1949); Ozark-Mahoning Co. v. State, 76 N.D. 464, 37 N.W.2d 488 (1949).
235. Kan. Stat. §82a-711.
236. Id.
237. Hurst v. Dana, 86 Kan. 947, 122 P. 1041 (1911).
238. Fla. Stat. Ann. §§373.013 to 373.616 (West 1972 Supp.).
239. Fla. Stat. Ann. §373.019(9) (West 1972 Supp.).
240. Fla. Stat. Ann. §373.026(7) (West 1972 Supp.).
241. Fla. Stat. Ann. §373.036(1) (West 1972 Supp.).
242. Fla. Stat. Ann. §373.219(1) (West 1972 Supp.).
243. Fla. Stat. Ann. §373.226 (West 1972 Supp.).
244. Fla. Stat. Ann. §373.226(2) (West 1972 Supp.).
245. Fla. Stat. Ann. §373.019(5) (West 1972 Supp.).
246. Fla. Stat. Ann. §373.223(1) (West 1972 Supp.).
247. Fla. Stat. Ann. §373.223(2) (West 1972 Supp.).
248. Fla. Stat. Ann. §373.223(3) (West 1972 Supp.).
249. Fla. Stat. Ann. §373.236(1) (West 1972 Supp.).
250. Fla. Stat. Ann. §373.233 (West 1972 Supp.).
251. Fla. Stat. Ann. §373.246 (West 1972 Supp.).
252. Fla. Stat. Ann. §§403.11 to 403.864. The chapter is entitled "Environmental Control."
253. Fla. Stat. Ann. §403.021.
254. Fla. Stat. Ann. §§403.045 to 403.061.
255. Fla. Stat. Ann. §§403.061, 403.0615, and especially 403.121.

256. Fla. Stat. Ann. §403.121(1)(b).
257. Fla. Stat. Ann. §§403.121(2) and 403.131.
258. Fla. Stat. Ann. §403.091 and letter dated April 10, 1978, from Jonathan D. Schuman, Florida assistant attorney general.
259. Id.
260. Fla. Stat. Ann. §§403.031(2) and 403.161; and Schuman, supra note 258.
261. Fla. Stat. Ann. §403.161(1)(a).
262. Fla. Stat. Ann. §403.161(5).
263. Fla. Stat. Ann. §403.501 et seq.
264. Fla. Stat. Ann. ch. 253, §253.01 et seq.
265. Fla. Stat. Ann. §§253.01 to 253.03.
266. Fla. Stat. Ann. §253.02 and 253.03.
267. Fla. Stat. Ann. §253.12(1).
268. Fla. Stat. Ann. §§253.12(2)(a) and 253.68 et seq.
269. Fla. Stat. Ann. §253.12(4).
270. Fla. Stat. Ann. §253.151(1).
271. Fla. Stat. Ann. §253.151(3).
272. Odom v. Deltona Corp., 341 So.2d 977 (1977), at 983.
273. Id.
274. Id. at 987.
275. Id. at 981.
276. Id. at 986.
277. Id. at 988.
278. Id. at 980.
279. Much of the information that appears in this paragraph and in the following two paragraphs is taken from a letter dated March 20, 1978, from Doug Caroom, assistant chief, Texas Environmental Protection Division.



280. Tex. Water Code Ann. tit. 2, §5.181.
281. Id.
282. Tex. Water Code Ann. tit. 2, §11.134.
283. Tex. Water Code Ann. tit. 2, §11.123.
284. Tex. Water Code Ann. tit. 2, §11.024.
285. City of San Antonio v. Texas Water Comm'n, 407 S.W.2d 752 (1966).
286. Tex. Nat. Res. Code §21.001(3) (1977). The old citation to this particular statute prior to the enactment of the Texas Natural Resources Code on Sept. 1, 1977, was Vernon's Ann. Civ. Stat. art. 5302.
287. See National Resort Communities, Inc. v. Cain, 479 S.W.2d 341 (Tex. Civ. App. 1972); and State v. Bradford, 121 T. 515, 50 S.W.2d 1065 (Tex. Sup. Ct. 1932).
288. Taylor Fishing Club v. Hammett, 88 S.W.2d 127 (Tex. Civ. App. 1935). See also, Welder v. State, 196 S.W. 868 (Tex. Civ. App. 1917).
289. Opinion of the Texas Attorney General, M-953 (1971).
290. See National Resort and State v. Bradford, supra note 287.
291. Minn. Stat. Ann. §105.37, subd. 7 (1977 Supp.); and letter dated April 3, 1978, from Carl M. Conney, special assistant attorney general, Minnesota Department of Natural Resources.
292. Minn. Stat. Ann. §105.37, subd. 6(a)-(g). (1977 Supp.).
293. Minn. Stat. Ann. §105.38 (1977 Supp.).
294. Minn. Stat. Ann. §105.41(1)(b) (1977 Supp.).
295. Minn. Stat. Ann. §105.41, subd. 1(a) (1977 Supp.), as amended in 1978; and Conney, supra note 291.
296. Minn. Stat. Ann. §105.41, subd. 1(a) (1977 Supp.).
297. Minn. Stat. Ann. §105.403 (1977 Supp.).
298. Minn. Stat. Ann. §105.41, subd. 1(a) (1977 Supp.).
299. Minn. Stat. Ann. §105.44, subd. 1 (1977 Supp.).
300. Minn. Stat. Ann. §105.44, subd. 9 (1977 Supp.).

301. Conney, supra note 291.
302. State v. Adams, 89 N.W.2d 661 (1957); and State v. Bollenbach, 63 N.W.2d 278 (1954).
303. Id.
304. Lamprey v. State, 53 N.W. 1139 (1893).
305. Id.
306. State v. Slotness, 185 N.W.2d 530 (1974).
307. Iowa Code Ann. §455A.27 (West). See definition of "average minimum flow" at Iowa Code Ann. §455A.1.
308. Iowa Code Ann. §455A.20 (West).
309. Iowa Code Ann. §455A.19(3) (West).
310. State v. Nichols, 44 N.W.2d 249 (1950).
311. Memorandum dated April 6, 1978, from Glenn M. Adachi, Hawaii deputy attorney general.
312. McBryde Sugar Co., Ltd. v. Robinson, 54 Haw. 174, 504 P.2d 1330 (1973); see also 55 Haw. 260, 517 P.2d 26 (1973).
313. McBryde Sugar, supra note 312. See Justice Levinson's dissent at 517 P.2d 27 to 517 P.2d 50.
314. McBryde Sugar, supra note 312, at 504 P.2d 1346.
315. Robinson v. Ariyoshi, 441 F. Supp. 559 (1977), at 566.
316. Id. at 564; and see McBryde Sugar, supra note 312.
317. Robinson v. Ariyoshi, supra note 315, at 566.
318. Robinson v. Ariyoshi, supra note 315, at 570.
319. Id.
320. Id.
321. Robinson v. Ariyoshi, supra note 315, at 566.
322. U.S.C.A. Const. amend XIV and 28 U.S.C. §§1331, 1343, 2201, and 2283.

323. Haw. Rev. Stat. §177-19.
324. Haw. Rev. Stat. §§177-21 to 177-24.
325. Haw Rev. Stat. §§177-25 and 177-26.
326. County of Hawaii v. Sotomura, 517 P.2d 57 (1973).
327. Md. Ann. Code, Natural Resources art., §8-802(b).
328. Md. Ann. Code, Natural Resources art., §8-806(a)(b).
329. Md. Ann. Code, Natural Resources art., §8-807(a).
330. Id.
331. Id.
332. Letter dated April 13, 1978, from Thomas A. Deming, assistant attorney general, Maryland Department of Natural Resources.
333. Md. Ann. Code, Natural Resources art., §8-811.
334. Van Ruymbeke v. Patapsco Indus. Park, 261 Md. 470, 276 A.2d 61 (1971).
335. Id.
336. Department of Natural Resources v. Mayor and Council of Ocean City, 274 Md. 1, 332 A.2d 630 (1975).
337. Delmarva Power & Light Col v. Eberhard, 247 Md. 273, 230 A.2d 644 (1967).
338. Miss. Code Ann. §51-3-7.
339. Miss. Code Ann. §51-3-13.
340. Miss. Code Ann. §§51-3-7(3) and (4).
341. Miss. Code Ann. §51-3-7(5).
342. Miss. Code Ann. §51-1-1.
343. Downes v. Crosby Chem., Inc., 234 So.2d 916 (1970).
344. Miss. Code Ann. §51-1-3.
345. Miss. Code Ann §51-3-7(6).
346. Miss. Code Ann. §51-1-4, as amended in 1972.

347. R. Dewsnup and D. Jensen (eds.), National Water Commission, A Summary-Digest of State Water Laws, at 607. See also Okla. Stat. Ann. tit. 82, §105.2 (1977 Supp.).
348. Okla. Stat. Ann. tit. 82, §1085.1 et seq. (1977 Supp.).
349. Okla. Stat. Ann. tit. 82, §§105.12 and 105.14 (1977 Supp.).
350. Okla. Stat. Ann. tit. 82, §105.17 (1977 Supp.).
351. Okla. Stat. Ann. tit. 82, §105.1 (1977 Supp.).
352. Okla. Stat. Ann. tit. 82, §105.12 (1977 Supp.).
353. Okla. Stat. Ann. tit. 82, §§1451 to 1459 (1977 Supp.).
354. Curry v. Hill, 460 P.2d 933 (1969).
355. N.J. Stat. Ann. §58:1-36 (West).
356. N.J. Stat. Ann. §58:1-39 (West).
357. Id.
358. N.J. Stat. Ann. §58:1-43 (West).
359. N.J. Stat. Ann. §58:1-44 (West).
360. N.J. Stat. Ann. §58:1-40 (West).
361. N.J. Stat. Ann. §58:1-20 (West).
362. Letter dated April 14, 1978, from Steven A. Tasher, deputy attorney general, New Jersey Department of Law and Public Safety; see also N.J. Stat. Ann. §32:11b-1 et seq.; New Jersey v. New York, 283 U.S. 336 (1931); and New Jersey v. New York, 345 U.S. 369 (1953).
363. Borough of Neptune City v. Borough of Avon by the Sea, 61 N.J. 296, 294 A.2d 47 (1972).

## VI. PRIVATE MEANS OF PROTECTING THE PUBLIC INTEREST IN WATER

### RESOURCES.

#### A. Introduction.

The ability of Colorado water law to take account of the public interest was analyzed in chapter IV. The purpose of this section is to identify the potential methods available to private groups and individuals interested in the protection of recreational, aesthetic, and ecological values under existing law.<sup>1</sup> Many of these methods, of course, are also available to public government entities, but such application is treated in other sections of this study. The methods to be discussed are:

- (1) Fee simple.
- (2) Trusts.
- (3) Easements.
- (4) Purchase and leasebacks.
- (5) Other contractual agreements.
- (6) Private appropriation of instream flows.

It should be pointed out that none of these methods currently enjoy extensive use in Colorado for the purpose of accommodating the public interest in water.

The distinctions between some of these tools are admittedly vague, as one tool may be referred to by several names. For analytical purposes, however, each tool and method is discussed individually in the following sections. This separation is not intended to ignore the value of flexible combinations of tools capable of accomplishing conservation objectives. A combination of tools is a more probable means to accommodate the public interest, since no one method is ideally suited to serve a single purpose.

#### B. The Methods.

##### 1. Fee Simple.

Ownership of property is actually ownership of a bundle of rights (e.g., the rights to develop the land in any chosen manner). The fee simple title is ownership of all these rights, as opposed to a partial

interest in the property such as ownership of a mining right.

Outright purchase of the entire fee title can be a useful tool in protecting the public interest in Colorado waters. For instance, it may be possible for a private group to purchase a water right to impound water for public recreational purposes or for the propagation of fish. If the water right is a senior one capable of calling water over critical stretches of a stream channel which provides recreational, aesthetic, and/or ecological values, minimum stream flow may thereby be maintained for specific stretches of that stream channel.

A fee simple purchase may also be used to guarantee access to recreational areas, protect fishing and boating rights, or preserve areas of ecological importance. Since total ownership is in the hands of one individual or organization, control of the land can be exercised in a flexible variety of manners. However, the cost of purchase may preclude fee simple use in several circumstances.

## 2. Trusts.

The use of private or charitable trusts may also be an effective method of accommodating the public interest, but at significantly lower costs than fee simple. A donation of land bordering streams may insure public fishing and boating rights along riparian land. This technique may also be used to protect potholes for migratory waterfowl or even to restrict the right to develop the land in a manner which would adversely affect the scenic beauty of the area.

Donations of water rights may also serve conservation objectives. Water can be reserved for a recreational impoundment or to guarantee a perpetual calling of water over a stream channel (thereby insuring minimum stream flow) if the donated water right is senior in time. However, a donated water right must continually be applied to a beneficial use without waste if granted to a group other than the State of Colorado<sup>2</sup> which is the only agent legally authorized to own waters for purposes of minimum stream flow.<sup>3</sup>

A conferred trust can be revocable, termed, or subject to amendments, all of which allow flexibility for the donor. However, certain limitations to the use of trust should be noted. First of all, a private trust with a future interest is subject to the rule against perpetuities and requires a definite beneficiary.<sup>4</sup> This is an important aspect if the intent of the donor is to preserve a water-based value for as long as possible.

There is some evidence that a private donation may be terminated, remaining in effect so long as an individual or group is benefited by

the donation. In Mitchell v. Leavitt, the court invalidated a trust which provided that the land, in the center of a moderate-size city business district, could not be leased for more than one year or for purposes of erecting buildings greater than three stories high.<sup>5</sup>

. . . [A] restriction on the use of real estate, where it does not appear that either some individual or the public would be benefited by it, would be contrary to public policy and void.

This researcher has found no similar case in Colorado voiding a trust. However,

[i]f this is law, each case would turn on the fact of actual benefit to an "individual," including presumably, a corporation, or to the public, generally in the case of a charitable trust.<sup>6</sup>

Perpetual objectives might be better achieved through donations of a charity which is not subject to the rule against perpetuities and does not require a definite beneficiary.<sup>7</sup>

Another limitation on the use of trusts is the doctrine of cy pres which provides for the voiding of a trust if the particular purpose for which the trust was intended becomes impossible or impractical. If a court determines that the intentions of the donor are frustrated or no longer attainable, the trust may be terminated. In Melville v. Weybrew,<sup>8</sup> the court ruled:

The jurisdiction over trusts, expressed or implied, being always within the domain of a court of equity, such court has power to terminate a trust and have the property distributed where the trust is impossible of fulfillment.

Provisions to guard against termination of a trust can be made by spelling out the intentions clearly and by inserting a clause detailing alternative action if the doctrine of cy pres is applicable. Thus, trusts can provide a very powerful and flexible tool to protect public interest in water use.

### 3. Easements.

Between the two financial extremes of fee simple and outright donation, there exist several less-than-fee approaches to protect public interests in water use. An easement can be arranged when a landowner retains the "fee" ownership, yet relinquishes some of his

rights for the protection of the public interest.

The use of easements has been an important open space planning tool for the National Park Service, local communities, and conservation foundations. Its use to protect recreational, aesthetic, and ecological water-based values also should be considered.

A positive easement grants a right to perform an action such as permitting public access to fishing and boating waters over private lands or the right to kill weeds along a neighboring property. The United States Bureau of Outdoor Recreation and the Colorado Division of Wildlife presently arrange easements for public access to waterways and to provide public boating and fishing rights. The Colorado Division of Parks and Outdoor Recreation has purchased easements for public recreational use on surface waters. These easement arrangements can be made available to private organizations as well in order to supplement government efforts.

A negative easement restricts the landowner's use of a property right--for example, the rights to burn, fill, drain, or level a pond or wetland. The United States Fish and Wildlife Service has used this type of negative easement to protect over a half million acres of wildfowl habitat. Negative easements denying reservoir owners the right to drain basins below designated levels necessary to maintain ecological and recreational values are purchased by the Division of Parks and Outdoor Recreation and may also be available for purchase by individuals or private entities.

Negative easements are generally more difficult to enforce than positive easements because courts sometimes construe them to be covenants or servitudes rather than an interest or a right in the land. A careful draftsman may attempt to establish transferability and perpetual enforceability by clarifying the intent, but this procedure is an uncertain guarantee.

The use of easements to maintain minimum stream flow may also be possible. Suppose, for example, that a small stream capable of supporting a trout population is being pumped dry by private appropriators. An easement from a pivotal senior water right owner who calls water over a critical stretch of terrain may be capable of fulfilling the minimum flow objective. A private group may purchase an interest in the water in exchange for the owner's permanent forfeiture of the right to transfer the point (or possibly time or use) of a diversion. The private appropriator retains ownership of the title and is permitted to continually apply water to the same beneficial use. He merely forfeits his right to change the point (or possibly time or use) of diversion. This easement on development rights might prevent deleterious effects on minimum stream flow by guaranteeing the ability to perpetually call for water over stream channels with recreational



and/or ecological values needy of protection.

If an easement on a water right limits the feasible future application of the water to continued irrigation of farming land, then agricultural land may be preserved. When agricultural land is saved, several public interests associated with agricultural land are preserved--open spaces, rural lifestyle, and temporary retention of water in the land, which assures constant summer stream flow. Thus, an easement approach is capable of meeting several public interest objectives, as are the fee simple and trust methods of conservation.

The use of easements provides useful flexibility in acquiring public rights to waters. An easement can be provided by grant or reservation and is conferred by deed or will. An easement by grant, such as a right to public access, is simply granted by the landowner. An easement by reservation, however, entails purchasing property for later sale, with the reserved right of a specified public use. For example, a conservation foundation may find it in its best interest to purchase land and sell it with an easement reserving public access to a stream.

Easements also are created in gross or appurtenance. If no specific property benefits from the easement, the easement is in gross. This would be the case when a landowner grants a public fishing right or relinquishes his right to disturb waterfowl habitats. An appurtenant easement is made with the intention of benefiting a specific neighboring property, such as guaranteeing a neighboring property access to a stream. Both forms of easements are enforceable at law or in equity and the doctrine of cy pres does not apply.

However, the use of an appurtenant easement is recommended over a gross easement for various reasons.<sup>9</sup> Although an appurtenant easement binds future successors to the land (runs with the land) and is transferable to other dominant estates, the same allowances are not necessarily granted to easements in gross. It is not safe to assume that easements in gross will run with successive landowners, since there is conflicting law surrounding this issue. Easements in gross also have the disadvantage of not being transferable between beneficiaries. Thus, a charitable organization holding an easement to public fishing waters would most likely not be able to transfer its rights to another agency.<sup>10</sup>

The usual rule, although not always observed, is that the burden of an easement in gross runs or passes with the servient land. As regards the benefit there is some support for its assignability or transferability if there is some commercial interest attached to it, but otherwise if not.

However, there is a great deal of uncertainty surrounding this issue, especially in states such as Colorado which have not decided the question.

Another limitation to easements in gross is that they can be interpreted merely as covenants subject to the doctrine of changed conditions, in which case the burden will not run with the land.<sup>11</sup>

This doctrine of changed conditions does not, as such, apply to easements, but there are cases holding that where an easement is dependent upon particular circumstances and is created for a particular purpose, if the circumstances no longer exist and the purpose cannot be accomplished, the easement is extinguished. . . . Finally, it must be remembered that since covenants are often interpreted as negative easements, rules applicable to covenants might, albeit inappropriately, bleed over in the easement area.

Due to the severe uncertainties surrounding the enforceability and transferability of easements in gross, they should be avoided where possible. An alternative would be the purchase of a small parcel of land neighboring the easement property, thereby creating an appurtenant easement which can support the longevity of the contract. This easement could, in some cases, be retained by an individual or private entity for the benefit of the public.

Easement arrangements can be provided through common law. However, Colorado has recently given express statutory recognition to conservation easements in gross. The statute recognizes:<sup>12</sup>

. . . a right in the owner of the easement to prohibit or require a limitation upon, or an obligation to perform, acts on or with respect to a land or water area or air space above the land or water owned by the grantor appropriate to the retaining or maintaining of such land, water, or air space, including improvements, predominantly in a natural, scenic, or open condition, or for waterfowl habitat, or for agricultural, horticultural, recreational forest, or other use or condition consistent with the protection of open land having wholesome environmental quality or life-sustaining ecological diversity. . . .

The conservation easement legislation provides for perpetual easements in gross.<sup>13</sup>

No conservation easement in gross shall be unenforceable by reason of lack of privity of contract or lack of benefit to particular land or because not expressed as running with the land.

These easements<sup>14</sup>

. . . may only be created through a grant to a governmental entity or a charitable organization exempt under section 501(c)(3) of the Internal Revenue Code, which organization was created at least two years prior to the receipt of the conservation easement.

The conservation easement may be useful to organizations interested in protecting streamside property and fishing and boating rights. However, due to the following provision in the conservation easement bill, the use of statutory easements to maintain minimum stream flow (by denying a downstream senior water right holder the ability to change a point of diversion) appears to be inapplicable.<sup>15</sup>

. . . nor any transfer of a water right or any change of a point of diversion at any time, shall be impaired, invalidated, or in any way adversely affected by reason of any provision of this article.

Therefore, the use of easements to maintain minimum stream flow appears to be limited to common-law easements in gross or appurtenance if a neighboring property in the agreement is directly benefited. As pointed out previously, the longevity of common-law easements in gross is questionable, which further limits the effective use of easements to maintain minimum stream flow.

In summary, the use of easements by private organizations to protect the public interest is a flexible tool which is less expensive than the fee simple approach. Easements could be used to guarantee public access to recreational areas, protect waterfowl habitats, and provide fishing and boating rights. The use of easements to maintain minimum stream flows appears to be limited to common-law easements which may present problems of transferability and enforcement. If such easements limit the future use of the land to continued irrigation, then agricultural land and the resulting public interests will be preserved. In general, the court favors positive and appurtenant easements. These forms of agreement should be used whenever possible, rather than negative or gross easements, which are viewed less favorably.

#### 4. Purchase and Leaseback.

Another method currently used to preserve open space and which could protect the public interest in water use is purchase and leaseback. Suppose, for example, that a stretch of stream is endangered by depletions below levels required to maintain recreational and ecological instream values. A conservation organization could purchase several upstream water rights and lease the water to private uses beyond the critical area to be protected. In this way, water could continually be called by the organization. The organization may find that purchasing existing senior rights would better insure minimum flow during periods of low supply, since new rights have low priority. Naturally, the purchase and leaseback technique could also be used to provide fishing and boating rights over privately-owned streambeds, as well as to maintain access to these areas.

An advantage of the purchase and leaseback technique of accommodating the public interest is that much of the initial cost of acquiring a water right or water transfer may be recovered in the lease program. Furthermore, the goal of protecting public interest in water can be realized simultaneously with the economic, "beneficial" uses of water. Since fishing, boating, and minimum stream flow are non-consumptive uses of water, these objectives could be met without necessarily precluding traditional, "beneficial" uses of water. The only water loss would be in the form of seepage and evaporation. If this loss were less than historical use, then vested water rights would be protected.

The lease arrangements can be made for a lengthy term, with renewals available.<sup>16</sup>

In the absence of a statute, there is no limitation upon the duration of an estate for years. Thus, a lease for 2000 years has been upheld, as has been a 99-year lease renewable in perpetuity.

In this manner, the private leasing organization might retain control of the stream flow and fishing or boating rights in perpetuity.

The benefits and burdens of lease programs may be made to run with either the lessor or the lessee and may be held enforceable by the other party.<sup>17</sup>

The very foundation of the law of real covenants held that covenants will run with a leasehold and a reversion. In a landlord-tenant relationship the strictest concept of "privity" is satisfied and certainly most covenants likely to be imposed in a transfer of a leasehold for

conversion purposes will satisfy the "touch and concern" test.

For instance, a lessor of a water right, such as a conservation organization, can forfeit the right to change the point of diversion or to enter into an exchange agreement which is enforceable by the lessee. Alternatively, the lessee can promise not to alter the diversion point of the leased water right, or beneficial use to which the water is applied, which maintains minimum stream flow and open space. This latter contract can be held enforceable by the lessor. Both arrangements would protect minimum flow.

Furthermore, lease arrangements can be made for lengthy periods of time. Reverter clauses may be included to allow the water right to return to the lessor should the contract be breached by the agent responsible for carrying out the objectives of the lease, thereby insuring the longevity of the conservation objective. Such a technique deserves further attention to protect the public interest in water, however.

In short, the lease program can be adapted to account for the public's interest in minimum stream flows and fishing and boating rights without encountering the problems of transferring and enforcing easements in gross.

#### 5. Other Contractual Arrangements.

Common law provides for a number of other contractual arrangements to accommodate the public interest in water.

##### a. Conservation Foundation.

A landowner with valuable waterfront acreage or a water right critical to the provision of minimum flow can grant a conservation foundation with the right of first refusal. This provision allows the landowner to retain complete ownership; yet, in the event of sale, he grants the organization the first option to purchase the land or water right (possibly at a fixed price) in order to insure the protection of a public value.

##### b. Conditional or Limited Transfers.

Another possible contractual arrangement to protect the public

interest in water resources may be the use of conditional or limited transfers. These arrangements, conferred by deed or will, provide for a transfer of rights on the condition that a specified event which disturbs the original intent of the contract does not occur. If the specified event occurs, forfeiture or a right to forfeiture of the property is permitted.

Suppose, for example, that a conservation organization purchases a downstream senior water right to help maintain minimum flow. The organization may wish to transfer the title of this property so long as it is used in a certain manner consistent with the original purpose. Conveyance may be allowed upon the express condition that when the property is no longer used in the designated manner, the original donor or authorized agent has the right or obligation to take possession. This provision is actually a reverter clause.<sup>18</sup>

In either case, the courts have taken a rather dim view of forfeiture situations with the result that some of the language used in the instruments has been construed very technically, yielding to the temptation to take potential forfeiture situations and construing them merely as covenants, whereby the recipient of the property only agrees to observe the stated condition, and on his failure to do so is only liable for damages and does not forfeit the property.

Conditional and limited transfers are not subject to the doctrine of cy pres, but the rule against perpetuities does apply, except when charities are beneficiaries. These requirements may further limit the applicability of conditional and limited transfers to long-term conservation objectives.

c. Conditional Purchase Assistance.

Another method to protect instream values in some areas may be to find a downstream water right holder desirous of more water. A private agency might aid the right holder in purchasing the additional senior rights (financial and legal aid) in exchange for the promise to continually apply the water to a beneficial use and never change the point of diversion. Upon death of the landowner, the water right would revert to the private agency to accomplish similar purposes.

d. Contract Leases.

The Colorado Division of Parks and Outdoor Recreation uses contract

leases to protect public values. For instance, the owners of a reservoir may wish to lease specific recreational rights to an agency willing to be responsible for administering the contract. The reservoir owners have frequently found this arrangement beneficial since the lessee generally is responsible for policing the area.

e. Restrictive Covenants and Equitable Servitude.

The use of common-law covenants and equitable servitudes may also be considered as tools to protect the public interest, although their effectiveness is sometimes limited. A restrictive covenant (very similar to a negative easement) provides for damages if the covenant is breached. Such a contract can be used to affect future development on property. For instance, one may retain an interest in the land and impose one's own development plan by transferring land to someone, with certain restrictions such as denying a change in land use or maintaining public access to fishing waters.

A restrictive covenant will run with the land and bind successors, if the covenant contains the required elements.<sup>19</sup>

The classic statement of the elements of a running common law covenant is that it be created in proper form, that the parties intend the covenant to run, that the covenant "touch and concern" an interest in land, and that "privity" exist between the party seeking to enforce the covenant and the party against whom enforcement of the covenant is sought.

However, if the benefiting interests are not appurtenant, the majority of American courts "would hold the benefit unassignable and, more seriously, that the burden would not run."<sup>20</sup> Such a covenant in gross would not be an effective means of protecting the public interest for an extended period of time.

With equitable servitudes, the burden of duty rests upon one for the benefit of another. Equitable servitudes are slightly more flexible contractual arrangements than restrictive covenants for protecting the public's water interests. Although jurisdictions differ, servitudes generally are enforceable by injunctive relief, while covenants provide only monetary damage after a breach. Unlike covenants, servitudes also may be enforced by concerned or affected parties without privity. For example, landowners in a development subject to servitude without privity are prohibited from engaging in certain activities which would adversely affect the neighborhood's atmosphere. If one landowner breaches the conditions of the servitude,

the others may be able to seek injunctive relief without privity, since they are disturbed by the breach.

Such a servitude arrangement may also be workable in water law to maintain minimum stream flow. A private entity may be capable of purchasing the right to change a downstream senior water right holder's point of diversion or his type of use. The servitude may then provide constant stream flow and be enforceable through injunctive relief by a party without privity.

The major problems with the covenant and servitude type of contractual arrangements concern the length that they may be held enforceable in gross and their ability to run with the land, binding successive owners to the conservation restrictions. Covenants under common law must have privity, with the intention of benefiting neighboring land (and an actual benefit) in order to run. Therefore, covenants in gross will not run with the land and transferees can avoid the burdens of duty. Whether appurtenant covenants run with the land is a matter of avoiding ambiguity in the drafting. All intentions, burdens, and benefits should be clearly stated if appurtenant covenants are expected to run with the land.

Equitable servitudes also raise the questions of running with the land and enforceability in gross.

With respect to the running of the burden and benefit where the benefit is held in gross, it is generally held that the burden will not run and the benefit is not assignable.<sup>21</sup>

To avoid the problems associated with contracts in gross, both parties should retain an interest in the affected land. Private conservation organizations may find that retaining a small interest in the property will be necessary for the longevity of the contract.

A further limitation to the use of servitudes and covenants is the doctrine of changed conditions. This doctrine permits a voiding of the contract by the courts if carrying out the intentions of the parties becomes inequitable or oppressive to public policy. To avert this problem, it may be advantageous to include a reverter clause whereby ownership of the property is reverted to a private organization willing to manage the contract responsibilities if the original intentions are frustrated. This provision may help guarantee the future existence of the protected value.

The uncertainties which exist with the use of covenants and servitudes (especially in gross) leads to the conclusion that other methods be used, if available. However, the employment of the above



methods may still be able to serve conservation purposes and should not be overlooked. In any case, it is essential that all terms and conditions of contractual arrangements be drafted clearly to identify all the necessary conditions pertaining to the intentions, transferability, duration, conditional events, reversions, et cetera. Otherwise, the courts may find it necessary to terminate the contracts when challenged.

#### 6. Private Appropriation of Instream Flows.

While various strategies for using governmental authority to recognize instream uses of water and/or maintain minimum stream flows are discussed in this study, little mention has been made of private appropriation of instream flow rights. Indeed, this strategy is seldom mentioned in the "public interest" literature. There are a number of potential problems with using private means to protect public interest values in instream flows. Nevertheless, such private appropriations are one possible tool for maintaining stream flows and preserving instream values and, therefore, should not be ignored.

The first question to be addressed is whether minimum flow rights--whether held by public or private entities--are legal. There are two specific issues involved: (1) whether there must be a diversion from the stream in order to obtain a valid water right under Colorado law, and (2) whether instream uses of water are "beneficial" under Colorado law. In general, these questions are addressed above in chapter IV, §B.1., and the discussion below is in part a summary of the earlier analysis, but with a focus on the particular problems involved with private appropriations for instream water uses.

In reviewing the history of minimum flow water rights, it is relatively clear that from 1965, with the decision in the Rocky Mountain Power case,<sup>22</sup> until 1973, with the passage of S.B. 97,<sup>23</sup> a diversion from the stream was required in order to obtain a water right for any purpose. In 1973, the legislature amended the definition of "appropriation" so that a diversion from the stream is no longer a necessary element of an appropriation.<sup>24</sup> This portion of the 1973 legislation has survived an initial constitutional test, and the matter is now on appeal to the Colorado Supreme Court. The district court concluded that:<sup>25</sup>

. . . an appropriation without diversion was intended by the legislature, is not forbidden by the Constitution, and is permitted by decisions of the Supreme

Court. As discussed above, those decisions requiring an actual physical diversion do so for a variety of reasons not related to the constitutional terminology.

However, pending a final decision by the supreme court, it is not entirely clear that a diversion is no longer required in order to obtain a valid water right. If a diversion is not required, it seems reasonably certain that the law would apply equally to public and private entities. In other words, if a public agency is not required to divert in order to obtain a water right, then a private entity is also not so required.

As far as the second question is concerned, S.B. 97 made two changes in the law. The first, as noted, was a change in the definition of "appropriation." The second change altered the definition of beneficial use:<sup>26</sup>

For the benefit and enjoyment of present and future generations, "beneficial use" shall also include the appropriation by the state of Colorado in the manner prescribed by law of such minimum flows between specific points or levels for and on natural streams and lakes as are required to preserve the natural environment to a reasonable degree.

From the above statute, it is apparent that the question is whether private appropriations for instream uses are beneficial under the law. At first blush, it would appear that private minimum flow rights are not permitted. However, several arguments can be made to the contrary, and these are briefly outlined below.

First, the statute does not specifically state that minimum flow appropriations are the exclusive prerogative of the state, and it does not expressly forbid such appropriations by others.

Secondly, the statute purports to permit minimum flow rights for the purposes of preserving the natural environment. The statute apparently is based on the premise that the only instream uses of water are those related to minimum flows. However, one may postulate a host of instream uses which are not designed to maintain a minimum flow. For example, a private, commercial user might wish to acquire an instream water right in order to maintain flows above the minimum in order to operate a river running business. Such a use would also be economically profitable to the user, and thus similar to other traditional "beneficial" uses. In summary, even if the authority described by the beneficial use clause of S.B. 97 is exclusive with the state, that authority is narrowly confined to minimum flows, that are required to preserve the natural environment to a reasonable degree. (Emphasis

added.) If the appropriation is not for minimum flow purposes, or if the flows appropriated are not required to preserve the environment, or if the purpose of the water right is for something other than preservation of the environment, then private, instream water rights are permitted.

Third, it should be noted that there are some privately held minimum lake level water rights now in Colorado. A private laboratory currently holds final decrees for several ponds and lakes in Water Division No. 4 for specific piscatorial, biological research and teaching, wildlife procreation, and natural heritage preservation purposes. It may of course be argued that these rights are a "fluke," and that they were granted because they were not opposed. Nevertheless, they stand as an example of a private water right similar to, or permitted under, S.B. 97.

Finally, it should be noted that conservation districts in the state are specifically authorized to file for and hold minimum flow rights. The Colorado River Water Conservation District is authorized to ". . . file upon and hold for the use of the public sufficient water of any natural stream to maintain a constant stream flow in the amount necessary to preserve fish. . . ." <sup>27</sup> In 1965, the supreme court held that the district could not obtain such minimum flow rights, <sup>28</sup> because of the need for a diversion of water from the stream. However, the authorizing legislation was not declared unconstitutional, and one can argue that the 1973 legislation (S.B. 97) gave new life to this authority of the Colorado River District, by removing the diversion requirement. Thus, if the same case were to arise today, and if the nondiversion provision passes constitutional muster, the result of the Rocky Mountain Power case <sup>29</sup> would be different. It should be noted, however, that the Colorado River Conservation District is a quasi-public body, and their authority in this area is specifically directed toward ". . . the use of the public. . . ." In other words, the River District, in this instance, may not be a private entity, but a public agency, acting for the public as a whole.

If we assume for the purposes of analysis that private instream water rights are recognized under the Colorado water rights system, we must still address a series of practical and administrative problems involved with such rights. There are a number of problems associated with private appropriations of instream flows. One problem is the nonexclusive nature of such a private right. Although private parties may be able to obtain minimum flow rights, it is difficult to define a property right in the instream flows. Since water in a stream is both a "fugitive resource" and a public good, it is doubtful that private owners of minimum flow rights could exclude the public at large from enjoyment of the stream. In one respect, this should assure that the public interest is protected in any private appropriation of an

instream flow. On the other hand, the ability of the public to use water in the stream without payment means that there is little incentive to private parties to acquire minimum flow rights in the first place as they may not be able to recover the cost of acquiring relatively senior water rights. Certainly, a commercial river-running enterprise might have incentive to acquire instream rights because maintenance of water in the stream will assure the financial success of the business. However, there is little financial incentive for private parties to keep water in the stream for recreational, aesthetic, or piscatorial purposes. This is quite clearly the reason that public agencies are generally deemed to be the appropriate entity for the acquisition of instream water rights.

Another problem is that in order to obtain a beneficial instream use, there must be a certain flow between two specified points on the stream. However, Colorado water law is geared to a system which permits removal of water from the stream, at one specified point. A water right for instream uses would be of very little value if it only guarantees an instream flow at one particular point and if others are able to divert water a short distance below that point. Clearly, the administration of a series of overlapping reaches of instream flow rights and ordinary water rights would be an administrative nightmare. A related issue concerns whether owners of water rights for instream purposes could sell the nonconsumptive portion of the right at the lower end of the reach. Similarly, is the water subject to appropriation the moment it arrives at the lower end of the reach?

In summary, there are a number of problems relating to private water rights for instream uses. Many of these problems stem from the difficulties involved in defining an actual property right in a flowing resource which remains in the stream and is used nonconsumptively. Inherent in these problems are considerations of possession and exclusivity of use. Although problems exist, private instream flow appropriations may be legal and could serve a useful purpose in protecting public interest values.

Finally, in order to complete the discussion of private appropriations for instream uses, a brief survey of other states has been made. Two fairly recent cases of private instream flow appropriations from Washington and California are briefly discussed below. While the two cases are not directly applicable to Colorado, they are illustrative of the types of obstacles and lines of argument which need to be overcome to enable private parties to appropriate valid instream flow rights.

a. Washington.<sup>30</sup>

On June 6, 1972, the Washington Pollution Control Hearings Board reversed the Washington Department of Ecology's refusal to grant a permit for appropriation of an instream use of water on a nonnavigable creek.<sup>31</sup> The applicant, a professor at the University of Washington, wished to obtain a valid instream water right in order to undertake scientific research in raising fish.

The Department of Ecology had stated in its refusal that an appropriation requires a diversion or, at least, some sort of impedance of flow. Dr. Bevan, the applicant, countered that such a diversion or impedance of flow would defeat the purpose of his research. The Pollution Control Hearing Board ruled in Dr. Bevan's favor, stating,<sup>32</sup>

This case may be sui generis by reason of the unusual nature of the use for which the water is required. We decide only the issue squarely presented to us, i.e., an appropriation of water for a beneficial use cannot be denied because no diversion or impedance is required.

Nor do we regard this application as in any sense the establishment of a minimum flow by private action from June 1 to October 31 of each year. The State is entitled to take such action as it may desire in establishing a minimum flow. Dr. Bevan's use being non-consumptive, the only limitation that we see on the Department of Ecology is to restrict any diversion from upstream sources that would reduce the amount available to Dr. Bevan during the designated period below 5.0 cubic feet per second.

b. California.<sup>33</sup>

California Trout, Inc., a private corporation, wished to obtain an instream flow right of 3 cubic feet per second on Redwood Creek for public use for fish and wildlife purposes. The corporation stated in its trial brief that it took action because its "continued ability to derive beneficial use from that stream is endangered."<sup>34</sup> The State Water Resources Control Board refused to consider the application stating that a diversion or at least some form of physical control and possession is necessary in order for there to be an appropriation. California Trout then sought a court order compelling the board to accept and consider its application.

The state board eventually conceded that an actual diversion from

the natural channel is not necessary; however, possession is the key to an appropriation. They argued that California Trout's proposed appropriation involved no possession in the water or the surrounding land.

California Trout contended that the courts recognized as early as 1855 that instream uses constitute valid water rights. They cited a case where a mill owner was given a valid water right to use the stream for powering a waterwheel.<sup>35</sup> California Trout argued that this precedent shows beneficial use without possession. They submitted that there is a certain type of property right, an incorporeal hereditament, where there is no possession or control of anything tangible, and they applied this argument to instream water rights.<sup>36</sup>

This derives from the fact that one cannot gain any more than the right to the usufruct of a stream. . . . The appropriative right is the right to the use of the flowing stream, not to any particular parcel of water. The use cannot be grasped. It is intangible--an incorporeal hereditament. [Emphasis in original.]

The board raised two other objections to California Trout's application. They stated that there must be exclusive use of the water by the party seeking the water right in order for it to be valid. California Trout responded that no such requirement exists. The board also contended that California Trout was "attempting to exercise a public duty that cannot and has not been delegated to it by the state."<sup>37</sup>

The trial court ruled in California Trout's favor, declaring that there need be no physical control of the water in order for a valid appropriation right to be established. The court ruled that California Trout has standing to file such an application and ordered the board to accept it and consider it on its merits. The case is currently on appeal.

### C. The Experience of Others.

Two examples of proposed minimum stream flow programs demonstrate the combinations of tools useful in the accommodation of the public interest. First, the city of Boulder, in cooperation with Trout Unlimited and the Nature Conservancy, is working out a program which provides stream flow on a frequently dry stream channel while reusing the water for downstream municipal use. The strategy works as follows.

The city owns a substantial amount of water in Barker Reservoir, an upstream mountain area water supply structure. A certain fund of water [some of which was donated by International Business Machines,

Inc.] was directed to be earmarked for the purpose by the city council. Water is released from storage in the amount of two second-feet during times of critically low flow. This water is then credited to downstream users, who take the water in lieu of their own storage releases in a jointly-owned downstream storage facility called Boulder Reservoir. Thus, in effect, the water is recaptured and stored again downstream.

The city pushes the matter one step further. At times when the low flow release is not required, they "exchange" the reservoir water back upstream to Barker Reservoir; that is, they release water from Boulder Reservoir to needy downstream seniors in place of their part of the natural stream flow, which is stored by exchange in the upstream reservoir. Thus, the earmarked fish flow fund in the upstream Barker Reservoir is reserved and the cycle is complete.<sup>38</sup>

The second example pertains to the Cache la Poudre River. Fish kills have often occurred in the area due to a complex irrigation system capable of diverting the entire stream flow. To alleviate the problem, a program has been proposed by the State Division of Wildlife, the State Water Conservation Board, Trout Unlimited, and the Nature Conservancy. The program, similar to the one currently being developed in Boulder, requires an exchange of water between storage facilities in periods of low flow. The 5-10 percent loss of water during transportation must be compensated by purchases of water rights necessary to maintain the historical needs of downstream users.<sup>39</sup>

These two illustrations of programs designed to maintain stream flow demonstrate the need to combine the flexible tools mentioned in this section into a workable program capable of accommodating site-specific conservation objectives.

#### D. Tax Consequences.

A discussion of existing laws available to private citizens interested in preserving public water-based values would not be complete without a discussion of the tax consequences of such arrangements. The complexity of the tax laws regarding easements and donations makes it difficult to definitively state the consequences of each legal arrangement. Local, state, and federal tax laws should more closely be examined to evaluate the tax benefits which may accrue from easements and donations. Nonetheless, some general guidelines concerning the tax consequences of easements and donations can be offered.

The conservation easement legislation recently enacted by Colorado provides for perpetual easements enforceable in gross, with resulting tax benefits. If an easement results in a lower market value of the

property, the property taxes which are based on market values are also reduced. The value of the easement is the difference in the market value of the property before and after the arrangement is entered into.<sup>40</sup> This loss in taxable property is dependent upon the location of the property and the extent of rights relinquished.

Besides property taxes, estate taxes, which are also based on the market value of property, are lowered. The amount of a bequest is unlimited for federal estate tax purposes.<sup>41</sup> This incentive may be large enough to postpone or preclude the sale of property by estate inheritors in order to pay the taxes due upon inheritance. Colorado law provides the following:<sup>42</sup>

Conservation easements in gross shall be subject to assessment, taxation, or exemption from taxation in accordance with general laws applicable to the assessment and taxation of real property. Real property subject to one or more conservation easements in gross shall be assessed, however, with due regard to the restricted uses to which the property may be devoted. The valuation for assessment of a conservation easement which is subject to assessment and taxation, plus the valuation for assessment of lands subject to such easement shall equal the valuation for assessment which would have been determined as to such lands if there were no conservation easement.

Donations of easements or fee titles are also subject to tax benefits. Although tax savings may accrue to the grantor of an easement or fee title, it is unsafe to predict the tax benefits, cost savings, and legal implications of all donations. Each case depends upon the factual situation and wording of the contract.

Charitable donations are recognized as deductible from taxable income under the Tax Code, §170. The tax deductible donation, equal to the fair market value at the time of contribution, could serve purposes of accommodating fishing and boating rights, or access to these areas, or even of maintaining minimum stream flows.

In summary, easements and donations of easements or fee titles can be subject to tax benefits. Although it is difficult to generalize, tax benefits can accrue from donations in the form of income, estate, and gift taxes. Local property tax savings also have recently been lowered for Colorado property subject to easements in gross in accordance with the recently passed conservation easement legislation. Thus, conservation donations may be important in tax planning.



#### E. Conclusion.

There are several tools available for private concerns to use to protect the public's water interests, while complementing government efforts to do likewise. The fee simple, trust, easement, and lease programs appear to be the most frequently used and enduring tools.

Other contractual arrangements such as covenants, servitudes, and conditional transfers also are potentially available. However, careful drafting is essential for the assurance of enforceable contracts over an extended period of time. For instance, negative contractual agreements generally are looked on less favorably by the courts than positive ones and should be avoided when possible. Additionally, contracts in gross should be avoided whenever possible due to the problems of transferring the burden and the benefit.<sup>43</sup>

It is safer, again, for the granting agency to retain an interest in the land which is intended to be benefited and which is in turn benefited by the servitudes imposed. If this problem is of concern, the use of a long-term lease suggests itself; the benefits of the covenants would run with the reversion.

If the Colorado Supreme Court ultimately rules that a diversion of water is not required in order to obtain an instream water right, then it appears that there are substantial possibilities for private appropriation or acquisition of instream flow rights. Of course, no final answer as to whether private instream flows are legal will be possible until private ownership of instream flow rights is tested in the courts.

One cannot suggest the best tool available, nor the legal implications, tax benefits, or costs of each program. There is no one applicable answer. The innumerable possibilities of arrangements available to private organizations for the protection of public interest are by no means exhausted in this analysis. Rather, the broad range of tools available to private organizations, and some general information on tax consequences of donations, has been illustrated.

The individual identification of each tool within this range was not intended to ignore the more probable situation involving imaginative combinations of tools, for each problem is suited to a site-specific solution with a flexible range of approaches available for consideration.

VI. PRIVATE MEANS OF PROTECTING THE PUBLIC INTEREST  
IN WATER RESOURCES

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VII. PROTECTION OF THE PUBLIC INTEREST IN THE SUBSEQUENT ALLOCATION  
OF WATER.

As noted in the following discussion, the right to change a water right in Colorado is presently restricted only by the "no injury" criterion applied by the water court. In discussing various changes in the law which would permit greater consideration of the public interest, a threshold constitutional issue must be addressed. Any change in the law which specified that the water court could deny a requested change due to public interest considerations would clearly be a limitation on the right to change a water right. The question is whether any limitation or restriction, beyond that posed by existing law, is permitted by the constitution.

It is said in Colorado that all private and public property is held subject to the reasonable police power of the state as exercised by properly constituted authorities.<sup>1</sup> It appears that water rights, as property rights, are no exception to the stated rule. Indeed, the acquisition and use of water rights have long been held to be subject to control under the police power of the State of Colorado in order to promote the public health, safety, welfare, and other legitimate police power objectives.<sup>2</sup> A water right is a property right and may be regulated by the state in the same fashion, and subject to the same limitations, as any other property right.<sup>3</sup> Indeed, the very enactment of a statutory water adjudication system, which has existed in one form or another since Colorado's statehood, is in itself an exercise of the state's police power.<sup>4</sup> So, too, is the Colorado Ground Water Management Act of 1965, regulating the acquisition and use of rights in and to tributary and nontributary ground water.<sup>5</sup> The recognition by the Colorado Supreme Court that changes of water rights may be conditioned to prevent injury and that underground diversions may be regulated by reasonable rules of the state engineer are also examples of the lawful imposition of police power restrictions upon the acquisition and use of water rights.<sup>6</sup>

From the above material, and from a reading of §§5 and 6 of art. XVI of the constitution, it is clear that any exercise of the police power which attempts to restrict the initial appropriation or diversion of water, or modify the priority concept, or change the preference provision, will be subject to challenge on a constitutional basis. However, by the same token, it is reasonably clear that changes in water rights are not accorded the same constitutional stature and that they may therefore be subject to reasonable government regulation.

The right to change one's water right is a part of the property right in water under Colorado law.<sup>7</sup> The right is limited by the

qualification that no change may result in injury to other appropriators.<sup>8</sup>

Though the right to change is part of the property in water, it may be exercised only upon approval of a change by decree of the water court.<sup>9</sup> The 1969 water law amendments generally preserve the case law prohibition against injurious changes by permitting a change decree to issue only if the change will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional right.<sup>10</sup> In order to prevent such injury, the water court may impose certain terms and conditions upon the change. These may include:<sup>11</sup>

(a) A limitation on the use of the water which is subject to the change, taking into consideration the historic use and the flexibility required by annual climatic differences.

(b) The relinquishment of part of the decree for which the change is sought or the relinquishment of other decrees owned by the applicant which are used by the applicant in conjunction with the decree for which the change has been requested, if necessary to prevent an enlargement upon the historic use or diminution of return flow to the detriment of other appropriators.

(c) A time limitation on the diversion of water for which the change is sought in terms of months per year.

(d) Such other conditions as may be necessary to protect the vested rights of others.

The applicable law makes it clear that a change is to be granted so long as no injury, as specified in the statute, results. Terms and conditions may be imposed to protect against such injury.

It should be noted, however, that the injury proscribed in any change or plan for augmentation is to "the owner of or persons entitled to use water under a vested water right" and not simply injury to the water right itself. Prior to the enactment of the statute in 1969, the case law protected only the water right and not the owner or user of a water right. If this new language is given its full meaning by the courts, public interest values could perhaps be more fully considered. For example, the injury to owners or users of water rights might well include environmental and social injury as well as the simple diminution of the quantity or quality of water available to satisfy a vested water right. Unless and until the supreme court rules on this matter,

however, it cannot be said that the water judge is entitled to consider the public interest in his deliberations. If it should eventually be determined that the phrase does not include injury to anything other than a vested water right, then protection of public interest values must be explicitly provided for by amendment to the existing statutory framework.

There are two basic considerations with respect to amendatory legislation designed to better protect the public interest in water change proceedings:

- (1) Could such legislation simply specify that "the public interest" be considered by the court in deciding on a change application, or should specific standards be provided?
- (2) Regardless of the answer to (1), is the water court the most appropriate entity to make such a decision?

As far as the first question is concerned, the experience of other states in this regard may be instructive. As pointed out by Professor Trelease, 15 of the 17 western appropriation states include the phrase "in the public interest" in their laws or constitutions.<sup>12</sup> However, none of the states except Alaska have spelled out what is meant by the phrase. There is very little relevant law in Colorado or in the other western states to guide the water judge in his deliberations.<sup>13</sup> Even in those states where the phrase has existed in the law for some time, interpretations are lacking, probably because (1) under the standards and values of the time, any economically beneficial use of water was considered to be "in the public interest" and was therefore granted; and (2) there was generally enough water to go around, so that public interest values in water were not totally eliminated. In any event, it is difficult to determine the results in Colorado if the legislature were to enact a statute requiring the water judge simply to consider "the public interest" in all change proceedings.

In contrast to the other western states, the 1966 Alaska Water Act<sup>14</sup> is a product of the evolutionary recognition of, and concern for, the public interest aspects of water allocation and use. Although the act recognizes private rights in water, it specifies that an appropriation may be granted only if it is also in the public interest. The act details eight areas to be considered in determining the public interest:<sup>15</sup>

- Criteria for issuance of permit. (a) The commissioner shall issue a permit if he finds that
- (1) rights of a prior appropriator will not be unduly affected;

(2) the proposed means of diversion or construction are adequate;

(3) the proposed use of water is beneficial; and

(4) the proposed appropriation is in the public interest.

(b) In determining the public interest, the commissioner shall consider

(1) the benefit to the applicant resulting from the proposed appropriation;

(2) the effect of the economic activity resulting from the proposed appropriation;

(3) the effect on fish and game resources and on public recreational opportunities;

(4) the effect on public health;

(5) the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;

(6) harm to other persons resulting from the proposed appropriation;

(7) the intent and ability of the applicant to complete to appropriation; and

(8) the effect upon access to navigable or public waters.

Although the listing of the eight areas to be considered in determining the public interest is probably helpful, it should be noted that even this addition does not, in fact, define the public interest. The Alaska statute requires that a project must be in the public interest, and it dictates what the state must consider, but it leaves open what actually constitutes the public interest in any given situation. In other words, the statute does not tell the commissioner how he is to weigh the relative importance of the eight specified factors; indeed, it would be both impossible and undesirable to write such a law. Obviously, if a similar statute were enacted in Colorado (applicable of course only to changes in water rights), the same problems would prevail. A listing of factors to be considered is helpful, but does not determine the final result.

An additional problem with a statute which specifies the factors to be considered in making a determination as to the public interest is the information and data thereby likely to be required from an applicant. For example, the water court is probably not capable of gathering independent data on "the effect on fish and game resources and on public recreational opportunities."<sup>16</sup> This might mean that the applicant would be required to furnish a substantial variety of material on each of the specified factors. For the small irrigator seeking a relatively minor change in a point of diversion, such requirements could pose a substantial burden. The answer might be to exclude certain types



of changes, or changes below a certain minimum size, from the operation of the public interest clause. A slightly different alternative would be a statutory finding that changes of a certain kind, or changes involving less than a specified amount of water, are presumed to be in the public interest, but that such a presumption could be overcome by evidence presented by any protestor.

The first question posed above was whether legislation to better protect the public interest in the subsequent allocation of water should include a definition, or criteria for the determination of, the public interest. The second question is whether the water court is the proper forum for the determination of questions involving the public interest.

As outlined above, it is probably impossible to define the public interest in such a way as to predetermine the result in any given change proceeding. Furthermore, such a definition would not be desirable because it would remove all flexibility. The law can specify the factors to be considered, but cannot adequately specify how the factors should be weighed. Therefore, every decision about the public interest becomes a judgmental matter in which social, environmental, and economic factors are balanced. The process is therefore political, in the highest sense of that word. The question is whether the water court is the proper entity to make these judgments. The alternatives are to have such decisions made by an administrative board (elected or appointed), acting in a quasi-judicial capacity, or by an appointed administrative official such as the state engineer. The question of who should make determinations about the public interest is, of course, a major question with substantial political and philosophical overtones. However, if serious consideration is given to enacting a public interest clause (with or without criteria) for application in water change proceedings, some thought must be given as to the proper institution to make such determinations.

VII. PROTECTION OF THE PUBLIC INTEREST IN THE  
SUBSEQUENT ALLOCATION OF WATER

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## VIII. OPPORTUNITIES FOR THE ASSERTION OF THE PUBLIC INTEREST

### IN STATE NAVIGABLE AND PUBLIC WATERS.

#### A. Introduction.

The public's right to the free use of watercourses for transportation, fishing, boating, swimming, and other nonconsumptive purposes has been recognized and protected in many states. Traditionally, the source of these usufructuary rights has been found in the federal and state powers over navigable watercourses and the rights of public use incident to these powers. Many states, however, have based these rights on the public ownership or control of the states' water resources. Finally, the public may have acquired these rights through the common-law doctrine of dedication.

The concept of navigability is a complex one and is the subject of numerous court decisions and legal treatises. As an analytical matter, the import and meaning of navigability shifts with the context in which it is employed, whether as a basis for determining ownership of underlying beds, or for determining the jurisdiction of Congress with respect to the exercise of its various constitutional powers, or for determining the extent of public rights to nonconsumptive uses of watercourses. This limited discussion, then, cannot address all aspects and nuances of the navigability concept. It will only outline in a very general way the powers that states can and have used to assert and protect public uses of watercourses.

#### B. Historical Overview.

The common law early acknowledged and protected the customary usage of certain watercourses by the public.<sup>1</sup> Legal commentators have observed that the development of the English common law followed the only substantial public demand for water uses, which at that time was for travel.<sup>2</sup> As a result, the common law evolved so as to differentiate public and private watercourses on the basis of their navigability.<sup>3</sup> In England, the test for a navigable waterway, and hence of a public waterway, became a test of whether that waterway was subject to the ebb and flow of the tide.<sup>4</sup> The sovereign held title to such navigable waters and watercourses and held it in trust for public use.<sup>5</sup>

Navigability also became the touchstone in the United States for distinguishing between public and private watercourses. Because of the existence of many inland rivers, however, the English "ebb and

flow" test of navigability was not suitable and the "navigable in fact" test was employed by the American courts.<sup>6</sup>

### C. Ownership of Submerged Beds.

In English common law, the use of a body of water was extended only to the title holders of the submerged beds. A public right to the use of waters existed only where title was vested in the sovereign. This concept developed so that beds owned by the sovereign were considered to be held expressly for use by the public and they could not be limited by private property holders. The concept was adopted by the United States and was employed in its early history to allocate public use rights. While modern theories have emerged which allow for the public use of waters irrespective of bed ownership, some states continue to observe this common-law doctrine for public uses.<sup>7</sup>

The generally accepted rule in the United States derived from English law is that bed ownership lies in the sovereign if the water is navigable. If the watercourse is nonnavigable, bed ownership is conveyed with sale of riparian lands--unless explicitly indicated otherwise.<sup>8</sup> When the original 13 states became independent from England, title to the beds of all waters held navigable at that time vested in these states directly. Title to this land continued in these states after the Union was formed.<sup>9</sup>

As sovereign, territory acquired by the United States also included title to the navigable waters. In its capacity as territorial sovereign, the United States held these beds in trust for the citizens of new states.<sup>10</sup> States created out of these territories were admitted to the Union on an "equal footing" with the original 13.<sup>11</sup> They consequently received title to the beds of their navigable waters to which the United States had not theretofore conveyed title. Ownership of beds under nonnavigable waters remained with the United States and were subsequently transferred to owners of the riparian lands.

As a result, the states received title to the beds of the vast majority of their navigable waters. Federal land grants to private parties during the period of a state's territorial status rarely included the beds of navigable waters. Only in those instances where the federal grant was "clear and unequivocal" and it was for the improvement of interstate commerce of "the carrying out of some other purposes appropriate to the object for which the territory was held" could the United States convey title to the beds of territorial navigable waters.<sup>12</sup>

It was initially unclear whether the federal test or individual state tests of navigability controlled the classification of a state's waters as it entered the Union for purposes of bed ownership. The Supreme Court, however, held the federal test to be determinative.<sup>13</sup> The Court reasoned that to hold otherwise would be to give the Constitution a diversified operation where uniformity was "intended." Specifically, the Supreme Court ruled that the following navigability test it employed in the Daniel Ball case would govern the question of which beds were conveyed to the states:<sup>14</sup>

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

The submerged beds of water which satisfied the foregoing "navigable in fact" standard at the time of statehood became vested in the new state. Importantly, it appears that the more restrictive Daniel Ball test applies for purposes of determining bed ownership even though that test has been subsequently expanded by later federal cases for purposes of determining which waters are subject to the federal powers under the Commerce Clause.<sup>15</sup>

State law, rather than federal law, governs the rights in lands under navigable waters within state boundaries.<sup>16</sup> Authority is divided on whether a state can alienate its title to the beds of its navigable waters. Some states hold that title to these public lands cannot be conveyed to private parties.<sup>17</sup> Other states have held that title can be conveyed where there is an express grant and the public trust over these lands is continued so as to guarantee public usage of the watercourse.<sup>18</sup>

#### D. Scope of State Power Over Navigable Waters.

As an incident of their sovereignty, states have the power to control and regulate navigable waters within their boundaries for the use of the public, subject to the paramount power of the federal government.<sup>19</sup> In exercising this power, the states are not bound by the federal definition of navigability applicable for bed purposes and may adopt their own definition.<sup>20</sup> The United States Supreme Court has not yet ruled what, if any, limits are imposed upon the state's discretion in this area.<sup>21</sup>

Many states, including Colorado, have not legislatively or judicially defined "navigability" for state purposes. Some states have chosen to adopt the Daniel Ball standard of "navigability in fact" for commercial purposes or an expanded version thereof.<sup>22</sup> Other states have expansively defined navigability to include waters which are capable of being used by small pleasure crafts or for floating logs.<sup>23</sup> Some states have legislatively denominated specific rivers as being navigable,<sup>24</sup> or have attempted to define navigable rivers by their flow or by certain other dimensions.<sup>25</sup> In several states where such legislative definitions are attempted, however, courts have ruled that they are not bound by such definitions.<sup>26</sup> Finally, other states have chosen to equate "navigable" watercourses with "public" watercourses and have defined such waters as being those which are "suitable for public uses."<sup>27</sup>

However defined by the particular state, navigable waters are subject to the control of the state and are held in trust for public use. Certain states have held that such public use can only be for the strict purposes of navigation or a use incident thereto.<sup>28</sup> Other states, reflecting the modern view,<sup>29</sup> have held that the public has a right to use such waters to navigate, fish, hunt, boat, swim, and for other uses up to the high-water mark.<sup>30</sup> One commentator has suggested that there might be some tendency to limit the public rights to those connected with navigation when the state has relinquished its title to the underlying bed.<sup>31</sup>

States can also exercise a navigation servitude up to the ordinary high-water mark of their navigable watercourses. This servitude subjects all private property rights located below the high-water mark, as well as riparian property rights whose value is attributable to its proximity to or use of the navigable water, to the plenary power of the state.<sup>32</sup> No compensation therefore is required if these property rights are taken or damaged by the exercise of the state's power. Some states have limited the servitude to exercises of state power which are related to navigability, such as channelization or impoundment of water for improved navigability.<sup>33</sup> Some states, however, hold that the servitude applies whenever state activity occurs that advances any state purpose,<sup>34</sup> such as the construction of a bridge over a waterway which consequently cuts off the use of the stream for navigation by riparians.

Of course, the state's power over navigable watercourses is broader than its navigation servitude. For example, as an exercise of their navigable powers and in conjunction with their police power, some states prohibit the appropriation of water below that necessary to maintain navigability or other public uses of the stream.<sup>35</sup> At least one state has declared obstructions to navigable watercourses to be public nuisances.<sup>36</sup>

E. Public Ownership of Waters.

Several states, most notably Wyoming and New Mexico, have based the public use of watercourses on constitutional provisions declaring the waters of the state to be owned and/or controlled by the public, rather than on the state's powers over navigability. In these states, navigability is no longer the test for determining the scope of the public's usufructuary rights in watercourses.

In the leading case, Day v. Armstrong,<sup>37</sup> the Wyoming Supreme Court was faced with the question of the right of the public to use the North Platte River for boating, fishing, hunting, and other uses below its high-water marks. A state statute enacted after the commencement of the case permitted such uses on any stream where the records of the state engineer for the preceding 10 years showed that part of the stream to have had an average flow of water for the month of July exceeding 1,000 cubic feet per second. The statute also provided criminal penalties for obstructing such streams and for trespassing on privately-owned banks.

The court ruled the statute unconstitutional as a penal statute because it was fraught with ambiguities. The court nevertheless upheld the public's right to use the waters of the state based upon the Wyoming Constitution,<sup>38</sup> which gave the public the ownership and control of all waters within its boundaries.

In reaching this decision, the court noted that the basic reason for using navigability (understood in the federal sense as being navigable in fact for commercial purposes) as a classification was to designate certain waters as public and others as private. The court found that the test was rendered unnecessary in Wyoming, given the provision in the Wyoming Constitution placing the title of all waters in the state in public ownership. Although navigability still determined bed ownership, the public's usufructuary rights depended on the suitability of the publicly-owned waters for use by the public.

The court reasoned that the public ownership of the water flowing over privately-owned land, like other cases of divided ownership of surface and subsurface areas, carried with it certain rights and easements necessary for the enjoyment of rights incident to such ownership. A public right-of-way upon and over submerged lands was one of the rights incident to the ownership of water. The court then held that such a right, held in trust by the state for the public, need not be affirmatively asserted in enabling legislation, although it could be restricted or regulated by the legislature.

To determine the scope of this public right-of-way, the court conducted a balancing of the public and private interests to accord each the maximum incidents of ownership with minimum inference upon

the other. Accordingly, it held that the public may, when necessary to floating the state's water, disembark and walk or wade upon privately-owned beds and banks to pull, push, or carry the craft over or across shallows, rapids, or obstructions. Any other passage upon such private lands for fishing or hunting, when not incident to floating, would not be permitted, nor would passage over private lands for access to the stream.

This aspect of the court's opinion has been criticized by some as unduly restricting the rights of the public and as being analytically inconsistent. If indeed an easement is created on behalf of the public by the flow of the waters of the state, the critics say, the public should be allowed not only to float but also to wade and hike over the easement. The result of the court's opinion, in effect, is to resurrect the navigability doctrine, albeit in its expanded form, of permitting public use for pleasure crafts as well as for commercial crafts.

In State v. Red River Valley Co.,<sup>39</sup> the New Mexico Supreme Court used similar reasoning to find a right of the public to use all watercourses of the state, irrespective of their navigability, based upon the provision in the New Mexico Constitution<sup>40</sup> declaring the waters of the state as belonging to the public. The court rejected the argument that the constitutional provision was intended only to protect the right to appropriate water and not to permit public uses of the surface of the water. The court also rejected the argument that the public had to "appropriate" such waters for surface uses; the court reasoned that the public did not have to appropriate water it already owned, and it could use such watercourses subject to diversion and appropriation by private parties. Finally, although not reaching the question, the court suggests that legislation restricting these public rights could be construed as an unconstitutional granting of a special right or privilege to riparian owners.

#### F. Colorado Law.

There is very little law in Colorado on public rights to use the surface waters of the stream within the state. No definition of navigability has been given by the legislature. No case law defines the power of the state, if any, over its navigable waters or the rights of the public incident to its ownership of the waters of the state.

One starting point for studying this issue, of course, is the restriction in Colo. Const. art. XVI, §5, which declares that the waters of every natural stream are the property of the public, subject to being appropriated. Similarly, Colo. Const. art. XVI, §5, states that the right to divert the unappropriated waters of any natural stream to beneficial use shall never be denied. Consequently, any



exercise of state powers based on the public ownership of waters, and presumably any implied power over navigable waters of the state, would be subject to the rights of appropriation.

Beyond this, some legislation suggests that the public does have certain usufructuary rights in the natural streams. For example, legislation<sup>41</sup> allows logs or other timber products to be floated on all streams in the state capable of being used for that purpose. A permit must be obtained for these purposes from the state engineer after the state engineer determines that no existing dam or headgate used for diverting water, or any road, bridge, or other structure is injuriously affected. Such use must also not interfere with prior appropriations of water. Significantly, the legislation does not require compensation of riparians for the mere passage of the logs over privately-owned beds, nor does it differentiate between navigable or nonnavigable waters.

Another statute<sup>42</sup> also appears to recognize an easement for public purposes in all natural streambeds below the high-water mark. This statute permits the owners of any stored water to conduct such water along any of the natural streams of the state up to the ordinary high-water mark, without compensation to the underlying landowner.

Yet another statute<sup>43</sup> recognizes the state's power to control and regulate the channel of any natural stream. Conservancy districts are empowered to regulate the construction of bridges and roads and all other construction over and on watercourses within the district and to clean out, widen, or alter the course of any watercourse within the district. Significantly, these regulating powers go beyond those incident to the navigability of a watercourse.

Finally, the legislature recently passed an amendment to the definition of "premises" in the criminal trespass statute so as to specifically include "the stream banks and beds of any nonnavigable fresh-water stream flowing through such real property," upon which trespass is accordingly prohibited.<sup>44</sup> The intent of this amendment and its effect is unclear, especially since "nonnavigable" is nowhere defined. Perhaps for that reason, it will not pass the constitutional requirements of specificity for a criminal statute.<sup>45</sup> Depending on the definition of navigability, the statute may or may not prohibit the floating of pleasure crafts and the use of the streambed and banks incident thereto. It is even uncertain whether the legislature intended to rely on the traditional notion of navigability, rather than the public ownership of the water, to distinguish between public and private watercourses. For example, "nonnavigable" could be interpreted in accord with the Wyoming decision in Day v. Armstrong, *supra*, to those streams which can only be traversed by wading or by walking.

The foregoing amendment was probably passed in reaction to a case presently in the Colorado Court of Appeals involving the applicability

of the criminal trespass statute to boaters on the upper stretches of the Colorado River enclosed by privately-owned land. In People v. Emmert, No. 77-691 (Court of Appeals), the court is faced with an appeal from a criminal trespass conviction in the District Court in and for Grand County which raises the issue of the extent of the public's right to use the streams of the state for floating small pleasure crafts and for fishing. The defendants in that case were convicted of criminal trespass for floating and fishing on a stretch of the Colorado River which is bounded on both sides by a private landowner. The landowner stocked the disputed stretch of the stream with fish, sold the fishing rights thereto, and barred the general public from floating and fishing on the river within his property. The parties stipulated that the defendants had entered the river on public land and that they were able to float the river. The parties nevertheless stipulated that the river was "nonnavigable," though the term was not defined.

The defendants argued that the Colorado Constitution declares the water of all natural streams to be public and gives the public the right to float and fish all natural streams, irrespective of bank or bed ownership. This argument was rejected by the district court on the basis of an old Colorado Supreme Court decision, which the district court construed as holding that the public derived no usufructuary rights on state streams on the basis of the Colorado Constitution.

The case relied on by the district court is Hartman v. Tresise.<sup>46</sup> That case concerned the right of a fisherman to cross private property to gain access to a small stream, Tomichi Creek. A statute in existence at that time permitted such access over private lands without compensation so long as no damage occurred. The court struck down the statute as a taking of private property without just compensation. In the course of its cryptic opinion, the majority seems to state that the public was not vested with any right of fishery in the natural streams of the state by reason of the constitutional provision declaring the unappropriated waters of the state to be the property of the public. It also appears to misstate the common-law rule in holding that the public enjoys no right of fishery even in navigable waters when the land bordering the stream is privately owned.

As the concurring opinion by one justice points out, the majority opinion was dicta with respect to everything but the taking issue. Furthermore, the opinion drew strong dissent by two justices who believed the opinion was contrary to the common law and the Colorado Constitution, and to custom and usage. These factors, plus the vagueness and apparent misstatements of the common law in the opinion, make the decision a very ambiguous precedent.

Reflecting this ambiguity, the case has been cited for the

proposition that the constitutional provision declaring the unappropriated waters of the state to be public property has no meaning or effect outside the context of the doctrine of appropriation.<sup>47</sup> Others have persuasively argued that the court merely held that, whatever public rights of fishing may exist, the public does not have the right to cross private lands to get to the watercourse.

Consequently, the question of what public rights derive from the fact of public ownership of the waters in the natural streams of the state is virtually one of first impression in the courts, and the current case of People v. Emmert will presumably resolve many of the unanswered questions concerning these rights. Because of the parties' stipulation of nonnavigability in that case, however, the case will probably not address the scope of public rights to navigable streams.

With respect to whether any navigable rivers exist in Colorado, there are rivers that undoubtedly would meet the expanded definition of navigability in other states, such as capacity for use by pleasure boats or for floating logs. An old Colorado case, however, might indicate that the Colorado courts would not use an expansive definition of navigability. In Stockmen v. Leddy,<sup>49</sup> the Colorado Supreme Court held that the legislature could expend funds to investigate the effect of federal claims on the state's right to control the distribution of waters. In holding that the legislature was justified in making such appropriations to protect the ownership and control of state waters, the court noted that state ownership of and interest in such waters was undeniable, given the fact that the federal government knew "that the natural streams of the state are, in fact, nonnavigable within its territorial limits." Again, the language is wholly dicta. It also is uncertain whether a modern court would consider the case binding on the issue of navigability as a basis for state power, especially since the meaning and context in which the court expressed its opinion concerned the jurisdiction of the federal government.

If for whatever reason a watercourse is not open to public use based on its public ownership or navigability, it might nevertheless be open to the public under the common-law doctrine of dedication to the public.<sup>50</sup> A common-law dedication of a portion of a stream for public use by the riparian landowner exists if it can be shown that there is an intent by the landowner to devote the property to a public use and there is an acceptance by the public, as perhaps denominated by long public usage. Consequently, where the public has used various portions of a stream for recreation or other purposes, the public may have acquired a right to such use irrespective of its navigability or public ownership. Such dedication, however, is difficult to prove under Colorado law.<sup>51</sup>

### G. Conclusion.

A state's power over its navigable waters is generally recognized in other states as an incident of sovereignty. Many states, reflecting the modern view, have taken an expansive view of such power, in terms of their broad definitions of navigability, their protection of public rights incident thereto for boating, swimming, fishing, and other public uses, and their regulation of the watercourses for the protection of navigation and for other public purposes. This modern view appears to be the result of the public need to use public watercourses for recreation, as well as for commerce, and exists in many cases irrespective of the ownership of the underlying beds.

Perhaps in recognition of this public need, some states with constitutions and water laws similar to Colorado have discarded the navigability doctrine as a workable basis for distinguishing public versus private waters. These states, relying on the public ownership of the waters in the natural streams, have declared that such ownership and the public rights incident thereto give the public an easement for public use over the submerged beds up to the ordinary high-water marks over all natural streams suitable for public use.

The law in Colorado has not directly addressed the scope of public rights under either of the foregoing navigability or the public ownership doctrines. What little legislation exists does not really disclose the nature or source of the public "usufructs" implicit in the legislation. The few Colorado cases treating the subject likewise do not comprehensively or directly confront the issues involved. A pending case in the appellate courts, however, could resolve some of the questions on this subject.

Should the courts rule the public ownership of waters to be a source of public usufructs, the courts would presumably have to address the following questions raised in the Wyoming and New Mexico cases:

- (1) Must legislation exist to effectuate these usufructs?
- (2) Can the public lose their rights through nonuse?
- (3) Do the public rights apply to all natural streams, however small?
- (4) What public uses are permissible?
- (5) Is an appropriation necessary?
- (6) Is it special legislation to restrict public uses to certain rivers?

(7) Does existing legislation restrict the public usufructs?

Depending on the outcome of this case and the resolution of the foregoing questions, legislation could be enacted which promotes and protects the public usufructs, and which regulates the channels of the state streams for public purposes. Of course, the exercise of state power in this regard could not interfere with prior appropriations because of the constitutional provision which subjects the state power to such rights of appropriation. The state should also bear in mind and accommodate the property rights and privacy rights of riparian landowners when asserting these public usufructs.

VIII. OPPORTUNITIES FOR THE ASSERTION OF THE PUBLIC INTEREST  
IN STATE NAVIGABLE AND PUBLIC WATERS

REFERENCES

1. See Clark, 1 Waters and Water Rights (1967) §§35.2 and 37.1.
2. Id. See also Lamprey v. Metcalf, 52 Minn. 181, 53 N.W. 1139 (1893); Day v. Armstrong, 362 P.2d 137 (Wyo. 1961); and Leighty, "The Source and Scope of Public and Private Rights in Navigable Waters," 5 Land and Water L. Rev. 391 (1970).
3. Id.
4. See Hardin v. Jordan, 140 U.S. 371, 11 Sup. Ct. 808, 35 L. Ed. 428 (1891).
5. See Clark, note 1 supra, at §§37.2(c) and 37.3; Leighty, note 2, supra.
6. See The Daniel Ball, 77 U.S. (10 Wall.) 557, 19 L. Ed. 999 (1870); The Propeller Genessee Chief v. Fitzhugh, 53 U.S. (12 Haw.) 443, 13 L. Ed. 1058 (1851); Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 6 L. Ed. 23 (1824).
7. See Note, "Water--Recreation--Public Use of 'Private Waters,'" 52 Cal. L. Rev. 171 (1964). See also Leighty, note 2, supra.
8. See Clark, note 1, supra, at §36.
9. Id.
10. Shively v. Bowlby, 152 U.S. 1, 14 Sup. Ct. 548, 38 L. Ed. 331 (1894); Hardin v. Jordan, 140 U.S. 371, 11 Sup. Ct. 808, 35 L. Ed. 428 (1891).
11. See United States v. Texas, 339 U.S. 707, 70 Sup. Ct. 418, 94 L. Ed. 1221 (1950); Coyle v. Smith, 221 U.S. 559, 31 Sup. Ct. 668, 55 L. Ed. 853 (1911); Pollard v. Hogan, 44 U.S. (3 Haw.) 212, 11 L. Ed. 565 (1845).
12. Shively, note 10, supra.
13. United States v. Utah, 283 U.S. 64, 51 Sup. Ct. 438, 76 L. Ed. 844 (1931); United States v. Holt State Bank, 270 U.S. 49, 46 Sup. Ct.
14. The Daniel Ball, note 6, supra, 711 U.S. at 563.

15. United States, supra note 13; and United States v. Appalachian Elec. Power Co., 311 U.S. 377, 61 Sup. Ct. 291, 85 L. Ed. 243 (1970). See also Leighty, supra note 2, at 422-23.
16. Shively, note 10, supra; Hardin, note 10, supra; Barney v. City of Keakuk, 94 U.S. 324, 24 L. Ed. 224 (1876). See also Clark, note 1, supra, at §37.2(c).
17. See, e.g., Northern Pac. R.R. Co. v. Hirzel, 29 Idaho 438, 161 P. 854 (1916); State ex rel. Dawson v. Akers, 92 Kan. 169, 140 P. 637 (1914). See also cases cited in Clark, note 1, supra, at §37.2(c) n. 33, and §36.4(A) n. 86.
18. See generally Sax, "The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention," 68 Mich. L. Rev. 473 (1970). See also Illinois Cent. R.R. Co. v. Illinois, 146 U.S. 387, 13 Sup. Ct. 110, 36 L. Ed. 1018 (1892); Collins v. Geshardt, 237 Mich. 38, 211 N.W. 115 (1926); Muench v. PUC, 261 Wis. 492, 53 N.W.2d 514 (1952). See generally Clark, note 1, supra, at §36.4(A) n. 84, and cases cited therein.
19. See generally Leighty, "Public Rights in Navigable State Waters-- Some Statutory Approaches," 6 Land and Water L. Rev. 459 (1971) and Comment, "The State Navigation Servitude," 4 Land and Water L. Rev. 521.
20. Id.
21. Id. But see Brewer Elliott Oil and Gas Co. v. United States, 260 U.S. 77, 43 Sup. Ct. 60, 67 L. Ed. 140 (1922).
22. See, e.g., N.Y. Nav. Law §2(5) (McKinney 1941) and Ore. Rev. Stat. §274.029; Wash. Rev. Code §43.21C.020 (1976 Supp.).
23. See, e.g., Idaho Code §36-1601(a) (1976 Supp.).
24. See, e.g., Cal. Hark & Nav. Code §101 et seq. and Nev. Rev. Stat. §§537.010, 637.020, and 537.030.
25. Tex. Civ. Stat. Ann. art. 5302 (1962), which declares all streams navigable which retain an average of 30 feet in width from the mouth up. See also the Wyoming statute discussed in Day v. Armstrong, infra, which statute attempted to define navigable streams by their flow.
26. See, e.g., State v. Bradford, 121 Tex. 515, 50 S.W.2d 1065 (1932); People v. Mack, 19 Cal. App. 3d 1040, 97 Cal. Rptr. 448 (1971); State v. Brace, 76 N.D. 314, 36 N.W.2d 330 (1949); State

- Engineer v. Cowels Bros., Inc., 86 Nev. 872, 478 P.2d 159 (1970).
27. Minn. Stat. Ann. §105.38 (1964); Ind. Ann. Stat. §27-654 (Burns 1970). See also Lambray v. Metcalf, 52 Minn. 181, 53 N.W. 1139 (1893); Hillebrand v. Knapp, 65 S.D. 414, 274 N.W. 821 (1937).
  28. See generally 30 Mich. L. Rev. 472 (1932), arguing that where bed ownership is private, the public use of navigable waters is limited to navigation.
  29. See Clark, supra note 1, at §37.2(c).
  30. See, e.g., Idaho Code §36-1601(b) (1976 Supp.) and Southern Idaho Fish & Game Ass'n v. Picabo Livestock, Inc., 96 Idaho 360, 528 P.2d 1295 (1974); People v. Mack, 19 Cal. App. 3d 1040, 97 Cal. Rptr. 448 (1971); Luscher v. Reynolds, 153 Or. 625, 56 P.2d 1158 (1936); Wilbour v. Gallagher, 77 Wash.2d 306, 462 P.2d 232 (1969). See Johnson and Austin, "Recreational Rights and Title to Beds on Western Lakes and Streams," 7 Nat. Res. J. 1 (1967).
  31. Clark, note 1, supra, at §36.4(A).
  32. See generally Comment, "The State Navigation Servitude," 4 Land & Water L. Rev. 521.
  33. See, e.g., Natcher v. City of Bowling Green, 269 Ky. 584, 94 S.W.2d 255 (1936); State v. Preston, 2 Ohio Op.2d 244, 207 N.E. 2d 664 (1963).
  34. See, e.g., Colberg, Inc. v. State, 62 Cal. Rptr. 401, 432 P.2d 3 (1967); Crary v. State Highway Comm'n, 219 Miss. 284, 68 So.2d 468 (1953).
  35. See, e.g., Alas. Stat. §46.15.080.
  36. See Ariz. Rev. Stat. §13-601.
  37. 362 P.2d 137 (Wyo. 1961). Contra, State v. Brace, 76 N.D. 314, 36 N.W.2d 330 (1948).
  38. Wyo. Const. art. 8, §1.
  39. 51 N.M. 207, 182 P.2d 421 (1945).
  40. N.M. Const. art. 16, §2.
  41. §36-8-101 et seq., C.R.S. 1973.



42. §37-87-102, C.R.S. 1973.
43. §§37-2-101, 37-3-106, C.R.S. 1973.
44. S.B. 360 (1977), amending §18-4-504.5, C.R.S. 1973.
45. See, e.g., People v. Garcia, \_\_\_ Colo. \_\_\_, 541 P.2d 687 (1975), which states the general rule that a criminal statute is unconstitutionally vague if it either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess as to its meaning and application.
46. 36 Colo. 146, 84 P. 685 (1905).
47. Trelease, Water Law Casebook (2d Ed.) at 402 (1974); Leighty, note 19, supra, at 475.
48. State v. Red River Valley Co., note 39, supra.
49. 55 Colo. 24, 129 P. 220 (1912).
50. See generally Meyers v. Farlock, Water Resource Management (Casebook 1971) at 812-16. See, e.g., Bartlett v. Stalker Lake Sportsman Club, 283 Minn. 393, 168 N.W.2d 356 (1969).
51. See generally 26 C.J.S. Dedication §50 and 23 Am. Jur. 2d Dedication §57. See also Thornton v. City of Colorado Springs, 173 Colo. 357, 478 P.2d 665 (1970); Board of County Comm'rs v. Warneke, 85 Colo. 388, 276 P. 671 (1929); City of Denver v. Jacobsen, 17 Colo. 497, 30 P. 216 (1890); Starr v. People, 17 Colo. 458, 3 P. 64 (1892).

IX. NEW MECHANISMS FOR THE ASSERTION OF THE PUBLIC INTEREST UNDER  
THE STATE'S POLICE POWER.

A. Introduction.

It seems undisputable that any statewide program which seeks to control the future acquisition and use of water rights will need to rely heavily, if not primarily, upon police power regulation thereof. The police power offers the state one of the most flexible, the most broadly based, and, from the state's point of view, one of the most economical means for achieving such control.

It is the purpose of this section to review the existing and potential scope of police power regulation of water rights in the State of Colorado. Specifically, this section will present:

- (1) A brief analysis of the legal and constitutional limits of the police power, particularly as that authority relates to the regulation of water rights.
- (2) An analysis of potential police power techniques which may be utilized as a means of achieving the maximum utilization of water. Many of these techniques are derived from similar statutes in effect in states other than Colorado.

It is hoped that this section will serve to catalogue the numerous police power techniques available to control the acquisition of water rights while providing a description of the feasibility and potentiality of each in Colorado.

B. Analysis of Police Power.

1. Constitutional Opportunities and Limitations  
Under the Police Power.

The primary scope of governmental regulatory authority is that authority known as the police power. It is under the police power that a society may regulate, restrict, and even prohibit its citizens' enjoyment of and rights in life, liberty, and property.<sup>1</sup>

The police power is expansive. It permits the regulation of all forms of human undertaking as necessary to promote the public health, safety, morals, welfare, convenience, and prosperity.<sup>2</sup> In view of these broad, lawful police power objectives, it has been said that the police power is the least limitable of all governmental powers.<sup>3</sup>

To say that the police power is the least limitable of governmental powers is not to imply that it is illimitable. There exist two major limitations upon its exercise. Every exercise of the police power, regardless of which of the above-enumerated objectives it seeks to promote, must be within the restrictions expressed by the constitutions of the United States and the State of Colorado.<sup>4</sup> This prohibition extends to all rights protected by the Colorado and United States constitutions, including the rights of free speech,<sup>5</sup> due process,<sup>6</sup> and each and every other right implicit therein. As a general rule, however, it can be stated that no constitutional infringement will be found if a particular police power regulation meets the following tests:<sup>7</sup>

- (1) The regulation seeks to promote a valid police power objective, that is, the promotion of the public health, safety, welfare, morals, convenience, or prosperity.
- (2) The means adopted by the regulation to achieve such objective (or objectives) are reasonable under the circumstances.

The second limitation upon the police power is distinct from the first. The source of all police power is vested in the state and exercised by the legislative branch of the government. It is said that such is inherent in the state and springs from the common law.<sup>8</sup> The state may in its discretion, however, delegate the exercise of the police power authority to local governments or to various agencies of the state government.<sup>9</sup> Once the legislature has so acted, the delegee agencies may exercise the police power, but only within the constraints of the delegation made by the legislature. This limitation represents the second major limitation upon the exercise of the police power.<sup>10</sup>

Though the expansive police power is subject to the above-stated limitations, the courts traditionally have shown a hesitancy to overturn police power regulations of state and local governments. This hesitancy has been synthesized into two judicial doctrines which restrict the applicability of the limitations. First, courts will indulge every legislative exercise of the police power with a presumption of validity which may be overturned only upon a showing that the regulation is unlawful beyond all reasonable doubt.<sup>11</sup> The difficult standard of proof presented by this test will protect many an exercise of the police power.

Second, in recognition of the primacy of the legislature in exercising the police power, the courts have vested the legislature with broad discretion to determine the objects and means of any exercise thereof.<sup>12</sup> In those cases in which the propriety of a legislative regulation is fairly debatable, the regulation will be upheld by the courts. Again, it must not be understood that these

doctrines do not protect and validate every exercise of the police power. The above-stated limitations do apply. Their broad applicability is, however, limited by the described doctrines.

## 2. Applicability to Property Rights.

### a. Regulation of Water Rights in General.

This report deals with proposals which have the effect of regulating water rights. Under Colorado law, water rights are property rights.<sup>13</sup> The applicability of the police power to the control of property rights, and particularly water rights, should be addressed.

It is said in Colorado that all private and public property is held subject to the reasonable police power of the state as exercised by properly constituted authorities.<sup>14</sup> It is futile therefore to argue that property rights are inviolate and free from regulation. The only question, as discussed above, is whether the regulation is "reasonable."

It appears that water rights, as property rights, are no exception to the stated rule. Indeed, the acquisition and use of water rights have long been held to be subject to control under the police power of the State of Colorado in order to promote the public health, safety, welfare, and other legitimate police power objectives.<sup>15</sup> A water right is a property right, and may be regulated by the state in the same fashion, and subject to the same limitations, as any other property right.<sup>16</sup> Indeed, the very enactment of a statutory water adjudication system, which has existed in one form or another since Colorado's statehood, is in itself an exercise of the state's police power.<sup>17</sup> So, too, is the Colorado Ground Water Management Act of 1965, regulating the acquisition and use of rights in and to tributary and nontributary ground water.<sup>18</sup> The recognition by the Colorado Supreme Court that changes of water rights may be conditioned to prevent injury and that underground diversions may be regulated by reasonable rules of the state engineer are also examples of the lawful imposition of police power restrictions upon the acquisition and use of water rights.<sup>19</sup>

It was mentioned above that each exercise of the police power must be within the confines of the Colorado and United States constitutions. In Colorado, this limitation is particularly significant with respect to the regulation of water rights due to the provisions of art. XVI, §5 and §6, of the Colorado Constitution, dealing with the use of the waters of the state.

Article XVI, §5, provides:

Water of streams public property. The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.

Article XVI, §6, provides:

Diverting unappropriated water--priority preferred uses. The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

Even a cursory reading of these sections indicates that any exercise of the police power which attempts to restrict appropriation or diversion of water, to modify the priority concept, or to usurp the preference provision will be subject to challenge on the basis that it is an unconstitutional act.

The broad meaning of these provisions has been restricted by judicial interpretation and legislative enactment. For example, §6 provides for priority of right based upon priority of appropriation. It has long been recognized, however, that a factor not mentioned by the constitution also influences priority of right. Thus, in Hardesty Reservoir, Canal, and Land Co. v. Arkansas Valley Sugar Beet Irrigation Land Co.,<sup>20</sup> it was held that a priority in a supplemental adjudication may not be given a number or date earlier than the last-numbered priority and date in the preceding adjudication. The Hardesty decision modifies the "first-in-time, first-in-right" concept by providing that rights appropriated at a later date will be prior in right to those appropriated earlier, if the former are judicially decreed at an earlier date. The Hardesty rule has since been codified and exists at §37-92-306, C.R.S. 1973. While no case has ever upheld the constitutionality of that section, the Hardesty decision seems to indicate that the statute would surely be upheld.

That the right to divert may also be limited by the legislature has also been settled. Thus, in Larimer County Reservoir Co. v. People,<sup>21</sup> the state supreme court held that, while the legislature could not prohibit diversions or appropriations, "that body has the

power to regulate the manner of effecting such . . ." at least.

A restriction has also been engrafted upon the broad language of the preference clause of art. XVI, §6. Upon the face of the language therein, it would appear that, in times of shortage, domestic users would have preference over all users and irrigation users over all but domestic users. The provision was limited in Town of Sterling v. Pawnee D. Ext. Co.,<sup>22</sup> in which the supreme court held that water previously appropriated for some other beneficial purpose cannot be taken for domestic purposes without full compensation to or consent of the owner of the right.<sup>23</sup> Interestingly, the Town of Sterling decision upheld an 1877 statute which, in spite of the preference clause, required cities and towns, in taking water for domestic purposes, to compensate or gain the consent of the right's owner to the taking.<sup>24</sup> As such, the decision does indicate that reasonable police power restrictions upon the broad doctrines stated in §5 and §6 of art. XVI will be tolerated.

Clearly, the constitutional proscriptions of art. XVI constitute perhaps the most troublesome hindrance to the regulation of water right acquisition and use in Colorado. Based upon the decisions cited, however, it can be concluded that reasonable police power regulation thereof will be held to be valid.

b. The Taking Issue.

Every exercise of the police power must meet constitutional standards. Section B.1., supra. With respect to the regulation of property rights under the police power, one particular constitutional requirement has been invoked with particular frequency. That one requirement is the constitutional prohibition against the taking or, under the Colorado Constitution, damaging of property without the payment of just compensation. Colo. Const. art. II, §15; U.S. Const. arts. V, XIV.

It has long been accepted that a regulation which goes too far results in a "taking" of property rights without compensation.<sup>25</sup> Water rights, as property, are protected by this doctrine.<sup>26</sup> While there is no precise test to determine when a regulation has gone "too far," it can be said that financial loss to the regulated party will be an important factor in determining when a taking has occurred.<sup>27</sup> The penultimate test of a regulation, as described in §B.1., supra, is, of course, whether the regulation constitutes a reasonable regulation promoting a lawful police power objective. Excessive financial loss in relation to public benefit obtained is a means, in cases of "regulatory taking," to determine reasonableness.<sup>28</sup> If a regulation is found to be excessive or confiscatory, it will be held to be unreasonable and to constitute a taking of one's property rights.<sup>29</sup>

Absent the just compensation required by the constitution, that taking is invalid.

Every property right is, however, subject to regulation, and not every diminution of the value of a right resulting from regulation is a taking.<sup>30</sup> Again, the test is in the regulation's reasonableness. A reasonable regulation which diminishes the value of property rights will be upheld--the owner of the right will be held to have suffered damage absent injury, and compensation will not be required. For example, it is quite clear in Colorado that a zoning ordinance will not be held to be a taking, despite its diminishing the value of the zoned property, if at least one reasonable use for which the property is suited remains.<sup>31</sup> If this theory can be extended to water rights, it is quite clear that substantial regulation thereof can be obtained without exceeding constitutional proscriptions, so long as at least one reasonable use of water remains in the face of regulation. In fact, it has been argued in a recent scholarly treatment of the taking issue that "the regulation of land, if reasonably related to a valid public purpose, can never constitute a taking."<sup>32</sup> Again, applied to the regulation of water rights, this theory presents enormous opportunities for the application of innovative techniques.

One issue which does not seem to have been raised in Colorado in a police power case is the impact of the damage provision of the Colorado Constitution. As noted, the Colorado Constitution prohibits not only the taking of property without just compensation, but also the damaging thereof. It seems clear that the "damaging" proscription is more restrictive than the taking proscription and could well present a more facile way of challenging the reasonableness of regulation. This facet of the constitution, while as of yet untested, must be kept in mind in proposing new regulation of water rights.

### C. State Powers Over Its Political Subdivisions.

#### 1. Introduction.

The police power provides a basic source of authority on behalf of the state to regulate the activities of its citizens. The state possesses similar, though even greater authority, by virtue of its sovereign capacity, to regulate and control its political subdivisions. This authority could play a significant role in the regulation of municipal water users. Its scope is briefly outlined in this section and will be referred to as appropriate in the subsequent discussion of police power regulation over water rights.

## 2. General Scope of Control.

The state's authority over its political subdivisions is distinct from its police powers over its private citizens, and it is generally subject to fewer restrictions. Political subdivisions in this context include state agencies, municipalities and counties, together with special districts, such as irrigation districts or conservancy districts which are organized to perform limited governmental functions.<sup>33</sup>

The various political subdivisions are said to exist for the convenient administration of state government and are merely instruments of the state, created to carry out the will of the state.<sup>34</sup> Consequently, the state may be able to enact legislation controlling the manner in which its subdivisions acquire, transfer, or use their water rights, which legislation could not be constitutionally applied to private appropriators.

Because the political subdivisions of the state exist by virtue of the sovereign will of the state, court decisions have described the power of the state over its subdivisions as plenary, supreme, absolute, or unlimited.<sup>35</sup> Though these expressions somewhat overstate the state's power, they nevertheless impart a sense of the largesse that a state has over the functioning of its subdivisions. In the absence of any specific restriction in the state constitution, the powers conferred upon a political subdivision are not regarded as vested rights as against the state, and the state legislature has absolute power to change, modify, or destroy them. The United States Supreme Court in Hunter v. City of Pittsburgh<sup>36</sup> has stated the rule in no uncertain terms as follows:

For the purpose of executing these powers properly and efficiently they [municipal corporations] usually are given the power to acquire, hold, and manage personal and real property. The number, nature, and duration of the powers conferred upon these corporations and the territory over which they shall be exercised rests in the absolute discretion of the state. Neither their characters, nor any law conferring governmental powers, or vesting in them property to be used for governmental purposes, or authorizing them to hold or manage such property, or exempting them from taxation upon it, constitutes a contract with the state within the meaning of the Federal Constitution. The state, therefore, at its pleasure, may modify or withdraw all such powers, may take without compensation such property, hold it itself, or vest it in other agencies, expand or contract the territorial area, unite the whole or a part of it with another municipality, repeal the charter and destroy the corporation. All this may



be done, conditionally or unconditionally, with or without the consent of the citizens, or even against their protest. In all these respects the state is supreme, and its legislative body, conforming its action to the state Constitution, may do as it will, unrestrained by any provision of the Constitution of the United States. Although the inhabitants and property owners may, by such changes, suffer inconvenience, and their property may be lessened in value by the burden of increased taxation, or for any other reason, they have no right, by contract or otherwise, in the unaltered or continued existence of the corporation or its powers, and there is nothing in the Federal Constitution which protects them from these injurious consequences. The power is in the state, and those who legislate for the state are alone responsible for any unjust or oppressive exercise of it.

Because of the sovereign authority of the state over its political subdivisions, courts have held that such agencies and local governments do not have any privilege or immunities under the Federal or State Constitution as against the state.<sup>37</sup> Hence, they cannot assert that they have been denied due process or equal protection of the laws by reason of state action that restricts their governmental powers or the use of property held for governmental purposes.<sup>38</sup>

Despite such unconditional statements, courts have nevertheless recognized certain limitations on the state's power.

### 3. Limitations on State Sovereign Power.

#### a. Home Rule Status.

Political subdivisions are ordinarily created by statute and are confined to the specific powers granted by statute, which statute is strictly construed by the courts when assessing the powers of the subdivisions.<sup>39</sup> Article XX of the Colorado Constitution, however, permits a city or town having a population of 2,000 or more to adopt a home rule charter by which it is vested with every power possessed by the Colorado General Assembly as to purely local and municipal powers, unless restricted by the terms of the charter itself.<sup>40</sup> Such home rule status makes the municipality autonomous of the state with respect to matters of local concern and with respect to certain powers expressly conferred by the Colorado Constitution. Thus, to determine whether the state can prescribe conditions on a home rule municipality's acquisition, transfer, or use of its water rights, a determination must be made whether such activity involves a matter

of local concern, of "mixed" state and local concern, or of statewide concern. The constitution must also be reviewed to determine whether any exclusive powers are expressly conferred on home rule municipalities.

If the matter is one of local concern only, the ordinances of home rule municipalities override any conflicting state statutes within the jurisdiction or territorial limits of the municipality.<sup>41</sup> When a home rule municipality has not acted in a particular area, however, state law applies, as in the case of statutory municipalities to the extent no conflict develops with the charter of the home rule municipality or its existing ordinances.<sup>42</sup>

With respect to matters of "mixed" state and local concern, concurrent state and municipal power is to be exercised if state law does not preempt municipal authority in the area.<sup>43</sup> State law will preempt a municipal law only if such preemption is expressed in the state law,<sup>44</sup> or if a conflict exists in the application of state and local laws.<sup>45</sup>

In matters of purely statewide concern, state statutes ordinarily govern and control the exercise of governmental authority.<sup>46</sup> In such cases, even when no state statute exists in the area, a municipality may not legislate on matters of statewide concern without express authority of the state.<sup>47</sup>

Until just recently, the Colorado courts had not directly addressed the question of whether the acquisition and use of water rights or the operation of a waterworks system were purely matters of local concern so that the state could not interfere in these particular activities of home rule municipalities.<sup>48</sup> In City of Thornton v. The Farmers Reservoir and Irrigation Co.,<sup>49</sup> however, the Colorado Supreme Court held that it did not matter whether the acquisition of water or the operation of a waterworks system is categorized as a matter of state interest or local interest. The court reasoned that §§1 and 6, art. XX, of the Colorado Constitution, specifically gives a home rule municipality, "The power, within or without its territorial limits, to construct, condemn and purchase, acquire, lease, add to, maintain, conduct and operate, water works . . . or works or ways local in use and extent. . . ." <sup>50</sup> As a result, the acquisition of water and the operation of a waterworks system is entirely a matter for the home rule municipality to regulate, regardless of whether such activity might arguably be classified a matter of state interest.

Accordingly, in the Thornton case, the court ruled that the Water Rights Condemnation Act<sup>51</sup> could not be constitutionally applied to regulate or restrict the power of home rule municipalities to condemn water rights, even outside their municipal boundaries. This act attempted to regulate the municipal condemnation of water rights

by requiring a commission to be appointed to determine the necessity of the condemnation, and by prohibiting the condemnation of water rights for future needs in excess of 15 years. The court held that these restrictions interfered with the home rule power of a city to acquire and operate a waterworks system.

The effect of the decision is to severely constrain the power of the state to regulate the activities of home rule municipalities, not only with respect to condemnation of water rights, but also in connection with their acquisition and use of water in general. For example, the state probably cannot require home rule municipalities to reuse transmountain water, prohibit them from making transmountain diversions or other diversions not consistent with a state water policy, or force them to take certain conservation measures. Although not mentioned in the Thornton decision, the state would still likely be able to exercise its traditional power over the adjudication and administration of the waters of the state. Perhaps this power, which is derived from the Colorado Constitution, will be liberally construed to offset some of the extreme ramifications of the Thornton case, so as to effectuate the state's obvious interest in water.<sup>52</sup>

b. Rights of Citizens.

As discussed previously, political subdivisions do not have a vested right as against the state with respect to the continuance of their governmental powers and ownership of governmental property. Consequently, they cannot assert claims against the state on the theory of an impairment of contract, a denial of due process, or a denial of equal protection when their governmental power or property is restricted or taken by the state.<sup>53</sup> The citizens of a local government likewise lack standing to contest state action when their rights are merely derivative of the alleged rights of the local government.<sup>54</sup>

However, the state cannot restrict its political subdivisions in such a way as to violate the rights of private parties or to exceed the constitutional limitations on its power.<sup>55</sup> For example, it has been held that the state cannot modify the powers or existence of a local authority at the expense of creditors or bondholders of the local authority.<sup>56</sup> It has also been held that a state cannot change the boundaries or powers of a local government if such action is racially discriminatory or deprives a person of the right to vote.<sup>57</sup> In other words, when exercising control over its subdivisions, the state cannot exceed the usual limitations on its power to enact or repeal legislation in violation of the rights of private parties.<sup>58</sup>

It is often unclear when state action involving its subdivisions implicates the rights of private parties. In Enger v. Walker Field,<sup>59</sup>

the Colorado Supreme Court held that the citizens of Grand Junction had no standing to challenge a state law which required Grand Junction to transfer its municipally-owned airport without compensation to an airport authority created by the action of Grand Junction and other entities. The court reasoned that the property owned and held by municipalities is the property of the public and it is therefore completely subject to the will of the people acting through the state government. Similarly, courts in other cases have held that taxpayers have no enforceable right to the continuance of a municipality or its existing boundaries on the theory that their tax burden would be increased or that their property values would be decreased if a change occurred.<sup>60</sup>

Consequently, it would undoubtedly be a matter of dispute whether the state could control the use or transfer of a political subdivision's existing water rights or restrict its acquisition of future water supplies without violating the rights of private parties dependent on such water supplies. Arguably, the water rights of a local government are public property subject to the control and dominion of the people acting through its state legislature; users of such water cannot therefore complain if such public property is restricted by the state to their detriment. On the other hand, water users may have acquired a contractual or other enforceable right to the maintenance of existing water rights, or even to the provision for adequate future supplies of water, which rights cannot be retroactively impaired by the legislature.<sup>61</sup>

The Colorado Supreme Court has only partially addressed some of the foregoing issues. In Central Colorado Water Conservancy Dist. v. Colorado River Water Conservation District,<sup>62</sup> the court held that the legislature could impose conditions on a conservancy district's appropriation of transmountain water when such conditions appeared in the enabling legislature before the district was organized pursuant to such legislation. The court reasoned as follows:<sup>63</sup>

To say that the legislature cannot impose conditions upon this creature of statute before it could divert water from a natural basin to the district flies in the face of well settled principles of constitutional law. A governmental entity which comes into being through an enactment of a statute cannot attack the provisions of that same law. . . . The rights of appropriation contained in the constitution of Colorado are reserved to the people. An instrumentality of the state has only such rights as the statute gives it. . . . Appellant owes its authority to appropriate water to the statute which gave it existence and which imposed conditions upon it before it could obtain such sought-for appropriation. It was compelled to obey the mandate of the statute not

only in how the district is formed, but also in how it, through the directors, continues to function. [Emphasis added.]

This decision therefore upholds the power of a state to impose conditions on a political subdivision's acquisition and use of its water in the enabling legislation under which such a local government is created and organized. However, as indicated by the emphasized portions of the preceding quote, the court reserved judgment on the state's power to condition a political subdivision's acquisition of water once it is organized, and once it has already acquired water rights pursuant to previous legislative authority.

In conclusion, a state's control of its subdivision's governmental powers and property is limited to the extent that rights of private parties are adversely affected. The law is currently unsettled on the question of whether the state can restrict a political subdivision's existing water rights or curtail the powers of an existing local government to acquire water rights without violating the rights of the private users of such water rights. Were the state to pass legislation concerning local governments which might have the effect of significantly impairing the rights of private users of water, the state could expect a suit by such users on the theory of impairment of contract or a taking of private property without due process. The success of such a suit would depend on the users proving that they had a right to the continuance of a local government's existing supplies of water and the use of the water without unreasonable government regulation. As to future supplies of water or future transfers of water rights, the water users could no longer argue that state legislation would be retroactive; and their suit would likely be unsuccessful given the proposition that citizens do not have an enforceable right to the continuance of a local government's powers.

c. Governmental v. Proprietary Functions of Local Governments.

Several courts have ruled that a political subdivision of a state has certain rights against unreasonable state action with respect to property acquired in a proprietary function as opposed to a governmental function.<sup>64</sup> Property is said to be governmental when it is for the use and benefit of the general public, and property is private when it is acquired and held for the special benefits of the inhabitants of the local government as distinguished from the general public.<sup>65</sup> With respect to property of a local government which is distinctly private in character, it has been held that such property is fully protected against the state by the constitution provisions respecting the private property of an individual or corporation.<sup>66</sup>

This distinction has been rejected by the United States Supreme Court for purposes of determining the limits of state action under the Federal Constitution. In City of Trenton v. New Jersey,<sup>67</sup> the Court held that the state could impose a tax on a municipality for diverting water in excess of a certain amount per capita, even though the municipality had previously purchased the right to divert more than that fixed amount from a water company who received a grant from the state to divert the water. The municipality argued that it had acquired the water rights in its proprietary capacity and therefore these rights could not be restricted by the state without just compensation. The Court refused to limit the state's power over its municipalities on the basis of the governmental-proprietary distinction. The Court noted that such a distinction is difficult to draw, and that it makes no sense in this context because all powers of a municipality, whether proprietary or governmental, are derived from the state.

Many state courts, however, have made the distinction and have held that their state constitutions prohibit the states from taking property rights acquired by a municipality in its proprietary capacity without just compensation. One early Colorado case adopted this approach. Later cases have not made use of such a distinction,<sup>68</sup> but they also have not overruled the earlier case. If such a governmental-proprietary distinction still has vitality, prior case law in Colorado would indicate that the operation and maintenance of a water works system is a proprietary, and not a governmental, function.<sup>69</sup>

#### d. Special Legislation.

The Colorado Constitution prohibits the legislature from passing any local or special laws, or laws which are not general and uniform in their operation upon all in like circumstances. Section 25 of art. V prohibits local or special laws in certain specified areas, none of which concern the acquisition or management of water rights by local governments. This section also prohibits special laws in all other areas not specifically mentioned when a general law can be made applicable.

Presumably, this section might limit the discretion of the state legislature in passing legislation affecting its political subdivisions. For example, it might prohibit the state from passing legislation only affecting the City and County of Denver's acquisition and use of water rights.

However, with respect to water, the constitution permits special legislation if general laws cannot be passed on the subject. A legislative determination that a general law cannot be passed is given much credence by the courts.<sup>70</sup> Furthermore, legislative

classification by population of municipalities is not prohibited by the constitution when it appears that such legislation is not an attempt to circumvent the constitution.<sup>71</sup>

Although the prohibition against local or special legislation must be reckoned with, it would not pose a significant obstacle to state legislation controlling the acquisition or use of water by its political subdivisions.

e. Special Commissions.

Article V, §35, of the Colorado Constitution forbids the legislature from delegating power to a "special commission" to supervise or otherwise interfere with any municipal improvement, property, or municipal function. A "special commission" has been defined by case law as being an entity of either temporary or permanent duration which exists independently of the municipality.<sup>72</sup>

This prescription could affect how the state can regulate the water activities of municipalities. For example, it would likely prohibit the state from delegating to a commission, such as the Water Conservation Board, the power to determine how water rights should be condemned or otherwise acquired by a municipality or the way they should be used by the municipality.

f. Summary.

The state could advance the public interest by regulating the acquisition, transfer, and use of water by its various political subdivisions, except perhaps in the case of home rule municipalities. The state's plenary power over its subdivisions would enable it to enact controls which it might not otherwise be able to do with respect to private appropriators.

Political subdivisions of the state could not challenge such legislation unless the courts were to classify the operation and maintenance of a waterworks system as a proprietary function rather than a governmental function. As noted previously, the United States Supreme Court has rejected such a governmental-proprietary distinction with respect to determining the rights of a political subdivision under the Federal Constitution. Though the Colorado Supreme Court drew such a distinction in an early case, its subsequent decisions concerning the state's power over its subdivisions have not shown a predilection to follow the holding of the case.

The state could expect a challenge from the customers of a local

government's water system if legislation significantly restricts the local government's existing water supplies upon which the customers have become dependent. The success of the suit would depend on a determination of whether such customers had contractual rights to such existing water supplies that were being unreasonably impaired by the new legislation or unreasonably regulated by the state under its police powers. With respect to prospective legislation concerning the local government's acquisition or transfer of water rights,<sup>73</sup> such a suit by private customers would be less likely to succeed because of the widely accepted legal principle that a state is not obligated to continue the existing powers of a local government.

Of course, an active state role in the operation of local waterworks would raise legislative questions concerning the wisdom of interfering with the long-term plans of localities for their respective water systems. As the United State Supreme Court concluded in Hunter v. City of Pittsburgh,<sup>74</sup> "[t]he power is in the state, and those who legislate for the state are alone responsible for any unjust or oppressive exercise of it."

#### D. Analysis of Proposed Police Power Regulatory Mechanisms.

Having ascertained that the police power presents a lawful means of regulating water rights in Colorado, and having described the regulatory limits thereof, it becomes appropriate to investigate the kinds of police power techniques which are or may be available in Colorado to perform this regulation.

In this section a variety of police power techniques which appear feasible for implementation in Colorado will be proposed and described in the abstract. In addition, with respect to each proposed technique, relevant experience of other states in the use of those or similar techniques will be described in order to provide a basis for understanding the function of the techniques in an existing regulatory scheme. Finally, and perhaps most importantly, the problems and limitations of using the suggested techniques in Colorado, particularly in light of the Colorado Constitution, will be addressed.

The function of this section is not to propose draft legislation for adoption by the legislature--it is merely to present, in conceptual form, potential regulatory techniques. As such, while the problems and limitations of each can be described generally, no final determination of the legality and constitutionality of a specific legislative program based upon such suggestions can be made. This section is, however, intended to present those techniques which can be lawfully implemented under the constitution and laws of Colorado.



## 1. Zoning of Water Rights.

Zoning of water rights is a concept having its genesis in the more traditional zoning of the use of land. When zoning the use of land, governmental agencies, primarily local governments, regulate and restrict permissible land uses based upon the location of such land. Ideally, of course, zoning is based upon a master or comprehensive plan establishing the proposed growth patterns which zoning is intended to enforce.<sup>75</sup> Zoning of water rights is analogous in that it would seek to regulate permissible uses of water rights based upon the location of their places of use. This would, in turn, substantially influence land uses within zoned areas. Like zoning of land uses, zoning of water rights would ideally be based upon a comprehensive plan.

### a. Existing Authority.

If the constitutional barriers to the enactment of water right zoning regulations are overcome, the question of what entity or entities possess the authority to enact such regulations still must be answered. The following section reviews the potential sources of such authority under existing law.

#### (1) Local Powers.

Colorado counties and municipalities are authorized to zone uses of the "land" within their jurisdictions.<sup>76</sup> Since water rights are viewed as interests in real property, this enabling authority could be viewed as sufficiently broad to encompass the zoning of water rights.<sup>77</sup> If this broad view of local zoning powers is rejected and the zoning power is viewed as applying only to land, then existing legislation, even though strengthened by recent enactments,<sup>78</sup> is inadequate to allow water rights zoning.

The same problems arise with respect to counties and municipal governments attempting to prevent new appropriations or changes of use which do not conform to development plans which local governments are authorized to promulgate.<sup>79</sup> Recent enabling authority, though also directed to control over the use of "land," may be helpful, though once again it is necessary to argue for a broad reading of "land."<sup>80</sup> In either of the above instances, the judicial bias against liberal interpretation of statutes in contravention of the common law also lends credence to the conclusion that local governments may not zone water rights.<sup>81</sup>

Home rule cities face a somewhat different situation, being empowered by the Colorado Constitution to act in every matter of

local and municipal concern to the same extent as the state legislature.<sup>82</sup> Zoning has been held to be a matter of local concern, but the cases have been limited to land use matters.<sup>83</sup> Water rights zoning should therefore be authorized by home rule powers. The problem is that water rights have traditionally been granted and regulated by the state, and it would likely be held that zoning of water rights is not a matter of local concern. Home rule cities have been authorized to construct water systems, manage water districts, and to exercise similar authority, but it seems unlikely that these powers authorize local control over water rights regulation.<sup>84</sup> The mobility of water and the statewide impacts of use thereof cause its use to be more than a local concern; local regulations would likely be pre-empted.

## (2) State Agencies.

No state water-control agency or official possesses any express authority which would allow zoning of water rights. Although such powers might be implied from existing legislation, it is not likely that courts will be willing to expand their scope to embrace this type of "implied" power.

The Colorado Water Conservation Board (CWCB) is authorized to devise and formulate methods, means, and plans for bringing about the greater utilization of the waters of the state.<sup>85</sup> Even though this express power is buttressed by authority to exercise power incidental to the express grant,<sup>86</sup> it seems unlikely that enforceable water rights zoning plans are within the board's authority. CWCB has promulgated a water plan for the state, and it could also plan for water right zoning patterns. The power to enforce these plans, however, is likely to be found wanting.

River basin authorities have been authorized for each of the state's major watersheds and given significant authority over the use of water therein.<sup>87</sup> This authority could be construed to extend to water rights zoning. Unfortunately, no basin authorities have been created up to this time, leaving their effectiveness as regulatory agencies moot.

Ground water rights in designated ground water basins or non-tributary ground water may be easier to zone under existing authority than any other type of water rights. The state Ground Water Commission holds broad powers over wells and water within designated ground water basins, including the power to shut down diversions not necessary for "application to a beneficial use."<sup>88</sup> If a zoning plan could be considered in deciding what is and is not a beneficial use, this power could go far.<sup>89</sup> A nearly analogous power may be held over designated ground water by ground water management districts,

whose power to institute control measures for the proper conservation of water within the district is reviewable by the state commission.<sup>90</sup>

The state engineer also has considerable power over ground water through his power to promulgate regulations and his power to issue (or deny) well permits.<sup>91</sup> His discretion is severely limited, however, to a consideration of injury to vested rights.<sup>92</sup> The engineer also has power to make regulations which are "necessary or desirable" to enable him to fulfill his duties as an executive officer.<sup>93</sup> Despite this limitation, however, the state engineer may be empowered to adopt water rights zoning regulations. In fact, the state engineer adopted a zoning approach, albeit different in design, to regulate underground diversions of tributary water, which approach was upheld by the Colorado Supreme Court. His authority may extend to the kinds of regulations described above.<sup>94</sup>

The powers of the state Land Use Commission and the Department of Natural Resources are probably insufficient at present to design and implement water rights zoning.<sup>95</sup>

#### b. Prospective Water Right Zoning Legislation.

There is no clear authority permitting the zoning of water rights, though certain authority might be implied. To overcome this omission, enactment of water rights zoning enabling authority should be considered. Like the zoning of land, in which permissible land uses are restricted, water right zoning is a scheme which would seek to restrict the permissible uses of water rights within a given geographical area to those specified within a zoning district. The restrictions presented would be affirmative and would apply to all rights within the designated districts. A variety of zoning techniques can be suggested.

##### (1) Zoning of Type of Use.

In Colorado, an appropriation creates a water right, which right may be confirmed by judicial decree. Each water right acquired under Colorado law is limited in its type, time, place, and amount of use. One method of zoning water rights would be to restrict rights to the type of use existing as of the date of the zoning ordinance. Zoning districts would be formed on the basis of the place of use of the zoned water right.

The function of such a zoning scheme would be to restrict water right uses to those existing as of the date of the zoning ordinance.

It would be possible to build into such a system the right to change the zoned use of the water right, but only upon a showing that numerous planning and public interest criteria would be met and promoted. Thus, while the right to change a water right, a part and parcel of any water right,<sup>96</sup> would be preserved, it would be subject to greater restrictions than are presently specified by Colorado law.<sup>97</sup> Those restrictions generally permit change so long as no injury to existing rights results. The proposed scheme has the disadvantage of applying only to changes in existing uses, including those which are made as part of a plan for augmentation. No restrictions would be placed upon the acquisition of a water right by appropriation--perhaps a minor disadvantage in Colorado's overappropriated stream systems. The following proposals overcome that disadvantage to some extent.

(2) Zoning of Place of Use.

The use of water can also be restricted by its place of use. As noted, all water rights, when acquired, are acquired for use in a designated area or at a designated place. It may be feasible to restrict permissible water uses by zoning lands to permit only certain water uses thereon. For example, if land is particularly valuable or has been historically used for agricultural purposes, water uses permissible thereon could be restricted, or "zoned," to accommodate agricultural uses only. Municipal uses would be barred, as would other nonagricultural uses. Such districts could be established upon a watershed basis to reflect the natural service area of a stream's water, though uses of transbasin diversions would also be limited to those specified for the place of use. The right to change uses at a particular place could be preserved, subject to established public interest and other criteria.

A scheme which zones water rights by place of use has an advantage over a scheme which zones by existing use since the former will provide restrictions upon both appropriations and changes or plans for augmentation, while the latter restricts changes only. New water rights for use in a district zoned for agricultural use could be appropriated for agricultural purposes only. In addition, changes of place of use could also be limited by the use restrictions of the receiving district.

To some degree it can be argued, however, that a scheme which zones water rights by place of use duplicates traditional land use zoning since, under such a system, land use is tied inextricably to water use. Zoning of water rights has the advantage of placing a check on the nature of water use separate from that on land use. In addition, water rights zoning would place a check upon applications for water rights which include requests to use water for a variety of purposes solely to avoid any future need to file for a change of water right. By preserving the need for future change

proceedings, the opportunity to reassert the public's interest in the water subject to the right is also preserved.

A critical difference between land use zoning and water right zoning by place of use results from the fact that water is a movable resource whose place of use can be changed. Conceivably, a place-of-use zoning scheme could be defeated by wholesale changes of use from zones of lesser value to those of higher value. While this may be so, the problem can be mitigated by the use of land use zoning restrictions which would nullify the value of such changes and by restrictions upon such changes within the water right zoning scheme.

Finally, it should be noted that, as in the zoning of land uses, zoning of water rights by place of use will result in the creation of "nonconforming" water uses which violate the zoning scheme at its inception. It would most certainly be unconstitutional to apply new zoning to outlaw valid, existing water rights.<sup>98</sup>

### (3) Zoning of Streams or Stream Segments.

The previous two sections suggested zoning techniques which propose restrictions on the acquisition and/or change of water rights. It may be equally fruitful to zone the water of a stream or segment thereof rather than to zone the rights acquired therein.

Zoning of streams could be accomplished by restricting the permissible uses of the water of a stream. Each stream, whether a main stream or a tributary, would be zoned to permit only specified uses of the water of the stream. Larger streams could be zoned in segments so that various uses could be made of their waters. Smaller streams might be zoned for the same use or uses along their entire length, or might also be segmented.

Stream zoning could be accomplished by at least two techniques:

- (1) Each stream could be zoned separately to permit one or more water uses. Thus, stream A, a small stream in an agricultural area, could be zoned to permit solely agricultural use of its water. Stream B, a larger stream, could be zoned to permit 80 percent agricultural use, 10 percent municipal use, and 10 percent industrial use. The restrictions would be binding regardless of the place of use of the water though, absent other restrictions, water could be put to use at any place.
- (2) Zoning districts might be established along watershed boundaries. All streams within a district might then be classified to permit only certain uses of the waters thereof. For example, a watershed might be zoned to

permit use of available water therein at a ration of 70 percent agricultural, 10 percent domestic, and 20 percent industrial and mining. Water could be used at any place and from any stream within the watershed, so long as the use restrictions were preserved.

Flexibility could be inserted into such a system by permitting a change in zoning of water. Such would apply under either system proposed.

As in the case of zoning of place of use, it is intended that stream zoning concepts apply to both appropriations and changes of water rights or plans for augmentation. All new rights out of a stream would be subject to the use restrictions. Changes would also be restricted, and changes of point of diversion from one stream to another would be permitted only for designated uses. This latter restriction could be a disadvantage to a water right owner desiring to change to a more restrictive stream or district, but would be beneficial to an owner changing to a less restrictive stream or district.

Once taken from a stream, water could be used, according to the rights acquired, at any location, subject to land use and other restrictions. In order to preserve the integrity of such a system, restrictions upon interbasin transfers would be necessary in order to prevent importation of water for a use violative of the zoning requirements of the transferee basin.

#### (4) Zoning of Points of Diversion.

A fourth type of water rights zoning would control water rights at the point of diversion. Control would be exercised by zoning certain streams or stream segments to restrict water use to designated uses. As in the case of stream zoning, this would be accomplished by zoning of individual streams, or by creation of broad districts within which all water would be zoned for certain specified uses. Thus, water taken at point of diversion A on a stream might be restricted to agricultural use, while water taken at point B could be reserved for mining use. Rezonings could be permitted to introduce flexibility into such a system.

Point-of-diversion zoning would apply to both appropriations and changes of water rights or plans for augmentation. Wholesale changes of points of diversion to areas permitting more valuable use of water could be controlled through additional restrictions upon changes or through land use restrictions. To some extent, such changes would also be controlled by the physical unavailability of water which would result from excess diversions along relatively small segments of a stream.

c. Conformity of Appropriations and Changes with Comprehensive Plan.

Each of the foregoing proposals describes a strict zoning approach to the regulation of water rights and change. Planning concepts can be used to increase the flexibility in such regulation, though they might reduce the ultimate degree of control which the regulating authority could exert over water rights acquisitions and changes. Under a planning based system, a water use or change would be allowed only if the use conformed to the requirements of a detailed plan adopted by proper authorities. Responsibility for making such a finding could be vested in the water court or in an administrative agency competent to review water matters, subject to judicial review. No use or change would be granted unless compliance with the plan were shown. Though designed to achieve a different purpose, such a procedure would not be unlike that currently in effect under the Special District Control Act,<sup>99</sup> which permits counties to disapprove special district service plans on the basis of their own county master plans or on the basis of duly adopted long-range water quality management plans.<sup>100</sup>

It is apparent that the planning approach permits greater flexibility than the more rigid zoning approaches described in the prior sections. The same flexibility can, unfortunately, encourage abuse of the system, since each appropriation or change would be reviewed on an ad hoc basis subject to less certain standards than under a zoning scheme. Judicial review would be available to temper this abuse. A more detailed discussion of water planning is found at §9, infra.

d. Factors to be Considered in Adopting Water Rights Zoning.

A variety of factors would need to be considered by the legislature in enacting water rights zoning legislation. These include the following significant questions at least:

- (1) Perhaps the primary consideration would be whether the legislature would opt for the adoption of legislation based upon zoning or planning concepts described above. The zoning concepts provide a more certain way of regulating water use or change of water use. The planning approach has the advantages and disadvantages of increased flexibility. If the zoning approach were accepted, the additional question of which of the prospective zoning techniques would be utilized must also be considered.
- (2) If the zoning approach is selected, what geographical basis will be used to implement the statute? As suggested

above, zoning can be accomplished by zoning individual streams or by zoning applicable throughout a water basin. The basinwide approach offers the advantage of conformity with the natural watershed boundaries of a stream system. Zoning by water basin provides a natural, closed system upon which to base control. If a basinwide approach were selected, basins would, of course, need to be defined. The 1969 act regulates water rights with references to the state's major water basin, within which may flow several substantial streams. Consideration should be given to continuing this approach, though it may be that the needs of a water rights zoning program would require the use of smaller basins, such as those defined by the over 70 water districts of the state.

- (3) A most critical consideration is the uses which would be permitted within a basin or a stream, whether a planning or zoning based approach were used. The zoning scheme would need to reflect a thorough analysis of all existing and reasonable future needs within a basin or for the waters of a stream. Water use would be regulated in accordance with that analysis to assure that water is made available for all uses perceived to be necessary. The analysis should consider all reasonable water needs, including economic uses as well as recreational, aesthetic, fish, wildlife, and other "noneconomic" uses. The zoning scheme should then protect each of these uses to the extent necessary.
- (4) The preceding paragraph underscores the need for detailed planning, regardless of whether planning or zoning based concepts are used to ultimately regulate. Detailed planning and analysis must be the basis of any zoning scheme. Detailed planning must also be the basis of any regulatory scheme based upon a plan.
- (5) At what level will zoning or planning control be exerted? Traditionally, planning and zoning have been local functions. There is little dispute, however, that regulation of water use has always been a matter of state concern. Because water is a moving and movable resource which cannot be controlled by local boundaries, because water use has more than local impact, and because water use has traditionally been a matter for statewide concern, water rights zoning should be regulated upon a statewide or basinwide level, just as water use is currently regulated. Utilization of a statewide approach should not preclude attention to and means for providing local input in zoning decisions.



(6) Which agency will be responsible for administering water rights zoning? The water courts may be the most logical agency to make the kinds of findings required under a planning based scheme in order to regulate water use and changes thereof. The administration of a water rights zoning program would, however, appear to be suited for administrative action, with judicial review thereof to follow. Agencies seemingly competent to perform the administrative function include:

- (a) State engineer.
- (b) Colorado Water Conservation Board.
- (c) Department of Natural Resources.
- (d) River basin authorities.

If formed at the local and regional level, the following agencies might be considered:

- (a) Counties.
- (b) Municipalities.
- (c) Conservation districts.
- (d) Conservancy districts.

(7) What control would be asserted over transbasin diversions? Would transbasin diversions be regulated according to the regulations of the transferor zone or transferee zone, or would they be free of regulation? This is an important and complex question because of the impact transbasin diversions could have upon the regulatory program of both basins.

e. Experience in Other States.

(1) Planning Approaches.

Several states have adopted state water plans or policies.<sup>101</sup> Plans are generally developed by state level resource agencies. The Florida plan is required by statute to divide the various state water management districts into hydrologically controllable areas for a variety of purposes, including establishing minimum stream flows and lake and aquifer levels, protecting nonconsumptive water uses, establishing preferences for the protection of fish and wildlife

uses, and promoting uses which will enhance water resources. All permits granted for the use of state waters must comply with the plan.

Wyoming's legislation requires its state engineer to formulate water and related land resource plans for the state and its river basins.<sup>102</sup> It is not certain whether the legislation allows water permit applications and/or change applications to be adjudged in accordance with the plan.

California has had a water plan since May of 1957.<sup>103</sup> The plan is extensive, surveying available water supplies, setting goals for water projects, and recommending optimum uses of water. The plan is currently undergoing further study toward revision in the form of a state water action plan. With respect to water right zoning, the plan is important since conformity with the plan is one factor used to determine whether an application for a permit for water use should be granted. While the State Water Resources Board must give consideration to the plan, however, decisions of the California courts have made it clear that the board is not bound by the plan.<sup>104</sup>

## (2) Zoning Approaches.

No state appears to possess a zoning program precisely identical to those described in the foregoing sections. The closest to those approaches appears to be that taken by the state of Oregon. Oregon's state water policy charges its water resources board with the development of a multipurpose water resources policy to secure the maximum beneficial use of water.<sup>105</sup> The board may classify water sources according to their highest and best use and quantities of use and may designate preferences for future use.<sup>106</sup> These classifications restrict the use and quantity of unallocated waters.<sup>107</sup> They are binding upon state agencies and public corporations.<sup>108</sup> Changes and transfers of water rights, as well as permits to use water, must comply with the policy.<sup>109</sup> While designated a "policy," it is apparent that the Oregon approach is very much a water rights zoning program; of all states inventoried, the Wyoming program comes closest to the proposed Colorado legislation.

Montana's statutes are both more and less restrictive than the prospective legislation herein. The Montana statutes do not possess the general breadth of those suggested above. They do restrict certain changes, however, even more strictly. Thus, under Montana law, changes of water rights of 15 cubic feet per second or more from agricultural to industrial uses are absolutely prohibited.<sup>110</sup>

Finally, Montana and several other states have statutorily reserved certain water from appropriation.<sup>111</sup> Such reservations amount to a limited form of zoning in that they assure availability of certain water for certain future uses.

f. Problems and Limitations.

(1) Water-related Constitutional Issues.

Section 6 of art. XVI of the Colorado Constitution imposes two limitations which could impair the ability of the legislature to enact a water rights zoning program for the state. The first of these is the protection of the right to divert. Section 6 specifies that the right to divert the unappropriated waters of any natural stream to beneficial use shall never be denied. The water rights zoning schemes proposed above would not bar diversions, but they would restrict them even to the extent of prohibiting certain diversions which did not comply with the effective zoning schedule. Because the constitution protects the diversion of water to "beneficial use" and not only to certain beneficial uses allowed by law, it may be unlawful to restrict the nature of the beneficial uses which may be made of waters. Whether the limits of the police power authorize such restrictions is uncertain. Zoning type restrictions upon underground diversions, albeit different than those proposed herein, have been upheld, though they imposed fairly severe restrictions upon the right to divert.<sup>112</sup> Such authority certainly supports the proposals which have been made.

In §6 may also be found the "preference clause" which establishes a constitutional preference for water use in times of shortage. The section prefers domestic uses to agricultural and manufacturing uses. No other beneficial uses are mentioned in §6. A water rights zoning scheme could be interpreted to have the effect of reordering the preference provision. For example, if a stream were zoned to prohibit domestic use, or to provide that 85 percent of water thereof were to be used for agricultural uses and only 15 percent for domestic, a violation of the preference provision might be found. Even taking into account the far greater needs of agriculture, the fact that the provision attaches in times of shortage might require such a result. It must be noted that the preference provision does not appear to have ever been so applied.<sup>113</sup> The potential does exist.

(2) The Taking Issue.

The taking concept has been forcefully used to overcome the restrictions of land use zoning regulations and would potentially apply in the case of water rights zoning as well.

Article II, §15, of the Colorado Constitution prohibits the taking of property without the payment of just compensation. Water rights are property rights.<sup>114</sup> Any water rights zoning scheme which is so restrictive that it results in a "taking" of one's property right in water is in violation of the constitution. See §IX.b.2.(b),

supra. On this basis, zoning which affects changes of water rights might be susceptible to challenge if the restrictions are unreasonably severe. Water rights zoning prohibiting the establishment of a water right would be less susceptible to a taking challenge, unless there exists a property right to divert water. In either case, as noted at §IX.b.2.(b), it may be constitutionally sufficient if the water zoning scheme leaves at least one valuable use for the right.

(3) Nontributary Water.

An issue of importance not only with respect to prospective water rights zoning but to each of the potential legislative programs described herein, is the applicability of the water-related constitutional provisions to nontributary water. It has been noted in the foregoing section that art. XVI, §6, particularly may impose limitations upon certain police power enactments seeking to regulate the acquisition and use of water. While this is true generally, it appears that art. XVI, §§5 and 6, will not restrict legislation regarding nontributary waters. In this context, the term "nontributary" refers to waters which will not in their natural course reach a natural stream.

Article XVI, §5, of the constitution states:

The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided. [Emphasis added.]

Section 6 of the same article continues:

The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. [Emphasis added.]

On their face, each of the cited sections applies only to the waters of the state's natural streams. The Colorado Supreme Court has had occasion to rule upon the meaning of the phrase "natural

stream" on more than one occasion. Its rulings make it clear that a natural stream consists of surface waters and waters tributary thereto. As stated in Pikes Peak Golf Club v. Kuiper, "a natural stream consists of surface waters, the underflow which supports these surface waters, and tributary water."<sup>115</sup> This view of a natural stream is a liberal one, but it refuses to incorporate nontributary water within the concept of a "natural stream."

In Kuiper v. Lundvall,<sup>116</sup> the supreme court confirmed its holding that nontributary water was not to be considered a part of a natural stream as contemplated by the constitution. The court also expanded the concept of nontributary water to include de minimis tributary water. The court stated:

We hold that as to water taking over a century to reach the stream, the tributary character of this water is de minimis, and that this is not a part of the surface stream as contemplated by our Constitution. [Emphasis added.]

Thus, water which is de minimis tributary is considered, legally, to be nontributary water and is not within the constitution. The exact extent of the de minimis concept has not been defined by the court, though it is certain that water taking 40 years to reach a stream will be considered tributary and within the constitution.<sup>117</sup> Perhaps the dividing line between de minimis tributary and tributary water lies somewhere between 40 to 100 years.

Other cases as well support the concept that nontributary water is not to be governed by the provisions of art. XVI, §§5 and 6.<sup>118</sup> What this appears to mean, for the purposes of this discussion, is that the limitations which those sections may impose upon legislation affecting the acquisition and use of tributary water do not affect legislation concerning nontributary water. This is not to say that no constitutional restrictions upon such legislation exist.<sup>119</sup> Rather, the restrictions which may be inherent in §§5 and 6 alone will not affect legislation dealing with nontributary water or with de minimis tributary water. The discussion of those constitutional provisions herein and in the subsequent sections of this study will not, therefore, affect such water.

## 2. Transferable Development Rights in Water.

A concept receiving increasing attention in the regulation of land uses is that of "transferable development rights" (TDRs). In this section, several techniques for using the potential advantages of TDRs in the regulation of water rights are discussed.

a. TDRs as Applied to Land.

Since it does not appear that the TDR concept has ever been applied to water right regulation, it will be helpful to introduce the topic by discussing briefly its applicability to land use control.

The essential function of TDRs is not regulatory. Rather, TDRs function as a means of providing persons whose property rights are limited by land use regulations with compensation for the diminution in value resulting from those regulations.<sup>120</sup> It has long been recognized that land use regulations may have the effect of decreasing or holding level the value of certain parcels of land, while increasing the value of others, due solely to the fortuity of a beneficial zoning classification. This phenomenon has been called the "windfall-wipeout" effect of land use regulation. TDRs are designed to alleviate the windfall-wipeout effect by separating land ownership from the right to develop land and by requiring developers to purchase development rights from persons whose rights to develop their land have been restricted.<sup>121</sup>

The functioning of a TDR scheme may be complex. As noted, such schemes are generally proposed<sup>122</sup> to work in conjunction with traditional land use tools, such as zoning, which legislate permissible uses of land. As in traditional zoning schemes, zoning is used to establish the uses which may be made of land. Under a TDR scheme, the development rights appurtenant to a particular parcel of zoned land are then segregated from the ownership of the parcel itself. Based upon the adopted TDR system, each parcel of land is then assigned a specified number of development rights, according to the value of the parcel. In addition, the scheme then assigns to each type of use permitted by the zoning regulation a specified number of development rights, which rights must be owned or acquired before the permitted use may be implemented upon the parcel of land. Persons who wish to make a permitted use of land must show that they possess the requisite number of development rights before they may do so. This may require the user to purchase rights from persons who have an excess of rights under the scheme. For example, user A may own a parcel of land for which 10 development rights are assigned. He wishes to construct a permitted manufacturing use requiring 20 development rights. To acquire the additional 10 rights, he purchases 5 rights from user B, a farmer whose land is zoned for agricultural uses, and 5 from user C, a residential developer who has excess rights appurtenant to his residentially zoned land. As a result, users B and C, whose land is zoned for a use of lower economic value, receive "compensation" from user A, whose land is zoned for a higher value and who must purchase rights to implement the use.

The foregoing presents only a brief description of one hypothetical TDR system. As in any land use scheme, the variations are limitless. The description does, however, illustrate the primary

function of TDRs as a means for providing regulated landowners with some compensation for uses inhibited by zoning or other land use programs.

b. TDRs in Water.

As a tool for the regulation of land use, TDRs seek to control, generally in conjunction with zoning, changes in the character and use of land, while mitigating the "windfall-wipeout" impacts of that control. As proposed herein, water TDRs would seek to control changes in water use in conjunction with one or more kinds of water right zoning, while eliminating the potential of "windfall-wipeout" in those regulatory programs.<sup>123</sup> As in the case of land use regulation through TDRs, the primary component of water TDRs remains the segregation of certain aspects of the property right under regulation, followed by the assignation of development rights to existing and proposed water uses, which rights may be freely bought and sold by water users. Since water TDRs are proposed to regulate changes of water rights, the right to use water should be segregated from the right to change its use.

As described above, TDRs are generally employed to ameliorate the impacts of zoning. For the purposes of this study, TDRs will be examined with relation to the various water right zoning systems proposed in §D.1.b., supra.

(1) Zoning of Type of Use.

Zoning of water rights by existing use was described in §D.1.b.(1), supra. As proposed, that system would restrict all water uses to existing uses, with changes being allowed only upon a showing that numerous planning and public interest criteria have been met.

In the above water right zoning scheme, all rights are restricted equally, and all are granted an equal, albeit conditional, right to change. Though TDRs were originated to alleviate the inequities in a stratified regulatory system, it may be possible to beneficially utilize them under this system as well. The right to change a water right would first be separated from the right to use water. Each existing water right would then be granted a specified number of TDRs, and each type of water use a specified number of TDRs necessary as a precondition of changing to that use. A water right owner who, under the described scheme, wished to change his use would be required to show ownership of the specified number of water TDRs. Those water right owners whose rights were valued, in water TDRs,

at less than the required number would be forced to purchase additional rights prior to the grant of any change.

Up to this point, the water TDR system is generally identical to that for land. Perhaps the most striking difference is that, in the water scheme, the prospective seller of change rights has a right to change equal to that of the prospective buyer, subject to stated conditions. In TDR schemes proposed for land, the seller's "change" right is generally more restricted than the buyer's, and the TDR concept is viewed as a method of equalizing the disparity. It may be questionable, therefore, whether the same incentive to sell will exist. In any case, once a person sells his change rights in water, the right to change under the zoning scheme must be considered to be lost.

A water TDR scheme under the above system could also encourage changes which would be inimical to the general welfare. Conceivably, more water rights than desirable could be changed to uses of higher economic value, such as industrial uses, and more change rights could be committed thereto than is considered desirable. This problem could be alleviated to some degree by limiting the absolute number of changes which could be made to a particular use while preserving the right to change.<sup>124</sup>

As can be seen, certain problems arise when applying the TDR concept to zoning of types of water use. Certain of these problems are mitigated by use of other water right zoning techniques.

## (2) Zoning of Place of Use.

Water rights might also be zoned according to their place of use.<sup>125</sup> Under such a system, water uses would be limited by the location of their use. Zoning districts with clearly defined boundaries would be devised within the jurisdiction of the zoning authority.

The TDR concept seems to apply more readily to place of use zoning than to type of use zoning described in (1), supra. Again, the primary component of the system is the segregation of the right to use water from the right to change, followed by the assignation of TDRs to existing and allowed water uses. Assignation of TDRs would reflect the existing value of rights and the value of permitted changes. A change to industrial use would require a greater number of change rights than a change to agricultural or other uses of lower economic value than industrial. Change rights would be acquired from existing owners by persons seeking to change water rights. For example, if water right owner A has an agricultural right used in an industrial zone, he may change the use only to industrial. Assuming the value of A's existing right was less than necessary to make that change, he would have to acquire additional change rights from other



water right owners. The sellers of rights would be prohibited from change until they in turn purchased change rights from the next water right owner.

### (3) Zoning of Streams or Stream Segments.

Zoning of streams or stream segments was proposed as a regulatory technique in §D.1.b.(3), supra. While more than one approach was described, the thrust of that section was to suggest that a zoning scheme limiting the availability of the uses of stream waters be adopted. Once the maximum availability of a stream's water for a designated use was reached, no further appropriation or change to that use would be permitted unless added water became available for such a use.

Under a stream zoning system, changes of water rights which would violate zoning standards would be prohibited. Changes which achieved zoned (and presumably planned) objectives would be permitted, and perhaps encouraged. A water TDR system would apply to all such changes. As described above, the scheme would be initiated by separating change rights from use rights and by assigning change right values to existing and proposed uses. Change rights would be bought and sold in the marketplace as needed to fulfill the requirements of the system. For example, if a zoning scheme established allowable water use at 80 percent agricultural and 20 percent industrial, and existing stream use was actually 90 percent agricultural and 10 percent industrial, change of agricultural rights to industrial use would be permitted until the zoned-for ration was achieved. To undertake such a change, the agricultural user would need to show that he possessed sufficient change rights, many of which would be purchased from other agricultural users. Alternatively, if actual stream conditions were 70 percent agricultural and 30 percent industrial, change could only be made to agricultural use.

It can be argued, as in the case of type-of-use zoning, that stream zoning provides no incentive to sell TDRs, since all water rights owners have equal prerogative to change the use of their water right. The right is constricted by the upper limit set by the zoning, however, and since the practical effect of the limit would likely be to permit changes of only certain rights, certain other rights will be unable to be changed. Even more may be left without the right to change to a more valuable use. Since TDRs seek to remedy that inequity, their use in a stream zoning setting seems to be quite appropriate.

#### (4) Zoning of Points of Diversion.

The final water right zoning technique described in §D.1.b.(4), supra, concerned the zoning of points of diversion. Under such a system, uses of water would be restricted according to the location of their points of diversion. Changes of points of diversion resulting in changes of use of water would be regulated to assure that optimum use of a stream's water could be achieved.

To merit change, a water right owner would first need to demonstrate ownership of sufficient change rights. The change-of-right system and the values of change rights would be established as described, and trading in TDRs would be permitted within the marketplace. TDRs required by the system would be purchased by those desiring to change and sold by those undesirous or unable of making any change of their water rights.

As in the case of zoning of streams, all water right owners would possess an equal right to change water rights at the inception of the system. This right would be constricted by the change limitations required by a point-of-diversion zoning system. The incentive to sell change rights would therefore remain.

#### c. Factors to be Considered in Adopting a Water TDR System.

Several important considerations must be addressed prior to the adoption of any water TDR program. These include the following:

- (1) Since a water TDR program seeks to eliminate inequities produced by a water rights zoning system, water rights zoning creates the need therefor. Those factors described at §D.1.d., supra, therefore apply equally here.
- (2) Who will administer the water TDR program? Reasons for selecting local or state agencies were briefly described at §D.1.d. Regardless of which agency is ultimately selected to administer the TDR system, however, it should be the same agency which administers the water rights zoning program. The two are unavoidably related, and seek to provide means to control identical problems.
- (3) How will land values and use values be established and how will TDRs be assigned? This is probably the most important consideration in developing a water TDR system. Values will not be established by the legislature, but any TDR legislation might well provide guidelines for the agency charged with that task. In any event, numerous

questions do arise in making the actual evaluation. Should lands be evaluated at their actual use value, potential use value, market value, or in some other fashion? What values will be assigned to land uses in order to determine the number of TDRs needed to implement the use? How will those evaluations be made? All of these questions must be answered before a TDR program can even begin. Legislative guidance would be a beneficial place to start.

- (4) Though closely related to traditional zoning, the combined use of zoning and TDRs has some distinct advantages over the use of traditional zoning alone, which advantages should be considered if a water rights zoning program were to be enacted.

With the use of TDRs, the "windfall-wipeout" impact can be at least partially eliminated through the sale and purchase of development rights. While perfect equalization of the benefits and burdens of zoning may never be attained, TDRs at least provide partial equalization. While a TDR system creates a burden additional to the zoning burden, the burden should only be on landowners whose land has been placed in a zone of higher economic value. It can be argued that it is every bit fair that the government which creates such benefits through its zoning can and should act to equalize them, since the benefits and burdens arise solely from its act of zoning.

TDRs should also permit more restrictive zoning of water rights than could be achieved through traditional zoning. By the use of a TDR system, the serious land devaluations which may result from zoning can be cured. As a result, a government might well be able to enact restrictive zoning classifications which might otherwise be a "taking," since opportunity for compensation for those regulated would be provided.

As a corollary of the fact that more restrictive zoning than possible under traditional zoning might be achieved by zoning with TDRs, less pressure for change should be exerted under a TDR system. Certainly there will be less reason to grant variances or rezonings when monetary compensation is possible without such. If in fact such a result occurs, it will be a long way toward preserving the integrity of the plans upon which zoning is based.

d. Authority to Adopt Water TDR Systems.

The need for new legislation creating a water TDR program is made evident by a review of existing legislation. Only a very liberal interpretation thereof could provide a basis for water TDRs in current law. In addition, as discussed at §D.1.a.(1), no express authority to adopt any type of water right zoning is currently held by any state or local agency, though the authority may be implied in several cases. A TDR system faces all the problems which confront "traditional" zoning when applied to water rights, as well as the added problem that due to the relatively recent emergence of the TDR concept, it is unlikely that any existing enabling legislation was intended to include authority to adopt a TDR system.

County and municipal zoning powers, as enhanced by recent additions to local enabling legislation, over land may be broad enough to adopt a TDR system of land use control,<sup>126</sup> although it has not yet been tried in Colorado. The difficulty arises when these zoning powers are applied to water. It seems that if counties and municipalities can adopt a TDR system for land and if their zoning authority allows them to zone water rights, then they would have the power to adopt a TDR system for water rights. No other local authority appears to have sufficient power to adopt such a scheme.<sup>127</sup>

Authority of regional agencies for the adoption of water TDRs is also anything but clear. Water conservancy districts may encumber water, waterworks, water rights, and sources of water supply for use within a conservancy district.<sup>128</sup> Each of the state's water conservation districts may perform all acts and things necessary or advisable to secure and ensure an adequate supply of water for various purposes within the district.<sup>129</sup> River basin authorities may establish standards for the proper utilization of water within their jurisdiction, violation of which is prima facie evidence of waste.<sup>130</sup> While each of these specific grants of power, as bolstered by other granted powers, may arguably be broad enough to encompass a water TDR system, it seems unlikely that such was intended.

The authority of state agencies provides a shaky foundation at best on which to rest a TDR system. The Colorado Water Conservation Board,<sup>131</sup> the Department of Natural Resources,<sup>132</sup> the Land Use Commission,<sup>133</sup> and the Division of Planning<sup>134</sup> would all need a most flexible reading of their enabling statutes in order to claim TDR authority under present law. It was noted, however, at §D.1.a.(2), that the Colorado Ground Water Commission may have the strongest powers of any agency to adopt water rights zoning. The broad grant of rule-making power in the commission's enabling legislation would appear to be sufficient to adopt a TDR system if it is allowed to apply traditional types of zoning to water rights.<sup>135</sup>

In summary, the state and local agencies which have the strongest

powers for applying normal zoning principles to water rights also have the best chance of being able to adopt a TDR system. That chance, under present law, is not good.

e. Experience in Other States.

A water TDR or change of right system does not appear to have been implemented in any state. The concept has been utilized in a few instances in regulation of land use, with varied success.

In Chicago, a TDR plan to preserve landmarks was proposed. Under the plan, the owner of a landmark was prohibited from razing the landmark, but was granted development rights which could be sold in or transferred to separately designated districts.<sup>136</sup> Development rights equal to the difference between the landmark and a hypothetical building (meeting zoning district standards) were allowed.<sup>137</sup> As a further element of the plan, a tax break on landmark buildings was provided.<sup>138</sup> The Chicago plan, while promising, ran into difficulty and was, unfortunately, abandoned before any practical experience could be acquired.

New York City has experimented with TDRs in three different types of districts. Each TDR scheme seeks to implement a different purpose. One attempted to preserve certain landmarks by permitting development rights transfer from the landmark site to six other sites.<sup>139</sup> A second scheme permitted similar transfers.<sup>140</sup> A third sought to preserve certain private parks in Manhattan by zoning them as open space and permitting the transfer of the development rights to any other site in the city.<sup>141</sup> Each of the schemes are classic TDR programs. Unfortunately, the New York Court of Appeals has ruled that the third scheme is unconstitutional.<sup>142</sup> The decision certainly throws the validity of the other two schemes in doubt.

TDRs have been largely used in urban settings, but not exclusively. In Long Island, New York, the town of Southampton has devised a TDR scheme to protect agricultural lands. The scheme permits owners of agricultural lands to transfer development rights to planned residential developments anywhere within the school district in which the agricultural land is located.<sup>143</sup> The validity of this proposal may also be thrown into question by the decision of the New York court.

f. Problems and Limitations.

(1) The Taking Issue.

The Colorado and federal constitutions prohibit the taking of

property absent the payment of just compensation.<sup>144</sup> This proscription presents at least two problems.

Under Colorado law, the right to change the use of a water right is a part of the property interest therein.<sup>145</sup> It is not merely an incident of the right. The right to change a water right is therefore protected by the taking provisions of the Colorado and United States constitutions. A water right zoning-TDR program might infringe this protection if unreasonable. First, the zoning portion of the program might be considered to be a taking if it imposed too severe restrictions upon one's right to change his water right. This is hornbook law which has always applied in Colorado in the case of land use zoning.<sup>146</sup> The TDR segment of the program might add further taking problems. The requirement that one purchase rights to change his own water right might be attacked as unreasonable on its face. Even if upheld in the abstract, however, a TDR system which sorely undervalued land or unreasonably overvalued potential uses of water might be held to be a taking on the facts of a particular case.

Whether the interests of the public would be sufficient to overcome these taking problems is uncertain. Only one Colorado case seems to broach the TDR issue. While not a classic TDR case by any means, it is the closest thing to it in Colorado. In Francis v. City and County of Denver,<sup>147</sup> the Colorado Supreme Court reviewed a Denver zoning restriction which created "zone lots." Under the zone lot concept the city had permitted the construction of a larger building than the zoning would permit on the lot, with the condition that a separate smaller building on the lot be permanently maintained. The developers of the large building then sold the portion of the zone lot (actually a physically separate lot) not developed. When permission to build another large building on the latter lot was denied by the city, a lawsuit followed. The supreme court held the zone lot concept unconstitutional as a taking on the facts of the case and authorized a large building on the second portion of the zone lot. What effect the Francis case would have on a water TDR scheme is uncertain. It does not seem as if it would be favorable, though a strong and well-reasoned dissent indicates that its rationale may be subject to challenge. The facts of the case are largely unlike the TDR schemes herein, however, and even overruling of the case would not immunize them from a taking attack.

## (2) Water-related Constitutional Provisions.

Each of the express protections of art. XVI, §6, could limit the permissible scope of a water TDR program.

The restrictions imposed by the protection of the right to divert

appear to be potentially less serious than those imposed by the preference clause. The right to divert could undercut the zoning portion of the TDR program.<sup>148</sup> In addition, the use of the TDR concept could itself be interpreted to deny the right to divert, if an existing use were seriously undervalued and potential uses overvalued. Such could prevent a change of a water right whose existing uses may have become obsolete or impossible to continue due to a variety of factors. Such an infringement would more likely be redressed as a violation of the taking provision.

The preference provision may prohibit, at least on streams having insufficient water to serve all those desiring use of such water, any zoning scheme which either bars a preferred use, while permitting a use of lower preference, or which "prefers" a lower use by zoning for a higher percentage of water allocation to the lower use. Secondly, the preference provision might well prohibit a water TDR scheme which requires a greater number of change rights for a use of higher constitutional preference than one of lower preference. This phenomenon might present a very real problem, since it is quite likely that fewer change rights would be required to adopt an agricultural use than a domestic use, despite the fact that domestic uses are constitutionally preferred. The application of the constitutional restrictions would necessarily await the enactment and application of a specific water TDR system, the potential for difficulty, however, is apparent.

### 3. Restrictions on Location and Construction of Ditches, Pipelines, and Reservoirs.

Restrictions upon the location and construction of ditches, pipelines, and reservoirs can accomplish two major functions:

- (1) They can assure that the location and design of such structures will promote the efficient storage and transportation of water in a fashion that will reduce waste.
- (2) They can promote efficient land use by assuring that siting and construction of such structures will be done in a fashion which minimizes the disruption of lands and proper land use activities.

In suggesting modifications and additions to existing Colorado law, these purposes will be the guiding principles.

#### a. Existing Law.

Under existing Colorado law, various state and local agencies

have certain authority to regulate the location and construction of ditches, pipelines, and reservoirs.

Local governments have substantial authority to control land use and construction activities. That authority would appear to permit regulation of the kind proposed herein. County and municipal zoning authority allows the regulation of the use of buildings, structures, and land for a variety of purposes.<sup>149</sup> That authority appears every bit broad enough to permit regulation of the location and perhaps construction of water storage and diversion structures. Traditional zoning authority is also enhanced by recent additions to local enabling authority. House bill 1034<sup>150</sup> contains several broadly worded authorizations for local government action, which authorizations would seem to permit the kinds of regulations under discussion herein. House bill 1041<sup>151</sup> does the same. Included among the 21 areas and activities subject to regulation thereunder are:

- (1) efficient utilization of municipal and industrial water supplies,<sup>152</sup> and
- (2) site selection and construction of major new and major extensions of existing domestic water and sewage treatment systems.<sup>153</sup>

Each of the cited categories contemplates regulation of water storage and delivery. In addition, the location and use of water delivery and storage can be influenced by the remaining H.B. 1041 categories.<sup>154</sup> Local building codes, at the county and municipal level, also provide a means to regulate the construction, and perhaps indirectly, the location of water facilities.<sup>155</sup> Finally, local planning authority may provide a means to regulate the location of water supply structures. Both county<sup>156</sup> and municipal planning<sup>157</sup> authority is broad enough to permit planning with respect to such structures. Recent enabling authority would appear to provide the means to enforce such planning.<sup>158</sup>

Several state agencies also possess certain power to control water facility location, use, and construction. The division engineers may issue orders for the curtailment of diversions to the extent that such are not for beneficial use.<sup>159</sup> This waste control power can be used to control ongoing waste caused by inefficient diversion or storage of water, though it does not seem suited to provide a basis for planning to eliminate such waste before it occurs.

The state engineer also seems to be authorized to control inefficient water diversion and storage. His general rule-making authority would appear to allow the state engineer to regulate construction, use, and even location of such structures.<sup>160</sup> In addition, his authority over reservoir plans and specifications may allow the same at least with respect to reservoirs.<sup>161</sup>



Prior to the construction of a reservoir, the state engineer must approve plans and specifications for any reservoir having a capacity of 1,000 acre-feet, having a dam or embankment in excess of 10 feet, or having a surface area in excess of 20 acres. While this statute was enacted to assure safety in reservoir construction, it is arguable that the state engineer could review such plans and specifications to determine the efficiency of water delivery and storage as well. Amendment of the state engineer's applicable regulations would appear to be necessary to accomplish such.<sup>162</sup><sup>163</sup>

The Colorado Water Conservation Board has broad authority to secure the greatest utilization of water in Colorado. Liberally interpreted, its specific powers seem suited to regulate ditch and reservoir use and construction.<sup>164</sup> The board would also appear to be entitled to plan for the location and use of water supply structures under its statewide water planning authority.<sup>165</sup> Whether substantial regulation could be accomplished under such a plan is doubtful.<sup>166</sup>

The Land Use Commission (LUC) is also vested with the authority to undertake the kinds of control under discussion. Whenever the LUC determines that there is in progress or proposed a land development activity which constitutes a major or serious danger of injury, loss or damage to the public health, safety, and welfare, the LUC may initiate the exercise of its temporary emergency power (TEP).<sup>167</sup> On its face, it would appear that the TEP could apply to any wasteful or potentially wasteful water storage or diversion project, permitting the regulation thereof in accordance with applicable state and local authority. Similarly, the formal request power of the LUC permits it to trigger the H.B. 1041 review process at the local level under certain circumstances.<sup>168</sup>

There seems little doubt that the broad authority of river basin authorities would also permit each of the kinds of regulation described herein.<sup>169</sup> Unfortunately, no such authority has been created.

Water conservancy<sup>170</sup> and conservation districts<sup>171</sup> may be able to impose restrictions upon users of water supplied by them. Authority to control their own projects must have its source elsewhere.

With respect to designated underground water only, the Ground Water Commission,<sup>172</sup> the state engineer,<sup>173</sup> and the ground water management districts<sup>174</sup> possess significant authority which may be exercised to prevent inefficient and improper construction and use of underground diversions. It is less certain whether their powers over underground diversions authorize them to regulate the location of diversion structures and attendant facilities, though it must be noted that they are given broad authority over the use of designated underground water, at least.

b. Prospective Legislation.

The foregoing review of existing Colorado law indicates that there exists authority to control the design, use, and construction of water supply, storage, and delivery structures. There are, however, shortcomings in that legislation. The foremost of these is simply that such authority more often than not must be implied from the existing legislation, since it is not expressly granted thereby. Even in those cases in which authority is most certain, the exercise of that authority is entirely discretionary. No mandate to control waste exists. Finally, it seems clear that certain agencies, at least, probably cannot exercise the kind of authority described herein. The absence of any mandate leaves entirely unanswered the question of just who should exercise such control. In short, it appears that existing law does not obviate the need for new legislation.

Because the goals under discussion include minimization of waste and efficient location of water supply structures, two kinds of new legislation should be considered:

- (1) Legislation establishing standards for the design and construction of new ditches, reservoirs, pipelines, and other structures.
- (2) Legislation establishing standards for the siting and location of such structures.

(1) Design and Construction Standards.

Design and construction standards would govern the construction of ditches, reservoirs, and other structures in order to minimize loss and waste resulting from the improper construction of such structures. The purpose of such standards would be to guide structural design as well as the engineering of the construction of such structures. The standards would be technical standards, such as those found in building codes, rather than broadly based planning standards as might be utilized in a zoning regulation. The following kinds of standards and requirements, as a minimum, would be useful:

- (1) Requirements for the lining of ditches in order to reduce transportation loss.
- (2) Requirements for the use of pipelines or other covered transportation structures in lieu of ditches in order to reduce transportation loss.

- (3) Requirements for the use of storage tanks in lieu of open reservoir storage, or alternatively, for the covering of small reservoirs to reduce evapo-transpiration loss.
- (4) Requirements for the use of efficient diversion structures.
- (5) Requirements limiting the amount of slope of a ditch in order to reduce transportation loss.

(2) Siting and Location Standards.

Standards for the siting and location of ditches and other structures would seek to assure that the best and most efficient use of land is made in the siting of such structures, while also promoting the most effective delivery and storage of water. Among the factors to be considered in any such siting decision are the following:

- (1) Efficiency of delivery and/or storage of water.
- (2) Practicability of delivery and/or storage.
- (3) Transportation and/or storage loss.
- (4) Environmental factors, including water quality.
- (5) Relative value of land proposed for siting for other uses.
- (6) Economic factors.
- (7) Public interest factors, as defined by this study.
- (8) Feasibility of alternative sites.
- (9) Comparative advantages or disadvantages of other sites.

(3) Factors to be Considered in Adopting New Legislation.

If either of the types of prospective legislation is proposed to be adopted, the following factors must be considered.

- (1) What kinds of standards will govern the construction and

siting of water supply structures? Several standards were proposed above with respect to each type of legislation. If desired, the specific standards proposed above could be replaced by a general statutory guideline requiring that construction and location of water supply structures be consistent with all reasonable efforts to prevent waste and to promote good land use. While such an approach is flexible, it probably affords too little guidance to the applicant and reviewing agency to be of great value.

- (2) What agency at what level of government will be responsible for administration of such a regulations program? The regulation of land use and of construction of buildings and structures has traditionally been a local concern. Whether local governments have the expertise or finances to develop the expertise to undertake the kind of regulation described herein is questionable. Rather than force local governments to develop that expertise, it might be appropriate to vest an experienced state level agency with the responsibilities delegated by the described legislation. The Colorado Water Conservation Board and state engineer or division engineers would be potential agencies to undertake the regulation. To relieve the regulatory burden on any such agency, provision for local input into such decision should be made.
- (3) How will the regulatory program be enforced? The described program seems well suited to a permit enforcement procedure. An applicant for approval of a structure would be required to obtain the necessary permit which would be granted in accordance with all necessary requirements.
- (4) To what projects would the regulatory program apply? It would not seem to be arbitrary to apply the regulatory programs to projects of a specified size only, since larger projects have the potential to waste more water than do smaller projects, and since regulation of larger projects can often result in greater conservation with a lesser burden upon the water user. Selective applicability would also help to relieve the regulatory burden created by the program. The cutoff of regulatory applicability could be made in accordance with a specific proposed project size or could be based upon a flexible standard.
- (5) Would variances from the program be granted? If so, under what circumstances? Variances could be granted to assure that neither of the programs placed such a burden upon proposed diversions so as to deny the right to divert unappropriated waters. Such would conform to the constitutional mandate at art. XVI, §6, of the Colorado Constitution.

c. Experience in Other States.

The inventory of state legislation performed as part of this study revealed no state which had adopted legislation precisely like that described herein. Each state did, however, possess land use and other authority from which the power to undertake such regulation could at least be implied.

Furthermore, a number of states have drafted or completed water plans which accomplish certain of the kinds of things proposed herein. Reference should be made to §9.b., infra, for a review thereof.

d. Problems and Limitations.

(1) The Taking Issue.

Under art. II, §15, of the Colorado Constitution, as well as under the Fifth and Fourteenth Amendments of the United States Constitution, no regulation of property rights may result in a taking of those rights absent the payment of just compensation.<sup>175</sup> Any regulation which is found to do so will be declared void. Siting and construction regulations may result in a taking in either of two ways. First, such regulations may be so severe as to make it unreasonably burdensome or impossible to exercise one's water rights. If so, the regulations may well be declared to be void as a taking of one's protected property interests in those rights. Reasonable regulation would likely withstand any such attack. Second, such regulations, particularly those dealing with the siting of water facilities, might so restrict the use of one's land as to result in a taking, not of the water right, but of one's property rights in land. Again, reasonable regulations would withstand attack. Enabling legislation and any regulations or rules promulgated thereunder must be designed to avoid these pitfalls.

(2) Water-related Constitutional Issues.

Three separate sections of the Colorado Constitution which pertain directly to water and water rights can be interpreted to restrict the regulation of water facility siting and construction.

Article XVI, §6, of the Colorado Constitution states that the right to divert the waters of the state's natural streams to beneficial use shall never be denied. Restrictions upon the siting or construction of water storage and diversion facilities which so restrict a prospective water user's right to divert could be held

to be unconstitutional. For example, a siting regulation which makes it unreasonably difficult or expensive for a diverter to bring water to a parcel of land for irrigation might run afoul of §6. While reasonable regulations would again be valid, caution must be taken not to permit regulations to cross into the zone of unreasonableness.

Though perhaps less likely to do so, siting and construction regulations could also violate the preference provision of art. XVI, §6. When the water of a stream is insufficient to serve all those wanting to use water, that section prefers domestic use to agricultural use and agricultural use, in turn, to manufacturing use. Any regulatory scheme which, under such conditions, attempted to propose more severe restrictions on domestic use than agricultural use, for example, might violate the preference provision.

Article XVI, §7, of the Colorado Constitution states:

All persons and corporations shall have the right-of-way across public, private and corporate lands for the construction of ditches, canals and flumes for the purpose of conveying water for domestic purposes, for the irrigation of agricultural lands, and for mining and manufacturing purposes, and for drainage, upon payment of just compensation.

It is arguable that this section permits the establishment and condemnation of ways for the conveyance of water rights without further regulation by any other person or body so long as just compensation therefor is paid. Whether such an interpretation of §7 is reasonable is an unanswered question in Colorado, and may have a significant bearing upon the proposed legislation.

#### 4. Employment of Water Exchange Techniques.

By making use of various exchange techniques, it may be possible for water users to make more efficient and less wasteful use of available waters. The concept of exchange is hardly a new one to Colorado, having been first authorized by law in 1897. Through certain changes and additions to the existing exchange law, however, it may be possible to improve Colorado's exchange system and provide for a more optimum utilization of water.

##### a. Existing Colorado Law.

###### (1) General.

Under existing Colorado law, exchanges of several forms may be

undertaken voluntarily by water users. One of the simplest forms of exchange permits any person or company to turn the water of one public stream into another such stream and remove an equivalent amount therefrom, less evaporation and seepage losses.<sup>176</sup> A more complex procedure permits the owners of reservoirs to deliver stored water into a ditch entitled to water or a stream supplying appropriations and to take, in exchange from the supplying stream at a point higher on the stream, an equivalent amount less a reasonable amount for loss.<sup>177</sup> Such exchanges are prohibited if injury to others will result.<sup>178</sup> It is also lawful for owners of ditches and water rights taking from the same stream to exchange with and loan to each other water for the purpose of saving crops or using water in a more economical manner.<sup>179</sup> Each of these exchanges may be implemented without first obtaining a decree therefor.<sup>180</sup> They are all, however, subject to the limitation that no injury result to other appropriators by virtue of the exchange.<sup>181</sup> Thus, when an exchange is challenged, the parties asserting rights thereunder bear the burden of proving that their exchange program causes no such injury.<sup>182</sup>

Exchanges may also be undertaken in the form of plans for augmentation under the 1969 Water Right Determination and Administration Act. The term "plan for augmentation" is defined to include water exchange projects.<sup>183</sup> Since such plans must be decreed by the water courts, these exchanges, unlike those described above, will require a decree.<sup>184</sup> Such will be granted only if absence of injury is shown.

It can be argued that the broad general authority to enter into exchanges under the 1969 act supplements the express authority granted by the older law described above. The only form of exchange specifically described by the 1969 act permits a supplier of water to take an equivalent amount of water at his point of diversion or storage if such water is available without impairing the rights of others.<sup>185</sup> Such "substituted water" must be accepted by a senior appropriator. The act, on its face, however, would seem to authorize other forms of exchange also, including methods beyond those described by the older legislation.

The older law, on its face, applies only to exchanges of surface water. Exchanges made as part of a plan for augmentation would seem to apply to both surface and tributary underground water, at least.<sup>186</sup> Based upon recent case law, it is also possible to argue that exchanges regarding or utilizing nontributary underground water which is not tributary water may be included in and decreed as a part of an exchange.<sup>187</sup> Assuming this to be the case, voluntary exchanges under the 1969 act can utilize surface waters, tributary ground waters, and nontributary ground water which is not designated ground water. Designated ground water does not seem to be subject to inclusion in any such scheme under authority of the 1969 act.<sup>188</sup>

(2) Mandatory Exchanges.

Unlike in some jurisdictions, there is no express authority in Colorado permitting any person or agency to require the use of water exchange programs in order to increase water use efficiency. Existing authority may be broad enough to imply that authority.

The division engineer may order the total or partial discontinuance of any wasteful diversion.<sup>189</sup> This power can be interpreted to comprehend the lesser power of ordering alteration in the form or timing of diversions through the imposition of water exchange programs. Whether the division engineer's power authorizes him to require such affirmative changes in one's way of using water is uncertain.

The state engineer's substantial rule-making authority also would seem to authorize him to adopt, by rule, provisions authorizing him to impose exchange programs.<sup>190</sup> More severe regulatory measures of the state engineer have been upheld.<sup>191</sup>

The Colorado Water Conservation Board's substantial authority to promote water conservation and efficient water use is also sufficiently broad to permit it to impose water exchange programs when they will promote those goals.<sup>192</sup> Whether the board would be willing to do so is less certain.

River basin authorities have broad authority to prevent waste within their jurisdiction, which authority should include the power to invoke duly adopted exchange programs.<sup>193</sup> Because no such authority has ever been formed, this proposition is academic only.

Water conservancy, water conservation, and irrigation districts are each water users themselves, and might each be subject to the imposition of exchange programs by the above parties. Each, however, is also a water supplier to water users taking water therefrom under contract. A review of the authority of each of those districts indicates that they arguably possess the authority to impose water exchange programs upon consumers taking water from them.<sup>194</sup>

Exchange opportunities with respect to ground water are fewer than with surface water, simply due to the physical characteristics of ground water. The authority of the Colorado Water Conservation Board and river basin authorities seems to be broad enough to permit them to mandate exchanges of tributary and nontributary underground water, perhaps even including designated ground water. The water supply districts can require consumers to exchange all types of water, within the limits of the contribution and laws of the state. The above-described authority of the state and division engineers applies to tributary underground water and arguably, by extension of recent case law, to nontributary water as well.<sup>195</sup> It would not seem to apply to designated ground water. Exchanges of designated ground



water seem to be subject to compulsion by the Ground Water Commission<sup>196</sup> or ground water management districts.<sup>197</sup>

b. Prospective Legislation.

(1) Authorization for New Forms of Exchange.

Under current Colorado law, it is uncertain whether forms of exchange other than those specified by the 1969 Water Right Determination and Administration Act and prior statutes are permissible, though it is logical that they should be. The most effective way to remedy this uncertainty and to authorize the greatest, most efficient, and broadest use of the right of exchange would be by the enactment of a general statutory provision which, in addition to permitting those exchanges specified by law, permits exchanges whenever better conservation and utilization of the water of the state can be attained. The State of Wyoming has adopted a statute authorizing voluntary exchanges on that basis.<sup>198</sup>

A general statutory catchall provision does not eliminate the propriety of specific exchange authorizations, if only to provide ideas for persons wanting to use the technique. The Wyoming legislation authorizes two specific kinds of exchange not currently authorized by Colorado law.<sup>199</sup>

- (1) Exchanges may be allowed when a source of supply is insufficient to satisfy fully an appropriation.
- (2) Exchanges may be allowed when an appropriator can develop water but cannot economically convey it to its intended point of use.

All such exchanges should be limited by the proposition that they result in no injury to vested rights or to the public interest. Each of these specific authorizations would be well to enact in Colorado's laws as well.

In addition to the exchanges specified under existing Colorado and Wyoming law, it would be in the public interest to expressly permit exchanges between municipal and agricultural water users, such as the exchange program agreed to by the City of Westminster and the Farmers High Line Canal and Reservoir Company. The canal company, the entity with the better and prior right to use water, has permitted the city to use its raw water on the condition that the city return the water, to the extent possible, in the form of treated wastewater effluent suitable for the agricultural users of the canal company's water. Such a reuse of water provides a significant effort at maximum utilization of the increasingly scarce water of the eastern

slope and should be authorized and encouraged by state statute. It should be noted that the City of Thornton has entered a similar agreement with agricultural users.

(2) Mandatory Exchanges.

In Colorado, the decision to enter an exchange program is generally a voluntary one, subject to the will of exchanging parties.<sup>200</sup> The only exchange which can expressly be imposed against the will of a water user is the exchange for a substituted supply of water as permitted by the 1969 act.<sup>201</sup> Because exchanges can provide a means of increasing the efficiency of water use without causing any injury or detriment to water users or to the public interest, consideration should be given to granting certain persons the right to force exchanges of any sort, when the exchange will:

- (1) promote the goal of more efficient utilization and conservation of water supplies;
- (2) result in no injury to water users;
- (3) create no detriment to the public interest; and
- (4) result in no unreasonable detriment to the persons whose rights will be involved in the exchange.

The right to force such an exchange could be given to as broad or as limited a class of people as the legislature deemed advisable, including:

- (1) Appropriators of rights to be exchanged.
- (2) All water users.
- (3) Any person.
- (4) The state or division engineers.
- (5) The Water Conservation Board.
- (6) The Department of Natural Resources.

Presumably, such an exchange would be forced by petition to the water court, setting forth the rights involved and the exchange program proposed. The petition could be granted if the above goals were promoted by the exchange, if no unreasonable economic or other injury resulted to water users, and if no detriment resulted to the public interest.

The Wyoming legislation permits coerced exchanges upon petition to its state engineer by any appropriator of a water right.<sup>202</sup> The state engineer may issue an exchange order if the proposed exchange will not injure other appropriators and will not be adverse to the public interest.<sup>203</sup> It is the policy of the State of Wyoming to encourage such exchanges.<sup>204</sup>

c. Experience in Other States.

The Wyoming legislature has created what appears to be the furthest reaching and most progressive exchange statute inventoried. The statute, as described, permits exchanges for any reasonable purpose and permits forcing of exchanges by appropriators. The Wyoming statute, with the modifications and additions suggested, presents a valuable model for the Colorado legislature.

New Mexico permits exchanges such as those under the older Colorado statutes. The New Mexico law authorizes interbasin transfers with the subsequent withdrawal of transferred waters, less reasonable deductions for seepage and evaporation.<sup>205</sup> The New Mexico statute also permits the delivery of water to a ditch, stream, or watercourse in exchange for water taken above or below the point of delivery.<sup>206</sup> The New Mexico law is no model for Colorado, since Colorado's own statutes appear to be more innovative even as they now exist.

d. Problems and Limitations.

(1) The Taking Issue.

Reasonably administered, even a forced exchange program should not violate the taking provisions of the Colorado and United States constitutions. A taking might be successfully asserted if:

- (1) an exchange program seriously diminished the value of one's water rights by presenting unreasonable restriction or interference with their use, and
- (2) an exchange program required unreasonable expenditures of money by a water right owner in order to effectuate a change. This is largely a corollary to (1).

It is not expected that an exchange program which was voluntarily entered by water users would result in a taking. A water user other than the water users entering the exchange agreement, whose rights were injured by a voluntary exchange, could, however, allege that a

taking had occurred. It should be noted that the proposed legislation regarding forced exchanges attempts to neutralize the taking issue by prohibiting such in cases of injury to water rights or unreasonable economic detriment.

## (2) Water-related Constitutional Issues.

It would seem that forced exchanges, rather than voluntary exchanges, would be most readily susceptible to constitutional attack. Once again, those challenges would be based upon the preference and right-to-divert provisions of art. XVI, §6, of the Colorado Constitution. Because it is difficult to predict the sorts of attacks which might result from the enforcement of any exchange, it is not possible to describe with specificity the kinds of constitutional restrictions which might apply. Examples might include:

- (1) The assertion that an exchange scheme which made the ability of a water user to divert unduly burdensome or economically prohibitive was being enforced to the extent that the right to divert had been denied.
- (2) The assertion that an exchange scheme favored a user in contravention of the preference provision. For example, if an exchange similar to the one entered by Westminster and the Farmers' High Line Canal Company were enforced against an industrial and an agricultural user, and if the industrial user were allowed prior use of water to which the agricultural user otherwise had prior use, would such constitute an unlawful preference even absent injury to the agricultural user? Many varieties of such a problem could be proposed which might violate the preference clause.

In short, while problems could result from certain enforced exchanges in particular, the proposed legislation would seem to be valid. Reasonable exercise of the authority granted thereby would not violate the provisions of art. XVI.

## 5. Imposition of Mandatory Conservation Requirements.

One of the most direct ways of preventing excessive and wasteful water use is through the imposition of mandatory water conservation requirements. To a certain degree, many of the suggestions proposed in this section of the report are no more than enforced conservation requirements. The schemes proposed in this section have in common the goal of conserving water through programs designed to limit the

amount of water applied to an otherwise beneficial use. To achieve this goal, a variety of techniques, impacting many different types of water use, may be proposed.

a. Recycling of Water.

The concept of water recycling is one which recently has received increasing attention as a means of conserving water.<sup>207</sup> In Colorado, water recycling is permitted under current law, at least with regard to certain waters. Expansion of the existing law may provide a further means of conservation.

(1) Definition of Recycling.

Water recycling, as the term is used herein, includes at least the following conservation measures:<sup>208</sup>

- (1) Reuse--a subsequent use of water for the same purpose as the original use.
- (2) Successive use--a subsequent use of water for a different purpose than the original use.
- (3) Disposition--sale, lease, exchange, or other disposition of used waters.

Each of these techniques can result in savings or conservation of water through "recycling," and each will be considered as a water recycling technique.

(2) Existing Colorado Law.

(a) General Authorization.

Under current Colorado law, it is permissible to recycle imported waters. A 1969 enactment of the state legislature authorizes the following:<sup>209</sup>

Whenever an appropriator has lawfully introduced foreign water into a stream system from an unconnected stream system, such appropriator may make a succession of uses of such water by exchange or otherwise to the extent that its volume can be

distinguished from the volume of the streams into which it is introduced. Nothing in this section shall be construed to impair or diminish any water right which has become vested.

The statute has been validated by the Colorado Supreme Court, which has gone so far as to say that the rights specified by the statute exist independently thereof.<sup>210</sup> The right was limited, however, by the restriction that the right to recycle exists only so long as a user's dominion over the foreign water continues.<sup>211</sup>

One important question regarding the statute, which has not been settled by the court, is the scope of its applicability. It is clear that the statute authorizes the recycling of "foreign water" introduced to one stream system from another unconnected one. The nature of the disconnection is a crucial, unresolved question. Decisions of the supreme court indicate that waters introduced into a stream system via transmountain diversions across the Continental Divide will fall within the statute,<sup>212</sup> while waters originating in separate, but closely related basins, each tributary to the same stream at geographically close places, will likely not be considered to be foreign to each other.<sup>213</sup> The applicability of the statute to other forms of transbasin diversion is uncertain. For example, does the statute apply to a diversion from the Arkansas River system to the South Platte River system, which systems are wholly unconnected within the state, but which are both a part of the Mississippi River system? Similarly, would the statute apply to a diversion from the White River to the Colorado River, since, though both systems are unconnected within the state, they are connected without? Finally, might a transbasin diversion between two streams tributary to the same river benefit from the statute where they were geographically remote from each other? While certain decisions do bear upon this question, tending to indicate that the latter hypothetical at least would not be within the statute, no answer has been specifically stated by the courts.<sup>214</sup>

The cited statute permits the recycling of imported water--a right said to exist absent statutory authorization. However, recycling of domestic water, that is, water naturally occurring within a watershed, is not permitted. It has been held that a municipality has no right to dispose of sewage effluent made up of water originating entirely within the basin in which the municipality is located.<sup>215</sup> That holding has been reaffirmed in dicta by a recent decision of the Colorado Supreme Court.<sup>216</sup> Other related decisions support the concept as well.<sup>217</sup> The rationale for this distinction is simply that downstream users of such intrabasin water are entitled to its use, following use by users higher up on a stream. While the cases in point discuss only the disposition of used water--only one facet of recycling--they would seem to be clear authority for the proposition that no recycling of nonimported water is permitted. Again, the

question is the extent to which the courts will apply the term "foreign water" as used in the cited statute.

It should be noted that the Colorado cases dealing with recycling of foreign water are municipal cases in which water sought to be recycled was municipal water.<sup>218</sup> There is no reason on the face of the recycling statute which would prevent its application to recycling of water used for other purposes. For example, an eastern slope agricultural user of Colorado-Big Thompson water would seem to be entitled to recycle, just as is the City of Denver, to the extent western slope water can be identified as wastewater.<sup>219</sup>

Current law also permits the recycling of at least one other type of water as well. Developed water, that water which is non-tributary to any natural stream, and which, by human intervention, is introduced into a stream may be used to extinction by the person introducing the water.<sup>220</sup> It is said that one who adds water to a stream acquires a right to use the water superior to adjudicated rights in the stream.<sup>221</sup> Such water is like imported water (imported water is really a species of developed water), since it has never and would never reach the stream into which it was introduced without human action. It is hardly surprising that such water is subject to the same rule. In fact, the right to use such developed water to extinction predates the imported water statute described above.<sup>222</sup> In effect, imported water is really a type of developed water since it is nontributary to the stream of importation. The right to recycle developed water would appear to provide valuable opportunities to recycle certain underground waters. It will be less likely to affect surface waters which are generally tributary to a natural stream.

#### (b) Mandatory Recycling.

Recycling of foreign water may be voluntarily undertaken by water users under authority of the law described in the preceding section. A good argument can be made that several agencies have the authority to require recycling when it will result in more efficient water use. It must be understood that any attempt by any of these agencies to do so would require a substantial expansion of their authority as it has traditionally been exercised.

The waste control authority of the division engineer seems perfectly suited to allow them to require recycling if failure to employ the technique can be proved to be wasteful under the act. The division engineers may order the discontinuance of any diversion which is not necessary for beneficial use.<sup>223</sup> If failure to recycle is wasteful, then it may be argued that diversions made in lieu of recycling are also wasteful and subject to discontinuance. One major

uncertainty with respect to the division engineer's power is whether the division engineer could order adoption of a recycling program on top of ordering discontinuance. As a practical matter, a water user whose diversions were discontinued for failure to recycle would probably be forced to recycle even in the absence of such an additional order unless the user wished to cease whatever activity its water use supported.

It is less certain that the state engineer has authority to require water recycling. His authority to regulate the distribution and administration of the waters of the state may permit the adoption of regulations requiring recycling though a substantial implication of authority to do so would be necessary.<sup>224</sup> So may his authority to regulate water use in order to meet compact requirements, though the regulatory basis of such authority is narrow.<sup>225</sup>

The Colorado Water Conservation Board authority, if construed liberally, would permit it to order recycling when such would promote conservation and secure the greatest utilization of the waters of the state.<sup>226</sup> The most serious question is again the practical feasibility of the board's doing so.

Like the authority of the division engineers, the authority of river basin authorities seems well suited to serve as a basis for recycling requirements.<sup>227</sup> Their substantial authority to establish water use standards which are evidence of waste goes beyond even the authority of the division engineers. Unfortunately, no river basin authority has ever been created.

Water conservancy<sup>228</sup> and water conservation<sup>229</sup> can deliver water to consumers according to reasonable rules and regulations. Arguably they might condition continual deliveries upon adoption of recycling measures, at least when their customers could afford such. Whether a water supply entity would be so inclined to restrict deliveries is a very real question. The authority of irrigation districts to do the same is less certain and may, as a practical matter, be even less likely to be exercised.<sup>230</sup>

Recycling of underground waters offers two recycling possibilities. First, recycling of tributary underground waters could be required to the same extent as surface waters under the above authority, to the extent such underground waters were imported. Second, as noted in (a), supra, recycling of nontributary underground waters is permissible so long as waters are nontributary, whether or not they arise in a separate basin. Arguably, each of the agencies discussed above could order such recycling. With respect to designated ground water, the Ground Water Commission and the various ground water management districts seem authorized to order recycling.<sup>231</sup>



### (3) Prospective Legislation.

Because recycling of certain waters is permitted under current law and because authority to require exercise of that authority is uncertain, one of the most straightforward and simplest changes which can be made in existing law would be to make water recycling requirements mandatory. Applicability of the mandatory requirements could be made to as broad a class of water users as possible. Several items would need to be considered in drafting such legislation, including:

- (1) Would the recycling requirements apply only to the recycling of foreign water, or would the law be changed to permit recycling of domestic water as well? If so, what provision would be made to supply users of return flow from domestic water?
- (2) To what types of water uses would recycling requirements apply--municipal, agricultural, industrial, mining, other uses? It would seem that municipal and industrial uses, with their confined points of discharge, would be particularly susceptible to recycling, though certain agricultural and other uses might also permit economical recycling.
- (3) Would recycling requirements apply to all users of foreign water or only to those using certain amounts? It is possible that recycling would be economically infeasible for certain small water users. If so, they should be relieved of the requirement. If such relief is felt to be appropriate, it would be based upon a flexible standard or upon specific statutory criteria relating to the user, the size of its diversion, and the potential for saving water through recycling.
- (4) What level of government will be responsible for administering a mandatory recycling program? Since it is likely that major municipalities would be subject to the requirements, and in view of the certain interbasin impacts of the program, state or regional control of the program would be preferable.
- (5) What agency would administer the program? Assuming state or regional control, the likely candidates would be:
  - (a) State engineer or division engineers.
  - (b) Colorado Water Conservation Board.
  - (c) Department of Natural Resources.
  - (d) River basin authorities.

- (6) What authority would be available to enforce such programs? Would water rights be acquired or held subject to the requirement?

Because of the enormous water savings which may be had through recycling of foreign water, attention should be given to applying the program to the greatest possible extent.

(4) Experience in Other States.

The California Constitution and laws require that the water resources of the state be put to beneficial use to the fullest extent possible and that waste of waters be prevented.<sup>232</sup> One recent decision regarding those provisions has held that those provisions require the recycling of water by a municipality when recycling is feasible and when water will be conserved thereby.<sup>233</sup> The decision made no determination of whether recycling would in fact be required, under the circumstances of the case. The California experience is likely to influence action in other states.

It may not be necessary to find recycling experience in other states in the not-too-distant future. The U.S. Environmental Protection Agency is seeking to make over \$9 million available for a water recycling program for the Denver water system.<sup>234</sup> No final action has been taken on that proposal. If it is accepted, however, Denver will be among the first of major cities to adopt a water recycling program.

(5) Problems and Limitations.

Several potential problems may be recognized in the proposed legislation.

It can be argued that any mandatory recycling scheme, by forcing recycling of used water in lieu of new diversions, unlawfully restricts the constitutional right to divert in art. XVI, §6, of the Colorado Constitution, since the scheme would be designed at least to reduce diversions of foreign water. Because the recycling statute would not be intended to prevent needed diversions, but only to restrict wasting of water lawfully acquired, it is likely such an argument would fail.

It may also be argued that a legislative scheme which requires recycling of a use of higher preference under the preference clause of art. XVI, §6, of the Colorado Constitution, while not applying the same requirements to a lower preference use, is violative of that

section. A classic example of such a program might occur if the legislature mandated recycling of municipal sewage effluent, a large portion of which results from domestic use, while not requiring the same for agricultural or industrial uses--both of which are of lower preference than domestic use under the constitution. While the potential effect of this argument is perhaps reason to mandate recycling of all uses, a reasonable legislative scheme which can justify the differing requirements would likely be upheld. So too would a reasonable classification withstand allegations that the legislative scheme violated the equal protection clause of the United States Constitution.

Recycling of water will likely require changes and adaptations by the entity required to recycle. If such changes were so economically severe as to make it impossible or unreasonably burdensome to divert water due a water user under a lawful water right, the user might successfully be able to show an uncompensated, and hence unlawful, taking of its water rights. A reasonably drafted legislative scheme could avoid most such problems.

Significant difficulties might result from any attempt to require recycling of domestic (as opposed to "imported") water. While appropriators on a stream have no right to the use of imported water,<sup>235</sup> they may acquire protected rights in return and waste from domestic water.<sup>236</sup> Thus, any attempt to require recycling of domestic water might be prevented by the fact that the exercise of constitutionally protected water rights would be impaired.

#### b. Metering.

The use of metering or other water use measuring devices can provide an effective way to reduce waste. First, the use of measuring devices permits water suppliers to charge for water deliveries on the basis of actual amount of use rather than by flat rate. The waste encouraged by the use of flat rates can be eliminated to some degree by doing so. Second, the use of measuring devices can aid in the determination, by users, suppliers, or by regulatory officials of whether actual use corresponds with demonstrated need under conditions present in a particular area. Despite the potential savings water metering can provide, many water uses are carried on without the use of meters or other measuring devices. The legislature should consider requiring such devices.

(1) Existing Colorado Law.

There presently exists authority which permits various governmental agencies to require the use of water meters.

Municipalities are authorized to construct water systems within and without municipal limits.<sup>237</sup> Part and parcel of that authority is the authority to regulate the distribution of water for irrigation and other purposes.<sup>238</sup> Municipalities are also authorized to prescribe and collect rates, fees, tolls, and charges for the use of their water facilities.<sup>239</sup> Finally, municipalities may do all things necessary and convenient to the exercise of their water service authority.<sup>240</sup> Each of these, especially in conjunction with the broad authority of municipalities to provide water service, grants municipalities authority to meter water supplies.<sup>241</sup>

Counties are empowered to provide water service and, in doing so, to prescribe and collect rates, fees, tolls, and charges for such services.<sup>242</sup> Counties are permitted to do all things necessary and convenient in the exercise of the water service authority they are granted.<sup>243</sup> Such powers permit the metering of water supplies provided by counties.

As mentioned in prior sections, the division engineers possess the authority to issue orders requiring the discontinuance of any diversion to the extent waters diverted are not necessary for application to a beneficial use.<sup>244</sup> This authority can be read as a basis for ordering the installation of metering or other measuring devices in order to determine whether such waste is occurring. In addition, authority to order the installation of measuring devices has been expressly granted to the state and division engineers by other sections of the water statutes.<sup>245</sup>

It may also be argued that the Colorado Water Conservation Board has the authority to mandate the use of metering to the extent such can be shown to constitute a water conservation measure. Such power could only be implied from existing legislation.<sup>246</sup>

The various kinds of special districts having authority over water distribution also seem to possess the authority to require the installation of measuring devices. Irrigation districts, whether formed under the 1905<sup>247</sup> or 1921<sup>248</sup> acts, water conservancy districts,<sup>249</sup> and each of the water conservation districts,<sup>250</sup> all seem to possess the authority to require the use of--and do require the use of--measuring devices. Water and sanitation districts,<sup>251</sup> metropolitan water districts,<sup>252</sup> and metropolitan districts,<sup>253</sup> also appear to possess such authority.

On a regional level, river basin authorities appear to possess

sufficiently broad authority to require the use of metering devices.<sup>254</sup> Since no such authority has yet been formed, this power is more theoretical than practical at this time.

The Ground Water Commission<sup>255</sup> and the various ground water management districts<sup>256</sup> each possess substantial authority to regulate the use of designated ground water. That authority includes the power to require metering of the underground diversions.

There are numerous agencies having the authority to compel the use of metering or other measuring devices as a function of their water supply authority. With at least one potentially important exception,<sup>257</sup> such authority is discretionary. That discretion is the basis for the new legislation recommended herein.

## (2) Proposed Legislation.

Under current law, the decision to require the use of water metering devices is largely discretionary. The primary legislative change which should be recommended is the adoption of legislation mandating the use of metering or other measuring devices when it can be demonstrated that their use will result in a reduction of waste or in the conservation of waters applied to beneficial use. In general, such an act would be anticipated to:

- (1) Establish standards to determine when the use of measuring devices would be compelled. This standard could consist of a general legislative finding that metering will save water, a general standard that metering be compelled when a saving of water can reasonably be expected, or specific standards relating to specific types of water use, which standards, when met, would trigger compulsory metering.
- (2) Procedures for the establishment of compulsory metering, including financing.

In adopting any such legislation, the following, at a minimum, must be considered:

- (1) What standard will be used to compel the use of meters? Arguably, the legislature would be empowered to compel the use of meters for all uses if it could be shown that metering in general would conserve water. If such a scheme were adopted, certain small users of water could perhaps be exempted. Alternatively, metering could be compelled only in those specific instances in which it could be shown water would be saved. Under the latter option, metering might be compelled if any savings would be attained or if savings of specified amounts would

accrue. This latter proposal could create an administrative nightmare. Finally, variances or other forms of ad hoc exemptions to the metering requirements be made available according to specified criteria.

- (2) Other than a determination of whether metering would save water, what factors, if any, will be used to determine whether metering will be compelled? Factors selected might include environmental, economic, efficiency in water use, and public interest factors. In an all-encompassing scheme, such factors might be used to determine if a variance or exemption should be granted.
- (3) To what types of water use will metering requirements apply? Since metering or other devices have historically been used to measure water used for all major types of use, it would seem that such approach should be continued.
- (4) What level of government will be responsible for administering a mandatory metering program? Water suppliers, such as municipalities and special districts, would seem to be appropriate agencies to enforce metering requirements for users of water they are supplying. Metering requirements for individual users might most easily be enforced by a state-level agency, such as the state engineer or, perhaps more appropriately, the division engineers.
- (5) What agency would administer the metering program? As noted in the preceding paragraph, local agencies might be suited to undertake the administration of a mandatory metering program, at least with respect to water supplied by them. Assuming state or regional control of the program would also be utilized, the following agencies would be suited:
  - (a) State or division engineers.
  - (b) Colorado Water Conservation Board.
  - (c) Department of Natural Resources.
  - (d) River basin authorities.
- (6) What authority would be available to enforce such a program?

(3) Experience in Other States.

While no specific statutory provision requiring the use of metering or other measuring devices was located in the review of statutes of other states, statutory and constitutional provisions similar to those under which metering can now be required in Colorado were found to exist in many other states. In addition, other independent provisions, such as those contained in the California Constitution, were also located.<sup>258</sup> The widespread use of metering in Colorado and elsewhere provides an experimental basis for the institution of mandatory metering legislation.

(4) Problems and Limitations.

A metering statute should not violate the Colorado or United States constitutions. Potential problems can always be envisioned in the abstract.

A constitutional difficulty might arise in any metering program which required metering of higher, rather than lower, preference uses of water as established by the preference clause of art. XVI, §6, of the Colorado Constitution. For example, if metering requirements were established for home or domestic use, but not agricultural or industrial use, it is arguable that §6 might be violated. Unless there existed a reasonable basis for such distinction, such a classification might also violate the equal protection clause of the United States Constitution.<sup>259</sup> The potential for this problem is a reason for applying metering requirements to all types of water use.

Should the imposition of metering requirements present such a burden upon water use as to make exercise of a valid water right unreasonably burdensome, it might be argued that the requirement constitutes a taking in violation of art. II, §15, of the Colorado Constitution as well as the Fourteenth Amendment of the United States Constitution. Such a restriction might also be construed to violate the constitutional protection of the right to divert afforded by art. XVI, §6, of the Colorado Constitution. It would seem to be only in a rare circumstance that metering requirements would be so unduly burdensome.

c. Strict Control of Waste.

Control over the wasting of water has long been an essential element of the water law of Colorado. It has historically been said that the right to use water does not comprehend the right to waste

it.<sup>260</sup> By strengthening the existing proscriptions against the wasting of water, it may be possible to realize further savings of water by making more efficient utilization thereof.

(1) Existing Law.

The Colorado water statutes contain no generally applicable definition of the term "waste." The term "beneficial use" is, however, defined to mean that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish the purpose for which the appropriation is lawfully made.<sup>261</sup> That definition rather strongly suggests that waste is any use of consumption of water for a nonbeneficial purpose.

Clear authority under current law to control waste is granted to the various division engineers. Each division engineer is authorized to order the total or partial discontinuance of any diversion in his division to the extent water is unnecessary for a beneficial use.<sup>262</sup> Waste orders of the division engineer are enforceable by injunction.<sup>263</sup> Violation of a waste order may result in the assessment of triple damages.<sup>264</sup>

River basin authorities also possess the authority to regulate waste.<sup>265</sup> That authority is broad enough on its face to allow river basin authorities to prevent ongoing waste and to plan for reduction of waste in water use methods. Interestingly, the enabling authority for river basin authorities contains the only definition of "waste" in the state's water law statutes--a definition not generally applicable to other portions of the statutes. "Waste" is defined therein as:<sup>266</sup>

causing or permitting the consumption of application of water in excess of that required to accomplish the purpose for which the water is diverted, or permitting water to escape from ditches, canals, or other works, in excess of reasonable loss.

This definition supports the interpretation that river basin authorities do possess waste control authority of the kind described. The definition also supports the implication, suggested above, that waste results from the use or consumption of water for a nonbeneficial purpose.

Though there is question whether they may properly be extended so far, certain other statutes also may provide authority to governmental agencies to control waste. The state engineer possesses the authority to review plans and specifications for reservoirs having a



capacity of 1,000 acre-feet,<sup>267</sup> a dam height of 10 feet, or a surface area of more than 20 acres.<sup>267</sup> Since this statute was enacted primarily to ensure safety in reservoir construction,<sup>268</sup> it may not authorize the state engineer to review such plans in order to ensure that all reasonable waste control measures have been taken. It is arguable, however, that such authority is inherent in the statute. State engineer regulations may need amending to assert such authority.<sup>269</sup> In addition, the general rule-making authority of the state engineer seems to provide a source of waste control authority.<sup>270</sup>

The enabling authority of the Colorado Water Conservation Board may also be broad enough to include the taking of waste control measures. The board possesses fairly broad authority to secure the conservation and greatest utilization of water and is granted the power to take such action and have such powers as are incidental to those powers.<sup>271</sup> That authority arguably permits the control of waste through planning and regulatory efforts.

Local governments may possess certain waste control authority. Though they possess no authority such as that possessed by the division engineers to control ongoing waste, they do possess certain land use planning authority which may provide a basis for planning for the location and use of efficient and nonwasteful water uses. Such authority may potentially be found in the local planning and zoning<sup>272</sup> and building code<sup>273</sup> enabling authority, as well as under H.B. 1034,<sup>274</sup> H.B. 1041,<sup>275</sup> and S.B. 35.<sup>276</sup> While it seems likely that these powers can lawfully be exercised to encompass regulation for the prevention of waste, it is clear that such has not traditionally been a part of local expertise.

The Land Use Commission may have certain authority to control inefficient or potentially inefficient water uses under its formal request power<sup>277</sup> or temporary emergency power.<sup>278</sup>

With respect to designated ground water, the Ground Water Commission<sup>279</sup> and the ground water management districts<sup>280</sup> have essentially express authority to prevent waste. Tributary non-designated ground water would be regulated as noted above, as arguably would nontributary, nondesignated ground water.

## (2) Prospective Legislation.

The foregoing analysis of Colorado's existing waste control statutes suggests that at least two major legislative changes may be recommended. These include:

- (1) The various division engineers and river basin authorities are the only officials or agencies now having clear waste control authority. The authority of the division engineers is exercised in a nuisance-like fashion to control ongoing waste. No river basin authority has ever been formed. It would be helpful to enact measures which would permit the review of water projects and uses at the planning stage to assure that all reasonable waste control measures have been utilized.
- (2) Because only the division engineers and river basin authorities now possess clear authority to control waste, other persons and agencies should be granted that authority.

(a) Review of Water Projects and Uses  
to Eliminate Waste.

It would be possible to reduce waste by enacting legislation designed to provide a system of procedures for the review of proposed water projects and uses in order to determine whether such proposals utilize all reasonable means of waste control. Such a program would require the submission of detailed plans for water project construction and proposed water uses to an appropriate governmental agency vested with authority to review and approve such plans. The function of that review would, of course, be to assure that an applicant for a water right had taken all reasonable steps to minimize the chances for waste in his proposed project or use. In enacting any such program, the following would need to be considered:

- (1) What types of waste control measures would be permitted under such a program? It would seem that at a minimum the reviewing agency should have the authority to impose certain design and construction requirements on new water projects and uses when those requirements will result in a reduction of waste.<sup>281</sup> In addition, certain restrictions governing the use of a water right might be considered. These could include duty-of-water limitations,<sup>282</sup> restrictions on the manner of making uses, water reuse or recycling requirements,<sup>283</sup> and other conservation requirements such as those discussed in detail in this subsection.
- (2) To what projects and water uses would such a program apply? Conceivably, all projects or uses could be subject to such a requirement. Alternatively, only major projects or uses might be so regulated. If a size criterion were employed to trigger the test, that criterion could be general,

applying to all "major" or "substantial projects" in the reviewable discretion of the administering agency, or to projects of a size certain as determined after legislative review of the problem.

- (3) Who will administer such a waste control program? While it would appear most logical to vest such primary authority in a state agency possessing expertise in the water area, such as the Office of the State Engineer of the Colorado Water Conservation Board, local agencies might be capable of handling certain review related to design and construction of water systems. Possibly one state-level agency could be made a lead reviewing agency, with other state and local agencies acting in an advisory capacity thereto.
- (4) What will be the effect of the decision of the reviewing agency? Must favorable review of a proposal precede the grant of any water right therefor? By way of analogy, it may be noted that a favorable review of plans and specifications for reservoir construction need not necessarily precede the grant of a water right for the storage of such reservoir water.

(b) Improvement of Existing Waste Control Authority.

At present, only the various division engineers and river basin authorities possess clear waste control authority. Other agencies arguably may have such authority, but that is uncertain. It is certain, however, that those agencies have not acted to control waste. Despite the clear waste control authority of the division engineers, they also have historically been hesitant to exercise that authority. No river basin authority has ever been formed, and their authority also remains unexercised. To rectify these serious problems, legislation tightening up the existing division engineer authority and expanding the availability of waste control remedies should be considered.

Under current law, the division engineers "shall order the total or partial discontinuance of any diversion . . . to the extent that the water diverted is not necessary for application to beneficial use."<sup>284</sup> While this standard, by the use of the word "shall," does limit division engineer discretion, further tightening of the standard could be achieved by the following:

- (1) The addition of standards which, when met, would require

action by the division engineers to control waste. Such standards could be precise, requiring action when a specified amount of waste occurred, or imprecise, requiring action when "any," "any unreasonable," "substantial," or some other descriptive restriction was exceeded.

- (2) The establishment of a requirement that the division engineers publish rules and regulations defining how and when and under what circumstances they will act to control waste. Such might be particularly helpful if an imprecise waste control standard were to be employed, or if the existing standard were to be maintained, though a requirement therefor should be strongly considered in any event.
- (3) The adoption of a generally applicable statutory definition of waste. The adoption of such a definition should be given very serious consideration, since it could provide the kind of standards described above and provide a basis for all acts directed at waste control. The definition found within the enabling authority of river basin authorities would serve as an excellent model.
- (4) The establishment of remedies to enforce the waste control authority of the division engineer. Such could include the clear extension of the remedy of mandamus to enforce the failure of the division engineers to issue waste orders<sup>285</sup> or the creation of new remedies analogous and similar to citizen suits under the Federal Water Pollution Control Act.<sup>286</sup> The availability of such a remedy could be made as broad as is desirable and might be made available for all persons, including water users.

Apart from tightening the existing waste control authority of the division engineers, extension of similar authority to others should be considered. Persons and agencies which might be suitable recipients of such authority would include:

- (1) Local governments, assuming existing authority is insufficient.
- (2) Water users.
- (3) All persons.
- (4) Other state agencies, such as the Colorado Water Conservation Board, assuming existing authority is insufficient.

The benefit of such an extension is clear. It would possess the dual advantage of providing increased availability of the remedy while removing the entire burden for the administration thereof from the

various division engineers. The result could well be a much more organized and efficient effort at reducing water waste, assuming appropriate procedures and remedies are provided for the use of such extended authority.

### (3) Experience in Other States.

While every state having any sort of comprehensive statutory scheme for the allocation and use of water possesses, as part of that scheme, a policy for conservation, certain states have acted more directly to assure that water will not be wasted in its use.

The courts of the State of California have read that state's constitution to require, under certain circumstances, the recycling of waters in order to conserve water and prevent unnecessary diversions.<sup>287</sup> Water reuse, already permitted in certain instances,<sup>288</sup> may present a very real opportunity for water savings in Colorado as well.

The State of Oregon is one of those, like California, which possesses a wide-ranging statutory scheme for water conservation. One interesting provision permits the rejection of a water right application which could be injurious to the public interest. In determining the public interest, the Oregon Water Resources Board may review an application to assure that a wasteful, uneconomic, or unreasonable water use<sup>289</sup> will not result. An application for a water use which is determined to be wasteful may be denied on that basis.<sup>290</sup> Such authority is similar to the review authority proposed above, permitting the state engineer or others to review planned water projects and uses to determine whether such may be wasteful.

The State of Montana appears to be one that has adopted a generally applicable definition of the term "waste." Under Montana law, if the Montana Department of Natural Resources believes that a person is wasting water, as measured by a means reasonably considered sufficient by the department, it may petition the district court to regulate the controlling works of an appropriation as necessary to prevent such waste.<sup>291</sup> "Waste" is defined by the Montana statutes as the "unreasonable" loss of water through the design or negligent operation of an appropriation or water distribution facility.<sup>292</sup> While the actual waste control provisions of Montana law are similar to those of Colorado, the Montana law rests on a firmer basis, due to the definition.

Several states have adopted a statutory "duty" of water.<sup>293</sup> Among those states which have done so are: Utah,<sup>294</sup> Idaho,<sup>295</sup> Nebraska,<sup>296</sup> South Dakota,<sup>297</sup> and Oklahoma.<sup>298</sup> Duty-of-water legislation sets a specific standard of waste since the statutory

duty represents a maximum amount of water which may be used to fulfill certain designated needs.

(4) Problems and Limitations.

As in the case of other legislative measures proposed herein, a waste control program would in no way be inherently violative of any state or federal constitutional provision. As a result, legislation carefully drafted to avoid potential constitutional difficulties would likely be upheld in any judicial challenge. Potential problems might exist. Thus, a statutory scheme which sought to regulate waste with regard to a constitutionally preferred water use, but not with regard to a nonpreferred use, might, under otherwise proper circumstances, violate the preference clause of the Colorado Constitution. 299 A scheme lacking a reasonable basis for such a distinction might also be violative of the equal protection doctrine.<sup>300</sup>

While the regulation of waste is not generally objectionable, constitutional difficulties might also arise if a legislative scheme authorized unreasonable regulation. It is arguable that any regulation of waste which made even the nonwasteful part of a diversion unduly burdensome might constitute an infringement of the right to divert<sup>301</sup> or a taking of a lawful water right.<sup>302</sup> Application of those concepts would, however, be based upon the facts of a particular case.

d. Land Use Restrictions.

Certain changes in the way land is used, some major and some very minor, can result in appreciable water conservation. Like the other conservation techniques which have been discussed, these changes would probably need to be legislated. It is likely that such legislation would be appropriate at the local level, with certain authority and guidance from the state.

(1) Types of Restrictions Which May Be Useful.

A variety of land use restrictions could, if implemented, result in the conservation of substantial amounts of water. Though primarily directed at the reduction of water waste in an urban setting, these restrictions could also aid in reducing the waste associated with nonurban uses as well. As will be seen, the severity of the restrictions varies substantially depending upon the technique proposed.

It must be expected that certain techniques will be more difficult to implement than others.

(a) Water Tap Limitations.

During the summer of 1977, the Denver Water Board imposed restrictions on the number of new water taps it would grant within its Denver and suburban water service area. Those restrictions placed a ceiling upon the number of new taps to be granted during the year, allocating a certain number to prospective Denver and suburban users. The 1977 restrictions were a response to the water shortage resulting from the unusually low snowpack during the preceding winter and correspondingly meager runoff resulting therefrom. Conceivably, however, such limitations could be imposed in certain areas even in times when water is relatively abundant. The intent of such restrictions would be to reduce the diversion of water to certain urban areas, hopefully with the result that additional water could be made available for other urban centers or for other beneficial uses and to avoid the need for emergency water restrictions during periodic drought conditions. While it is recognized that such restrictions are not popular, at least in the area of most severe negative impact, that reaction must be balanced against the statewide need to utilize the limited waters of the state. Restrictions in one area would enhance water use opportunities in others.

(b) Building Permit Restrictions.

It may be possible, in accordance with a reasonable growth plan, to use a building permit allocation scheme to accomplish what water tap restrictions might accomplish. Under such a system, building permits would be allocated or apportioned, according to a reasonable and detailed growth plan, on an annual or other basis. Part of the rationale for such allocation would be based upon the availability of water supplies, the economic and other costs of extending such, and the need to conserve water supplies. Since the plan upon which allocations were based would consider many factors other than merely water use and supply, however, building permit allocation would be based upon broader criteria than simple water tap allocation. Much of the water conservation resulting from tap allocation could, however, be attained through building permit allocation, with the potential advantage of a broader regulatory basis upon which to justify such allocations.

(c) Lot Size Restrictions.

It has been said that approximately 50 percent of all domestic urban water use is made to irrigate lawns.<sup>303</sup> Because the use of water for that purpose is so great, the savings to be gained from conservation of such water can be correspondingly great. A number of methods of achieving that conservation can be envisioned. Perhaps one of the most effective methods would be to restrict the absolute size of lots or, alternatively, to restrict the percentage of lots which can be irrigated. Either restriction would result in reducing the amount of water used for the purpose of lawn irrigation, thereby contributing substantially to water conservation.

One way of promoting an efficient use of space while reducing water requirements may be through the use of planned unit development (PUD), a form of development already legitimized by Colorado law.<sup>304</sup> The PUD enabling legislation could permit the retention of large, open natural areas within a land development, while devoting certain private space to irrigable lawns or other irrigable uses. While not a panacea nor a technique designed solely for water conservation, the PUD concept could be an aid in promoting water conservation.

(d) Industrial Siting Restrictions.

A number of states have recently moved to adopt comprehensive and stringent industrial siting laws which require a detailed review of the nature and extent of water use for each proposed industrial operation covered by the acts.<sup>305</sup> Similar legislation has failed in Colorado, though there is authority under existing law to undertake detailed preconstruction review of proposed industrial uses.<sup>306</sup> As major users of water,<sup>307</sup> often water which is taken from a historically agricultural use, industrial users should be closely reviewed to assure that all possible conservation efforts have been planned for prior to construction. Conservation of industrial water will become an increasingly important matter as the growth of the energy industry continues to impact the use of the state's water.

(e) Crop Requirements.

Agriculture is the largest user of water in the State of Colorado, utilizing nearly 85-95 percent of all water applied to beneficial use in the state.<sup>308</sup> Even a small reduction in that very high percentage can result in extraordinary amounts of water conservation. One method of conserving water in agriculture is through the growing of crops which require less water than certain other crops.



While it must be realized that climatological, soil, and other factors limit the types of crops which can be grown in a particular area, and that economic factors very forcefully dictate the kinds of crops which may be marketable in a particular year, it is possible that water conservation might be promoted by requiring the growing of the least water-intensive crops which can be successfully and economically farmed in a particular region.

(f) Regulation of Irrigation Techniques.

Irrigation technology has progressed beyond the flood irrigation techniques which were the basis of all irrigation at one time. Sprinkler irrigation and drip irrigation are but two developments permitting a more efficient and less wasteful application of water to crops which can thrive without the use of flood techniques. A significant number of irrigators, realizing the savings which can be had by the use of such methods, have adopted them. Legislation requiring the use of such methods or requiring the state engineer to adopt regulations requiring their use should be considered. In order to avoid making such requirements unduly burdensome, provision could be made to vary compliance therewith for small water users, for users who must use flood techniques, or for users who simply cannot immediately afford to change their technology.

(g) Retention of Natural Vegetation.

Requirements for the retention or use of natural vegetation in urban development may be considered the urban counterpart of the crop requirements suggested above. That lawn watering uses the majority of water used in domestic urban settings has been noted. To reduce that consumption, two controls, respecting lot and lawn size, have been proposed. A third, retention and use of natural vegetation and ground covering in landscaping, may also be proposed. For example, substantial savings of water could likely be realized if lawns were planted in grasses native to the arid west rest than in bluegrass, and if trees, shrubbery, and other flora native to Colorado and resistant to its dry climate were used in landscaping. Perhaps even greater savings could be attained if the natural vegetation of a development site were carefully retained. While it is not anticipated that all watering would or could be eliminated in urban environments, the use of such a simple technique could result in substantial water conservation.

(h) Use of Efficient Building Materials.

With increasing frequency during water-short 1977, the public's attention has been directed to numerous devices which can conserve in-home water use. Devices which may be attached to toilets, shower-heads, outdoor watering fixtures, and the like can reduce water consumption by using available water more efficiently. It would appear to be possible to require the use of such devices, especially in new developments, for the precise purpose of water conservation.

Interestingly, two closely analogous statutes were enacted by the Colorado legislature in 1977. The Residential Building Energy Conservation Act of 1977<sup>309</sup> and a separate act applying to nonresidential construction<sup>310</sup> mandate local governments to adopt minimum standards for construction which will require the use of energy-conserving materials and technology in new buildings or renovations of older buildings. An act requiring such for water conservation seems to be only a short step for the legislature to make.

(i) Urban Water Restrictions.

Based upon the results of Denver's experience during the summer of 1977, it would appear that relatively mild water restrictions can save substantial amounts of water, which water could be used in outdoor watering without undue impact upon water users. While Denver's experience, and that of many other cities of the state, was based upon the peculiar conditions of 1977, the result of that experience suggests that the use of such restrictions as a permanent measure would provide a fairly simple way of conserving water for uses other than urban watering. Combined with lot or lawn size restrictions, and vegetation or landscaping requirements, such a technique could reduce urban water consumption significantly, freeing water for a variety of other uses.

(2) Authority to Impose Restrictions Under Current Law.

It can be argued that authority currently exists at the state and/or local level to impose each of the restrictions described above.

(a) Water Tap Restrictions.

Authority for water tap restrictions is found at the state and local levels. The express authority of municipalities,<sup>311</sup> counties,<sup>312</sup>

water and sanitation districts,<sup>313</sup> metropolitan districts,<sup>314</sup> and metropolitan water districts<sup>315</sup> appears to be sufficient to permit those entities to restrict their service areas by restricting the allocation of water taps.

The general rule in Colorado and elsewhere, authorizes municipalities to withhold water service both within and without their municipal boundaries. Within municipal boundaries services may be withheld if the denial is not arbitrary or unreasonable.<sup>316</sup> In general, the decision to withhold will not be held to be arbitrary when there are valid utility-related reasons for that decision.<sup>317</sup> It is settled that water shortage is among the utility-related reasons upon which denial of service may be based.<sup>318</sup>

Municipalities are said to be under no obligation to serve persons beyond municipal boundaries and may not be compelled to furnish water services beyond their boundaries.<sup>319</sup> Under certain circumstances, however, service may be demanded. Thus, a municipality may be bound by contract<sup>320</sup> or by law<sup>321</sup> to serve consumers beyond its boundaries. A municipality will also be bound to serve extracorporate consumers if it has held itself out as a public utility for water service within that area.<sup>322</sup> Even then, however, service may be denied for utility-related reasons.

It has been noted that water shortage is a valid utility reason for denial of water service. Most cases which have relied upon that reason have been faced with a program of tap allocation or restriction based upon an immediate water shortage.<sup>323</sup> Tap allocation to meet an existing shortage is not quite the same as tap allocation to prevent shortage. The legislation discussed herein contemplates both types of controls, though it is hoped the latter would obviate the need for the former. It would seem that each form of restriction has a valid utility-related basis. Logic compels the acceptance of tap allocations to prevent shortage as well as to cure shortage.

It may also be possible to argue that several state agencies have the authority to undertake tap allocation. The division engineers' waste prevention authority<sup>324</sup> could only be said to include such if the power were expanded beyond its traditional limits. Similarly, any authority of the Water Conservation Board<sup>325</sup> or the state engineer's office itself<sup>326</sup> to do so would require what would appear to be a heretofore never undertaken implication. Perhaps the most likely source of state authority to require such allocation vests with the Land Use Commission as a part of its temporary emergency power<sup>327</sup> or formal request authority under H.B. 1041.<sup>328</sup> It may be possible to argue that the somewhat mysterious and totally untested authority of river basin authorities includes the authority to order tap allocations.<sup>329</sup> Again, that authority is untested. Finally, it is arguable that irrigation districts,<sup>330</sup> water conservancy districts,<sup>331</sup> and water conservation districts<sup>332</sup> may allocate their water in a

discretionary fashion according to the same restrictions as bind other municipalities. Such districts arguably possess the authority to allocate water to direct consumers as well as the authority to contract with municipal or other users for the ultimate allocation of water supplied thereto. Finally, the Ground Water Commission<sup>333</sup> and the various ground water management districts<sup>334</sup> may possess similar authority with respect to designated ground water.

(b) Building Permit Restrictions.

The effect of limiting the granting of building permits would be similar to the effect of allocating water taps, since much new urban development depends upon municipal water for its water supply.<sup>335</sup> The use of building permit allocation restrictions would provide a more flexible and broadly based means of conservation, since water conservation would likely be only one of many factors in allocating permits.

Municipalities and counties possess primary land use authority in Colorado. It would appear that each possesses the authority to regulate the speed of development by the allocation of building permits. A review of the enabling legislation indicates that both municipalities<sup>336</sup> and counties<sup>337</sup> can find such authority in their zoning powers, especially as such are enhanced by the fairly specific authorizations in H.B. 1034<sup>338</sup> and H.B. 1041.<sup>339</sup> Decisions in major cases arising in other jurisdictions indicate that a reasonable allocation formula will be upheld.<sup>340</sup> The issue, of course, is whether an allocation formula based partially upon water conservation would be valid and reasonable. It has been held elsewhere that growth control policies do not serve as a valid reason for withholding water taps.<sup>341</sup> Colorado decisions at least hint that the same is true in this state.<sup>342</sup> The clear authorization of H.B. 1034, however, permitting local governments to phase development of services may be a basis for adopting a more liberal rule in Colorado.

At the state level, the Land Use Commission would appear to have at least indirect authority to require the allocation of building permits.<sup>343</sup> It is uncertain whether the LUC's powers, despite their comprehensiveness, can be exercised to require specific local action to allocate permits. It is doubtful whether other local or state agencies, which have no land use authority, could compel the adoption of a building permits allocation program.

(c) Lot Size Restrictions.

There would appear to be little question that both municipalities<sup>344</sup> and counties<sup>345</sup> may regulate lot or lawn size in order to

promote water conservation. It is also arguable, though highly questionable, that the various special district water supply entities may also possess that power.<sup>346</sup>

The authority of other governmental agencies seems to be broad enough to require lot and lawn size restrictions, though it seems likely that such would be exercised, and perhaps upheld as exercised, only under extreme circumstances. The division engineers, for example, might be able to order local governments to regulate lot size under their waste control authority.<sup>347</sup> Similarly, the powers of the state engineer,<sup>348</sup> the Water Conservation Board<sup>349</sup> and of river basin authorities on their face,<sup>350</sup> may authorize such measures. The Land Use Commission, too, may possess the authority to request or seek an order requiring the imposition of lot size restrictions.<sup>351</sup> Finally, it may be arguable that irrigation,<sup>352</sup> water conservation,<sup>353</sup> and water conservancy<sup>354</sup> districts, by regulation of contracts, possesses such power, though the assertion of such by those entities would transcend traditional bounds. By far, however, the most effective agencies for exercising such authority are counties and municipalities.

#### (d) Industrial Siting Restrictions.

As in the case of lot size regulation, it appears that both counties and municipalities have abundant authority to review closely the water use impacts of a proposed industrial use of land. That authority can be found in county<sup>355</sup> and municipal<sup>356</sup> zoning enabling legislation as well as in H.B. 1034<sup>357</sup> and H.B. 1041,<sup>358</sup> the latter being particularly clear in authorizing such review.

Of the state agencies possessing the authority to undertake such review, only the power of the Land Use Commission, under its temporary emergency power<sup>359</sup> and its H.B. 1041<sup>360</sup> request power to initiate such preconstruction review, is clear. The division engineers' waste control authority seems inapplicable since it appears to apply only to "water being diverted."<sup>361</sup> While this would seem to prevent planning efforts by the division engineers, it does not prevent their control of wasteful diversions for industrial use. Indeed, such being the case, a logical argument can be made that preconstruction review by the division engineers should be permitted. The authority of the state engineer,<sup>362</sup> Water Conservation Board,<sup>363</sup> river basin authorities,<sup>364</sup> Ground Water Commission,<sup>365</sup> and ground water management districts<sup>366</sup> is similarly speculative, if only because it has never been so exercised.

#### (e) Crop Requirements.

Crop requirements as described above, would appear to represent

one of the most difficult water conservation restrictions to implement. Whether any state or local agency possesses the authority to institute such a program is questionable.

Ostensibly, the zoning enabling authority for counties<sup>367</sup> and municipalities<sup>368</sup> is broad enough, on its face, to permit such restrictions. House bill 1034<sup>369</sup> seems to bolster that authority. Only an expansive reading of H.B. 1041,<sup>370</sup> however, would permit such regulation thereunder.

Irrigation districts,<sup>371</sup> conservancy districts,<sup>372</sup> and conservation districts<sup>373</sup> might possibly enforce certain crop restrictions by regulation or contracts. As a practical matter, however, it would seem extremely unlikely that entities vitally concerned with the promotion of agriculture would be willing to adopt such severe measures.

The Land Use Commission might be able to argue that it possesses the authority to impose crop restrictions under its temporary emergency power,<sup>374</sup> but it is unlikely that it could benefit from its H.B. 1041 powers.<sup>375</sup> Whether the division engineers could successfully argue that use of water for the growth of a crop is wasteful, since other crops requiring less water might be grown, is equally questionable.<sup>376</sup> It does not appear that the waste control power has ever been used to prohibit a beneficial use because a "more beneficial" use may be available. The authority of the state engineer,<sup>377</sup> the Water Conservation Board,<sup>378</sup> the Ground Water Commission,<sup>379</sup> and the ground water management districts<sup>380</sup> is also highly questionable. Finally, though their authority is untested, the powers of river basin authorities seem to come closest to permitting the kinds of restrictions in question.<sup>381</sup>

(f) Regulation of Irrigation Techniques.

There appear to be opportunities under current law for the imposition of requirements for the use of efficient irrigation techniques.

The division engineers may order the discontinuance of water uses which do not serve a beneficial purpose.<sup>382</sup> If flood or other irrigation techniques are wasteful, this authority should permit their discontinuance. Whether the division engineer may also affirmatively order the adoption of more efficient techniques is uncertain. The effect of a discontinuance of older techniques would likely force an adoption of more efficient methods in any event.

The state engineer's rule-making authority should be considered to be sufficiently broad to allow him to require the use of efficient irrigation techniques in order to save water.<sup>383</sup> In fact, the state engineer has already considered such requirements in evaluating

permit applications.<sup>384</sup> Because his authority permits him to require affirmative action, the state engineer is better suited than the division engineer to regulate with respect to this problem. The enabling authority of the Colorado Water Conservation Board seems well suited to the proposals in question. The board's broad authority to promote water conservation and greatest utilization would serve as the basis for the regulations in question.<sup>385</sup>

River basin authorities, which may establish standards for proper utilization of water, also appear to be suited to accomplishing the regulatory program in question.<sup>386</sup> The definition of waste within the enabling legislation of such authorities provides a good foundation upon which to base such regulations.<sup>387</sup>

Water conservancy,<sup>388</sup> water conservation,<sup>389</sup> and irrigation<sup>390</sup> districts, as major suppliers of agricultural water, appear to have the authority to condition deliveries of water upon the use of efficient irrigation methods.

Finally, with respect to designated ground water, the Ground Water Commission<sup>391</sup> and the ground water management districts<sup>392</sup> each appear to have the authority to order use of efficient irrigation methods.

(g) Retention of Natural or Other  
Conserving Vegetation.

Contrary to crop restriction requirements, the imposition of which would involve a multitude of complex and difficult economic, social, and constitutional questions, the imposition of requirements for the retention of natural vegetation in new developments would seem to be proper and fairly easily implemented.

County and municipal enabling authority for zoning is broad enough to permit land use regulations of the type in question.<sup>393</sup> When enhanced by H.B. 1041<sup>394</sup> and H.B. 1034,<sup>395</sup> local governmental authority becomes even more certain.

Once again, an argument may be made that water and sanitation districts,<sup>396</sup> metropolitan districts,<sup>397</sup> and metropolitan water districts<sup>398</sup> also possess such power. It is certain that the attempt by any of those to impose such restrictions would go beyond their authority as traditionally exercised.

It is arguable that the use of vegetation which consumes undue amounts of water may be wasteful within the contemplation of the division engineers' waste control authority.<sup>399</sup> If so, the division engineers may be entitled to prohibit the use of such. Other state

agencies which could also arguably impose vegetation requirements would be the state engineer,<sup>400</sup> the Water Conservation Board,<sup>401</sup> the Land Use Commission,<sup>402</sup> the Ground Water Commission,<sup>403</sup> and the ground water management districts.<sup>404</sup> At the regional level, river basin authorities seem to possess like authority,<sup>405</sup> as may irrigation,<sup>406</sup> conservancy,<sup>407</sup> and conservation districts.<sup>408</sup>

(h) Use of Efficient Building Materials.

Requirements for the use of certain types of building materials are commonplace in county and municipal building codes. It would seem that the enabling legislation for counties<sup>409</sup> and municipalities<sup>410</sup> easily supports the kinds of requirements discussed at (1)(g), above. Such would compare with the energy conservation requirements which local governments must impose under the Residential Building Energy Conservation Act of 1977, discussed at (1)(g) herein. Whether H.B. 1041 supplies such authority may be questionable,<sup>411</sup> though the clear authority found in other legislation seems to moot that concern.

As in the case of other conservation requirements, it is arguable that the division engineers,<sup>412</sup> the state engineer,<sup>413</sup> the Water Conservation Board,<sup>414</sup> the Land Use Commission,<sup>415</sup> the Ground Water Commission,<sup>416</sup> and the ground water management districts<sup>417</sup> possess the power to require water-saving construction. Similarly, the unexplored authority of river basin authorities may do the same.<sup>418</sup> The possibility that various special water supply districts may impose such requirements should also be mentioned, though it can be said that any attempt by those to do so would greatly expand the powers of each, as traditionally exercised.<sup>419</sup>

(i) Urban Watering Restrictions.

Both municipalities and counties possess adequate authority to impose watering restrictions. Municipalities, as part of their water supply authority, may regulate the distribution of water for irrigation and other purposes<sup>420</sup> and may do all things necessary and convenient to the exercise of their authority.<sup>421</sup> Counties are also permitted to do all things necessary and convenient in the exercise of their water service authority.<sup>422</sup>

The use of excess waters to irrigate within urban areas may also arguably be considered waste within the division engineers' waste control authority.<sup>423</sup> If so, they may seek to regulate such waste within their jurisdictions. At the state level, it would appear that the state engineer,<sup>424</sup> the Water Conservation Board,<sup>425</sup>



the Ground Water Commission,<sup>426</sup> and the ground water management districts<sup>427</sup> may also possess implied authority to order such restrictions.

It is also arguable that the various special districts having water supply authority possess sufficient authority to order watering restrictions. Irrigation districts,<sup>428</sup> water conservancy districts,<sup>429</sup> each of the conservation districts,<sup>430</sup> river basin authorities,<sup>431</sup> water and sanitation districts,<sup>432</sup> metropolitan water districts,<sup>433</sup> and metropolitan districts<sup>434</sup> appear to be endowed with such power to the extent the waters of each are utilized for the purposes in question.

### (3) New Legislation.

The conclusion which can be drawn from the review of existing authority is that many kinds of reasonable water conservation techniques may now be enforced by various state and local agencies through the use of their land use control and other powers. Despite this encouraging conclusion, however, it is equally discouraging to note that so few conservation techniques have been adopted. Existing authority, perhaps due to uncertainty, has been left unexercised. As a result, the most direct legislative remedy which may be proposed is the enactment of legislation requiring or expressly authorizing all or some of the techniques described in (1), above. The legislature has certainly shown the willingness to adopt closely analogous legislation requiring local governments to enforce energy conservation through their building codes. It would seem just as important to urge the adoption of similar, if broader, legislation designed to force water conservation as well. In doing so, the legislature would need to consider several factors:

- (1) Perhaps the primary consideration here is which, if any, of the measures proposed will be adopted. A review of those measures does indicate that some are more severe than others and may be unrealistic for political consideration. The importance of the goal of the legislation--water conservation--does suggest that strong consideration be given each of the measures.
- (2) While it appears that existing enabling authority permits most if not all of the techniques enumerated, that authority is by no means certain in all cases. Therefore, even if the legislature should hesitate to mandate the adoption of certain of the techniques, it would be helpful if it would at least clearly enable either state, regional, or local agencies to adopt them. Such would likely reduce any hesitancy of those agencies to act under present uncertain legislation.

- (3) To what extent would the restrictions suggested apply? Would, for example, the conservation measures apply in all areas of the state or only in those experiencing rapid growth in population and water use? Because the need to save water is a statewide need, certain, if not all of the restrictions should apply statewide. Industrial siting restrictions would be one of the techniques within that category. Alternatively, strategies such as tap allocation might be applied only in rapid growth areas, thereby resulting in water conservation while perhaps promoting the state's desire to encourage greater growth in currently slowly growing rural areas. Certain measures might be applied only to large-scale land developments, rather than all developments, though such could seriously diminish the effectiveness of any conservation program.
- (4) Which governmental level will be responsible for administering the programs described? At present, the authority of local governments seems to be the clearest with regard to most of the measures. Would a local bias be maintained or would responsibility be shifted to state or regional agencies? The answer to this question will, of course, depend to some degree upon the technique utilized. Thus, lot size restrictions would perhaps best be controlled at the local level, while industrial siting would appear to be appropriate for state level administration--perhaps by the Land Use Commission or a similar agency.
- (5) How would such programs be enforced? If local governments were to administer the programs as part of their land use authority, would the existing land use proscriptions apply? If state or regional agencies were selected, what enforcement authority would be provided?

#### (4) Experience in Other States.

While resorting to the experiences of other states is helpful here as elsewhere in this study, it must be noted that many of the conservation techniques described herein have been implemented in Colorado. During the summer of 1977, watering restrictions were common throughout the state. For many areas the restrictions were not new, and were merely an extension of restrictions which had been in effect for many years. The City of Denver also adopted a well publicized water tap allocation system to conserve existing supplies. Some local governments, at least, have sought to retain natural vegetation within new developments.<sup>435</sup> Certain of these measures, particularly Denver's tap allocation and urban watering programs,

were employed to mollify existing water shortages, though they could just as well be used as a conservation measure in advance of a crisis. Land use conservation measures are not new to Colorado.

One of the most significant measures adopted by other states consists of comprehensive industrial siting acts. The State of Montana has adopted a Major Facility Siting Act which requires that state's Board of Natural Resources to approve the siting of major power and energy conversion facilities.<sup>436</sup> The act requires comprehensive review of many environmental and other factors, including review of water resource impacts, adequacy of water supply, impacts upon stream flow and quality, and impacts upon changes in water use by others.<sup>437</sup> Washington has adopted a similar statute to control the adverse effects of power plants upon, *inter alia*, the state's water resources.<sup>438</sup> In 1975, the State of Wyoming adopted a far-reaching Development and Siting Act which applies to energy generation and conversion plants and other industrial facilities costing more than \$50 million.<sup>439</sup> To obtain a permit from the industrial siting council, an applicant must show, *inter alia*, that the proposed plant is acceptable with respect to water supply and water quality.<sup>440</sup> To make that finding the council may review water resource impacts, recreational impacts, adequacy of water supply, impacts on stream flow and water quality, and impacts on other water uses.<sup>441</sup> A facility siting bill failed before the Colorado legislature in 1976. These examples, as well as experience in other states,<sup>442</sup> suggest that another effort to adopt such a bill should be made.

During the course of the current drought, severe watering restrictions were adopted in various areas of the State of California. While the most severe restrictions were those adopted in Marin County in northern California,<sup>443</sup> southern California cities, such as Los Angeles,<sup>444</sup> adopted watering restrictions as well.

During the early summer of 1977, the California Public Utilities Commission ordered all the water utilities under its jurisdiction, some 400 companies, to distribute to their customers water conservation kits.<sup>445</sup> In doing so, the PUC cited the water conservation provisions of the California Constitution.<sup>446</sup> Such action accomplishes some of the same goals as the proposed building code legislation described herein, though the latter is certainly intended to be a more extensive program.

#### (5) Problems and Limitations.

Implementation of any of the programs suggested in the foregoing sections would carry with it certain constitutional and other difficulties.

(a) The Taking Issue.

Many of the techniques described in this section can be classified as land use controls. Historically, land use controls have been subject to attack upon one very important, albeit not exclusive, constitutional ground--that the control operates to take one's property rights without the payment of just compensation.<sup>447</sup> That restriction could operate to nullify certain of the above proposals in at least two ways.

First, land use regulations can be challenged as a taking of one's property rights in land.<sup>448</sup> A police power restriction which leaves one with no reasonable use of his land is a "taking."<sup>449</sup> An unreasonable exercise of any of the foregoing proposals could meet that test. Second, even though the restrictions proposed herein are by and large land use measures, each has as an essential purpose water conservation. If any of those measures should leave a water user with no reasonable use of an otherwise valid water right, an argument that the measure resulted in a taking of the regulated water right might well succeed. The "land use" restrictions could, if unreasonably implemented, result in a taking of property rights in land and water. This possibility can be reduced by the enactment of reasonable enabling legislation which sets proper standards for local or other action, but, as in the case of any land use legislation, can probably not be eliminated. It should be noted that in the abstract, not each of the proposals is equally susceptible to a taking assertion. For example, lot size restrictions have been upheld as valid.<sup>450</sup> Whether the more substantial restrictions which would be imposed by certain of the other proposals would be so favorably treated is uncertain.

(b) Water-related Constitutional Issues.

Once again, the water resource provisions of the Colorado Constitution pose a potential problem to the enactment of the described statutes. Those provisions are at art. XVI, §6, of the constitution.

No statutory scheme may deny the right to divert water to beneficial use. The proposals made herein would appear to comply with this doctrine. Each of those proposals primarily seeks to regulate land use rather than diversion of water.<sup>451</sup> While the result of such regulations is to reduce diversions, the purpose of each is to eliminate wasteful and nonbeneficial diversions. Thus, while a person subject to such restrictions could truthfully argue that he might be entitled to divert less water following the enactment of a statute authorizing one of the proposals than before, such should not constitute a denial of the right to divert so long as the measure

adopted constituted a reasonable effort to reduce nonbeneficial uses of water and conserve water for uses of higher benefit. Any other interpretation puts a premium upon the amount of water diverted rather than the beneficial use to which the diversion is applied. Section 6 does not seem to protect large diversions simply for the sake of their size.

Section 6 also establishes a preference or priority of water use, preferring domestic uses to agricultural, which are in turn preferred to manufacturing uses. Though that section does not appear to have been so interpreted by the courts, it is possible to argue that police power enactments which regulate higher uses and leave lower preferences untouched violate the provision. For example, it might be arguable that water tap limitations seeking to regulate domestic uses, but not agricultural or manufacturing uses, violate the clause. Similarly, watering restrictions upon domestic uses could be challenged if no agricultural restrictions were imposed. While no case is directly in point with this question, it would appear that reasonable regulation of water rights to achieve the legitimate goal of water conservation would be upheld.<sup>452</sup> Reasonably exercised, the foregoing restrictions should pass constitutional muster.

It should also be noted that any classification of uses could run afoul of the equal protection clause of the United States Constitution.<sup>453</sup> So long as those classifications were reasonable, however, they would be upheld.

#### (c) Home Rule Considerations.

By and large, each of the "land use restrictions" described in the preceding sections would be implemented by action of local governments in order to reduce water use within their jurisdiction. Because local governments have thus far failed to adopt such restrictions, though existing enabling authority would seem to permit many of the proposed techniques, legislation requiring the adoption of those restrictions was described. In proposing that kind of coercive legislation, at least two facets of the home rule provisions of the Colorado Constitution come into play.

As noted in some detail in §IX.C., *supra*, art. XX of the Colorado Constitution, home rule municipalities are permitted to legislate in matters of local and municipal concern without reference to conflicting legislation by the state. Recent case law has carved out two areas of local concern which put into question any state effort requiring the kind of coercive legislation described.

It is settled that zoning, at least, is a land use function

which is of local concern.<sup>454</sup> Local zoning legislation adopted pursuant to a valid home rule charter therefore supersedes conflicting state legislation. While no case has spoken on the matter, it would seem that other similar land use programs traditionally undertaken by local governments, such as subdivision regulations, building codes, growth management controls, or other programs, are also of local concern. These traditionally local regulatory functions are the basis for many of the land use restrictions proposed as water conservation techniques in the foregoing sections. Because the authority of home rule cities with respect to those regulatory functions supersedes state legislation, it is arguable that any attempt by the state to force the adoption of the described measures would violate art. XX as an infringement upon the constitutional authority of home rule cities, as that power has been applied by the courts of the state. To the contrary, it may be argued that the statewide interest in water conservation permits the state legislature to legislate in those traditionally local areas in order to achieve that purpose. Recent case law tends to cast doubt even on that argument.

Two recent cases establish a fairly wide range within which home rule municipalities may acquire and dispose of water and water rights. It may be argued that these cases:

- (1) Are further support for the proposition that home rule municipalities cannot be forced to adopt land use measures in order to promote water conservation.
- (2) Support the proposition that home rule municipalities may not be compelled to adopt water regulatory measures, such as water tap restrictions or watering restrictions, despite the fact that those measures are not land use restrictions.

COSC and Thornton may be read as establishing a wide range in which home rule municipalities, without infringement by state legislation, may deal in the acquisition and disposition of water and water rights--a concern long felt to be the state's only. It may be argued that that range is so broad that home rule municipalities may not be compelled to acquire or dispose of rights in any particular fashion, regardless of whether water conservation will be promoted. That deductive leap is a long one, however, and in view of the intense state concern in water conservation, may be illogical. The cited cases, however, limit the scope of state authority in this matter.

e. Rotation.

Rotation of water use has long been an accepted technique to

make more efficient delivery and use of water during times of shortage.<sup>458</sup> It is a technique which has been adopted by ditch companies, and enforced by means of their rules and regulations, to assure that users of water on a ditch will receive their entitlement to the greatest extent possible during shortages.<sup>459</sup> As a water use technique, rotation generally requires that water users taking from a ditch alternate or "rotate," according to a schedule, in their use of such water in order to maintain a head of water in the ditch and in order to allow all users to take as much of their lawful entitlement as possible, even if at a less frequent interval than normal. In general, the technique has been used among water users of equal priority. Expansion of this accepted technique may provide a means to ensure more efficient use of the waters of the state.

(1) Existing Law.

While it seems that rotation of water rights, at least absent injury to appropriators, is valid in Colorado,<sup>460</sup> no statute expressly authorizing such appears to exist. Certain statutes, such as the state's proration statute,<sup>461</sup> do authorize alteration of water rights in times of shortage, but none expressly authorizes rotation. Despite such, authority for the use of rotation does appear to exist.

Case law, at least in dictum, authorizes the imposition of rotation requirements by ditch companies in the form of reasonable rules and regulations. The decision in Johnston v. Wanamaker Ditch Co.,<sup>462</sup> while addressing the question of proration, stated: "In times of shortage . . . water owners may be best served by rotation . . . ." A review of the authority of ditch companies and other water suppliers seems to indicate that they may include such requirements within adopted water use rules. Thus, water conservancy districts,<sup>463</sup> irrigation districts,<sup>464</sup> and water conservation districts<sup>465</sup> each appear to possess that authority. Particularly in light of the Johnston decision, it also appears that ditch and reservoir companies<sup>466</sup> and water users associations<sup>467</sup> may possess such authority.

While it does not appear to have been interpreted to require or authorize rotation expressly, one section of the Colorado statutes seems to permit, if not require, rotation. At §37-84-118, C.R.S. 1973, it is stated, in pertinent part, that:

Every person or company owning or controlling any canal or ditch used for the purposes of irrigation and carrying water for pay, when demanded by the users from April first until November first, in each year, shall keep a flow of water therein, so

far as may be reasonably practicable for the purpose of irrigation, sufficient to meet the requirements of all such persons as are properly entitled to the use of water therefrom, to the extent, if necessary, to which such person may be entitled to water, and no more.

The statute has been upheld in White v. High Line Canal Co.<sup>468</sup> That case made it clear that a ditch company has the right to regulate deliveries to its customers when water supplies are short.<sup>469</sup> The words of the statute almost certainly would seem to permit rotation as one form of regulation. As suggested, the wording of the statute may even be interpreted to require rotation (or some other lawful means) when needed "to meet the requirements of all such persons as are properly entitled to the use of water" from a ditch.<sup>470</sup>

When water users or suppliers fail to adopt rotation schedules in times of shortage, and if such failure results in waste of water, it would appear that the various division engineers may be entitled to require rotation under their waste control authority.<sup>471</sup> It is not certain whether said authority may be read so broadly, since the division engineers are authorized only to order discontinuance of water. They are not additionally authorized to order affirmative action, as would be required in the adoption of a rotation schedule.

The state engineer is bound to administer and distribute water rights in accordance with decrees therefor. The state engineer may, however, adopt rules and regulations to assist in carrying out his duties and in securing effective operation of the division of water resources.<sup>472</sup> It is arguable that said regulations would permit the imposition of certain rotation requirements, so long as rights vested under valid decrees were not adversely affected. Other agencies which may be authorized to require rotation include the Water Conservation Board,<sup>473</sup> river basin authorities,<sup>474</sup> the Ground Water Commission,<sup>475</sup> and ground water management districts.<sup>476</sup>

Apart from the foregoing authority to require rotation, there also seems to exist case law and statutory authority for water users to adopt voluntary rotation schedules if such are desired. In Brighton Ditch Co. v. City of Englewood,<sup>477</sup> the court, in response to plaintiff's contention that a proposed change in point of diversion injured him by depriving him of the benefits of rotation, noted that there was no right to continuance of rotation in the absence of a contract therefor. While not directly addressing the rotation question, the court seemed to accept, implicitly at least, the concept that voluntary rotation by contract could be established. No recitation of authority or procedures therefor appears in the case. Among the statutes which arguably permit rotation is Colorado's exchange law, which allows water right owners to loan or exchange water under certain circumstances.<sup>478</sup> Since rotation and loaning are



not precisely the same techniques, it may be that this statute does not authorize rotation. If it does, however, it seems clear that such rotation can take place without a decree so long as vested rights are left unimpaired.<sup>479</sup> It is also arguable that rotation may be undertaken under authority of a plan for augmentation.<sup>480</sup> The requirement that such be decreed would seem to reduce its usefulness as a measure to overcome the short-term effects of shortages.

(2) Proposed Changes in Existing Law.

Since there exists no law expressly permitting rotation of water rights in Colorado, the most obvious suggestion for new legislation is to adopt such a law. Such a suggestion is, of course, overly simplistic. A number of questions would need to be resolved prior to the adoption of any such legislation:

- (1) What would be the scope of any legislation adopted? It would seem that, at the least, legislation expressly authorizing voluntary rotation by water users should be provided. Such legislation should be limited by the requirement that no system of rotation will result in injury to any senior or junior appropriators. In addition to authorizing voluntary rotation schemes, legislation expressly authorizing the imposition of mandatory rotation schemes should be adopted. If such were considered, the corollary question of who would be entitled to require such would need to be answered. The Johnston case indicates that certain water supply agencies may impose such schemes by regulation under current law. Because rotation can result in more efficient water use, any new legislation might permit the following persons or agencies to force rotation:
  - (a) Appropriators of rights to be rotated.
  - (b) All water users.
  - (c) Any person.
  - (d) The state or division engineers.
  - (e) The Water Conservation Board.
  - (f) The Department of Natural Resources.
- (2) How would any system of rotation be initiated? One option would be to require that any scheme, whether voluntary or mandated, be initiated by petition to the appropriate water

court, seeking either the affirmation of a voluntary scheme or the ordering of an involuntary rotation system. Alternatively, because of the often lengthy time period required to obtain a judicial decree and because rotation would frequently be a technique to help solve immediate water shortage problems, consideration might be given to establishing an administrative scheme for the initiation of voluntary and involuntary rotation. Any administrative decision would be subject to judicial review.

- (3) What standards would be used to approve or order a rotation program? Presumably different, if overlapping, standards would apply for voluntary and involuntary programs. Thus, a voluntary program might be approved so long as no injury to vested water rights or decreed conditional rights would result from the scheme. An involuntary system would certainly take into account that factor, but might also consider various other public interest and economic factors as well in order to determine the need for and reasonableness of the proposed program.
- (4) On how broad a basis would rotation apply? The Johnston decision indicates that rotation among water users taking from an irrigation company is one lawful way to rotate water use. A new rotation statute might permit rotation on a broad basis among different users taking from various water sources. Should any such system be permitted or mandated, it would seem that provision would have to be made to assure that no one be forced to sacrifice his priority to a rotation schedule.
- (5) Who would administer the rotation statute? Assuming that approval of rotation was to be administrative, which agency would be responsible for such approval? Candidates would include:

- (a) The state or division engineers.
- (b) Department of Natural Resources.
- (c) Water Conservation Board.
- (d) River basin authorities.

Would the approving agency also administer the program, or, if approval were judicial, would one of the above agencies be the administering agency?

### (3) Experience in Other States.

The State of Wyoming has adopted a statute permitting voluntary rotation when the rotation is approved by the water commissioner with jurisdiction.<sup>481</sup> The statute permits the following:

To bring about a more economical use of the available water supply, it is lawful for water users owning lands to which are attached water rights, to rotate in the use of supply to which they may be collectively entitled, or a single water user, having lands to which water rights of a different priority attach, may in like manner rotate in use, provided that all water rights subject to rotation are in priority. Rotation of water will be allowed only if it can be accomplished without injury to other appropriators.

The statute permits various users taking from a collective source to rotate in the use of their supply and permits a single user to rotate use among different lands so long as the rotation is in priority. As such, the statute authorizes voluntary rotation only. Performance of the rotation plan is enforced by the water commissioners.<sup>482</sup> The state engineer may adopt rules and regulations to enable him to administer the statute efficiently.<sup>483</sup>

The State of Florida, which recently changed from a riparian to a permit system, would appear to have legislation permitting the imposition of rotation requirements. Florida allows water use permits to be restricted during emergencies resulting from water shortages or when reduction of water use is necessary to protect water resources from serious harm.<sup>484</sup> Restrictions are imposed according to a predesigned plan establishing a program for restriction. While the legislation does not expressly call for rotation as a means of meeting water shortages, rotation would certainly be one means of doing so. Thus, the Florida statute appears to authorize the imposition of involuntary rotation requirements under certain circumstances.

No other state of those inventories appears to expressly authorize the use of rotation. Some, such as Oregon<sup>485</sup> and Alaska,<sup>486</sup> authorize the conditioning of permits when they are granted, which may implicitly authorize such, but none specifically address rotation.

### (4) Problems and Limitations.

It would seem that the problems which may inhibit the enactment and administration of a rotation statute would be similar to those

identified with respect to other proposed legislation.

The taking issue could be a significant factor in determining the lawfulness of any rotation scheme. Depending upon the circumstances surrounding the alleged taking, such might be found in any involuntary rotation scheme which resulted in a reduction in one's lawful entitlement of water in contravention of the priority system. Similarly, a taking might be found in a rotation scheme which actually resulted in proration of water among users of varying priority.<sup>487</sup> In short, rotation is to be utilized as a technique to make more efficient use of water, not to subvert the priority system.

It might also be possible that a taking could be successfully alleged against a proration scheme which made the diversion of one's rights unduly burdensome or economically infeasible. Again, the circumstances of the individual case would be determinative.

Finally, a taking might be found in the case of a voluntary rotation scheme as well, if approval were granted to a scheme which resulted in injury to vested rights of appropriators not a part of the scheme.

The water-related constitutional provisions at art. XVI, §6, of the Colorado Constitution could also limit the authority to require rotation. A rotation system which imposed such restrictions upon water use that the ability to divert became impossible or impracticable might be found to violate the constitutional protection of the right to divert. Reasonable restrictions, however, should be upheld as valid.

The preference clause of §6 might work to bar any rotation scheme which imposed stricter regulations upon uses of higher preference thereunder, rather than those of lower preference. It might also be argued that the preference clause would prohibit a statutory scheme requiring rotation of higher, but not lower, preference rights. While, as noted in foregoing sections, the clause does not appear to have been applied in such a fashion, the possibility that it may be remains.

#### 6. Limiting Duration of Water Rights.

While certain water rights may be valuable to serve a beneficial use in perpetuity, it would appear that certain other rights have distinct and definable time limits to their value. Concern has been frequently expressed, for example, that the large water uses for energy development expected to occur in Colorado will permanently remove water from historically agricultural uses in order to serve certain temporary, energy-related water uses. Those interested in

assuring the continued health of the important agricultural sector of Colorado's economy have expressed concern at that possibility. Similarly, other kinds of water rights may possess natural time limits upon their value by virtue of the nature of the use to which they are devoted. In order to gain a certain amount of control over the continued use of rights whose usefulness has expired for their original purpose, several states have enacted legislation which authorizes the granting of water rights conditioned by time limitations. This section explores the potential of such restrictions in Colorado.

a. Existing Law.

As a general principle, it would appear that water rights acquired under Colorado law are permanent, existing in favor of the original appropriator or his successors in perpetuity.<sup>488</sup> The right is acquired through appropriation and may be decreed by the water court upon application of the appropriator.<sup>489</sup> Since it is doubtful that any applicant for a water right decree would voluntarily apply for a decree limiting the duration of his right, such a condition could only be imposed by the court under current law.

A review of the standards governing the rulings of the water courts and water referees seems to indicate that they are powerless to impose time limits in decreeing the appropriation of a water right.<sup>490</sup> The only possible exception to such may be with regard to decrees for water rights requiring the construction of a well. In granting such decrees, the water court must consider the findings of the state engineer pursuant to §37-90-137, C.R.S. 1973.<sup>491</sup> While it is probably unlikely that he possesses such power, it may be argued that that section authorizes the state engineer to place time limitations upon his grant of a well permit, which limitations may then be accepted by the water court.<sup>492</sup> Whether such authority may properly be asserted is uncertain.

The potential for durational restrictions may be greater in proceedings for change decrees than in proceedings for water rights decrees. To protect vested water rights, both junior and senior, the water court may impose terms and conditions in any change decree, including the following:<sup>493</sup>

- (a) A limitation on the use of the water which is subject to the change, taking into consideration the historic use and the flexibility required by annual climatic differences.
- (b) The relinquishment of part of the decree for which the change is sought or the relinquishment of other decrees owned by the applicant which are

used by the applicant in conjunction with the decree for which the change has been requested, if necessary to prevent an enlargement upon the historic use or diminution of return flow to the detriment of other appropriators.

(c) A time limitation on the diversion of water for which the change is sought in terms of months per year.

(d) Such other conditions as may be necessary to protect the vested rights of others.

Liberally interpreted, these provisions might be used to authorize time limitations in the grant of a change decree. Since much of the water anticipated to be used in energy generation, as well as the production of energy fuels, will require a change decree, assertion of the right to limit the duration of uses as changed could present a valuable tool for controlling future uses of such water. Even this authority is uncertain, however, and would seem to present a departure from traditional practice.

When water is located in a designated ground water basin,<sup>494</sup> it is substantially more likely that the imposition of time limitations upon water rights could successfully be imposed. Acquisition of the right to use water in such basins is obtained through a permit process administered by the state engineer and the Ground Water Commission.<sup>495</sup> The grant of either a conditional or final permit to use waters within such a basin may expressly be conditioned.<sup>496</sup> It is arguable that those conditions may include time limitations, particularly when such are necessary to protect vested rights and to protect the availability of water within the basin.<sup>497</sup>

Because it is only the water court, or the state engineer and Ground Water Commission with respect to designated ground water, that have any authority to limit water rights at the time of their acquisition or confirmation, it is very unlikely that other agencies could attempt to do so. Once a water right has vested, by appropriation or permit, any subsequent attempt to limit its duration could constitute an unconstitutional taking of the right, absent just compensation. Thus, such restrictions may need to be imposed at the time of the right's acquisition. Indeed, it is even arguable that an attempt by a court to decree a right with such a condition is unlawful, because the right vests prior to such decree by appropriation.<sup>498</sup>

The foregoing must be read in the light of an important exception to the principle that water rights in Colorado are perpetual. While it certainly seems that such is true at the inception or vesting of a right (at least when the water in question is not designated

ground water), the duration of a water right is limited in its continued need for the purpose for which it was appropriated.<sup>499</sup> Diversions may continue only so long as a water right is put to beneficial use and abandonment of a right will be declared if circumstances warrant.<sup>500</sup> Absent abandonment, however, a right may continue in perpetuity, unless the above described restrictions may be imposed. Unfortunately, the abandonment restriction would probably not serve the same function as affirmative time limitations since such is difficult to prove and may be avoided by changes which themselves are now largely beyond state control.

b. New Legislation.

Judging from actions taken by other states, new legislation would be fairly simple in character, if not simply enacted. Legislation could be enacted specifying the time or duration that any newly acquired or changed water right would be permitted to last. It is unlikely that application of such requirements to existing rights would be lawful. To be considered in enacting such are at least the following factors:

- (1) The suggested application of the proposed legislation is to new rights and to changes of water rights. That scope is suggested because of the importance of changes in any water use system in which most available water has been appropriated. Thus, a new right would have limited duration as would any changed right.
- (2) To what sorts of water rights would the duration restrictions apply? It was suggested that the program may fit very well with the expected temporary uses of water for production of energy fuels and energy production. Will the restrictions apply to other uses as well? It would seem that they should apply to all uses for which a discernible and reasonably fixed life can be calculated.
- (3) How long will the limits be? Clearly, the limits would need to vary with the water use proposed. It may be that each case should be decided on an ad hoc basis. Alternatively, limits for various classes of uses might be proposed with provisions for expanding or reducing the period upon the evidence shown in a particular case.
- (4) Who will impose such limits? Under our present system, the water court would seemingly be the agency to impose such limits, except in the case of designated ground waters with respect to which the state engineer or Ground

Water Commission would act. It would seem appropriate to maintain this procedure, unless substantial revisions in existing law were envisioned. In determining the limits to be placed upon a water right, it would appear that procedure before the courts or administrators should be liberal. Time limitation restrictions subserve the public interest and standing to appear in a proceeding regarding such should reflect that concept. It would be appropriate to grant standing to all persons or governmental agencies to litigate the duration issue in a particular case.

- (5) What would happen when the original time limit expired? Would water return to the stream to fulfill existing appropriations or would it be subject to reappropriation by new users? If the latter, would the user whose water right recently terminated be permitted to reappropriate the water? Would provision be made to extend or renew uses which could be shown to be still valuable for the original use, and if so, for what time period and by whom?

c. Experience in Other States.

At least three states currently restrict the duration of water rights. The State of Utah, a permit jurisdiction, has enacted legislation authorizing the state engineer to approve limitations for industry, power, mining, or manufacturing purposes for a specific and limited period of time.<sup>501</sup> The right must be granted with a time period sufficient to satisfy the essential and primary purpose of the use. The right may be extended for a limited time beyond the initial period, but once the permitted use expires, the water reverts to the State of Utah.

The State of Florida, which recently became a "permit state,"<sup>502</sup> allows the issuance of permits for periods not to exceed 20 years. Renewals of permits are processed in the same fashion as original applications.

The State of New Jersey, also a permit jurisdiction, limits all permits, except those for nonconsumptive uses to a period not exceeding 25 years.<sup>503</sup> In determining the permit period, the amount of time necessary to amortize the use served by the permit is taken into account.



d. Problems and Limitations.

It would appear that substantial problems could arise in the implementation of a duration limitation requirement in Colorado.

(1) The Taking Issue.

In Colorado a water right is acquired by appropriation.<sup>504</sup> The right vests as of the time the appropriation is complete.<sup>505</sup> As noted, that vesting creates a permanent property right.<sup>506</sup> A judicial decree, while confirming a water right, is not necessary to vest the right. Because under our system a water right permanently vests as of the time of a completed appropriation, requiring no further judicial or other action to complete the vesting, it is arguable that any attempt to limit the duration of the right subsequent to the appropriation constitutes a taking of a portion of the right unless just compensation is paid.<sup>507</sup> Thus, any new legislation attempting to authorize the kinds of durational limits in effect in certain permit states, where rights vest only when a permit is obtained, may be unconstitutional in Colorado.

Certain arguments may be raised in opposition to the foregoing. It can be argued, for example, that one who voluntarily elects to obtain a decree for a water right--an act which is not necessary to the creation or vesting of the right under Colorado law--may not complain if the result of such is the limitation of that right. A decree is sought voluntarily and the decision to do so would be with knowledge of the potential restrictions. The force of this argument is perhaps increased by the fact that a decree makes a water right administrable by the state. It can be argued that the privilege of administration may be exacted at the cost of durational limits to a water right. While value may be diminished by the time limits, it is increased by a decree, in theory at least. Whether this theory would be considered a "Hobson's choice" by the courts is uncertain. Attempts by courts to condition decrees for water rights in the past have been overturned by the Colorado Supreme Court.<sup>508</sup>

Since a water right vests upon appropriation, it might also be feasible to circumvent taking problems by changing the definition thereof. Thus, it might be possible to define the term "beneficial use" in terms of the time necessary to complete a use, the water right and use expiring upon the completion thereof. In a sense, such would expand the concept of abandonment or forfeiture for failure to apply water to a beneficial use by placing a date upon the eventual abandonment, that is the date of the completion of a use, as defined in the decree or extensions thereof. Alternatively, the public, as owner of the waters of the state, could be viewed as having surrendered the use thereof, by virtue of appropriation, for

only a limited time with a reversionary interest in the public at the end of such period. The difficulty with such theories is that water rights have in the past been viewed as permanent. If that permanence is a part of the constitutional right to divert and constitutional acceptance of the appropriation doctrine, then the attempt to claim forfeiture or reversion by statute may be futile.<sup>509</sup> Whether the public's continued ownership of water, in the face of the appropriator's paramount right to use such, would permit duration restrictions upon such theory is uncertain.

It should be noted that the above discussion regarding the taking issue would not appear to apply to rights to use designated ground water, which arise through permit rather than appropriation.<sup>510</sup> While other taking questions might be asserted if such conditions were imposed in a permit to use designated ground water, the foregoing questions do not seem applicable.

## (2) Water-related Constitutional Issues.

Questions could arise under both the diversion and preference provisions of the state constitution.

Article XVI, §6, of the Colorado Constitution protects the right to divert. Historically, at least when diversion has ripened into an appropriation, a vested and permanent water right has been the result. It is arguable, as described in (1), above, that the constitution prohibits any interference with such, absent the payment of just compensation. It may also be arguable that the right to divert, at least when vested as part of an appropriation, guarantees the right to divert permanently, not at sufferance.

The preference clause of art. XVI, §6, might prohibit certain legislation as well. Thus, a statutory scheme attacking durational restrictions at variance with the constitutionally ordered preference might arguably be void. Similarly, a question might arise if, at the forced termination of a right, the water were appropriated by a lower preference user. These problems would appear at first glance to be less serious than those raised by virtue of the "taking" and right to divert provisions of the state constitutions.

## 7. Prohibition of Changes in Use.

Several states have adopted statutory prohibitions against the change of certain water rights in order to protect and preserve the uses to which those rights were being put as of the date of the legislation. By and large, that legislation has sought to preserve

agricultural rights from change to other uses which may be of far greater economic value than agricultural uses. The legislation appears to recognize the importance of maintaining agricultural rights as well as the difficulty of doing so in the face of pressure from industrial, municipal, and other uses.

Concern has been expressed in Colorado about the rapid change of many agricultural rights to other uses.<sup>511</sup> While certain steps have been taken to protect against these changes,<sup>512</sup> there exists no protective statute such as those in effect in certain other western states. Consideration should be given to the enactment of such legislation.

a. Existing Law.

The right to change one's water right is a part of the property right in water under Colorado law.<sup>513</sup> The right is limited by the qualification that no change may result in injury to other appropriators.<sup>514</sup> Absent injury, however, changes may be permitted.<sup>515</sup>

Though the right to change is part of the property in water, it may be exercised only upon approval of a change by decree of the water court.<sup>516</sup> Colorado statutory law preserves the case law prohibition against injurious changes by permitting a change decree to issue only if the change will not injuriously affect the owner or persons entitled to use water under a vested water right or a decreed conditional right.<sup>517</sup> In order to prevent such injury, the water court may impose certain terms and conditions upon the change. These may include:<sup>518</sup>

(a) A limitation on the use of the water which is subject to the change, taking into consideration the historic use and the flexibility required by annual climatic differences.

(b) The relinquishment of part of the decree for which the change is sought or the relinquishment of other decrees owned by the applicant which are used by the applicant in conjunction with the decree for which the change has been requested, if necessary to prevent an enlargement upon the historic use or diminution of return flow to the detriment of other appropriators.

(c) A time limitation on the diversion of water for which the change is sought in terms of months per year.

(d) Such other conditions as may be necessary to protect the vested rights of others.

The applicable law makes it clear that a change is to be granted so long as no injury, as specified in the statute, results. Terms and conditions may be imposed to protect against such injury. There does not appear to exist authority under current law, however, permitting the denial of changes to preserve certain existing water uses. The only restrictions are those protecting existing rights from injury resulting from a proposed change.

b. Proposed Legislation.

Because Colorado law does not now appear to authorize outright prohibitions upon certain changes of water rights deemed to be injurious to the welfare of people of the state, it can be recommended that such legislation be adopted. Based upon laws in effect in other states, such legislation would be designed to prohibit changes completely or to prohibit certain elements of change, whether in place, type, or time of use or point of diversion, in order to preserve certain existing water uses which are deemed to be of continuing value to the welfare of the people of the state. In enacting such legislation the following would need to be considered:

- (1) What sort of changes would be prohibited? Under existing law, changes in type of use, time of use, place of use, and point of diversion are all possible absent injury to appropriators.<sup>519</sup> Prohibitions upon one or more of those elements of change could be considered. As noted, laws in other states seem to be particularly concerned with preserving agricultural water uses. It may be that prohibitions upon changes in agricultural use would be adopted in Colorado also, though the concept of prohibiting changes of water use could apply equally to all forms of prospective change.
- (2) To what extent would changes be prohibited? The main focus of the prospective legislation is to prohibit changes of the various aspects of certain water rights. Since there are numerous ways in which to exercise a water right, the question arises as to how many of those ways new legislation would foreclose. Legislation in certain other states prohibits only certain changes, for example, from agricultural to industrial use, while permitting other changes. Other states are more severe in their restrictions. To what extent any such concept would be adopted in Colorado would depend upon the nature of the protection deemed necessary for existing uses. It can be said,

however, that the more options for change remaining after the imposition of restrictions, the more easily such legislation will survive judicial attack. It would be senseless, however, to draft overly weak legislation for this reason if the legislation could not fulfill its primary purpose.

- (3) Would all changes be prohibited or only those seeking to change a certain amount of water? A statute could be drafted to restrict only large changes or to restrict changes of any size. If the effect of the statute is to attach only in certain cases, the statute should define the amount of water necessary to invoke its requirements, either by utilizing a fixed amount or by some other means.
- (4) Would changes be prohibited absolutely or only upon the showing of specified statutory conditions? While an absolute prohibition or change would go furthest in accomplishing the goals of the prospective legislation and would be the most easily administrable program, a scheme prohibiting changes only upon a showing that certain conditions had been met might be viewed as more reasonable if challenged. Since the scheme described, as well as those in effect in several states, seeks to provide the greatest possible protection to certain existing uses, it would seem that an absolute prohibition would be the most effective way to achieve that goal. As described in the following paragraph, a variance provision could ease the inflexibility of such a scheme.
- (5) Would any provision for variance from the prohibition be made? It may be that a flat prohibition would render certain rights useless and valueless. To avoid the constitutional implications of such a result, a variance provision could be provided. Such should be subject to strict standards to prevent its abuse.
- (6) Who would administer such a program? More than likely, the present judicial change procedure would be continued, supplemented by the added restrictions of the new legislation. Any variance from the prohibition which the regulation might allow could be made solely a judicial question, or could be made subject to prior administrative procedure, subject to judicial review. If administrative procedure were selected, the following bodies would be capable of administering the program:
  - (a) State engineer.
  - (b) Colorado Water Conservation Board.

(c) Department of Natural Resources.

(d) Possibly, river basin authorities.

- (7) Why would changes be prohibited? The legislature would need to determine what kinds of prohibitions, if any, would be needed in Colorado to protect the welfare of its present and future citizens. Possibly excessive changes from agriculture would be a key focus of any regulatory program, but other restrictions could also be valuable. The legislature would need to determine the need for any particular prohibition.

c. Experience in Other States.

Several states have adopted statutory or constitutional provisions restricting changes of water rights. Montana has adopted legislation prohibiting changes of water rights in excess of 15 cubic feet per second from agricultural to industrial use.<sup>520</sup> Prior Montana law, like current Colorado law, permitted changes upon a showing that no injury would result to vested water rights.<sup>521</sup>

South Dakota law prohibits the transfer of irrigation rights from the land to which they are appurtenant.<sup>522</sup> Exceptions from the strict application of that rule may be granted by the water resources commission if at any time it becomes impracticable to economically use all or part of such water for irrigation of the land to which it is appurtenant.

The Nebraska Constitution prohibits the alienation of water uses granted for power purposes.<sup>523</sup> Since transfers of water rights can be a form of alienation, it would seem that the Nebraska Constitution may prohibit certain changes from power to other uses--a variation from the regulatory focus of other states.

Wyoming law now permits changes subject to certain restrictions. Prior to those recent statutory amendments, however, legislation provided that water rights for the direct use of the natural, unstored flow of any stream could not be detached from the land, place, or purpose for which they were acquired.<sup>524</sup> This legislation reversed the ruling of a Wyoming Supreme Court decision which held that water rights were generally transferrable.<sup>525</sup> The legislature, however, recognized certain exceptions to its rule prohibiting changes. For example, changes could be made when the new use would be a preferred use as extensively defined by statute:<sup>526</sup> uses for domestic, transportation, steam power, and industrial purposes. A statute also allowed changes of rights when the appurtenant lands were submerged by reservoir construction.<sup>527</sup> Another statute permitted temporary transfers for highway or railroad bed construction.<sup>528</sup>

d. Problems and Limitations.

Change prohibitions present a substantial restriction to the free exercise of a water right. As a result, certain potential constitutional problems are evident.

(1) The Taking Issue.

It has been noted that the right to change one's water right is a part of the property in water.<sup>529</sup> The only prohibition upon the exercise of that right, under current law, is designed to protect existing rights.<sup>530</sup> Any legislation prohibiting certain changes would constitute a separate and even more serious restriction on the right to change. It can be argued that an outright prohibition of any part of the right to change one's water right strips the owner of a water right of part of his valuable property therein without the payment of just compensation. Such an argument would be closely akin to the argument often successfully made in zoning cases that undue restrictions upon the right to use land are takings.<sup>531</sup> That argument might well succeed if the value of the right were diminished to too great an extent.<sup>532</sup> Prohibitions upon change, if unreasonable, might constitute a "taking."

This result can be avoided. In zoning cases, the source of much of the law on "takings," it is said that no taking occurs if at least one reasonable use of the regulated land remains.<sup>533</sup> If this doctrine can be extended to water rights, that is, if a prohibition of certain uses can be upheld so long as certain other reasonable ones remain, then prohibitions under new legislation would be upheld if one reasonable use of the water right existed after the imposition of the prohibition. While that extension seems logical, it has not yet been made. Further protection to the integrity of such a statutory scheme could be afforded by the adoption of a variance procedure, available to relieve the prohibitions of the statute if an unreasonable result would occur through its strict application. Guidelines, therefore, should be strict enough to prevent abuse of such a provision.

(2) Water-related Constitutional Issues.

Once again the right to divert and the preference provisions of the State Constitution rear their heads.<sup>534</sup>

The right to divert the unappropriated waters of the state may not be denied under the constitution. If a statutory prohibition of change were so onerous as to make the right to divert valueless, it

might be found that the right had been denied. It is likely that such a result would be redressed as a taking, however, rather than a denial of the right to divert.

The preference provision may cause more serious problems than the diversion provision of art. XVI. If new legislation attempted to prohibit changes from a lower preferred use to a higher preferred use under the constitution, it might run afoul of the preference provision. For example, if the legislature attempted to prohibit changes from agricultural to municipal uses, of which at least a portion are domestic uses, the preference provision could arguably void the attempt. Domestic uses are preferred over agricultural uses under the constitution, at least in times when there is insufficient water to supply all persons wishing to use such. It is arguable that water is always short, in the contemplation of the constitution, in certain areas of the state. Alternatively, prohibitions upon changes from domestic to agricultural or from agricultural to industrial would seem to conform to the constitution. While new legislation would need to be judged on its own merits, it would seem that the preference clause could pose serious potential problems to certain change prohibition laws at least.

#### 8. Duty of Water.

"Duty of water" has been defined by the Colorado Supreme Court as:<sup>535</sup>

That measure of water, which, by careful management and use, without wastage, is reasonably required to be applied to any given tract of land for such period of time as may be adequate to produce therefrom a maximum amount of such crops as are ordinarily grown there.

In Colorado, duty of water is generally determined on a case-by-case basis. Factual input regarding duty can be made by the applicant for a water right, by the opposition, or by the various division engineers. Colorado has never, however, possessed any statute expressly establishing a duty of water or requiring that a duty be determined either on a statewide or basinwide approach. Duty of water requirements could establish standards for the water courts which could provide a scientific and well-researched basis to aid the courts in determining the duty of water and could reduce the potential for waste through excessive application of water under existing rights. Consideration should be given to the adoption of statutory duty requirements.



a. Existing Law.

Under existing Colorado law, the duty of water is determined by the water referees and water courts largely on a case-by-case basis.<sup>536</sup> Case law indicates that "every element that concerns or affects the consumption of water" should be included in a determination of duty in a particular case.<sup>537</sup> Those elements include:<sup>538</sup>

- (1) The place of water use.
- (2) Location of land.
- (3) Slope.
- (4) Depth of soil.
- (5) Composition of soil, whether firm or loose.
- (6) Nature of material underlying soil.
- (7) General adaptability of soil to growing crops.
- (8) Climate.
- (9) Kind of crop to be grown.
- (10) Kind of crop ordinarily grown in the area.
- (11) Proportion of the general area devoted to the crop.

Based upon these considerations, the court is entitled to decree a certain quantity of water to fulfill a claimed use. The duty for that use is determined at the time of the decree.

It seems quite clear from the existing case law that in Colorado the establishment of duty limitations is a function for the water courts based upon the evidence in a particular case. Despite this, certain agencies may have the authority to invoke duty limitations. Those entities may include the division engineers, under their waste control authority,<sup>539</sup> the state engineer,<sup>540</sup> the Water Conservation Board,<sup>541</sup> the various irrigation,<sup>542</sup> conservancy,<sup>543</sup> and conservation districts,<sup>544</sup> and river basin authorities.<sup>545</sup> Their authority could be asserted in two forms.

First, each of the foregoing agencies might, under existing authority, attempt to establish duty of water limitations binding upon the water courts when issuing a decree for a water right. Any amount decreed would be limited by the duty limitations for the place of use. The major difficulty of such an approach is that no entity or agency of a state, local, or regional government has been expressly

granted the authority to do so. Absent such, and absent guidelines for the exercise of such power, it would likely be difficult for an agency to exercise such power or for a court to uphold the exercise of such.

Alternatively, said agencies might adopt duty standards in the form of regulations designed to reduce waste in existing rights. For example, the division engineers might adopt duty standards which, if exceeded, would trigger their decision to seek an injunction discontinuing such waste. River basin authorities, under their authority "to establish standards for the proper utilization of water,"<sup>546</sup> the violation of which will be prima facie evidence of waste, within their jurisdiction might also establish duty requirements, enforcing those standards when exceeded. Irrigation, conservancy, and conservation districts, as water suppliers, could adopt internal regulations establishing a duty for all customers and limiting deliveries in accordance therewith. Respect for vested water rights would need to be maintained in any of the above schemes, though each should be lawful to the extent it seeks to regulate waste.

With respect to ground water, the analysis is both the same and different. Tributary ground water, and arguably nontributary ground water outside of a designated ground water basin could be treated as above, to the extent such treatment is acceptable in law at all. Designated ground waters, the rights to which are acquired by permit,<sup>547</sup> would not be subject to duty limits established by the courts. Rather, the Ground Water Commission, as the permit authority, would be the agency to apply duty limitations in the use of designated ground water. A review of the commission's authority reveals that duty limitations could be established thereunder if the commission would be willing to do so.<sup>548</sup>

#### b. Prospective Legislation.

As the foregoing indicates, the extent of the authority of any agency to adopt predetermined duty of water limitations is uncertain. As a result, two alternative types of legislation may be proposed. They are:

- (1) Legislation establishing a statutory duty of water either statewide or for various regions of the state, to which the water courts would be bound in decreeing quantity.
- (2) Legislation authorizing an appropriate government agency to establish a statutory duty of water for areas within its jurisdiction. Again, the duty would be binding upon the courts.

In enacting such legislation, the following must be considered:

- (1) What factors will determine the duty of water? The approach now taken by the courts, that is, to utilize every element that concerns or affects water consumption, would seem to be a wise one which should be continued, whether the determination is legislative or administrative. As a minimum, the factors elicited in a., supra, should be used.
- (2) On what geographical basis would duty of water limitations be imposed? One duty of water figure in a state with geography and climate as varied as it is in Colorado would be inappropriate. Similarly, the case-by-case method now employed may be duplicative, unnecessary, and wasteful. Consideration should be given to legislation establishing, or requiring the establishment of, duty-of-water requirements upon a water division, or, preferably, water district basis. Any other reasonable areawide approach would also be valuable, though the use of the existing administrative areas would likely facilitate the implementation of a duty of water program.
- (3) Would duty limitations be absolute or variable? Though areawide duty limitations would provide important guidance to the water courts, it is unlikely that any one duty figure would be accurate in every water use situation. A statutory scheme establishing duty limitations could deal with this problem by inclusion of a provision allowing the water court to vary the established duty figure upon the presentation of competent evidence showing the need to do so. Variations either increasing or decreasing the duty limits should be permitted. As an alternative to the fixed duty-variance scheme described, the legislature could consider the adoption of duty limitations which serve as prima facie evidence of or create a presumption of duty in each case or with regard to each water right. Upon showing of competent evidence that more or less water is needed in an individual case, the evidential or presumptive force of the duty limit could be overturned. The burden of presenting such evidence would be upon the person challenging the duty limitation. This latter procedure may have the disadvantage of being too similar to the current case-by-case method of determining duty.
- (4) Will duty of water limitations apply only to irrigation uses? Historically such has been the case. However, there is no reason, in theory at least, why a reasonable statutory scheme could not establish duty-of-water limits

for other uses as well, including domestic and manufacturing uses. Further, even if domestic uses at large were not to be limited, duty limits for the irrigation of lawns and other domestic greenery should be considered. Such an approach would do no more than impose irrigation duty limits in a fashion more equitable to the agricultural user, who has been singled out for regulation in the past, while similar "domestic" uses have been omitted from regulation.

- (5) Would duty limitations apply to existing as well as new water rights? Authority from states possessing duty limitations indicates a reluctance to apply duty limitations to pre-existing water rights on the basis that such would constitute an unlawful interference with vested water rights.<sup>549</sup> If that restriction were made applicable in Colorado it would seriously hinder the implementation of any statutory duty restrictions. It is certainly arguable that duty limitations establish standards which, if exceeded, are evidence of or perhaps presumptive of waste. Indeed, at least one jurisdiction, recognizing the need to reduce waste in water use, has permitted duty restrictions to be imposed upon existing water rights.<sup>550</sup> If such an interpretation is accepted in Colorado, duty limits should be applicable to existing rights at least as is necessary to eliminate waste accruing by the failure or refusal to employ reasonably sound techniques for water use and management. As noted, proof of need beyond the duty limits could trigger a variance from them and, in this instance, reverse any presumption of waste.
- (6) Would duty limitations apply to decrees for both appropriations and changes? It does not seem to be possible to question the applicability of duty standards to appropriations. Case law in Colorado indicates the duty standards also have value in change proceedings.<sup>551</sup> New legislation should maintain that course.
- (7) Would the same duty rules apply for reservoirs as for direct flow rights? It has been noted that to fulfill the purpose of reservoirs, some carryover storage must be allowed.<sup>552</sup> Thus, the duty of water for storage has been made higher than that for direct flow rights in some states.<sup>553</sup> If duty limitations are to be applied to reservoirs, consideration should be given to permitting higher duty standards for them than for direct flow rights.
- (8) What agencies would determine and impose duty limitations? Assuming that the legislature would delegate the job of calculating duty limitations, the following agencies would be competent to determine them:

- (a) Division engineers.
- (b) State engineer.
- (c) Water Conservation Board.
- (d) River basin authorities.

Imposition or enforcement of the limits would probably depend upon the time of imposition. If imposed in a proceeding for a decree for a water right or change thereof, the water court would seem to be the most appropriate body to act. If imposed upon existing rights, the state or division engineer, as the supplier of water under a decree, would seem to be the logical enforcer, subject always to judicial review.

c. Experience in Other States.

A number of states have statutory duty restrictions. In all but one case, the restrictions are established by the statute itself.

Under Utah law, the state engineer may, pursuant to studies and reports to the courts, recommend a duty of water for irrigation which the courts may adopt and enforce.<sup>554</sup> Such duty limitations are enforceable against existing rights to reduce waste.<sup>555</sup> The obligation to reduce waste is said to fall upon all users regardless of the priority of their appropriation.<sup>556</sup>

Nebraska limits direct-flow water use to no more than one cubic foot per second (cfs) for each 70 acres of land, and no more than three acre-feet per year per acre.<sup>557</sup> Storage rights are not affected by the duty limitation.

Permits for water use in South Dakota are subject to a statutory limitation of one cfs per 70 acres and three acre-feet per acre of land, delivered on the land for a specified time each year.<sup>558</sup> The statute waives the former limitation when flood waters are "much in excess" of total recorded and approved rights on the stream.

Oklahoma's statutes are quite simple in their duty restrictions, flatly prohibiting irrigation in excess of four acre-feet for each acre annually.<sup>559</sup>

Under Idaho law, statutory duty limits prohibit irrigation use to exceed one cfs per 50 acres of land for direct flow uses.<sup>560</sup> Interestingly, Idaho law limits storage for irrigation purposes also, to no more than five acre-feet per acre annually.

Finally, California law specifies a duty of water for irrigation by limiting the term "useful or beneficial purpose" to permit the use of no more than 2.5 acre-feet of water per acre annually in the irrigation "of uncultivated areas of land not devoted to cultivated crops."<sup>561</sup> Application of waters in excess of those amounts would appear not to be for beneficial use.

d. Problems and Limitations.

Various problems may result from the enactment of a duty limitation.

(1) The Taking Issue.

The taking problem must be viewed from two different perspectives-- that of applying duty limitations to new rights or changes and that of applying them to existing water rights.

The enactment of a reasonable statutory scheme should be able to avoid most taking allegations arising from the imposition of duty limits in decrees for new water rights or for changes. If duty limitations are based upon comprehensive studies of areawide water needs and if provision is made to vary or waive the duty limits upon a showing of the need to do so, taking problems can be minimized. There does not seem to be question that duty of water is a concept accepted by the Colorado courts.<sup>562</sup>

Attempts to apply duty limitations to existing rights, when not before the court in change proceedings at least,<sup>563</sup> would likely cause greater difficulty. The Nebraska Supreme Court appears to have held that the attempt to do so is an improper exercise of the police power, resulting in a violation of due process protections.<sup>564</sup> The Utah Supreme Court has upheld such an application of duty restrictions<sup>565</sup> upon the theory that all rights may be regulated to control waste. Whether the Colorado courts would adopt the reasoning of the Utah court is uncertain. By applying duty limits in certain change cases,<sup>566</sup> the Colorado Supreme Court may have evinced an intent to accept the Utah rule, though there are significant differences between applying such in a change proceeding and applying such to alter the administration of existing rights.

(2) Water-related Constitutional Issues.

Duty limitations have the intention of limiting the amount of diversions. Despite this characteristic, they should not necessarily run afoul of the constitutional protection of the right to divert.<sup>567</sup> That protection extends only to protect the right to divert to

"beneficial use." Since duty limitations are not intended to restrict application of water to beneficial use, but only to establish standards to prevent wasteful or nonbeneficial water use, such restrictions should not violate the constitution. It is conceivable, of course, that in certain instances, duty limitations may be too strict and may interfere with diversions for beneficial uses. If not varied or waived, such restrictions may violate the constitution. Judicious use of proposed variance techniques should be able to avoid this problem.

Historically, duty limits have applied to irrigation uses. That appears to be true in Colorado<sup>568</sup> as well as in other states.<sup>569</sup> The preference provision of the Colorado Constitution establishes irrigation as the second most preferred use in this state, following domestic and preceding manufacturing use.<sup>570</sup> A statute continuing this historical practice and not extending the duty scheme to the lesser preferred rights would arguably violate this provision during times of water shortage. Similarly, if legislation were to seek to regulate irrigation uses for agricultural and domestic purposes, that is, lawn watering, such might also run afoul of the constitution. Reasonable distinctions would likely be upheld.

#### 9. State Water Plan.

Numerous states have adopted comprehensive water use plans or policies. While the legal effect of these plans varies from state to state, each of the plans and policies is similar in that each attempts to provide guidance for future use of water and related land resources within those states.

In 1974, the Colorado Water Conservation Board and the U.S. Bureau of Reclamation began preparation of a water plan for Colorado. Two of the three major portions of the plan have been completed. A review of that plan indicates that, at least at this point, the plan is less detailed than those in other states. In addition, the legal effect of the plan is also uncertain and, unless clarified, the plan may in the end be no more than an academic exercise. As a result, there may be a need for new legislation in Colorado regarding a state plan for water use.

##### a. Existing Colorado Law and Water Plan.

In 1967, the State of Colorado, through the Colorado Water Conservation Board, assented to the provisions of the Federal Water Resources Planning Act<sup>571</sup> of 1965 and designated the board to undertake the comprehensive planning effort required thereby.<sup>572</sup> The

federal act specified that a state planning effort which receives federal funds must, inter alia:<sup>573</sup>

- (1) Provide comprehensive planning with respect to interstate and intrastate waters to meet the needs for water and water-related activities.
- (2) Provide for conformity with general state development policy.
- (3) Designate an administering state agency for the planning program.

The Bureau of Reclamation and the Colorado Water Conservation Board have completed two of the three proposed major sections of the state water plan. The first phase of the plan, published in February 1974, consisted of an appraisal of existing water and land use and development within the state, a review of statewide economic conditions, and an identification of critical issues and problems.<sup>574</sup> Phase one identified water resource problems and impacts resulting from urban and rural growth and development in water short areas. Impacts identified included those upon the use of and need for irrigation water, water quality, and recreational opportunities. The study identified the following critical water resource questions, which are apparently to be addressed in the final phase of the plan:<sup>575</sup>

- (1) Should there be a state policy on future population growth?
- (2) Should future urban growth be restricted, directed, or curtailed?
- (3) Should strict land use policies be adopted and enforced?
- (4) Should there be a moratorium instituted on transbasin water diversions?
- (5) Should state financing and support for water resource development be continued and expanded?
- (6) Should the state adopt policies to revitalize rural Colorado?
- (7) Should present acreage of irrigated agriculture be maintained and prime agricultural land protected, together with incentives to promote agriculture and open space utilization?
- (8) Should state water management policies be coordinated with land use planning, natural resource management, population policies, and environmental policies?



- (9) Should a state wild river system be established?
- (10) Should stricter and more effective water quality control measures be enacted?

Phase two of the plan was published in August 1974.<sup>576</sup> That segment described state water laws and policies, state and federal water resource agencies, and various legal and institutional problems and constraints. Like phase one, no solutions to existing problems were proposed in phase two.

The third and final phase of the plan has not yet been started, although funds for it are included in the Bureau of Reclamation's fiscal 1979 budget request. Phase three will apparently propose solutions to the questions raised in phases one and two, and will probably include alternative plans for the future development of the surface and underground water in the state, and for related land resources.<sup>577</sup> All the potential ways to increase the state's water supplies will be examined. The precise relationship of the water policy study, and phase three of the state water plan, has never been defined. It may be possible for phase three to build upon the findings, conclusions, and procedures which may emerge from the water policy study.

b. Experience in Other States.

A number of other states have developed comprehensive water plans. In many states, detailed plans have been developed pursuant to enabling legislation far more detailed than Colorado's. In other states, detailed plans have been developed in response to general legislation. In some states, the legal effect of the plan is or has been determined.

California has had a state water plan since formulation by the Department of Water Resources in 1957 pursuant to legislative mandate.<sup>578</sup> The plan acts as a master plan for the management of state waters by the numerous state agencies responsible therefor. The plan accomplishes the following:

- (1) Evaluates the available water supply.
- (2) Estimates the present and future requirements for water.
- (3) Identifies watersheds with surplus water over and above the future needs for local development.
- (4) Identifies existing and potential water problems in specified areas of the state.

- (5) Describes the uses for which waters would be most beneficially used.
- (6) Proposes projects for the development and distribution of water for the maximum benefit of the people.
- (7) Proposes objectives toward which future development of the water resources should be directed.

In one of an ongoing series of revisions, the Department of Water Resources has been developing a water action plan to update the California water plan.<sup>579</sup> The action plan is an attempt by the department to address certain issues whose importance has been more clearly recognized since the time of the original plan. Thus, the action plan is reassessing the need for environmental protection and instream flow needs for recreational and aesthetic purposes. It also explores the need for water conservation measures, such as water recycling and reuse. The action plan seeks to more fully integrate water quality control with water resource allocation. The latter has already been accomplished to a large degree through the incorporation of basinwide water quality control plans in the California water plan.<sup>580</sup>

The legal effect of the California plan is not expressly determined by the enabling statutes. The courts, however, have decided that the plan is to be advisory only and not binding upon the State Water Rights Board's approvals of permits for appropriations.<sup>581</sup> Whether the entire plan should be treated as advisory only is uncertain, though it would appear that the intent of the statutes under which the plan was created envision it to be binding in certain areas at least.

The Department of Water Resources of the State of Idaho has recently completed a draft water plan in response to a 1964 amendment to the Idaho Constitution.<sup>582</sup> The draft plan makes detailed studies and findings regarding available water supplies within Idaho, estimates current water needs and projects future needs, estimates instream flow needs, and recommends needed legislation. The plan:

- Forecasts and recommends the most desirable allocation of water to future uses, with the bulk of new water recommended for irrigation of new agricultural land;
- Evaluates the effect of river flows of several alternative plans for development of the state's unappropriated water;
- Recommends that minimum stream flows be reserved for fish and wildlife along the tributaries of the Snake River, but not along its main stem;

- Recommends legislation that would allow the consideration of the public interest when acting upon applications for water;
- Suggests that the state consider, as a matter of public interest, the impact of any proposed appropriation of water on the ability of the state to maintain its agricultural lands in production;
- Formulates legislation for a state natural and recreational river system and earmarks specified rivers or river segments for inclusion in the river system;
- Estimates the need for electrical energy and recommends reliance on thermal power because of the impact of future withdrawals of water on the production of hydroelectric power;
- Recommends statutory amendments to combine the programs of water quantity and water quality;
- Recommends land use legislation for the prevention of floods and for the preservation of greenbelts along certain rivers to provide public access and use of these rivers; and
- Recommends the establishment of a water supply bank to acquire surplus water rights and facilitate the large-scale transfer of such rights or the interim leasing of such rights.

The legal effect of the Idaho water plan, once adopted in final form, appears to be uncertain. The plan itself does not specify its intended effect. Neither does the Idaho Constitution. The constitution does, however, specify that the department is to "formulate and implement" (emphasis added) the plan.<sup>583</sup> The use of the word implement at least implies that the plan is expected to have some binding legal effect.

Legislation in the State of Oregon charges the state's Water Resources Board with developing a coordinated and multi-purpose water resource policy designed to secure the maximum beneficial use of water.<sup>584</sup> Subject to existing rights, the board may classify water sources according to their highest and best use and quantities of use, and may also designate preferences for future uses. In prescribing such preferences, the board is to consider "the natural characteristics of such sources of water supply, the adjacent topography, the economy of the affected area, seasonal requirements of various users of such waters, the type of proposed use as between consumptive and nonconsumptive uses, and other pertinent data."

Classification by the board has the effect of restricting the use and quantities of use of the unallocated water in accordance with the classification adopted.<sup>585</sup>

Oregon has accordingly been divided into 18 drainage basins and a program or policy statement has been issued for each basin.<sup>586</sup> The North Coast Basin Statement is typical of such a basin policy.<sup>587</sup> The statement makes general findings with respect to the demands for water in the basin, the current and anticipated water supplies in the basin, the suitability of such supplies for various uses, the likelihood that certain uses could be made of the water in light of hydrologic and economic factors, and the peculiar problems relating to water within the basin. The statement then classifies the sub-basin water supplies according to the uses that would most beneficially utilize the water and limits the future application for water to those uses. In addition, the statement lists the minimum perennial streamflows sufficient to support aquatic life in each stream in the basin; it then prohibits the approval of any new applications for water that would result in depletion of the stream below these minimum levels.

The legal effect of the policy statements is established by statute. The policy statements which the board adopts are binding upon every state agency and public corporation in carrying out their duties.<sup>588</sup> No agency can take action which conflicts with the board's announced water policy without obtaining the approval of the board.<sup>589</sup> Presumably, these provisions would require the state plan to be taken into account when water rights are transferred or changed, though the applicable statutes do not specifically provide for this.<sup>590</sup>

Wyoming has enacted legislation which will lead to the formulation of a state water plan.<sup>591</sup> The Wyoming plan is intended to encourage public irrigable facilities, flood abatement, water pollution abatement, fish and wildlife preservation, public land improvement, and development of water for all beneficial purposes. On the basis of the plan, an interdepartmental water conference is to identify and select projects to be studied for their feasibility and desirability of their inclusion in the Wyoming water development program. The conference will then make findings as to the feasibility of the various projects, and secure financing of such projects either through private efforts or by legislation.

Water plan legislation is not limited only to the arid states. Under legislation in effect in the State of Florida, the Department of Natural Resources is authorized to develop a state water use plan<sup>592</sup> designed, inter alia, to obtain the "maximum reasonable and beneficial use of water." As part of the plan, the department is to divide areas in the water management districts into hydrologically controllable areas for the purpose of describing all water resources within the

area, and for the purpose of establishing minimum flows and levels for streams, lakes, and aquifers to prevent harm to the water resources or ecology of the area and to protect nonconsumptive uses of such waters. The department is also to establish a system of priorities or preferences in types of use for certain areas designated by the department, which would protect recreation and fish and wildlife uses, which would prohibit or regulate objectionable uses with respect to a certain source of supply of water, and which would promote uses that would result in the enhancement of the water resources. This state water use plan, in conjunction with the state's water quality standards and water quality management plan, will constitute the Florida water plan.

c. Prospective Legislation.

A review of legislation of various states requiring the development of water plans and of the various plans adopted thereunder indicates at least two significant items.

- (1) The legislation itself is far more detailed than Colorado's legislation in defining and describing the plans and in imposing planning duties upon the state agencies involved.
- (2) The plans themselves are far more extensive than the Colorado plan, even in light of the fact that the Colorado plan is not yet completed.

Examples of detailed enabling legislation are found in Oregon,<sup>593</sup> Wyoming,<sup>594</sup> and Florida,<sup>595</sup> each of whose water planning statutes has been reviewed above. Each of those statutes to some degree defines the purpose of the planning effort, certain elements thereof, and specifies the effect which the plan is to have once completed. The Colorado legislation does none of these, except to the extent its reference to the federal does so.

Each plan reviewed is also substantially more specific and direct in making recommendations for future action than is the Colorado plan. Since it appears that the yet unpublished third phase of the Colorado plan is intended to address that topic, criticism of the Colorado plan on these grounds may be premature. It can be said, however, that substantial expansion of the critical issues identified at pages 6-31 of phase one will be necessary to give the Colorado plan a breadth of coverage equal to other plans. Especially valuable reference can be had by review of the California<sup>596</sup> and draft Idaho<sup>597</sup> plans which survey and make recommendations on a large number of water quality and supply issues and on numerous other water-related issues such as recreation.

Plans of certain other states are also more detailed than the Colorado plan even with respect to the information contained in phases one and two. The Idaho draft plan<sup>598</sup> contains detailed information regarding present conditions of water supply as well as projections of the impact thereon of five alternative water plans, one of which is recommended. The economic and environmental effects of the recommended plan are discussed and described fully. The California plan, while not as comprehensive as the draft Idaho effort, contains similar information.

Based upon the foregoing, the following prospective changes in Colorado law might be considered:

- (1) The purpose of the water planning effort should be established by the legislation. By identifying a clear purpose for the legislation and for any ensuing planning effort, the legislature can establish a focus for and give direction to that effort. The Oregon and Florida legislation, for example, establish as the purpose of their plans the maximization of the beneficial use of water. The Wyoming legislation is more broadly stated, seeking to promote water use, water quality, and other goals. Naturally, any Colorado legislation need not adopt those purposes. However, whatever purpose is adopted by such legislation should be clearly identified.
- (2) Closely related to the purpose of any legislation is its intended effect. For at least two reasons, the legal effect of any state water plan should be stated by legislation authorizing the plan. First, the legislature is the body which should be responsible for such a determination. The determination should not be left up to the courts to be resolved at a time long after adoption of the plan. Second, a legislative determination of the effects of the plan will remove uncertainty as to its applicability from the beginning and aid planners and others in its preparation. Failure to specify the effect of the plan, like failure to specify a purpose, only promotes planning in a vacuum. The Oregon legislation, of those mentioned, most clearly establishes the purpose of the plan it requires, making its provisions mandatory in certain areas.

It is, of course, up to the legislature to decide on the effect of the plan. Options available would be to make the provisions of the plan advisory only, to make them mandatory, or to make them a basis for future action. There seems to be no reason why individual parts of the plan could not have a different legal effect than other parts.

- (3) The plan should attempt to discuss all major water use and water quality issues. The Idaho draft plan and the California plan, as amended, are particularly comprehensive. The Florida legislation indicates that its plan will also be comprehensive. Based upon those plans, as well as the completed portions of the Colorado plan, it would seem that the following matters, at least, should be addressed:
- (a) How, where, and for what purpose future allocation of surface and underground water, through appropriation or otherwise, should be made. The state's role in encouraging or discouraging certain allocations by use of its police and other powers should be discussed, as well as the benefits and losses to the people of the state caused by certain types of allocations. The Idaho draft plan, for example, recommends that future allocations be devoted primarily to agricultural use. In general, the plan should attempt to describe the kinds of uses to which water could be most beneficially put within the various areas of the state, and should encourage such uses.
  - (b) The extent to which future changes of water rights shall be permitted or encouraged. The plan should address the kinds of changes which should be permitted or encouraged and the areas of the state in which they will be permitted and encouraged.
  - (c) The extent to which transbasin or transmountain diversions will be permitted or encouraged. The California plan identifies the water needs for each major basin of that state and estimates the amounts of water available for export based upon that identification.<sup>599</sup> Only water in excess of basin needs may be exported.<sup>600</sup> Naturally, water "needs" for a basin must be determined upon all reasonable factors. Thus, water must be preserved under a plan for all traditional beneficial uses as well as more recently recognized uses such as recreation, wildlife preservation, aesthetics, and the like. It should be noted that the Water Conservation Board is expressly authorized to make studies of transbasin diversions.<sup>601</sup> None have ever been done.
  - (d) The construction, location, and use of various new water use projects. The plan should identify the need for new water projects, should identify the area or basin of the state requiring that need, should identify the uses proposed to be served by the needed

project, and should specify certain restrictions upon the location and construction of such projects. After making such identification, the plan should rank said projects according to the relative need for each. The effect of such ranking could then determine the availability of state money, and influence the availability of federal money, for publicly funded projects. To the extent permitted by law, the plan should determine whether privately funded projects would be approved. The California plan is particularly comprehensive in its review of proposed water projects.<sup>602</sup>

- (e) The impact of the plan and policies, projects, and proposals enunciated therein upon the flow of water within major streams and tributaries. The plan should evaluate that impact and go on to determine and recommend the need for establishing minimum stream flows on such streams for recreation, fish and wildlife, aesthetics, and other purposes.<sup>603</sup>
- (f) The establishment of a wild and scenic river system such as those in effect in other states.<sup>604</sup> The plan should inventory the streams in the state eligible for classification as such, should establish various potential classifications, and should recommend the classification best suited for a particular stream. The effect of such should be carefully determined by legislation authorizing the plan. The Idaho plan<sup>605</sup> recommends legislation establishing such a system. It may be that any Colorado plan should do no more than study the concept and propose detailed legislation implementing it. Because the concept is inextricably tied to water use and allocation, however, it should be addressed in the plan.
- (g) The need for conservation in the use of water. The plan should explore the myriad of ways in which water can be conserved and study the impact of water conservation upon water use, in both municipal and agricultural sectors. The information developed will be helpful in determining the need for future water projects.
- (h) The possibility of future water supply and water quality problems. The plan should identify critical issues in water supply and quality which governmental action will be required to overcome and should identify alternative means of resolving those problems. Problems might be identified within particular areas



of the state, but their impact or the impact of attempts to resolve those problems upon other areas should be described.

- (i) The identification of existing water supplies and the need for future supplies. The Idaho<sup>606</sup> and California<sup>607</sup> plans each make a particularly detailed review of both of these matters, providing data upon each. To some extent, this was done in phase one of the Colorado plan; but, compared to those plans, the information presented is sparse. Greater detail in that information would be a necessary starting point for any updated Colorado planning effort.
- (j) The relationship of water allocation and water quality. This is a vast topic which will require intensive study. As noted in §b., supra, both the California and Idaho planning efforts are attempting to address this issue and provide a basis for joining the study and planning of the two areas. The California plan has incorporated into its contents various basinwide water quality control plans. The issue should be addressed in Colorado. Phase one of the Colorado plan only mentioned the need for doing so.<sup>608</sup>
- (k) The need for land use measures to regulate and control water quality and water use and to minimize the impacts of flooding. That land use measures can contribute substantially to water conservation, and hence allocation, was explored in §IX.D.5.d., supra. Though the issue will not be explored herein, land use controls also provide a means to regulate water quality by promoting land use amenable to the pollutant capacity of a stream. Section 208 of the Federal Water Pollution Control Act<sup>609</sup> underscores the close relationship of land use and water quality. Land use controls may also provide a means of minimizing flood damage, through regulating development in floodplains and through regulating development in areas which contribute substantial storm water runoff.<sup>610</sup> In a sense, the water plan could act as a land use planning effort with respect to certain water-related issues which have traditionally been of state concern. While the water plan could identify certain issues and tools for the control of such problems, implementation of the plan could, if desired, be left to local governments. Doing so might, however, create the need for new local enabling legislation. If so, the plan should identify the need.

- (1) The ability of the public to have access to the waters of the state. As a legal issue, the right of the public to have access to waters on private land has recently been rejuvenated.<sup>611</sup> While a state water plan is perhaps not the place to resolve this issue, the need for such access, balanced against private water use needs, is suitable for exploration in a planning document. Possibly the plan could recommend new legislation on this topic.

The above topics are suggested for coverage in the plan as a minimum only. Other areas not described may also be suitable for inclusion in a comprehensive planning effort. All major issues of water use, allocation, and quality should be studied and surveyed, and alternatives for their resolution should be proposed.

- (4) Legislation should specify the agencies responsible for creating, approving, and implementing the plan. Though numerous agencies would perhaps be appropriate to undertake planning, the Water Conservation Board, having already completed portions of a Colorado plan, would seem to be the most logical agency to be vested with planning responsibility. Approval should come either from the legislature or the Office of the Governor. The California plan was adopted by the state legislature.<sup>612</sup> The Idaho plan, once final, will also be adopted by the legislature. Implementation of the plan would likely be vested in more than one agency, as determined by the plan. Thus, the Water Conservation Board might review future water projects while the water courts or state engineer act upon planned for allocations of water.
- (5) The effect of existing planning efforts should be defined. While plans in other states indicate that the Colorado plan could benefit from revisions and additions, there is no reason to ignore that earlier effort. The existing plan can be a basis for future efforts and valuable information included therein should be retained and incorporated in future plans.
- (6) Strong consideration should be given to water planning based upon the natural hydrological basins of the state. The existing plan recognized four such basins: the Missouri (South Platte), the Arkansas, the Rio Grande, and the Colorado. Water use problems differ widely in each basin. The Missouri basin, and to a lesser extent, the Arkansas basin, are heavily affected by urban growth in a historically agricultural economy. The Colorado

basin anticipates enormous energy-related water use problems. Interbasin problems are created by man-made trans-basin diversions and other problems of water use. A planning effort which deals with problems on a basinwide level can focus upon local problems while addressing important interbasin problems as well. The approach of the California, Idaho, Oregon, and Florida plans should be adopted.<sup>613</sup>

Any comprehensive planning effort is a difficult task. Despite this, many states have accomplished it with regard to water. Colorado's own plan is an effort in the right direction. New legislation adding to existing planning would equate Colorado's effort to those in other states.

#### d. Problems and Limitations.

It is extremely difficult to predict the kinds of constitutional and legal problems which a water plan would create. A planning effort is not per se unconstitutional. Unlike new legislation described herein, planning legislation only sets in motion a planning effort--it does not constitute regulation in and of itself. While a particular plan might have numerous constitutional frailties, or none at all, no conclusion regarding constitutional problems can be based only upon the review of prospective planning legislation. Should the topics described above be included in the plan, it is possible that certain problems might result.

The constitutional protection of the right to divert unappropriated waters could restrict any planning effort. If certain water uses were encouraged, and hence others restricted, if transmountain diversions were regulated, if permission for new water projects were regulated and denied based upon a water plan, if minimum flows or wild and scenic rivers were established, or if diversions were curtailed for water quality reasons, it is quite possible that the right to divert would be invoked to overcome these limitations. Each of the foregoing categories could result in restrictions upon the right to divert for certain uses at least. Those restrictions might be considered to be unconstitutional depending upon their severity, though some restrictions upon the right to divert will be upheld.<sup>614</sup> Care would need to be taken in drafting any plan to avoid this possible constitutional proscription.

The preference provision of art. XVI, §6, might also be invoked against a planning effort. That provision states that, in times when there is insufficient water to supply all those desiring to use such, water will be preferred in order for domestic, agricultural, and

manufacturing uses, respectively. Possible infringements of that precept could arise from any plan restricting certain uses within certain areas, while encouraging others, from a plan proscribing certain changes in case, from a plan regulating transbasin or transmountain diversions, from a plan fixing a priority for water projects, from a plan establishing minimum flows or wild rivers, and perhaps from a plan adopting other measures described above. If the constitutional order prohibits police power regulation contrary to its terms, a question yet unanswered, it may become an important factor in limiting the effect of a state water plan.

The constitutional protection against uncompensated takings might also come into play to prevent certain forms of regulation.<sup>615</sup> In Colorado, a water right vests upon its appropriation.<sup>616</sup> No administrative or judicial approval is needed to create a water right.<sup>617</sup> Certain potential plan elements could be construed as having taken those vested rights. For example, undue restrictions upon changes, restrictions upon certain water projects for which water may already be appropriated, certain land use measures, wild and scenic river schemes, and restrictions on water use derived from water quality considerations could all raise taking problems. Only upon adoption of a plan could a valid determination of constitutionality in a particular case be made.

#### 10. Protecting Waters from Appropriation.

Several arid western states have enacted legislation authorizing certain waters to be protected from appropriation. In general, that protection has been afforded by reserving the waters of certain streams or lakes from appropriation or by withdrawing certain waters from appropriation for a period of time. The purposes of these reservations and withdrawals have been diverse. In some instances, environmental factors are cited as the reason for reservation, while in others reservations are made to protect a host of water uses which are perceived as threatened by circumstances at least temporarily beyond state control. Other states reserve waters in an effort to conduct planning or to protect the public interest. Whatever the reason, however, the technique is established and common.

Colorado does not possess legislation expressly authorizing the withdrawal or reservation of waters. Consideration should be given to adopting such in this state.

##### a. Existing Colorado Law.

As noted, there exists no express authority to reserve or withdraw

waters from appropriation in Colorado. A liberal reading of existing authority would be needed to find such implied therein.

The authority of the Colorado Water Conservation Board may come closest to that existing in other states. There are two sources of that authority, one more important than the other. First, it can be argued that the general powers of the board are broad enough to permit it to reserve certain waters from appropriation. The board is vested with several specific powers to enable it to "promote the conservation of the waters of the state in order to secure the greatest utilization of such waters. . . ."618 The promotion of such purposes is reminiscent of the purposes of legislation authorizing reservations or withdrawals in other states619 for the purpose of promoting the beneficial utilization of water.

A liberal reading of the board's specific powers,620 in conjunction with its obligation to use those powers to promote the greatest utilization of water, might also allow a court to uphold a board program reserving certain waters from appropriation. Because of the uncertainty of its authority, the board would probably be hesitant to so act at this time.

A second and perhaps more significant power arises from the board's authority to make appropriations for in-place uses. Section 37-92-103(4) defines the term "beneficial use" as follows:621

"Beneficial use" is the use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made and, without limiting the generality of the foregoing, includes the impoundment of water for recreational purposes, including fishery or wildlife. For the benefit and enjoyment of present and future generations, "beneficial use" shall also include the appropriation by the state of Colorado in the manner prescribed by law of such minimum flows between specific points or levels for and on natural streams and lakes as are required to preserve the natural environment to a reasonable degree. [Emphasis added.]

This section permits the board to appropriate water for certain instream uses protective of the natural environment. It does not authorize it to reserve waters from appropriation. The board acts by appropriation. By authorizing in-place uses to protect the natural environment, however, the legislation effectively permits the "reservation" of appropriated waters from out-of-stream or out-of-lake uses, for purposes similar to those accomplished by certain reservations in other states.622 The board's power differs

from reservations, however, in at least two important respects:

- (1) The purposes for which the appropriation may be made are substantially narrower than those allowed by reservation statutes.
- (2) The board's appropriation is subject to curtailment under the priority system to serve senior users. Reservations would not be such.

For those reasons, appropriation of in-place uses as permitted under current Colorado law cannot expect to reduce the desirability of reservation legislation.

The state engineer may also possess the authority to reserve or withdraw waters from appropriation. In general, the state engineer is responsible only for the administration, distribution, and regulation of the state's waters.<sup>623</sup> It can be argued that his general rule-making authority permits him to exercise those powers to reserve or withdraw water from appropriation.<sup>624</sup> To do so would constitute regulation of the distribution of the waters of the state. It would also be a drastic departure from traditional exercise of state engineer authority which has been exercised to administer decreed rights.<sup>625</sup> It is probably unlikely that the courts would uphold such an exercise of authority by the state engineer.

Separate rule-making authority of the state engineer also might indirectly serve as a means to reserve waters of certain streams. The state engineer is empowered to make and enforce regulations with respect to deliveries of water to enable the state to meet the requirements of the numerous water compacts to which it is a party.<sup>626</sup> To meet those compacts, specified amounts of water must be allowed to flow across state lines. To meet those goals, certain waters must be left unappropriated.<sup>627</sup> In effect, this results in a reservation of waters from appropriation for instream uses. This kind of reservation is suited only for the limited purpose of meeting compact requirements, though certain other desirable effects might also be achieved as a consequence of the reservation. It does not supplement the desirability of new legislation.

River basin authorities possess broad powers which remain untested.<sup>628</sup> Though it seems unlikely that they have been empowered to reserve waters from appropriation, the breadth of their authority makes the issue uncertain.

Each of the state's water conservation districts possesses the authority similar to that of the Water Conservation Board to appropriate minimum stream flows for fish preservation purposes.<sup>629</sup> Like the board's power, this power permits appropriations and not

reservations and is subject to the same problems as noted with regard to the board.<sup>630</sup> Case law interpreting this authorization has held that this section does not permit the appropriation of waters for instream purposes, seriously narrowing the scope of the provision.<sup>631</sup> Those cases preceded legislative changes in the terms "appropriation" and "beneficial use," which changes clearly seem to authorize instream uses.<sup>632</sup> As a result, it is probably safe to say that the various river districts can appropriate, though not reserve, waters for instream use. Those appropriations, like the Water Conservation Board's, will accomplish some of the same purposes as reservations or a moratorium.

The conservation districts may appropriate, though not reserve, waters for certain beneficial uses described in the foregoing paragraph. They may also initiate appropriations for irrigation, mining, manufacturing, and domestic purposes.<sup>633</sup> Legislation in other states authorizes reservations or moratoria generally to assure that the maximum beneficial use of water will be attained. An interesting question is whether the districts, with their authority to appropriate waters and to secure and insure adequate supplies for the above purposes, may appropriate waters to assure that maximum use may eventually be made of those waters. Such would be very much like reservations in other states. It would seem, however, that no such authority could be asserted. Such a purpose would likely not be a "beneficial use" within the statute.<sup>634</sup> In addition, takings of water to promote unspecified future uses would likely not constitute an "appropriation."<sup>635</sup> It is likely that appropriations for such a purpose would not be upheld.

It can be forcefully argued that the state's water conservancy districts possess powers equal to those of the conservation districts to appropriate water for certain uses. Again, that power does not comprehend the power to reserve waters. Conservancy districts are authorized to appropriate waters for all beneficial uses.<sup>636</sup> Since fish, wildlife, scenic, and other uses seem to be beneficial under current law, appropriations therefor would be lawful.<sup>637</sup> Those appropriations could be constituted by in-place uses.<sup>638</sup> Such appropriations would have somewhat the same effect as would reserving waters for those purposes. As in the case of conservation districts, appropriations to maintain water for future beneficial uses would likely fail.

It would appear that at least two agencies may have the authority to reserve waters from appropriation. Those agencies are the Ground Water Commission and the various ground water management districts, at least when each is acting with respect to designated ground waters.<sup>639</sup> Both agencies possess comprehensive authority to assure that such waters are used to their maximum beneficial extent and to assure that designated ground waters are not depleted beyond reasonable

levels.<sup>640</sup> Those powers appear broad enough to permit the reservation of designated ground waters when necessary to fulfill the purposes for which they are used.

b. Prospective Legislation.

If the legislature determines that the reservation of waters from appropriation or moratoria upon appropriations would aid the state in achieving the maximum beneficial use of waters of the state and that one or both of those techniques would be desirable ways of accomplishing that goal, then the legislature should enact either a reservation or moratoria statute or both. Current law, with the possible exception noted, does not seem to authorize it. Even in the case of designated ground water, authority to do so must be implied, though the implication seems possible upon the face of legislation dealing with such water. As noted, two types of legislation are possible. The two similar key programs are:

- (1) Reservations of water from appropriation. A reservation would withdraw a certain amount of water from appropriation for a specified time period. Streams, lakes, and underground supplies could be affected.
- (2) Moratorium on appropriation. A moratorium would prevent all appropriations from a certain source--surface or underground--for a specified period. Unlike reservations which would likely affect only certain waters of a particular source, a moratorium would ban all appropriations.

In adopting either program, the following would need to be considered:

- (1) Perhaps the most important question is for what purpose a reservation or moratorium would be established. The purpose would determine the amounts needed to be reserved as well as the time necessary for the reservation or moratorium. Legislation in other states has reserved water or imposed moratoria for the following purposes:
  - (a) In order to study and plan for water use and water needs in the state or portions thereof.<sup>641</sup>
  - (b) To set aside waters to assure maximum utilization in the future.<sup>642</sup>
  - (c) To promote certain fish, wildlife, scenic, and aesthetic purposes.<sup>643</sup>



- (d) To ensure compliance with state water resources policy.<sup>644</sup>

Each of the foregoing purposes appears to represent a legitimate police power goal for which waters might be reserved or a moratorium established. If the legislature discerned a need to redress other purposes, those could be included as part of any Colorado legislation.

- (2) What waters or water uses would be affected? As noted, this factor would largely depend upon the purpose or purposes of the legislation. For example, if a moratorium were proposed during a statewide planning effort, the moratorium could have statewide impact. Alternatively, if concern regarding energy-related water use on the western slope were the basis of a moratorium or reservation, such might be limited to the Colorado or other impacted river basins. Finally, a moratorium might attach to certain types of appropriations rather than to all prospective appropriations from a water source. Thus, a moratorium upon transmountain diversions might be implemented until a water use plan for the Denver area were devised. In short, the waters or uses affected would depend upon the purpose of the reservation or moratorium.
- (3) For how long would the reservation or moratorium last? It would seem that the purposes to be accomplished by a reservation might require an indefinite reservation. The purposes of a moratorium, however, might be accomplished in a definite time. In either case, provision for extending a moratorium or reservation should be made if necessary to accomplish established purposes.
- (4) Would any variance or exemption from the reservation or moratorium be permitted? It is conceivable that emergency situations might arise which would justify the need to vary or waive the requirements of a moratorium. Despite this, it does not appear that any other state which permits reservations or moratoria allows any sort of loosening of statutory requirements. Indeed, one variance permitting a large appropriation could destroy the intent of the entire program. If variances are to be allowed, they should be authorized only under the strictest terms.
- (5) Who would impose a moratorium or a reservation of water from appropriation? The likely candidates include the legislature itself or an appropriate administrative body to whom authority has been delegated by the legislature. In most states which have adopted such legislation, the

determination to reserve waters is administrative.<sup>645</sup>  
In one, a moratorium upon appropriation of certain waters was imposed by the legislature itself.<sup>646</sup> If the legislature were to delegate the responsibility to reserve water or impose a moratorium upon an administrative entity, the following would be best suited:

- (a) Colorado Water Conservation Board.
  - (b) Office of the State Engineer.
  - (c) Department of Natural Resources.
- (6) How would any moratorium be imposed? The procedure generally adopted by other states requires the responsible agency to act to reserve waters upon its own motion or upon application by others.<sup>647</sup> A public hearing regarding the reservation is necessary before any action is taken. Such a procedure would apply only in the case of administrative action. Any legislative decision to reserve or place a moratorium upon waters would be made after the completion of the legislative process only. If such a procedure were to be adopted, the interesting question of who might initiate it arises. The legislature should consider permitting the following persons to initiate the process:
- (a) Any person.
  - (b) Any water user.
  - (c) The governor.
  - (d) The Department of Natural Resources.
  - (e) The Water Conservation Board.
  - (f) Local or regional governmental agencies, including river basin authorities.
  - (g) The state or division engineers.

An application by one of these persons or entities would trigger the administrative review process, including necessary hearings. A decision would be made only following the completion of all such requirements. As noted, this procedure would apply only in the event the decision were made administratively.

- (7) Who would enforce a moratorium or a reservation? A Reservation of waters would withhold certain waters from appropriation for an indefinite time. A moratorium would likely be designed to prohibit all appropriations. In Colorado, an appropriation is made without judicial or administrative interference. Both the courts and administrators, however, would be responsible for enforcing either type of program. The water court, in granting decrees for water rights or changes of water rights, would be bound to assure that no decree for reserved water would issue. It would also be bound to grant no decrees during any moratorium. The state engineer, as an administrative officer of the state, is responsible for administering and distributing waters. In performing that function, he, too, would be bound to protect any reservation or moratorium. Enforcement and protection of a reservation or moratorium would be best performed by these agencies.

c. Experience in Other States.

Several states have adopted legislation authorizing reservations or moratoria.

Montana has adopted statutes both authorizing reservations and imposing a moratorium. Under Montana law, the state or any of its political subdivisions or agencies, or the United States or its agencies, may apply to the Department of Natural Resources and Conservation to reserve waters for existing or future beneficial uses or to maintain minimum flows, levels, or quantities of water during all or part of the year.<sup>648</sup> The department must then hold a public hearing on the application and may adopt the reservation if the application satisfactorily establishes:

- (1) The purpose of the reservation.
- (2) The need for the reservation.
- (3) The amount of water necessary.
- (4) That the reservation is in the public interest.

Reservations are prospective only and exempt rights in existence. Once a reservation is adopted, permits may be refused or conditioned to protect the established purposes. Each reservation is reviewed every 10 years to ensure that its objectives are being met. If they are not, the reservation may be extended, revoked, or modified.

Montana has also adopted a moratorium upon all appropriations in the Yellowstone River basin, whose waters have recently attracted the interest of energy industries.<sup>649</sup> The legislature itself imposed the moratorium pursuant to its authority under art. IX of the Montana Constitution. That provision guarantees a clean and healthful environment for present and future generations of Montanans. The moratorium will last until "existing rights to water in the Yellowstone Basin [are] accurately determined . . . and . . . reservations of water [are] established . . . for the preservation and protection of existing and future beneficial uses." It was imposed in 1974.

The State of Oregon permits its Water Policy Review Board to withdraw waters from appropriation to insure compliance with state water resources policy or when otherwise necessary to conserve water resources for their maximum beneficial use.<sup>650</sup> Prior to issuing any order to withdraw, the board must hold a public hearing in the counties in which the affected waters are located. The order must specify the waters withdrawn from appropriation, the uses for which withdrawn, and the reason and duration of the withdrawal. No permit for the use of waters withdrawn from appropriation may be granted.

For the purpose of preserving the surplus and unappropriated waters of any stream or other water source for use by irrigation or other purposes, the governor of Utah may suspend the right to appropriate such waters when the welfare of the state demands.<sup>651</sup> No application for appropriation may be filed upon waters withdrawn by the governor.<sup>652</sup> The governor may restore withdrawn waters to appropriation upon the recommendation of the state engineer.<sup>653</sup>

In conjunction with a variety of environmental and water resource programs, the Washington Department of Ecology may reserve waters for future beneficial use or withdraw waters from appropriation pending data gathering and planning concerning said waters.<sup>654</sup> The department may act whenever necessary to carry out the purposes of the Washington Water Resources Act of 1971, which seeks to promote proper utilization of water and preservation of natural resources and aesthetic values of the state.<sup>655</sup> Prior to any reservation or withdrawal, the department must hold a public hearing in the counties in which the affected waters are located.<sup>656</sup>

#### d. Problems and Limitations.

##### (1) Water-related Constitutional Issues.

At least one section of the Colorado Constitution could cause serious problems in implementing a reservation scheme or a moratorium. Article XVI, §6, of the constitution states that the right to divert

the unappropriated waters of the natural streams of the state to beneficial use shall never be denied. Any effort to reserve or withdraw waters from appropriation or any moratorium or appropriation is expressly intended to restrict the right of persons to divert unappropriated waters. Such a statutory scheme would seem to fly directly in the face of the constitutional proscription.

In support of such restrictions, it may be possible to argue that they constitute legitimate police power restrictions upon the right to divert. Police power regulations will be upheld if they are reasonable and rationally related to legitimate governmental objectives.<sup>657</sup> The restrictions under discussion are implemented in two ways:

- (1) By reserving or withdrawing from appropriation.
- (2) By imposing a moratorium on appropriations.

The goals to be accomplished by these restrictions would need to be determined by legislation creating the restrictions. Based upon legislation in other states, it would seem that the goals would be:

- (1) Particularly in the case of reservations, to withhold water from current appropriations to make that water available for future beneficial uses.
- (2) Particularly in the case of moratoria and certain withdrawals, to give the state time to inventory, analyze, and plan for use of the water subject to the moratorium.

With the foregoing in mind, it can be argued that the goals and means selected to reach those goals are lawful, even within the confines of art. XVI, §6. It can be argued that the right to divert water to beneficial use is not denied, but merely regulated as to the timing of the diversion. The reservations seek to ensure that water will be available for future diversion to uses which have been determined to be of highest benefit to the citizens of the state. They do not seek to prohibit diversions, though it is undeniable the effect upon certain potential appropriators would be denial of the right to appropriate. To enhance the welfare of the present and future citizens of the state, however, it can be argued that the state may select between appropriators, at least so long as the right to divert is not completely denied. The fact that reservations actually make water available to certain higher uses of water supports the reservation concept.

Moratoria also regulate the timing of diversions, assuming they are not permanent. It is arguable that those time restrictions are a proper means to assure that water will be maximally used--a goal implicit in art. XVI, §6.<sup>658</sup> Once again, the right to divert is not

denied, merely regulated for a brief period. The regulation will result in better use of the state's resources when the right to divert is restored.<sup>659</sup>

A problem with the foregoing analysis might arise when waters are permanently reserved for in-place uses. Such a reservation would, in fact, permanently prohibit certain diversions at least. Again, however, it can be argued that the right is not being denied, in toto, even if certain persons desiring to appropriate may suffer. The force of this argument is reduced by the permanence of the reservation. It can also be argued that the state, as the owner of its waters,<sup>660</sup> may impose such restrictions upon the use of its waters. The constitutional ownership of water is tempered by the protection of the right to divert, which has historically been rigidly interpreted.<sup>661</sup>

Probably of less concern in any regulatory program of reservations or moratoria is the preference clause of art. XVI, §6, of the Colorado Constitution. As noted throughout this section, that clause establishes a water use preference in times of shortage, favoring domestic, irrigation, and manufacturing uses in that order. Conceivably, a regulatory scheme which reserved water for future beneficial uses antithetical to the constitutional regimen might be overturned. For example, if a reservation were imposed to save water for future irrigation or manufacturing uses, but not domestic uses, the reservation might be unconstitutional, though it must be stressed that the preference clause has never been interpreted to strike down a police power enactment. Similarly, a reservation or moratorium affecting certain uses contrary to the constitutional ordering might be suspect. A careful analysis of existing water uses and future water needs, when implemented by a reasonable statutory program, should be able to overcome these constitutional objections.

## (2) The Taking Issue.

The taking issue becomes significant when a police power scheme imposes regulations so restrictive that they amount to a taking or condemnation of those uses absent the payment of the constitutionally required just compensation.<sup>662</sup> In states which have enacted reservation programs or moratoria, vested rights have been exempted from the restrictions of the statute. Presumably, any similar program in Colorado would continue this exemption. If it did not, and if the exercise of vested water rights was sought to be prohibited, the statutory scheme would likely be unconstitutional as applied to those rights. Vested rights should be exempted under the statute.

A serious practical problem results from this limitation. Many

streams in Colorado are already "overappropriated," that is, they carry insufficient water to meet current demands. As a result, on many streams and lakes there is simply no water to reserve or place a moratorium upon unless somehow they were made to apply to vested rights. Any attempt to do so, however, would seemingly be unconstitutional. Thus, the fact is that on many streams or lakes it is probably too late to impose reservations or moratoria. If this is true on the great majority of streams or lakes in the state, it is possible that enactment of such a program would be futile. The effect of this practical problem should be investigated before action is taken.

#### 11. Balancing Between Competing Appropriations.

The water laws of several states permit appropriate state officials to balance between applications competing for use of the same water and to award a water right to the application which best enhances the public interest. Colorado has no legislation expressly authorizing any agency to undertake such balancing. If certain potentially serious constitutional difficulties can be surmounted, consideration should be given to the enactment of a balancing statute.

##### a. Description of Balancing Technique.

There appear to be two major types of balancing statutes in effect in other states. Each of the states having such a statute is a "permit" jurisdiction. The more common type of balancing statute authorizes the state agency responsible for issuing water use permits to weigh or balance competing applications for the use of the same water and, when the supply is insufficient for both, to issue a permit to the use which will be of greatest value to the public.<sup>663</sup> Not all states having such authorizations define the public interest or establish criteria for weighing the relative value of uses.<sup>664</sup> Rather, the impact of proposed competing uses on the public interest is determined by the appropriate agency on a case-by-case basis.<sup>665</sup>

One state, Hawaii, utilizes a second type of balancing. Under Hawaiian law, the holder of a water use permit may be required to relinquish his permit upon payment of just compensation if the appropriate state agency finds that a later use requiring the same water is more beneficial.<sup>666</sup> In effect, a right of condemnation by superior users is established. The superiority of a use is determined on a case-by-case basis.

b. Existing Colorado Law.

(1) Colorado Constitution Art. XVI, §6.

Any discussion of authority to balance between competing appropriations under Colorado law must begin with art. XVI, §6, of the Colorado Constitution. That section states:

The right to divert the unappropriate waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. [Emphasis added.]

Section 6 raises two important questions:

- (1) Is balancing between competing appropriations permitted, or even required, by §6? If so, is the balancing permitted or required like that described above or of a different type?
- (2) If balancing is permitted or required, must any balancing scheme comply with the preference order established by §6?

The case law interpreting §6 is helpful in answering those questions. Those cases have generally dealt with the question of whether subsequent appropriators for domestic purposes may take water devoted to agricultural or manufacturing purposes under vested water rights under §6. The cases have uniformly held that such may be done only upon payment of just compensation by the domestic user.<sup>667</sup> As such, the cases interpreting §6 establish a right of condemnation by public and private domestic water users over lower preferred uses.

Though no case has dealt with the preference between agricultural and manufacturing uses, it would seem safe to say that the same restrictions would hold true in any attempt to exert the agricultural preference against manufacturing rights. The practicality of so exerting the preference would, however, be limited by the high cost of industrial water rights.

One early Colorado decision seems to state an exception to the general rule that compensation is required for the exercise of any



preference. In Montrose Canal Co. v. Loutzenhizer Ditch Co.,<sup>668</sup>  
the Colorado Supreme Court held:

While it is true that section 6 of article 16 of the constitution recognizes a preference in those using water for domestic purposes over those using it for any other purpose, it is not intended thereby to authorize a diversion of water for domestic use from the public streams of the state, by means of large canals, as attempted in this case. The use protected by the constitution is such use as the riparian owner has at common law to take water for himself, his family or his stock, and the like. And if the term "domestic use" is to be given a different or greater meaning than this, then as between such enlarged use and those having prior rights for agricultural and manufacturing purposes, it is subject to that other constitutional provision requiring just compensation to those whose rights are affected thereby. Strickler v. Colorado Springs, 16 Colo. 61; Armstrong v. Larimer County Ditch Co., 1 Colo. App. 49.

The cited paragraph seems to indicate that §6 requires subsequent domestic appropriators to compensate prior agricultural or manufacturing appropriators only when their domestic use exceeds that allowed the riparian landowner at common law. The Montrose Canal Co. decision has never been expressly overruled. At least one subsequent case has, however, strongly suggested that the case will not be followed. In Black v. Taylor,<sup>669</sup> the Colorado Supreme Court stated:

Some basis for confusion of thought may be found in the opinion of this court in Montrose Canal Co. v. Loutzenhizer Ditch Co., 23 Colo. 233, 48 P. 532, 534, in which the court said, with reference to the domestic use of water: "The use protected by the constitution is such as the riparian owner has at common law to take water for himself, his family, or his stock and the like." However, following our opinion in Town of Sterling v. Pawnee Ditch Extension Co., 42 Colo. 421, 94 P. 339, 341, 15 L.R.A.N.S., 238, there can be no doubt concerning the right to appropriate water for domestic purposes and the interpretation to be given the constitutional preference relating to such appropriations. Such water user cannot be preferred over a prior appropriator for

irrigation purposes without fully compensating the senior appropriator for the loss sustained by invoking the preference.

The Black decision seems to indicate that the Montrose Canal case will no longer be followed with respect to any exception to the condemnation requirement which may have been created therein.

Existing case law has established a clear right of higher preference users to condemn the rights of lower preference users under §6. The case law has not been equally explicit with respect to what, if any, impact §6 has upon police power regulations which have the effect of preferring or giving advantage to a particular use. Because a balancing statute would have a police power basis, the absence of case law on this point is unfortunate.

The answers to the questions posed at the beginning of this section are fairly clear. Section 6 is a balancing provision permitting decisions much like those in Hawaii or other states, with certain significant differences. The Hawaiian statute permits the state to require relinquishment of a permit, upon payment of just compensation, when the water used thereunder is needed for a more beneficial use. Statutes in other states permit the balancing of competing applications of water use, with a permit to be awarded to the use highest in the public interest. Section 6 of the Colorado Constitution permits individual water users to take vested rights of others, upon payment of just compensation to serve a higher preference use as established by that section.

Section 6 is particularly like the Hawaiian legislation since each permits the divestment of a water right, upon the payment of just compensation, in order to make the water for that use available for a higher or more beneficial use. It differs from the Hawaiian legislation in that no state agency is involved to initiate the divestment and in that §6 specifies the preferential order of water uses rather than leaving the determination of such to a case-by-case determination by an administrative agency. Colorado law does, however, generally permit the kind of "balancing" that Hawaiian law does.

Section 6, as the cases have interpreted it, differs from the balancing statutes which prohibit the establishment of a right when a higher competing application for the same water is submitted. Under those statutes no right vests since no permit is granted for the lower use. No just compensation from one user to another is required. Under Colorado law, a water right vests by appropriation. No state action is required to vest a right, though a decree establishes one's right to have his water right administered. It may be arguable that a statutory procedure could be devised which would

permit balancing between competing applications for decrees or competing calls for water. A prospective statute is described below. It would appear that any such balancing would be required to follow the order of preference established by §6.

One interesting facet of the balancing process should not be overlooked. The Hawaiian statute permits the divertment of rights to serve other "more beneficial" uses.<sup>671</sup> The Florida act, which permits balancing between competing applications, requires a permit to go to the use of highest "public interest."<sup>672</sup> In neither case is a rigid preference order established as it is by §6. On the face of those statutes, it would therefore appear that balancing of uses within classes of water use would be possible, in addition to balancing between classes. Thus, if two domestic uses were proposed, the more beneficial of the two, consistent with the promotion of the "public interest," could be granted. Section 6 does not necessarily prohibit such balancing in Colorado, though it does not expressly authorize it. The possibility of using such a scheme in Colorado is also discussed below.

## (2) Authority of Existing Agencies.

In Colorado, §6 permits individuals to condemn vested water rights according to the restrictions established by that section. As described, at least two other forms of "balancing" might possibly be lawful under §6. These are discussed at c., infra. Those include balancing between competing applications for water rights or competing calls for water and balancing between different uses of the same type. Before proposing new legislation to effectuate either of those, existing agency authority to undertake such measures must be reviewed.

Under the Colorado system, the water courts are responsible for decreeing water rights or changes in water rights.<sup>673</sup> Their authority is, however, circumscribed by statute. A review of those statutes indicates no express authority on behalf of the water courts to balance between competing applications for rights of different types or for rights of the same type.<sup>674</sup> Such is true for both change decrees and decrees for water rights. It is doubtful that a court would freely imply authority to do so. It is also unlikely, in light of the case law, that a water court would read §6 to permit such balancing even without statutory authorization. Indeed, existing statutes tend to reinforce the conclusion that no such power exists.<sup>675</sup> The case law, as described above, has never found that power in §6.

Since no other agency has the authority to grant decrees, no

other agency can assert the authority to balance between competing applications therefor. A number of agencies, however, might be able to assert the implied authority to balance between competing calls for water. The state engineer, as the officer responsible for distributing water, might assert such authority. A possible basis for the assertion of that authority might be found in the state engineer's comprehensive rule-making authority.<sup>676</sup> The extremely flexible interpretation of such authority which would be required to support that authority is undercut by the fact that the state engineer may administer water rights in accordance with decrees only.<sup>677</sup> It is unlikely that any balancing by the state engineer which varied a decree would be upheld. In fact, it is unlikely that his authority can be read to permit balancing.

The primary regulatory authority of the division engineers is their waste control power.<sup>678</sup> The division engineers may issue orders to discontinue waste in the use of water. If "waste" can be interpreted to include the use of water by a less beneficial or lower preference use of the same or different type when higher users desire to use the same, then it is possible to argue that the division engineer can balance between uses and award the water to the "less wasteful" use. An expansive reading of the division engineer's authority is necessary to support that theory.

The Colorado Water Conservation Board's broad powers to promote water conservation might be read to permit it to require "balancing" of competing calls.<sup>679</sup> Because doing so would require a broad reading of the board's authority and would interfere with the state engineer's responsibility to administer decrees, it probably would not be fair to imply that authority.

Water conservancy districts,<sup>680</sup> irrigation districts,<sup>681</sup> and the various water conservation districts<sup>682</sup> might be able to perform balancing in a slightly different fashion. While none of the districts would want to have its rights balanced with those of other decree holders, the districts might be able to balance between the various uses of water supplied under district rights through the use of restrictions imposed by contractual limitations.

River basin authorities possess comprehensive power to regulate water use. Arguably, they may set balancing standards. Their authority is also uncertain.<sup>683</sup>

With respect to rights in designated ground water only, may the above analysis be varied. The right to use designated ground water is acquired by the grant of a permit.<sup>684</sup> As such, rights to designated ground water in Colorado are acquired much like rights to use water in general are acquired in the nation's many "permit" jurisdictions--which include most of the arid western states. Since

the right to use designated ground water is so acquired, it is arguable that balancing between competing permit applications may be undertaken by the permit authorities. A review of the statutory authority of the Ground Water Commission reveals no express authority for it to do so at this time,<sup>685</sup> though implication thereof can be made by a like interpretation thereof. With statutory amendment the apparatus does exist.

It is also arguable that the commission, as well as the various ground water management districts,<sup>686</sup> may possess the authority to balance between competing calls for water also. Authority therefor is no more express than it is for balancing between applications, though the implication may be slightly easier.

c. Potential Legislation.

The foregoing analysis of existing law indicates that the preference provision of art. XVI, §6, of the Colorado Constitution acts as a "balancing" provision, much like that in force in Hawaii, by permitting private condemnation of water rights by preferred users. In spite of §6, however, or perhaps because it is narrow and limited, at least three types of legislation permitting other forms of balancing can be suggested. These include:

- (1) A statute authorizing balancing between competing applications for water rights or for changes of water rights seeking to use the same water. Such a statute would authorize the water court or another agency to review competing applications, balance them according to specified criteria, and award a decree to the right deserved for the higher use. Such a statute would be envisioned to authorize balancing not only between applications for rights of a different kind (e.g., domestic vs. agricultural), but also to authorize balancing between applications for rights of the same kind (e.g., industrial vs. industrial).
- (2) A statute expressly authorizing certain users to condemn the rights of other lesser preferred users of the same class. If such is not already permitted by §6, this statute would expand that section. The statute would need to establish a clear set of criteria for the exercise of such a right or would need to establish a preference order, such as that within §6, distinguishing between users within a particular class.

- (3) A statute authorizing water administrators, according to detailed criteria, to balance between competing calls for the same water. Once again, balancing among users of different types is envisioned.

A number of problems would need to be considered prior to enacting any such section, including:

- (1) How would the balancing concept be authorized? There are at least two ways in which this could be accomplished. A direct statutory mandate ordering balancing, under specified criteria, could be adopted. This procedure could apply to each of the types of balancing proposed. A more subtle way to adopt a balancing statute, which may have constitutional advantages,<sup>687</sup> would involve a change of the definition of the term "beneficial use." At present, a beneficial use is essentially a valuable use.<sup>688</sup> To implement a balancing concept, the term beneficial use could be redefined to apply to:
  - (a) a use which is valuable on its own merits, and
  - (b) a use which is more valuable than other uses, as determined by specified criteria.

By so redefining the term "beneficial use," balancing would occur before the vesting of a right. While possibly having definite constitutional advantages, this latter method of promoting balancing may present even more complex questions of implementation and legality. The new definition would affect each type of statute.

- (2) What criteria would be employed to effectuate the balancing which would be established by any of the above statutes? Historically, water rights have been decreed and administered in Colorado according to two criteria:
  - (a) date of appropriation, and
  - (b) date of decree.

Each of the foregoing proposals presumes that these criteria would be expanded to include a variety of public interest factors including environmental, social, and economic factors. If not subsumed under the public interest categories, interests of the applicant or decree holder should also be accounted for. Presumably, these factors would be best considered as part of the overall public interest criteria.

As an alternative to balancing between competitors for the same water on a case-by-case basis, a detailed preference order could be established. The ordering would be modeled after §6 in that an established preference would be imposed by statute, though it could differ from §6 in its detail. Thus, a detailed laundry list of water uses could be provided in the statute which would govern any future competition for a decree or for a call upon water. The list would set preferences between different use categories, as well as within use categories. In effect, the legislature would determine the public interest when enacting the statute by specifying the order in which competing proposals would be judged. As is the case with §6, no ad hoc determination by a court or otherwise would be necessary.

- (3) Would the same criteria apply to each of the statutory schemes? Since each scheme seeks to assure that uses of highest public benefit will be preferred, each attempts to accomplish the same purpose. Thus, arguably, the same criteria, with some tailoring to fit the specific statutory proposal, would be satisfactory for each statute.
- (4) Would balancing between competing applications include applications for changes as well as for water rights? Each type of application would seem suitable for regulation. Thus, a balancing statute could regulate:
  - (a) Between applications for the same water between competing applications for water rights.
  - (b) To the extent that they may be incompatible, between applications for changes of water rights.
  - (c) To the extent that the grant of one may be incompatible with the other, between applications for water rights and applications for changes of water rights.
- (5) What agency or authority would be responsible for administration of the suggested statutes? For those statutes authorizing balancing between competing applications, the water court, under the Colorado system, would seem to be the authority best suited to act, since it is the only agency authorized to act upon applications for water rights or changes thereof. If balancing in water rights administration is to be imposed, it would seem that the state and division engineers, as the administrators in charge of water distribution, would be best suited

to carry out the program. Condemnation of lesser preferred users could be carried out, as under §6, simply between water users; no ad hoc determination of preference need be required. Of course, other agencies could carry out the above functions, though a change in historical water management practices would be necessary.

- (6) Would any exemption from the statutory program be permitted? While it does not seem that the kind of regulatory program described would envision exemptions, the legislature might wish to authorize certain exemptions according to specified criteria.

d. Experience in Other States.

As noted in §a., supra, several states have enacted statutory schemes authorizing balancing between competing appropriations.

The Hawaii legislation, which in effect authorizes a private right of condemnation, has been detailed in §a., supra. Nothing further need be stated in this section regarding that statute.

In the case of competing applications for the use of the same water, Arizona permits its State Land Department to balance between such competing permit applications and to award the permit to the use of highest relative value to the public.<sup>689</sup> The statute provides a rigid determination of public value, by providing a ranking of uses like that in §6 of the Colorado Constitution. The statutory order prefers domestic and municipal uses, irrigation and stock-watering uses, power and mining uses, and recreation and wildlife uses, in that order.<sup>690</sup>

Florida's legislation is like the Arizona legislation, though it is more flexible. The Department of Natural Resources of that permit state is authorized to approve the permit application which best serves the public interest when two or more applications are made for the same water.<sup>691</sup> Unlike the Arizona legislation, no rigid determination of public value is found in the statute.

The State of North Dakota, like Colorado, has no statute expressly authorizing the state engineer to balance between competing permit appropriations. In Baeth v. Hoisveen,<sup>692</sup> however, the North Dakota Supreme Court indicated that it might require such under that state's existing statutes in any event. The court did not specify the kind of criteria under which such balancing should be imposed and carried out.



e. Problems and Limitations.

It is quite clear that there may exist serious constitutional problems with the proposed legislation. These problems arise particularly under two sections of the Colorado Constitution.

(1) The Taking Issue.

Article II, §15, of the Colorado Constitution prohibits the taking of property rights without the payment of just compensation. In Colorado, water rights are property rights<sup>693</sup> which vest as of the time of appropriation.<sup>694</sup> Under the constitution, priority of appropriation sets the better and, hence, the more valuable right.<sup>695</sup> The prospective legislation, at least that authorizing balancing between competing appropriations or competing calls, could, and often would, alter the priority system by decreeing or administering rights in accordance with criteria distinct from the priority system. The alteration could substantially diminish the value of validly appropriated rights subsequent to the time they had vested by appropriation. As such, the prospective legislation might be considered a taking.

In defense of the prospective legislation, it can be argued that such is a valid police power measure lawfully restricting the terms of the constitution to enhance the public interest. It is clear even under current law that the state's constitutional priority system has been altered by legislation.<sup>696</sup> Whether the proposed legislation goes too far is uncertain, though it is directed at the valid police power objective of water conservation. It can also be argued that one who seeks a decree under a balancing system in order to make his right administrable does so with the knowledge that the decree may restrict his right by changing its priority, or that the decree may be refused in the public interest. The balancing statute would not strip one of his water right; it would only affect the decree therefor. Thus, it can be argued that the applicant for a decree seeks the decree at his risk. Since the decree is so closely tied to the value of, and the priority of, a water right,<sup>697</sup> this argument may not be sound.

The foregoing issues might be entirely avoided by a balancing statute implemented by a change in the definition of the term "beneficial use." A water right vests upon appropriation.<sup>698</sup> An "appropriation" is completed only when water is applied to "beneficial use."<sup>699</sup> Under existing law, no balancing between the relative value of uses is made to determine beneficial use.<sup>700</sup> A beneficial use is a use having an absolute economic or other value only.<sup>701</sup> If the term beneficial use were redefined to mean that a use must be both absolutely valuable and valuable relative to other uses, an

application of water to "beneficial use" would occur only when the use was both absolutely and relatively valuable. An appropriation would still vest a water right, but the uses for which water could be appropriated would be changed. The extent of one's property right, and one's priority, would depend upon the relative value of his use. Thus, a decree which ranked uses other than by appropriation date and decree date would simply follow the definition of "beneficial use" and would rank rights according to the property right acquired therein. No divestment of a preacquired right would occur.

Whether this concept is sound is also uncertain. The term "beneficial use" appears at art. XVI, §6, of the constitution. If the term as used there cannot include the weighing of values proposed, then to do so would violate the constitution. The term has not been so used in the past.<sup>702</sup> If the constitution permits such a statutory definition of the term, balancing in accordance therewith can be permitted. As noted, existing law tends to cast doubt upon the validity of such a definition.

The foregoing discussion does not apply to designated ground water. Rights to such water are obtained by grant of a permit,<sup>703</sup> just as rights to water in the many states having balancing statutes are obtained. Authority to condition a permit with the kinds of balancing restrictions described appears to be valid. Unfortunately, the issue is somewhat clouded by the fact that a modified appropriation system has been statutorily applied to such water.<sup>704</sup> Unless that provision can be read to prevent any subsequent balancing provisions--a reading which seems improper--balancing of competing applications for permits for such water would seem to be lawful.

## (2) Water-related Constitutional Issues.

### (a) The Preference Clause.

The preference clause of §6 was fully described in §6., supra. That clause seems to authorize "balancing" of a kind by permitting private condemnation of lesser preferred water rights. It may, however, spell disaster for prospective legislation.

As described, §6 establishes a constitutional preference for water uses. Domestic is preferred to agricultural, which is in turn preferred to industrial use. If, under any of the prospective balancing statutes, balancing resulted in the granting of a decree of a call which varied this order, the act might be found to be unconstitutional. For example, if a water court were to balance competing applications for decrees, one for agricultural and one for domestic use, and to grant the decree for the agricultural use, the

domestic user might be able to prevail on the argument that the court had violated the order established by §6. Admittedly, §6 has never been so applied. Yet its restrictions are so undeniably related to any balancing statute that the courts might readily be persuaded to apply it.

(b) The Right to Divert.

Article XVI, §6, of the Colorado Constitution also protects the right to divert the unappropriated waters of the state to beneficial use. While §6 enumerates only three categories of beneficial use--domestic, agricultural, and industrial--the concept is a flexible one which includes other types of uses also.<sup>705</sup> Any use which can be shown to be beneficial may be supported by a right to use water.

The right to divert provision may limit any balancing statute, particularly those seeking to require balancing between competing applications for water rights or between competing calls. Section 6 appears to protect any diversion to a beneficial use; it does not appear to protect only diversions of the highest value or only those which best promote the public interest. In support of that interpretation is Fuller v. Swan River Placer Mining Co.<sup>706</sup> In that case, Fuller sued to enjoin the company from diverting waters of the Swan River. Among other things, Fuller alleged that the water use of the company had little or no value. In response, the Colorado Supreme Court held that it would make no comparison of competing claims in determining the rights of the parties, stating that, "If the claims of defendant are shown to be of any value, its rights therein and to the water it has appropriated must be protected." While the Fuller court did not base its conclusion squarely upon the constitution, it would appear that the conclusion is applicable thereto. If Fuller does state a constitutional restriction, and if it is followed strictly, §6 may prohibit balancing between competing water uses to determine which is of the highest value. A use of any value would be protected.

Alternatively, it may again be argued that balancing statutes are not intended to restrict the right to appropriate. Rather, they seek to regulate the issuance of decrees or requests for water under decrees. Appropriations would be left unrestricted and could be made for any beneficial use. The difficulty with this contention, of course, is that a decree might be refused or a call for water ignored simply because a use was not relatively beneficial. Section 6 may prohibit such a restriction.

Once again, the question may be mooted if the redefinition of the term "beneficial use" to include the weighing of relative use

values is authorized by the constitution. It is uncertain whether that change may be made consistent with constitutional principles. If it can, the right to divert to "beneficial use" will not be denied, though the definition of the term will be changed.

(3) Right of Eminent Domain.

The general rule under the Colorado Constitution is that private property may be taken only for public use.<sup>707</sup> Certain exceptions to this rule, including those specified by §6, exist.<sup>708</sup> They are, however, quite limited.

A statute which permits the condemnation of water rights of a lesser preferred user by a higher preferred user within a single use classification authorizes, like §6, a private right of eminent domain. That right would be exercised according to statute. Thus, an agricultural user whose use was of higher benefit might, under legislation proposed, condemn an agricultural user putting his water to a use of lesser public value. Unfortunately, in doing so, a private user might well be taking the rights of another private user. The general constitutional doctrine prohibits such, unless the power to do so can be found elsewhere therein. The elsewhere, if anywhere, is, of course, §6. Unfortunately, a very liberal reading of §6 would be needed to support such a use of the power of eminent domain. Any statute authorizing such may be beyond the power of the legislature. This significant problem affects any statute seeking to authorize condemnation within water use classes.

12. Controls on Transmountain and Transbasin Diversions.

While it may be true, to paraphrase Judge Arraj in the recent decision in United States v. Northern Colorado Water Conservancy District,<sup>709</sup> that transmountain or transbasin diversions will remain a source of tension "so long as the Continental Divide partitions Colorado into western and eastern watersheds," it is probably equally true that legislation regulating diversions can eliminate the source of some of that tension. Several western states have adopted legislation which in one way or another does regulate transbasin diversions. Colorado's legislation and case law, if anything, encourages large scale transmountain and transbasin diversions. New legislation could help to solve an old problem.

a. Existing Law.

As a general principle, it seems accurate to say that Colorado law imposes no special restrictions upon any diversion and appropriation of water in a basin for use in another. The only restrictions seem to be those generally applicable under Colorado law.

In City and County of Denver v. Sheriff,<sup>710</sup> the Colorado Supreme Court had before it the question of the validity of one of Denver's earliest transmountain diversions. Denver had been awarded rights to water in the Fraser River but under a quite restrictive decree. The water court had ruled that the western slope water rights acquired by Denver were held by it as a water supply supplemental to that provided by its existing eastern slope rights, to be used only after full and economical use of eastern slope waters had been made. In so ruling, the intent of the water court was to guard against Denver's sale or disposition of existing rights and substitution of western slope water for such rights. The supreme court struck down these restrictions, stating that "[i]t is the settled doctrine of this state that geographical advantage does not apply to water for beneficial use." Transmountain diversions of water to beneficial use were upheld while restrictions imposed to protect the basin of origin were overturned. Though Sheriff did deal with the somewhat unique situation of water importation by a growing municipality, it would appear that its rationale would apply to water importation for other uses also.

Not only does Colorado law permit transmountain and other transbasin diversions,<sup>711</sup> it also encourages them to some extent. Section 37-82-106, C.R.S. 1973, provides that any appropriator who has lawfully introduced foreign water into a stream system from an unconnected system may make successive use of that water. While the precise applicability of that statute is uncertain, it has been recognized by interpreting cases to permit successive use of transmountain water at least.<sup>712</sup> The same case went on to hold that the right to reuse, make successive use of, or dispose of imported water exists even independent of the cited statute.<sup>713</sup> When the rights provided by the statute and the interpreting case law can be exercised economically, the advantages of, and encouragement for, using imported water become clear.<sup>714</sup> As a practical matter, of course, it will generally be only large divertors who will benefit from those rights.

The right to make transbasin diversions is not totally unlimited. Normal water law restrictions prohibiting the diversion of water unless a valid right thereto as against other users has been established apply equally to transmountain and other transbasin diversions.<sup>715</sup> In addition, at least one specific statutory prohibition regulates transbasin diversions by prohibiting water conservancy districts from making certain diversions from the Colorado River basin.<sup>716</sup> Presumably, interstate compacts would restrict interbasin diversions as they do intrabasin diversions.<sup>717</sup> In general, however, it appears that there are no special

restrictions upon the right to make transmountain or other transbasin diversions.

One statutory provision authorizes the Colorado Water Conservation Board to analyze the extent to which water may be transferred from one watershed to another in the state without injury to the potential economic development of the exporting watershed.<sup>718</sup> The statute does not specify what effect the studies are to have, though it appears that the studies were to be a basis for legislative action.<sup>719</sup> No such study has ever been done and, consequently, no such action has ever been taken.

b. Prospective Legislation.

(1) Format of Legislation.

New legislation regulating transmountain and other transbasin diversions could take a variety of forms, depending upon the manner in which the legislature wished to treat the subject. The fundamental purpose of such legislation should be to assure that adequate water supplies be available for use in importing and exporting basins and to reduce the tensions created by the threat of or the implementation of transbasin diversion. Each of the techniques described in this section seeks to achieve that purpose. It should be noted that the presentation of various alternative techniques is not intended to suggest that they cannot or should not be used in combination. In fact, the combination of certain of the techniques proposed might most effectively achieve the above-stated purposes.

(a) Ban on Transmountain Diversions.

The most restrictive form of regulation which may be proposed is that creating an outright ban upon transbasin diversions. Such a ban would restrict the use of all waters arising within a basin to the basin of origin only. While such a ban might be attractive to certain interests on both the eastern and western slopes, it is almost certainly politically infeasible. It is by no means certain that such a ban would promote the best and most efficient use of the state's waters, since it might well promote a maldistribution of those waters. While the best interests of the state are not always served by encouraging transbasin diversions, they also would likely not be served by a restriction which could completely prevent water from moving to the place of greatest need. As a regulatory option, a total ban upon transbasin diversions is probably unwise.

(b) Primary Resort to Basin of Origin.

A second type of prospective legislation would require a water user seeking to make a transbasin diversion to show that all reasonable means to acquire water from the user's own basin have been exhausted. That was generally the approach rebuked by the Colorado Supreme Court in the Sheriff case.<sup>720</sup> The advantage of such a scheme is that, while transbasin diversions would not be prohibited, the need for such would be reduced. The scheme could, however, also have serious disadvantages. For example, if Denver were required to seek South Platte River water prior to implementing a new transbasin diversion, the requirement could result in the depletion of water supplies for the important eastern slope agricultural economy, though it might possibly enhance the availability of water to western slope agriculturalists.

(c) Retention of Reasonable Supplies  
in Exporting Basin.

A third option for regulating transbasin diversions would require that no exportation of water from a basin reduce water supplies therein below those needed to supply all reasonable existing and future water uses within the exporting basin. Such a program would, of course, require that such present and future needs be established, probably by either the state engineer, the Colorado Water Conservation Board, or the Department of Natural Resources. Those requirements could be studied and established either as an independent program under the statute imposing the restriction, or possibly as part of a larger state water planning effort.<sup>721</sup> Once established, however, the restrictions would be mandatory.

The described legislation would not be intended to ban transbasin diversions, but rather would be designed to regulate the extent to which they could be made. The fundamental purpose of the legislation would be to protect the legitimate water needs of the exporting basin. A broad definition of those needs would be necessary in order to assure that water would be retained in the exporting basin to provide for all reasonable economic, recreational, environmental, and other water needs. Until, and only until, basin supplies were so depleted so as to require the retention of remaining supplies within the basin to fulfill those needs, transbasin diversions would be permitted. Because large-scale transbasin diversions have already reduced supplies in certain basins, it might be that certain future exportations would be banned from the inception of the statute on the ground that all remaining supplies are necessary to meet future needs. Such would be the ultimate effect and intent of the statute.

(d) Legislative Approval of  
Transbasin Diversions.

Legislative approval of proposed transbasin diversions would provide a means of reviewing the merits of, need for, and impacts of each diversion upon both the exporting and importing basins. Theoretically, such an analysis would have the result of eliminating unwise proposals, thereby reducing the demand for transbasin diversions.

A significant issue regarding such legislation is the extent to which legislative approval would be required. Not all transbasin diversions would be large enough or controversial enough to require the time and effort of legislative review. Any statutory scheme might attach only to certain projects. The distinction could be made mechanically, based, for example, upon project size alone, or could be made through a preliminary review of the proposed project to determine whether full legislative attention is necessary.

Review of proposed transbasin diversions might also be made by an administrative agency selected by the legislature. Under such a statute, the legislature, in accordance with fixed and specific standards, would delegate review and approval authority over transbasin diversions to an existing or newly-created state agency. Among the existing state agencies capable of performing that function are the Office of the State Engineer, the Water Conservation Board, or the Department of Natural Resources. The decision of such an agency would be final, subject to judicial review.

As a final alternative, the legislature might adopt a bifurcated review system, under which major projects would be reviewed by the legislature and minor projects by an administrative agency. The distinction between a major and minor project could be made subjectively or objectively, as noted in this section.

(e) Withdrawal of Waters from  
Availability for Transbasin  
Diversions.

In §10., supra, legislation which would reserve or withdraw certain waters from appropriation was discussed. A similar program could reduce the call for transbasin diversions.

The legislation proposed in §10. is intended to restrict the appropriation of certain waters for interbasin and intrabasin uses. The legislation proposed in this section is designed to reserve or withdraw waters from interbasin appropriation only. The legislation is not intended to overlap or replace that proposed in §10., but is intended to provide special protection from transbasin diversions. To accomplish that protection, any such statute would require the withdrawal or



reservation of waters from interbasin appropriation in order to protect the need for such water within the basin. Unlike the reservations proposed in §10., the water reserved from interbasin appropriation would be immediately available for general intrabasin use, unless otherwise reserved for specific intrabasin uses. In short, the statute would reserve water in addition to that reserved under the legislation in §10., but for the sole purpose of prohibiting interbasin diversions. Detailed studies would be required to determine the amount of water which could be legitimately reserved in order to fulfill intrabasin needs.

It is possible that the goals sought by the instant legislation could be accomplished under an appropriate version of the legislation proposed in §10. That legislation would need to be drafted to assure that in addition to reservations or withdrawals for the specific purposes described therein, reservations to accomplish the purposes stated herein would also be made.

Reservation of waters from appropriation has essentially the same effect as retaining waters within basins, as described in §(3), supra, and would be implemented in generally the same way. By proposing the various alternative approaches described herein, it is not suggested that each need be adopted to protect intrabasin supplies. Rather, options for legislative study are provided. The ultimate decision regarding whether to use any of the schemes is the legislature's.

(f) Conservation in Lieu  
of Diversion.

Large-scale municipal water importers in particular should be required to use all reasonable conservation measures to save on use of existing supplies before making new or additional transbasin diversion. A variety of water conservation techniques and exchange programs designed to reduce the need for additional supplies were proposed in §5., supra. It would appear to be possible to enact legislation requiring that those measures be adopted by water users prior to making additional transbasin diversions.<sup>722</sup> Such a statute would not prohibit needed transbasin diversions, but it would clearly reduce the need for them. For example, if eastern slope municipal appropriators were required to reuse or successively use existing imported water, as permitted under law, the need for newly-imported supplies would be reduced and delayed. Each of the measures described in §5. could similarly reduce that need.

c. Factors to Be Considered.

Because each of the foregoing proposals is different, the enactment of each would involve unique considerations. Several questions are common to all or several of the prospective legislative programs.

1. One question which is common to each of the proposals is what definition is to be ascribed to the term "basin"? Each of the foregoing proposals describes legislation designed to limit transbasin diversions. The term "transbasin diversion" can have a variety of meanings, ranging from very broad to very narrow. The 1969 act, for example, takes a basinwide approach to the determination and administration of water rights; that approach is based upon each of the seven major watershed areas of the state. A diversion between those basins would likely be considered to be "transbasin." Within each of these major basins, however, exists several smaller drainage basins, some supporting major rivers. The Colorado basin, for example, includes the Blue River and the Eagle River, as well as the Colorado. Conceivably, diversions between these subbasins could also be considered to be transbasin diversions, even though the diversions remain within the same major basin. By adopting an adjudication and administration scheme in the 1969 act based upon the major basins, the legislature has evinced an intent to regulate waters upon a major basin approach. Such an approach could be maintained under the prospective legislation if study shows it to be justified.
2. Certain of the above proposals require a determination of needs within the exporting basin. What factors will go into the determination? There would seem to be little doubt that all potential, future water uses permitted by law should be provided for. Those uses would include not only economic uses, but should also provide for necessary and legitimate recreational, aesthetic, environmental, and other needs. Failure to recognize all legitimate future needs of the basin will cause it to be robbed of needed water by exporters.
3. Who will administer any necessary programs under the new legislation? In general, it would appear that at least three major types of governmental agencies could be involved.
  - a. The legislature--involvement in any scheme requiring legislative approval of transbasin diversions.
  - b. Administrative agencies--involvement in any scheme requiring administrative approval of transbasin diversions and in any planning or research effort designed to determine intrabasin needs. Administrative agencies which might be suited to such a task include:
    - (1) The state engineer.
    - (2) The Colorado Water Conservation Board.
    - (3) The Department of Natural Resources.

- c. Water courts--involvement in enforcement of statutory proscriptions. The water court would be required to make necessary findings of fact and conclusions of law to implement the statute. For example, it would seem that the water courts would be responsible for determining whether a particular transbasin diversion, as proposed, would leave necessary water within the exporting basin. Unless a change in the method of determining water rights was made, the water courts would be responsible for these and similar functions. Ultimate approval, disapproval, or conditional approval of the diversion would be the responsibility of the water courts.
4. To whom would the restrictions apply? Because the purpose of the prospective legislation is to protect intrabasin supplies of an exporting basin, it would seem that the legislation would necessarily apply to diversions for all uses regardless of type. The impact of any diversion upon an exporting basin is the same as any other--it depletes intrabasin supplies. The proposed use of the diversion makes no difference.

d. Experience in Other States.

At least three states have enacted controls on transbasin diversions.

California bases its regulatory program upon its comprehensive state water plan. Thus, all projects constructed in accordance with the plan must be designed to limit exports of water from a basin to that which is not reasonably necessary to supply the future beneficial needs of the exporting basin.<sup>723</sup> In pursuance of this policy, the legislature, in 1956, authorized a study of each of the state's watersheds to determine intrabasin needs.<sup>724</sup> The legislature, when authorizing an exporting water project, may further authorize such additions to the project as are necessary to protect water use in the basin of origin.<sup>725</sup>

A simpler statute has been adopted by the State of Oklahoma to accomplish the same end as the California legislation. Under the Oklahoma statute, the State Water Resources Board is to review the needs of the state's water basins every five years.<sup>726</sup> Applicants for permits to use water within the basin have the prior right to all waters therein as required to supply the beneficial needs of basin uses. As in the case of the California legislation, transbasin diversions are not prohibited but are merely regulated to protect intrabasin uses.

The State of Nebraska has a rather unique statute which has the effect of limiting transbasin diversions. Under the Nebraska statute, the waters of one stream may not be diverted into another stream unless the former

stream is at least 100 feet in width.<sup>727</sup> If a stream is that wide, 75 percent of the regular flow of the stream may be taken. This odd statute would seem to limit both intrabasin and interbasin diversions.

e. Problems and Limitations.

(1) The Taking Issue.

Taking difficulties would arise under any of the described statutes only if through those statutes vested water rights were taken or damaged.<sup>728</sup> It is unlikely, for example, that any such statute could constitutionally require a completed diversion, which was being applied to beneficial use, to be suspended. Except under the rarest circumstances, such would probably constitute a taking. Alternatively, other constitutional difficulties aside, a statute which applied prospectively only would not seem to run any risk of taking vested water rights.

A more difficult question would arise should the statute be applied to bar a diversion for which a conditional decree may have been issued under §§37-92-304 and 37-92-305, C.R.S. 1973. A conditional water right would not appear to be a fully vested water right.<sup>729</sup> It is possible, however, that certain conditional rights would be considered to be sufficiently vested to merit constitutional protection. Based upon analogous law, those projects whose construction had reached a certain indefinable point would likely receive constitutional protection.<sup>730</sup> The decision as to whether that point had been reached would be made on the merits of each case. A carefully drafted statute would, however, avoid even this pitfall by limiting its applicability to new applications for water rights only or by including only those conditional rights which were not substantially begun.<sup>731</sup>

The foregoing analysis may not be applicable to legislative interference with municipal rights. It is generally held that municipalities are mere instrumentalities of the state, created by statute to carry out the will of the state.<sup>732</sup> As such, it has been held that municipalities do not benefit from due process concepts.<sup>733</sup> They may be changed or dissolved at the will of the legislature without the protection of due process. Constitutional proscriptions against taking do not therefore apply to municipal property when the municipality's creator state is the taker. In such a case, it is arguable that a municipality's conditional rights or unused absolute rights might be taken by legislative action without constitutional consequence. Since municipalities are major importers of water, this precept could be of major significance.

This general rule is not without exception. Thus, when dealing with municipalities, the legislature may not strip third parties of rights acquired through the municipality.<sup>734</sup> Contracts to supply municipal water might be just such rights. Neither may the delegatee of legislative authority strip a municipality of its property contrary to due process

standards.<sup>735</sup> Only the legislature is so empowered. Since certain of the prospective statutes described herein envisioned delegation of responsibility, this exception is important. Finally, home rule municipalities, as creators of the constitution, appear to be protected to the extent of their constitutional basis. Home rule municipalities have complete authority to legislate on matters of local and municipal concern.<sup>736</sup> Municipal ordinances upon such matters supercede conflicting state statutes. The constitution specifically delegates certain water functions to home rule municipalities.<sup>737</sup> If the right to make transbasin diversions to supply municipal water needs is a local one, then no interference with that right may be permitted by state statute. While it is unlikely that such would be held to be a local matter, the possibility exists.

## (2) Water-related Constitutional Issues.

The most likely water-related section of the constitution to be called into play respecting the prospective legislation would be that protecting the right to divert the unappropriated waters of the state to beneficial use.<sup>738</sup> The likelihood of its being applied would depend on the form of the legislation adopted. The legislation described falls into three basic categories:

1. That which could result in a ban upon transbasin diversions.
2. That reserving certain water for intrabasin use.
3. That requiring certain activity in the importing basin prior to diversion.

The Sheriff decision<sup>740</sup> indicates that the right to put water to beneficial use does not depend upon geographical advantage. Thus, any statute which imposes an outright ban upon transbasin diversions, based solely on the fact that a proposed diversion will be a transbasin diversion, would therefore seem to violate the constitutional protection of the right to divert. Such a constitutional infringement might be supported by strong considerations of public health, safety, and welfare.<sup>741</sup>

Legislation in the other categories would be less susceptible to constitutional interference. Those statutes requiring the performance of certain actions prior to seeking transbasin water do not prohibit the right to divert. They do, in a sense, prohibit unneeded diversions, but such restrictions would seem to be valid. Those statutes reserving water within a basin are a bit more troublesome. While they would bar certain transbasin diversions, they would do so only to protect water for present and future intrabasin diversions. Arguably, such is a valid police power goal.

Once again, a different analysis appears applicable to municipal transmountain diversions. It appears that the supreme court has held that

"the rights of appropriation contained in the Constitution of Colorado are to the people" and not to the state's instrumentalities.<sup>742</sup> On the basis of that holding, it may be argued that municipalities receive no protection from art. XVI, §6. Despite this, it may be possible that the exceptions to the general rule stated at (1), supra, apply equally to prevent total subversion of the constitutional protection.

### (3) Municipal Home Rule.

Many, if not most, transbasin diversions involve growing eastern slope municipalities seeking to acquire rights to use water originating and flowing on the western slope, particularly within the Colorado River basin. Any legislation regulating transbasin diversions would have the effect and intent of regulating those municipal diversions. Potential constitutional difficulties with that regulation have been brought sharply into focus by recent case law.

Article XX of the Colorado Constitution created the right of municipal home rule. Pursuant to that amendment, home rule municipalities are delegated certain authority to act in matters of local and municipal concern, without interference or abridgment by the state legislature. It has been held that home rule municipalities have the same authority to legislate regarding matters of local and municipal concern as would the state legislature.<sup>743</sup> Home rule municipalities have no authority, however, to legislate on matters of state concern.<sup>744</sup> In matters of mixed state and local concern, home rule municipalities may legislate only to the extent that their actions do not conflict with actions taken by the state.<sup>745</sup> A detailed summary of municipal authority, home rule and otherwise, can be found at §C., supra.

The right of home rule municipalities to deal in water-related matters is mentioned twice in art. XX. Section 1 of that article authorizes home rule municipalities to construct, condemn, purchase, acquire, lease, add to, maintain, and operate waterworks local in use and extent both within and beyond their territorial limits. By the same provision, municipalities may also acquire "everything required" for such waterworks. Section 6 of the same article authorizes home rule municipalities to consolidate and manage water districts within the municipality or within its jurisdiction.<sup>746</sup> As interpreted by the Colorado Supreme Court, these provisions could severely limit any legislative effort to regulate transbasin diversions by home rule municipalities.

In Colorado Open Space Council v. City and County of Denver,<sup>747</sup> the only issue before the court was that of the extent and authority of Denver to sell and deliver water outside its municipal limits. Relying largely upon art. XX, §1, of the Colorado Constitution, the COSC court held that Denver did have the authority to sell or otherwise dispose of water beyond

its boundaries. By its decision in COSC, the supreme court indicated that home rule municipalities have certain authority over water-related matters, despite the fact that water use is generally considered to be of statewide concern.<sup>748</sup>

An even more revealing expression of the liberality with which the supreme court will interpret home rule powers came in City of Thornton v. Farmers Reservoir and Irrigation Co.<sup>749</sup> The Thornton case brought before the court the constitutionality of the Water Rights Condemnation Act of 1975.<sup>750</sup> That act required municipalities to follow a variety of procedures designed to determine whether water rights it was seeking to condemn were actually reasonably needed by the municipality. The statute was largely designed to protect users of agricultural rights from municipal condemnation. The City of Thornton brought the constitutionality of the statute before the court, alleging, inter alia, that, as a home rule city, it was not bound by the provisions of the condemnation act. The supreme court agreed, holding certain provisions of the act unconstitutional as applied to home rule municipalities. In doing so, the court relied largely upon the above-cited art. XX, §1, stating that by that section, the people of Colorado had delegated to home rule municipalities full power to exercise the right of eminent domain without infringement by the 1975 act. The court went on to make an expansive conclusion regarding home rule authority:

Here, however, there is involved a specific constitutional power granted to home rule municipalities and, even though the matter may be of statewide concern, the General Assembly has no power to enact any law that denies a right specifically granted by the Colorado Constitution. [Emphasis added.]

The court did not answer the question of whether the condemnation act was constitutional as applied to statutory municipalities.

Neither the Thornton nor the COSC decision answers the question of whether the state legislature may regulate municipal transmountain diversions. Each, however, does establish a broad range within which home rule municipalities may deal regarding water and water rights. On the basis of these cases, it is feasible to argue that home rule municipalities have been given the right, under art. XX, §1, to make transmountain diversions free of any state infringement. While there can be no argument that transbasin or transmountain diversions do have statewide impacts and are matters of statewide concern, it seems equally arguable that they constitute acquisition of water rights as described by art. XX, §1. If so, the Thornton case indicates that the statewide concern in such matters may be superceded by the delegation of authority contained in art. XX and that no legislative control thereof may be imposed. Because of the enormous state interest in transbasin diversions, the legislature should consider laws to regulate the same when undertaken by municipalities, despite COSC and Thornton. The legality of such controls very much remains an open issue at this time.

It should finally be stressed that the foregoing applies to home rule municipalities. The restrictions of art. XX do not apply to statutory municipalities or to other types of water users, each of whom seems more readily susceptible to regulation regarding transbasin diversions.

13. Restrictions upon Municipal Authority  
to Appropriate, Purchase, or Change Water Rights.

Although it is estimated that municipal water use consumes only 3-4 percent of all water used in Colorado, there has been increasing concern over expanding use of water by municipalities in the state, particularly by those along the rapidly growing front range. Certain aspects of the controversy involve growth control issues which have not historically been considered a part of water use decisions. The controversy has also been enhanced by the continuing reliance of east slope municipalities upon transmountain diversions to meet their water needs. The fact is, however, that even apart from the important issues noted above, that legitimate concern regarding the increasing commitment of the state's waters to municipal, rather than other uses, does exist. That concern is particularly acute among agricultural water users, who use approximately 90 percent of all water used in Colorado in order to support their water-intensive industry. To a large extent, it has become infeasible for agricultural users to compete with well-heeled municipalities in appropriating or otherwise acquiring water.

Legislation limiting municipal acquisition or changes of water rights could be enacted, without stripping municipalities of the authority to acquire necessary water supplies. Such legislation could help to relieve the tension now surrounding large municipal acquisitions or conversions of water rights while providing for unavoidable and provable municipal needs. The legislation should be designed to assure that municipalities supported by large funding authorizations do not acquire water beyond their capacity to use it, thereby depriving other prospective users of such water.

a. Existing Law.

There exists certain statutory and case law affecting municipal acquisition of water rights. Since this existing law largely encourages municipalities to acquire surplus water, it in no way obviates the need for new legislation.

- (1) General Rule Regarding Municipal Appropriations: Right to Provide for Future Needs.



While the general rule seems to limit an appropriator to water for which a present need can be shown, there is an exception to the general rule affecting municipal appropriators. It has been held that municipal appropriators may acquire the right to use water needed to supply present and reasonable future needs.<sup>751</sup> Rather than act as a deterrent to acquisition of excessive or unneeded water rights by municipal appropriators, this rule encourages them to acquire surplus water. Coupled with the rules that a municipality may lease surplus water for use beyond its municipalities when not needed for immediate use within the city<sup>752</sup> and that a municipality may sell water in excess of current needs beyond its boundaries,<sup>753</sup> the exception seems virtually designed to encourage municipalities to acquire surplus and possibly unneeded water.

(2) Attempts to Limit Municipal Authority to Acquire Water Rights.

(a) Case Law Limitations upon Appropriations.

At least one decision has attempted to restrict rather than encourage municipal water rights acquisitions. On September 5, 1975, a Master-Referee, appointed by the water court for Water Division No. 5 to hear certain claims to Colorado River water by the city and County of Denver, orally ruled that Denver did not have the authority to appropriate water for use beyond its municipal boundaries.<sup>754</sup> A draft, written ruling issued on September 23, 1977, confirmed the oral ruling. In so ruling, the Master-Referee acknowledged that Denver could lease surplus water for use beyond its boundaries when such water was not needed immediately within the city, and that it could sell water in excess of current needs beyond its boundaries. The Master-Referee went on to rule, however, that water could not be appropriated solely for extramunicipal use on two grounds:

1. Because water would never be used in Denver, there would never be the application to beneficial use required to complete an appropriation.
2. Denver's charter conferred no power to appropriate water solely for use beyond municipal limits.

The latter reason affects Denver alone. The former, however, is a limitation applicable to any municipal appropriator.

The draft report is a most preliminary stage of the litigation over the Denver claims. It could be overturned or substantially modified in one of the many appeals thereof which are certain to follow its issuance in final form.<sup>755</sup> If it is not, the limitation established therein will significantly impact at least some future municipal appropriations.

A case which must also be reckoned with on the topic of municipal

water acquisition restrictions is Robinson v. City of Boulder.<sup>756</sup> In Robinson, the Colorado Supreme Court held that a municipality which had become a "public utility" for water supply under the test set forth therein bears the obligation of providing water to all persons within the service area the municipality has outlined, whether within or beyond municipal boundaries. Robinson raises the question of whether a municipality may bear that burden without the corresponding right to acquire waters, by appropriation or otherwise, for use beyond municipal boundaries at least when the municipality is a public utility. At least one solution to this question was proposed by the draft Master-Referee on Denver's claims in which it was ruled that Robinson did not affect Denver's rights to appropriate for extramunicipal uses since Denver had long been held not to be a public utility.<sup>757</sup> Whether the answer is different in the case of a municipality which does fit the Robinson test is uncertain. The ultimate answer to that question could affect the legitimacy of any future restrictions upon municipal authority to acquire or convert water rights.

### (3) Statutory Limitations.

#### (a) Direct Restrictions.

Only very recent case law tends to support any attempt to restrict municipal appropriations. Earlier cases arguably encourage excessive municipal appropriations. A similar historical perspective can be found in the state's statutes. It has long been the law that certain municipalities may lease surplus water not needed for immediate use.<sup>758</sup> While not authorizing excess acquisition of water directly, such a statute does perhaps encourage it. Similarly, statutory authorization permitting municipalities (and others) to reuse imported water may encourage importation of excess waters under the Sheriff rule, in addition to encouraging municipal resort to transbasin diversions to fulfill their water needs.<sup>759</sup>

More recently, one statute has limited municipal water rights acquisition. In 1975, the legislature enacted a statute restricting the right of a municipality to condemn water rights for municipal use.<sup>760</sup> The legislation was intended as a response to the increasing tendency of municipalities to condemn agricultural rights, at times unnecessarily, and convert them to municipal rights. Essentially, the statute requires that a municipality demonstrate the need for the water it is seeking to condemn.<sup>761</sup> Need is to be shown at a hearing before a board of commissioners. Prior to the hearing, the municipality proposing to condemn must:<sup>762</sup>

1. Prepare a community growth development plan, including plans for phased development of municipal services.
2. Specify the water rights proposed to be condemned.

3. Describe economic and environmental impacts of the proposed change from irrigation to municipal rights.
4. Describe the unavoidable and irreversible adverse effects.
5. Specify alternative sources of the water, along with relative acquisition costs.

In no case may a municipality be allowed to condemn rights in anticipation of future needs exceeding needs for the following 15 years.<sup>763</sup> All parties whose rights are to be taken or who might be damaged may be defendants.<sup>764</sup> Final determination of the propriety of the condemnation is judicial.<sup>765</sup> As described in the subsequent section of this report, the impact of this statute has been severely limited, if not erased by recent case law.<sup>766</sup>

A review of the enabling authority of municipalities indicates no other clear proscription upon the scope of municipal authority to acquire water rights. Municipalities generally may appropriate,<sup>767</sup> condemn,<sup>768</sup> or purchase<sup>769</sup> water rights under their enabling authority. That authority does not restrict, nor necessarily proscribe restrictions upon, the exercise of those rights. If anything, by authorizing municipalities to sell water within or without their boundaries<sup>770</sup> and to so construct water systems,<sup>771</sup> the enabling legislation adopts a liberal viewpoint of municipal authority. That legislation could be revised.

(b) Potential Regulatory  
Capacity of State and  
Regional Agencies.

A review of the powers of various state agencies having authority over water allocation also reveals no specific authority to restrict the scope of municipal appropriations.

The water courts, of course, have authority to grant decrees for water rights and changes thereof.<sup>772</sup> Arguably, the water courts could impose reasonable restrictions upon decrees for municipal appropriations or decrees for changes of rights to municipal uses. The authority of the water courts does permit them to condition change decrees, though only in a limited fashion, but it does not expressly allow any conditioning or restricting of decrees for water rights. It is unlikely that any significant restrictions upon municipal appropriations would be upheld under existing authority.<sup>773</sup>

The Colorado Water Conservation Board has substantial authority to promote water conservation and to secure the greatest utilization of the

state's waters.<sup>774</sup> Whether it could achieve those goals through administrative restrictions upon municipal acquisition of water rights is uncertain. It might encounter particularly serious problems in any attempt to restrict municipal appropriations or municipal acquisitions by home rule municipalities.

The rule-making authority of the state engineer might provide a similar source of administrative control.<sup>775</sup> As in the case of the board, the exercise of authority which can only be implied by an administrative agency is not necessarily a sound basis for such regulation.

It appears some control over municipal supplies could be exercised by certain regional water supply entities. Water conservancy districts have the authority to supply domestic and municipal uses<sup>776</sup> in accordance with their adopted rules and regulations.<sup>777</sup> Each water conservation district may acquire water for irrigation, mining, manufacturing, and other purposes<sup>778</sup> and to supply such water according to the district's rules and regulations.<sup>779</sup> It would seem possible for those districts to deliver water to municipalities only in accordance with duly adopted restrictions and rules of the district. Whether an agency dedicated to the purpose of supplying water to customers would be willing to adopt such restrictions is perhaps doubtful.

River basin authorities are granted the power to establish standards for the proper utilization of water used within their territorial limits.<sup>780</sup> Violation of those standards constitutes prima facie evidence of waste, which is itself defined as the application of water in excess of that needed to fulfill the purpose of the application.<sup>781</sup> The river basin enabling legislation then goes on to define "full water supply-municipal" as follows:<sup>782</sup>

A full water supply at the point of diversion for a municipal system is that quantity and quality of water which is adequate to meet the demand for water placed upon the municipal system by the customers the system is obligated to supply and by the needs of the municipality. Such full supply is not constant and will vary with population, season, climate, and other factors which cannot be precisely quantified. While the amount of water to provide a full municipal supply will vary, it should fall within reasonable efficiency of use consistent with technical and economic capabilities.

It would seem that the foregoing would allow a river basin authority to promulgate standards and restrictions regulating municipal water use. In fact, the legislation seems designed to accomplish exactly that. Unfortunately, since no river basin authority has ever been formed, the concept of their control over municipal water use is still academic. In any event, any authority held by the authorities would likely be exercisable only against statutory municipalities.

(4) The Special Case of Home Rule Municipalities.

The question of how far the legislature may go in regulating municipal acquisition of water rights is not yet entirely settled. It is settled, however, that the legislature will not be entitled to regulate the state's home rule municipalities to the same extent as its statutory municipalities. Article XX of the Colorado Constitution sees to that.

As noted at §IX. C., *supra*, art. XX of the Colorado Constitution created the right of certain municipalitites to become home rule municipalities. Pursuant to that amendment, home rule municipalities are delegated authority to act in matters of local and municipal concern without interference or abridgement by the state legislature. It has been held that home rule municipalities have the same authority to legislate regarding matters of local and municipal concern as would the legislature.<sup>783</sup> Home rule municipalities have no authority, however, to legislate on matters of state concern.<sup>784</sup> In matters of mixed state and local concern, home rule municipalities may legislate only to the extent that their actions do not conflict with actions taken by the state.<sup>785</sup> A detailed summary of municipal authority, home rule and otherwise, can be found at §IX. C. hereof.

The right of home rule municipalities to deal in water-related matters is mentioned twice in art. XX. At §1 of that article, home rule municipalities are authorized to construct, condemn, purchase, acquire, lease, add to, maintain, and operate waterworks local in use and extent, both within and beyond their territorial limits. By the same provision, municipalities may also acquire "everything required" for such waterworks. Section 6 of the same article authorizes home rule municipalities to consolidate and manage water districts within the municipality or within its jurisdiction.<sup>786</sup> As interpreted by the Colorado Supreme Court, these provisions could severely limit any legislative efforts to regulate acquisition of water rights by municipalities, regardless of how that acquisition is accomplished.

In Colorado Open Space Council v. City and County of Denver,<sup>787</sup> the Colorado Supreme Court addressed the sole issue of the scope and extent of Denver's authority to sell and deliver water outside its municipal limits. The court interpreted art. XX, §6, as follows:

Art. XX, Sec. 6 provides home rule cities (including Denver) with the power to legislate on local and municipal matters: 'Such charter . . . shall supersede within the territorial limits and other jurisdiction of said city or town any law of the state in conflict therewith.'

Sec. 6 further provides that a home rule city shall have all powers '. . . necessary, requisite, or

proper for the government and administration of its local and municipal matters, including power to legislate upon . . . [t]he consolidation and management of park or water districts in such cities or towns or within the jurisdiction thereof. . . . These provisions clearly indicate that Denver is constitutionally empowered to supply water beyond its boundaries. [Emphasis added.]

In holding that Denver was constitutionally empowered to supply water beyond its boundaries the court certainly offered indirect support for Denver's acquisition of surplus waters, though COSC did not address the issue of legislative restrictions upon Denver's power. In its next decision regarding municipal water authority under art. XX, the court squarely and directly addressed the authority of home rule municipalities to acquire water rights in the face of state legislation seeking to restrict that authority.

In City of Thornton v. Farmers Reservoir and Irrigation Co.,<sup>788</sup> the supreme court was faced with the issue of the constitutionality of the Water Rights Condemnation Act, described in the preceding section. Specifically, the City of Thornton alleged that, as a home rule city, it was not and could not be bound by the act. The act itself does not distinguish in its applicability to home rule and statutory cities.

In response to the allegations of the city, the court expressly held two major requirements of the act to be unconstitutional as applied to home rule cities:

- (1) The requirement that a commission be appointed to determine necessity for condemnation.
- (2) The 15-year limitation on condemnation of water rights.

By implication, the court really voided the entire act as it applies to home rule cities.<sup>789</sup> In so ruling, the court relied largely upon art. XX, §1, allowing home rule municipalities to condemn, purchase, and acquire waterworks local in use and extent and everything required therefor. This section, the court said, prohibited legislative interference with water rights condemnation by home rule cities. Indeed, the court appeared to expand the generally accepted scope of authority of home rule cities when it said:

Here, however, there is involved a specific constitutional power granted to home rule municipalities and, even though the matter may be of statewide concern, the General Assembly has no power to enact any law that denies a right

specifically granted by the Colorado Constitution.  
[Emphasis added.]

COSC, and particularly Thornton, seem to grant home rule municipalities almost complete authority in acquiring water rights. Though the statute involved in Thornton was a condemnation statute, the constitutional provision which invalidated it allows home rule municipalities not only to condemn water rights, but to purchase and acquire them as well. In addition, the statute regulated a matter, water use and acquisition, which has always been considered a matter of state concern. Despite this, the statute was stricken down as a violation of art. XX. It would seem that only a most substantial state interest (perhaps, for example, the state's interest in trans-basin diversions) would be a lawful basis to permit regulation of the acquisition of water rights by home rule cities. By COSC and Thornton, as exemplified by the strong dissent of Justice Erickson in Thornton, heavy encouragement has been given to home rule municipalities to acquire excess and surplus supplies of water for use within and without their boundaries.

(5) Extension of Thornton Rationale to Statutory Cities.

The Thornton case expressly reserved the question of whether the Water Rights Condemnation Act may constitutionally be applied to statutory cities. It is arguable that the statute may not be so applied. There are several reasons for this conclusion.

Before citing the arguments upon which the unconstitutionality of the condemnation act, as applied to statutory municipalities, may be based, it should be noted that these arguments do not rely on art. XX of the Colorado Constitution in any way. That article applies only to home rule municipalities. Separate arguments support the inapplicability of the condemnation act to statutory cities.

There are three major contentions supporting the inapplicability of the condemnation act to statutory cities. These may be briefly summarized as follows:

- (1) The delegation of the determination of whether a water right condemnation is necessary to a Board of Commissioners<sup>790</sup> is a violation of art. V, §35, of the Colorado Constitution prohibiting the delegation of municipal functions to a special commission. While early case law can be read to contradict this assertion, more recent case law indicates that the breadth of §35 may require its application to the condemnation act.

- (2) Since the determination of whether a condemnation is necessary is a legislative act,<sup>791</sup> any attempt to delegate that function to a commission or other judicial or quasi-judicial body violates art. III of the Colorado Constitution which establishes the doctrine of separation of powers.
- (3) The delegation to a commission of the determination of whether a condemnation of water rights is necessary constitutes an unlawful delegation of government powers to a private party under the rule of Greeley Police Union v. City Council of Greeley.<sup>792</sup>

The theory behind each of these contentions is discussed in more detail in §IX.C., supra, and reference should be made thereto at this time. Taken in combination, these sections may well prohibit the applicability of the condemnation act even to statutory cities.

Perhaps an even more important question is the extent to which these contentions prohibit regulation of the acquisition of water rights by statutory municipalities by means other than condemnation. This question is addressed in the subsequent section.

#### b. Prospective Legislation.

The limitations and prospective limitations described in a., supra, are striking, and, from a regulatory standpoint, quite disconcerting, since they substantially narrow the permissible scope of regulation over municipal acquisition of water rights. At least with respect to statutory cities, however, some form of regulation is still available to the legislature.

In general, new legislation should be directed to regulate three specific areas related to municipal water rights acquisition:

- (1) Municipal appropriations of water.
- (2) Municipal acquisition of water rights through purchase.
- (3) Changes of water rights to municipal use.

This section addresses those techniques which might lawfully accomplish that regulation.



(1) Time Limitations on Assessments  
of Future Needs.

Colorado case law permits municipalities to appropriate water to supply reasonable future needs. While this exception to the general rule makes certain waters unavailable to other appropriators even while they may not be in beneficial use by a municipality, the need for a rapidly growing community to have sufficient supplies available to it may make the exception necessary. The need for the rule, however, does not prevent calling its execution into play. Just as there is no doubt that a municipality can plan accurately for future needs, there is also little doubt that the accuracy of that planning will be reduced as it reaches further into the future. Legislation designed to limit this inaccuracy should be enacted.

There are at least two techniques which might be used to regulate municipal acquisitions of water rights, whether by purchase, appropriation, lease, condemnation, or otherwise. These include:

- (1) Restrictions upon municipal acquisitions of water permitting acquisitions to meet needs for a time certain only. What length that time would be is a question for legislative action. As noted in a., supra, the condemnation statute imposes a time limit of 15 years. Such a statute could reduce the uncertainty in predicting future needs by keeping speculation at a minimum. The legislation would apply to appropriations as well as acquisitions of other kinds. Thus, a municipal water purchase for which prospective need, as limited, could not be shown would not be permitted.
- (2) Requirements mandating a finding of continuing need for water. Under this proposal, a municipality would be allowed to acquire water for reasonable future needs, but would be required to prove up those needs at reasonable intervals after the initial decree. Such legislation would be similar to existing requirements for proving up conditional water rights. Rather than showing due diligence, however, a municipality would be required to demonstrate continuing need for all water acquired. Failure to show such would result in a loss of any right to the water previously acquired, or to at least that portion for which continuing need cannot be shown. Municipalities should not be in the business of acquiring unneeded water for their own benefit at the expense of other thirsty parties. Because of the design of such legislation, it would likely be suitable to regulate an appropriation only.

The enactment of either of the described requirements would need to recognize the limitations of the recent case law discussed at a., supra.

The Thornton decision makes it clear that either of the proposed restrictions would not be applicable to home rule municipalities under art. XX of the Colorado Constitution. The applicability of the proposals would, therefore, be limited to statutory municipalities only. Even in the case of statutory municipalities, the case law indicates that the kinds of procedures and findings required by the proposals would need to be undertaken and made by the governing body of the affected municipality. Any requirement that a special board or agency making such findings, or even that a court do so, would arguably violate the constitutional proscriptions against delegating governmental functions to special or private bodies, or violate the constitutional doctrine of the separation of powers. This would appear to be the case, regardless of the means selected to carry out the water rights acquisition.

The most serious practical problem with a statute requiring a statutory municipality to police its own water acquisition functions is, of course, the potential for abuse. That an entity seeking water might well attempt to do everything possible to establish its right to it is clear. Two controls may help to reduce the potential for arbitrary municipal action.

- (1) Detailed standards of review governing the findings of a municipal body.
- (2) Judicial review thereof.

The soundest approach to controlling municipal acquisition of water rights would be to delegate the finding of need to a body independent of the water acquisition decisions. That may be unlawful. If such can be legally justified under any statutory scheme, it should be considered for adoption.

(2) Detailed Showing of Need for  
Future Supplies.

Perhaps the most effective way to assure that municipalities will not acquire excessive water supplies is by requiring a full and detailed documentation of need to acquire water. Legislation should be adopted to regulate all forms of municipal acquisitions of water rights, as well as changes of rights by municipalities to municipal use. At a minimum, documentation of the following should be required:

- (1) Consistency of the proposed appropriation, change, or purchase with adopted local, regional, and state plans.
- (2) Consistency with applicable population projections.

- (3) Consistency with applicable economic projections.
- (4) Availability of other sources of water.
- (5) Social, environmental, and economic impact of the proposed appropriation, change, or purchase upon all areas of the state affected thereby.
- (6) Uses of water proposed to be appropriated, changed, or purchased.
- (7) Conservation measures taken in lieu of appropriation, change, or purchase of new water.
- (8) Other information requested by the reviewing agency.

With respect to number 7, conservation measures, the municipal user should not only be required to show what measures have been taken, but should also be required to implement certain reasonable measures prior to making a new appropriation, change, or purchase of a water right. If it does not, a finding of "need" may be false. The kinds of measures which should be required if they can be reasonably implemented are those described at §5., supra, including water recycling, metering, watering restrictions, land use restrictions, and other measures.

In addition to the foregoing, even greater protection for agricultural and other users could be obtained by requiring the municipal user to provide documentation of relative need for the water sought by it. At least two factors would go toward showing such:

- (1) Other uses which may be sought or under consideration for the same water.
- (2) Alternative uses which might be made of the same water within a reasonable future time.

Documentation of these factors, by the municipality or by those opposing the municipality's action, would go beyond a showing of municipal need to a showing of relative need among competing users. The end result of the procedure would require the kind of balancing discussed in §11., supra, and would involve similar constitutional objections.

Once again, the applicability of the prospective statute is called into question by Thornton and other cases described in a., supra. Once again, it seems that regulation of the acquisition of water rights by home rule cities is largely beyond regulation as a general constitutional principal. While certain specific acquisitions, such as those made by means of transbasin diversions, may be subject to regulation, the instant statute would not be generally applicable to home rule cities.

It would appear that the restrictions may be applied to statutory municipalities if the responsibility for making the findings required is vested in the local governing bodies of the affected municipality. As in the case of the time limitations for acquisition, detailed standards for implementation and judicial review would be needed to control arbitrary application of the procedure.

(3) Restrictions Upon Acquisitions  
for Extramunicipal Use.

The draft report of the Master-Referee, which was discussed above,<sup>793</sup> held that the City and County of Denver had no right to appropriate water solely for use beyond its boundaries. New legislation codifying the decision of the Master-Referee and extending that proscription in order to prohibit purchases for that purpose and changes of water rights to fulfill that function might be considered. The purpose of such legislation would be to help eliminate speculative claims for water based upon uncertain projections of future growth, and to thereby prevent municipalities from tying up valuable water supplies for undue periods of time. Again, municipalities should not be allowed to interpret the Sheriff doctrine as permitting them to go into the municipal water supply business at the expense of other thirsty persons.

Legislative restrictions on extramunicipal use should apply to regulate and prohibit appropriations, purchases, or changes of water rights intended solely for extramunicipal use. At least two categories of such legislation can be envisioned:

- (1) Legislation prohibiting all such appropriations, purchases, or changes.
- (2) Legislation prohibiting certain appropriations, purchases, or changes, based upon specific criteria. Thus, the qualified prohibition might permit certain water acquisitions or conversions subject to the following potential types of limitations:
  - (a) Such acquisitions might be allowed to fulfill immediately foreseeable extracorporate needs only. If a time certain were to be appended to the legislation, it should be substantially less than the time period proposed in (1), supra.
  - (b) Acquisitions might be permitted to supply certain extracorporate areas only.

- (c) Acquisitions might be permitted to supply areas proposed for annexation within the immediate future.

Any qualified program should be carefully designed to keep municipalities out of the water brokerage business and to prevent long-term speculative projections of municipal needs.

As noted in §a., supra, the applicability of such a statute is uncertain. The COSC decision allows home rule municipalities to serve certain areas beyond their boundaries with water supplies. The Robinson case requires certain municipalities, whether home rule or statutory, to do so under proper circumstances. Neither COSC nor Robinson answers the question of whether a home rule municipality may acquire water supplies solely for use beyond city boundaries, though each, as well as Thornton, lend support to the concept that they may. If so, the prospective statute may not apply to limit the actions of home rule municipalities as authorized by art. XX.

The legislation could lawfully be applied to statutory municipalities, at least when not burdened by the duty imposed under Robinson. Arguably, when that burden has been assumed, even a statutory municipality may acquire water for use beyond its boundaries only. The authority to assume that duty, as well as the authority to acquire water solely for extramunicipal use, may legitimately be restricted with respect to statutory cities.

#### (4) Metropolitan Water Districts.

More efficient and less wasteful water service can be provided throughout the State of Colorado by reducing the fragmentation of water supply agencies within the state. Under current law, municipalities, counties, and special districts can and do provide services, often in areas of geographical overlap, where an agency might more cheaply provide services than the two or three currently doing so. Nowhere is this problem more acute than in the rapidly-growing areas of the state, especially those along the front range. There competition to acquire water rights between water supply agencies has inflated the value of rights far beyond the capacity of agricultural users to compete for those rights themselves. It has also raised prices for consumers of water and resulted in litigation between parties whose interests are really more the same than different.

Perhaps the most logical, if not the politically easiest, way to eliminate the inefficiency and conflict is to provide for an end to this fragmentation through the creation of large metropolitan water supply

districts. Such districts would have the sole function of acquiring and supplying water to users within their service area. They would undertake to consolidate the fragmented functions now performed by the numerous water supply agencies within the prospective jurisdiction of the metropolitan agency.

As envisioned, the prospective legislation would establish such districts in areas of the state where the need justified them. The Denver metropolitan area appears to be the area of greatest need. Study might well indicate that the area in and around Colorado Springs, Fort Collins, or Grand Junction could benefit from such. It should be noted that legislative creation of districts to perform a special function with regard to a special problem is not a wholly new idea. In 1971, the legislature formed the Three Lakes Water and Sanitation District to combat the threat of water pollution in the Three Lakes region of Granby and Grand Lake.<sup>794</sup> While the problems to be solved by the prospective legislation require coordination of water supply rather than water quality efforts, the concept of creating one special agency to lead that coordination is not new.

It must be noted that certain existing legislation provides a basis for the formation of a metropolitan water district. Because necessary action has not been taken under that legislation, the legislature should act to force the needed action.<sup>795</sup> In fact, the cited legislation has tended to increase the fragmentation in delivery of water service.

Once established, the district would function as a municipal arm of the state government for the acquisition, treatment, and distribution of water to supply municipal uses within the jurisdiction of the district. The district would serve the sole municipal water supply function within that area, or as great a function as the legislature might choose to delegate to it. Its powers would be designed to eliminate the problems inherent in the fragmented and uncoordinated method of supplying water under existing law.

A very serious question exists regarding the forced participation of home rule municipalities in such water districts. Unless substantially limited, the Thornton case would seem to prohibit the legislature from forcing a home rule municipality to participate in a metropolitan water district. Statutory cities could be forced to do so, but their participation would be useless unless the district were to be comprised of all cities within a region. For example, if Denver, a home rule city, could not be forced into a district for the Denver region, a district for the Denver metropolitan region would be a futile exercise. Thus, while metropolitan water districts offer a rationale alternative to the uncoordinated water supply efforts now in effect in many populous areas of the state, the Thornton case would seem to block their implementation, unless substantially limited in its effect.

(5) Legislative Approval of Water Acquisitions and Water Projects.

The Thornton and, to a lesser extent, COSC decisions appear to establish an almost unrestricted zone in which home rule municipalities may operate to acquire and use water rights, unless a most substantial state interest therein can be found. Other restrictions indicate that even statutory municipalities probably must be permitted to determine the extent to which they may acquire water rights, once the power to do so has been delegated to them. There exists at least one exception to the latter rule. The legislature may reserve to itself the power to approve or disapprove any acquisition of water rights by a statutory municipality. The state delegates the power to acquire water rights to statutory cities by legislation. It appears to be capable of restricting that delegation in a fashion which will retain the right to determine whether the acquisition power will be exercised in itself. Since home rule municipalities operate by constitutional provision, the legislature may not exercise the same power with respect to them.

One practical problem with legislation retaining in the legislature the right to decide upon water acquisitions by statutory municipalities is the sheer volume of acquisitions which the legislature would be required to review. To reduce the impact of this practical problem, the legislature could set standards which would trigger its review authority. These standards could be specific or flexible, but either would help to assure that only major acquisitions would be reviewed by the legislature.

(6) Revocation of the Right to Condemn.

The power to condemn is vested in the state, subject to delegation to municipal governments. Perhaps the most extreme way to assure that the right will not be abused by statutory municipalities would be for the legislature to remove from them the right to condemn water rights. This is within the legislature's authority with respect to statutory municipalities.

The problem with such a measure is that it may leave statutory municipalities, which could only negotiate to purchase rights in absence of the condemnation power, without the means to acquire genuinely needed water. It might also cause the purchase price of water to be raised even higher than at present. These factors tend to militate against the adoption of such an approach. Absent other satisfactory ways to prevent the abuse of the condemnation power, however, this approach may require consideration.

c. Experience in Other States.

There does not seem to be significant experience in other states with respect to the kind of legislation described above. Certain action, however, has been taken.

The California Constitution expressly prohibits the waste or unreasonable use of water or the use of unreasonable methods of water use.<sup>796</sup> A recent California Court of Appeals decision reviewed the question of whether recycling of water might be required by that section in lieu of municipal acquisition of additional supplies. The court in Environmental Defense Fund v. East Bay Municipal Utility District<sup>797</sup> held that the constitution did require recycling when such could be shown to prevent waste, though it did not answer the question of whether recycling would be required on the facts of the EDF case itself. Thus, the California Constitution appears to permit the restriction of additional municipal water supplies unless a showing of needs can be made.

Case law in states other than California does not appear to have gone quite so far. It seems, however, that legislation in effect in Oregon,<sup>798</sup> Montana,<sup>799</sup> Alaska,<sup>800</sup> Washington,<sup>801</sup> and Florida<sup>802</sup> is broad enough to impose certain restrictions upon municipal water acquisition when need therefor cannot be shown.

d. Problems and Limitations.

(1) The Right to Divert.

Article XVI, §6, states that the right to divert the unappropriated waters of the state to beneficial use shall never be denied. At least three of the statutory schemes described above would restrict the right of municipalities to divert. Those include:

- (1) Time limits upon appropriations for future use.
- (2) Requirements for documentation of need.
- (3) Restrictions upon appropriations for extracorporate use.

Each of these prospective statutes would create limits upon the right of municipalities to divert water to beneficial use. As such, each arguably contravenes the constitutional protection afforded the right to divert.

Authority does exist, however, in support of each of these statutes. That the state may restrict the right of its statutorily



created instrumentalities to divert use apparently settled in Central Colorado Water Conservancy District v. Colorado River Water Conservation District,<sup>803</sup> in which the state supreme court rejected an attack upon the restriction against conservancy district diversions from the Colorado River basin. The court expressly stated that "the rights of appropriation contained in the constitution of Colorado are reserved to the people." No instrumentality of the state may complain of the powers granted or denied it by statute. Such is the general rule in nonwater cases as well.<sup>804</sup> Even this rule is limited, however, by the requirement that rights of third parties be protected from arbitrary legislative disruption.<sup>805</sup> Indeed, the rule may not apply if an entity other than the legislature itself were assigned to review the need for municipal appropriations, as was suggested by the above descriptions of the prospective statutes.<sup>806</sup> It must be noted that this rule would not seem to apply to home rule municipalities which are created by authority of art. XX, and not by statute.

### (2) The Preference Clause.

Article XVI, §6, also establishes a preference for water use in times of shortage. The highest preference thereunder is domestic use, which use is a substantial part of all municipal uses. While §6 has never been so applied, it is arguable that it may be broad enough to void any statutory scheme whose intent is to restrict municipal (including domestic) use of water in favor of making water available for other uses of lesser preference--particularly agricultural uses at least--when supplies are insufficient for all users.

It is quite possible that any attempt to apply §6 to protect municipal users from the foregoing prospective statutes would be barred by the holding in the Central Colorado decision.<sup>807</sup> Even under that holding, however, it can be argued that certain acts and delegations by the legislature may not be undertaken.<sup>808</sup> In addition, it may be argued that the cited statutes seek to reduce, waste, and maximize the beneficial use of waters and that they, as such, are in support of and not in contravention of the constitution. It is probably unlikely that §6 would be read to prohibit the prospective statutes.

### (3) The Taking Issue.

No property rights may be taken or damaged without payment of just compensation.<sup>809</sup> The taking proscription would appear to be most likely to come into play with respect to two of the prospective statutory schemes:

- (1) Metropolitan water district legislation--taking might be asserted by entities which were dissolved in order to create the metropolitan district.
- (2) Legislation requiring approval of water-related projects--taking might be asserted if vested water rights were made unusable by denial of a project.

It would appear that any assertion of a taking would likely fail. As noted above, statutory municipalities are created by the state as instrumentalities to carry out the will of the state.<sup>810</sup> (Home rule municipalities are created by authority of the constitution. It would appear that alteration thereof must be under constitutional authority and not merely by statute.) Statutory municipalities may therefore be altered or changed at the whim of the legislature and may not assert the protection of the due process clause's taking proscription.<sup>811</sup> On this theory, there should be no successful challenge to the legislation based upon the taking prohibition of the Colorado Constitution. Along with this general rule, however, must be read its limitations. Thus, if the legislature delegates the responsibility to approve projects for example, and if a taking results, through action of the delegee, it may not be protected by the general principle state above.<sup>812</sup> Similarly, if rights of third parties are taken, the legislation will become subject to the constitution.<sup>813</sup> Absent these, however, the legislature's power over its statutorily created municipalities appears to be plenary.

The free alienation of property is one of the essential attributes of the common law right therein.<sup>814</sup> It may be argued that the prospective legislation restricting the right of a municipality to purchase water rights to those instances in which need may be shown, acts indirectly as an infringement of the right of a willing seller to alienate that right. Because the statute would not act directly against the seller and because the seller could convey his right to other users or even to municipalities found to be in need of the right, it is not likely that such an exercise of the police power would be overturned.

#### (4) Home Rule.

The limitations of art. XX have been extensively discussed throughout this section, and that discussion will not be repeated here except for emphasis. It would appear that art. XX, as interpreted by recent case law,

- (1) Prohibits any legislative infringement upon acquisition of water rights by home rule municipalities except when

the most direct and apparent impact upon the interests of the state may be shown.

- (2) Prohibits the legislature from interfering with the existence of home rule cities or with their property once they are duly organized under that constitutional provision.

As interpreted, art. XX seems almost to create city-states in Colorado with respect to water rights acquisition. Because of the breadth of Thornton and other cases, retraction from that concept will be difficult. Those cases have made certain aspects of the regulation of water rights in Colorado most difficult, if not impossible, and should perhaps be reexamined.

(5) Other Constitutional Limits.

The restrictions inherent in art. V, §35, and art. III of the Colorado Constitution have also been discussed in §a.(5), supra, and throughout this §13. While it is well to note these restrictions once again, no further discussion thereof will be offered.

IX. NEW MECHANISMS FOR THE ASSERTION OF THE PUBLIC INTEREST  
UNDER THE STATE'S POLICE POWER

REFERENCES

1. Goldblatt v. Hempstead, 369 U.S. 590, 82 S. Ct. 987, 8 L. Ed. 2d 130 (1962); In re Interrogatories of the Governor, 97 Colo. 587, 52 P.2d 663 (1935); Swisher v. Brown, 157 Colo. 378, 402 P.2d 621 (1965).
2. Eachus v. People, 124 Colo. 454, 238 P.2d 885 (1951).
3. Queenside Hills Realty Co. v. Saxl, 328 U.S. 80, 66 S. Ct. 850, 90 L. Ed. 1096 (1945); U.S. Bldg. & Loan Ass'n v. McClelland, 6 F. Supp. 299 (D. Colo. 1934); see also Eachus, note 2, supra.
4. Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 43 Sup. Ct. 158 67 L. Ed. 322 (1922); People v. Harris, 104 Colo. 386, 91 P.2d 989 (1939); Cottrell Clothing Co. v. Teets, 139 Colo. 448, 342 P.2d 1016 (1959).
5. People, note 4, supra; Smith v. Cahoon, 283 U.S. 553, 51 Sup. Ct. 582, 75 L. Ed. 1269 (1930).
6. Pennsylvania, note 4, supra.
7. See Goldblatt, note 1, supra; Eachus, note 2, supra; Cottrell Clothing Co., note 4, supra; Swisher, note 1, supra. It should be noted that a somewhat more strict test is often applied by the courts in cases involving a policy power infringement on certain fundamental rights, or regarding certain "suspect classifications," such as race. In such cases, the regulations will be subjected to strict judicial scrutiny to determine if there is a less objectionable way to promote a compelling state interest. See, e.g., Frontiero v. Richardson, 411 U.S. 677, 93 Sup. Ct. 1764, 36 L. Ed. 2d 583 (1973) [classification based on sex is inherently suspect] and Shapiro v. Thompson, 394 U.S. 618, 89 Sup. Ct. 1322, 22 L. Ed. 2d 600 (1969) [infringement of right to travel held not supported by a compelling state interest]. In cases involving the regulation of economic and property interests, such as water rights, the test used has been that stated in the text above.
8. In re Interrogatories of the Governor, note 1, supra; Eachus, note 2, supra.
9. Lloyd A. Fry Roofing v. State Dep't of Health, 179 Colo. 223, 499 P.2d 1176 (1972).

10. Flarell v. Department of Welfare, City and County of Denver, 144 Colo. 203, 355 P.2d 941 (1960); Colorado Civil Rights Comm'n v. Adolph Coors Corp., 29 Colo. App. 290, 786 P.2d 43 (1971).
11. Goldblatt, note 1, supra; Baum v. City and County of Denver, 147 Colo. 104, 363 P.2d 688 (1961).
12. Cottrell Clothing Co., note 4, supra; Eachus, note 2, supra.
13. See, e.g., Fort Lyon Canal Co. v. Rocky Ford Co., 79 Colo. 505, 57 P.2d 894 (1936).
14. Asphalt Paving Co. v. Board, 162 Colo. 254, 425 P.2d 289 (1967); see also, Swisher, note 1, supra.
15. White v. High Line Canal Co., 22 Colo. 191, 43 P. 1028 (1896); Independent Ditch Co. v. Agricultural Ditch Co., 22 Colo. 513, 45 P. 444 (1896); Larimer County Reservoir Co. v. People, 8 Colo. 614, 9 P. 794 (1885).
16. White, note 15, supra.
17. West End Irr. Co. v. Garvey, 117 Colo. 109, 184 P.2d 475 (1947).
18. §37-90-101 et seq., C.R.S. 1973.
19. See Boulder & White Rock Ditch Co. v. City of Boulder, 157 Colo. 197, 402 P.2d 71 (1965); Kuiper v. Well Owners Conservation Ass'n, 176 Colo. 117, 480 P.2d 268 (1971).
20. 85 Colo. 555, 277 P. 763 (1929).
21. Larimer County Reservoir Co., note 15, supra.
22. 42 Colo. 421, 94 P. 339 (1908).
23. See Nevius v. Smith, 86 Colo. 178, 94 P. 339 (1929); see also, Black v. Taylor, 128 Colo. 449, 264 P.2d 502 (1953).
24. See §4403(73), Mills Ann. Stats.
25. Pennsylvania Coal Co., note 4, supra.
26. Armstrong v. Larimer County Ditch Co., 1 Colo. App. 49, 27 P. 235 (1891).
27. Goldblatt, note 1, supra; Pennsylvania Coal Co., note 4, supra; see, e.g., Trans-Robles Corp. v. City of Cherry Hills Village, 181 Colo. 356, 509 P.2d 797 (1974).

28. See PUC v. Northwest Water Corp., 168 Colo. 54, 451 P.2d 266 (1969).
29. Id.
30. Swisher, note 1, supra.
31. Baum v. City and County of Denver, note 11, supra.
32. Bosselman et al., The Taking Issue (1973).
33. See, e.g., City of Aurora v. Aurora Sanitation Dist., 112 Colo. 406, 149 P.2d 662 (1944).
34. See, e.g., Town of Lockport v. Citizens for Community Action at the Local Level, Inc., \_\_\_ U.S. \_\_\_, 51 L. Ed. 2d 313, 97 Sup. Ct. 1692 (1977); City of Trenton v. New Jersey, 262 U.S. 182, 43 Sup. Ct. 534, 67 L. Ed. 937 (1923); Hunter v. City of Pittsburgh, 207 U.S. 161, 128 Sup. Ct. 40, 52 L. Ed. 151 (1907); Enger v. Walker Field, 181 Colo. 253, 508 P.2d 1245 (1973); Board of County Comm'rs v. City and County of Denver, 150 Colo. 198, 372 P.2d 152 (1962); People v. Sours, 31 Colo. 369, 74 P. 167 (1903). See generally McQuillin Mun. Corp. (3rd Ed.) §4.01 et seq.
35. Id. See also McQuillin, 2 Mun. Corp. (3rd Ed.) §4.03 and cases cited therein.
36. Hunter, supra note 34, 43 Sup. Ct., at 46.
37. See, e.g., Williams v. Mayor, 289 U.S. 36, 53 Sup. Ct. 431, 71 L. Ed. 1015 (1933); and Enger, supra note 34.
38. An exception to this rule is when state legislation expressly grants local governments a right to challenge such legislation. See Board of County Comm'rs of Jefferson County v. City and County of Denver, \_\_\_ Colo. \_\_\_, 571 P.2d 1091 (1977). Another exception is when the state acts to curtail a political subdivision, not by legislature fiat, but by establishing an administrative framework under which such curtailment is to occur; in such a case, it appears that the political subdivision would have standing to challenge any administrative action on the basis that it does not comply with the legislative intent. See School Dist. No. 23 v. School Planning Comm., 146 Colo. 241, 361 P.2d 360 (1961).
39. See, e.g., Citizen Util. Co. v. City of Rocky Ford, 132 Colo. 427, 289 P.2d 165 (1955); Svaldi v. City of Lakewood, 36 Colo. App. 155, 536 P.2d 331 (1975).

40. See Service Oil Co. v. Rhodus, 179 Colo. 335, 500 P.2d 807 (1972); Roosevelt v. City of Englewood, 176 Colo. 576, 492 P.2d 65 (1972).
41. Pierce v. City and County of Denver, \_\_\_\_ Colo. \_\_\_\_, 565 P.2d 1337 (1977); Century Elec. Serv. & Repair, Inc. v. Stone, \_\_\_\_ Colo. \_\_\_\_, 564 P.2d 953 (1977); Vela v. People, 174 Colo. 465, 484 P.2d 1204 (1971); Davis v. City and County of Denver, 140 Colo. 30, 342 P.2d 674 (1959).
42. Vela, supra note 41.
43. Pierce, supra note 41; Century Elec., supra note 41; Greeley Police Union v. City Council of Greeley, \_\_\_\_ Colo. \_\_\_\_, 553 P.2d 790 (1976); City of Aurora v. Martin, 181 Colo. 72, 507 P.2d 868 (1973). See also Retallick v. City of Colorado Springs, 142 Colo. 214, 351 P.2d 884 (1960).
44. Id.
45. Id. See also Ray v. City and County of Denver, 109 Colo. 74, 121 P. 886 (1942).
46. Id. See also Vick v. People, 166 Colo. 565, 445 P.2d 220, cert. denied, 394 U.S. 945, 89 Sup. Ct. 1273, 22 L. Ed. 2d 477 (1968).
47. Cf. Colorado Open Space Council v. City and County of Denver, \_\_\_\_ Colo. \_\_\_\_, 543 P.2d 1258 (1975).
48. In COSC v. City, supra note 47, for example, the court held that the operation and maintenance of a waterworks system is at least a matter of "mixed" state and local concern.
49. Colo. Const. art. XX, §6, expressly confers on home rule municipalities the specific powers granted to the City and County of Denver in Colo. Const. art. XX, §1.
50. Colo. Sup.Ct. No. 27462 (announced Feb. 6, 1978).
51. §38-6-201 et seq. C.R.S. 1973 (1976 Supp.).
52. See Colo. Const. art. XVI, §5, which dedicates the unappropriated waters of every natural stream in Colorado to the use of the people of the state, and declares such water to be the property of the public. The court in the Thornton case, however, downplayed the significance of the provision by holding that it only gave the state powers over unappropriated water, not water that has been appropriated. At the time of the writing of this report, a constitutional amendment is being proposed which would grant the legislature the power to control a home rule municipality's right to condemn water rights.

53. See cases cited in note 34, supra.
54. See Enger, supra note 34; and City and County of Denver, supra note 34.
55. See Gomillion v. Lightfoot, 364 U.S. 339, 81 Sup.Ct. 125, 5 L. Ed. 2d 110 (1960). See generally McQuillin, 2 Mun. Corp. (3rd Ed.) §4.17 et seq.
56. See, e.g., Shapleigh v. City of Angelo, 167 U.S. 646, 17 Sup. Ct. 957, 42 L. Ed. 310; Port of Mobile v. U.S. ex rel. Watson, 116 U.S. 289, 6 Sup.Ct. 398, 29 L. Ed. 620.
57. Gomillion, supra note 55. See also Town of Lockport, supra note 34; Mahon v. Howell, 410 U.S. 315, 93 Sup.Ct. 979, 35 L. Ed. 2d 320; Reynolds v. Simms, 377 U.S. 580, 84 Sup.Ct. 1362, 12 L. Ed. 2d 506.
58. Graham v. Folsom, 200 U.S. 248, 253, 26 Sup.Ct. 245, 247, 50 L. Ed. 464. Colo. Const. art. II, §11, prohibits the enactment of retrospective legislation. This section, for example, protects vested contractual rights from impairment. See Police Pension and Relief Bd. v. McPhait, 139 Colo. 330, 338 P.2d 694 (1959). It also protects contracts entered into with the state. Hessock v. Moynihan, 83 Colo. 43, 262 P. 907 (1927).
59. Enger, supra note 34.
60. Hunter, supra note 34; City and County of Denver, supra note 34.
61. See note 58, supra.
62. 186 Colo. 193, 526 P.2d 302 (1974).
63. 526 P.2d at 304.
64. See generally McQuillin, 2 Mun. Corp. §4.132, and cases cited therein.
65. Id.
66. Id.
67. Note 34, supra.
68. City and County of Denver, supra note 34; Enger, supra note 34; Central Colorado Water Conservancy Dist., supra note 62.



69. COSC, supra note 48; County of Larimer v. City of Fort Collins, 68 Colo. 364, 189 P. 929 (1920); and City of Colorado Springs v. Colorado City, 42 Colo. 75, 92 P. 316 (1908).
70. See, e.g., Morgan County Junior College Dist. v. Jolly, 168 Colo. 466, 452 P.2d 34, appeal dismissed, 396 U.S. 24, 90 Sup. Ct. 198, 24 L. Ed. 2d 144 (1969).
71. See People ex rel. Johnson v. Earl, 42 Colo. 238, 94 P. 294 (1908).
72. See Town of Holyoke v. Smith, 75 Colo. 286, 226 P. 158 (1924). See also In re Senate Bill, 12 Colo. 188, 21 P. 481 (1888); Milheim v. Moffat Tunnel Improvement Dist., 72 Colo. 268, 211 P. 649 (1922); People v. Lee, 72 Colo. 598, 213 P. 583 (1923); People ex rel. Rogers v. Letsford, 102 Colo. 284, 79 P.2d 274 (1938), and City of Englewood v. City and County of Denver, 123 Colo. 290, 229 P.2d 667 (1951); Fladung v. Boulder, 165 Colo. 244, 438 P.2d 688 (1968); Allardico v. Adams County, 173 Colo. 133, 476 P.2d 982 (1970).
73. An unanswered question with regard to future supplies of water is the nature of the municipal duty to augment its existing supply of water so as to prevent a shortage from occurring. See, e.g., Swanson v. Marin Municipality Water Dist., 128 Cal. Rptr. 485, 56 Cal. App. 3d (1976). See also Carlson, Municipal Water Controls in Time of Drought, Colorado Water Law, Continuing Legal Education in Colorado (1977); and Rivkin, Sewer Moratoria as a Growth Control Technique, Urban Law Institute, Management and Control of Growth, Vol. II (1975). Conceivably, if such a duty existed with respect to existing municipal consumers of water, the same restrictions on state power would apply for future water rights as in the case of existing water rights.
74. See note 34, supra, 28 Sup. Ct., at 47.
75. See, e.g., §§30-28-106, 30-28-111, and 31-23-101 et seq., C.R.S. 1973.
76. §§30-28-111, 20-28-112, 31-23-201, and 29-20-101 et seq., C.R.S. 1973.
77. See Johnson, "Condemnation of Water Rights," 46 Tex. L. Rev. 1054 (1968); §38-30-102, C.R.S. 1973.
78. §29-20-101 et seq., C.R.S. 1973.
79. §§30-28-106 and 31-23-102, C.R.S. 1973.

80. §29-20-104, C.R.S. 1973.
81. Pfeiffer v. Board of County Comm'rs, \_\_\_\_ Colo. \_\_\_\_, 546 P.2d 946 (1976).
82. Service Oil Co. v. Rhodus, 179 Colo. 335, 500 P.2d 807 (1972).
83. Roosevelt v. City of Englewood, 176 Colo. 576, 492 P.2d 65 (1972).
84. See Colo. Const. art. XX, §§1 and 6. See also, §C., supra.
85. §37-60-106(1)(c), C.R.S. 1973.
86. §37-60-106(1)(k), C.R.S. 1973.
87. §37-93-102, C.R.S. 1973.
88. §37-90-111(1)(e), C.R.S. 1973.
89. See East Bay v. Department of Public Works, 1 Cal. 2d 476, 35 P.2d 1027 (1934); Young & Norton v. Hinderlider, 15 N.M. 666, 116 P. 1045 (1910).
90. §§37-90-118 and 37-90-131, C.R.S. 1973.
91. §37-90-137, C.R.S. 1973; Kuiper v. Well Owners Conservation Ass'n, 176 Colo. 119, 490 P.2d 268 (1971).
92. §37-90-137(2), C.R.S. 1973.
93. See Kuiper, note 91, supra.
94. Id.
95. §§24-33-102 and 24-65-104, C.R.S. 1973.
96. Fuller v. Swan River Placer Mining Co., 12 Colo. 12, 19 P. 836 (1888); Strickler v. City of Colorado Springs, 16 Colo. 61, 26 P. 313 (1891).
97. §37-92-305(3), C.R.S. 1973.
98. Service Oil Co., note 82, supra.
99. §32-1-201 et seq., C.R.S. 1973.
100. §§32-1-205(1)(g) and (h), C.R.S. 1973 (1975 Supp.)

101. Cal. Water Code §10004 et seq.; Fla. Stat. §373.036(1) (1974 Supp.); Or. Rev. Stat. §536.220; Wyo. Stat. Ann. §41-1.20.
102. See Wyo. Stat. Ann. §41-1.20.
103. See Cal. Water Code §§10004 and 10005.
104. Johnson Rancho County Water Dist. v. State Water Rights Bd., 45 Cal. Rptr. 589, 235 Cal. App. 2d 863 (1965).
105. Or. Rev. Stat. §536.220(2).
106. Or. Rev. Stat. §536.340(1).
107. Id.
108. Or. Rev. Stat. §§536.350, 360, 370, and 340.
109. Or. Rev. Stat. §§536.520 and 530.
110. Mont. Rev. Codes Ann. §89-892(3) (1975 Supp.).
111. Mont. Rev. Codes Ann. §89-890(1).
112. See Kuiper, note 91, supra.
113. See §11, infra.
114. People v. Hinderlider, 98 Colo. 505, 57 P.2d 894 (1936).
115. 169 Colo. 309, 455 P.2d 822 (1969).
116. 187 Colo. 40, 529 P.2d 1328 (1974), cert. denied, 421 U.S. 996 (1975).
117. Hall v. Kuiper, 181 Colo. 130, 510 P.2d 329 (1973).
118. Whitten v. Coit, 153 Colo. 157, 385 P.2d 131 (1963).
119. In Whitten, note 118, supra, e.g., the supreme court found that the owner of land had a vested right to use the water in his soil which could not be taken by mere legislation. Whether this case is still good law is uncertain. If it is, it is clear that the taking proscription of art. II, §15, of the Colorado Constitution, not to mention the 14th Amendment of the State Constitution, will restrict regulation of the right to use such water.
120. Williams, American Land Planning Law, §159.11.

121. Id.
122. As discussed in §2.d., infra, the TDR concept has been infrequently applied even in land use regulation and is largely an academic concept at present.
123. See §D.1., supra. The TDR concept does not seem to lend itself easily to the regulation of appropriation of a water right and will not be discussed in conjunction therewith.
124. See §(3), infra.
125. See §D.1.a.(2), supra.
126. §§30-28-101 et seq., 31-23-101 et seq., and 29-20-101 et seq., C.R.S. 1973.
127. This would include Councils of Governments, whose powers are received by delegation from local authorities.
128. §37-45-118(1)(b)(II), C.R.S. 1973.
129. §§37-46-107(1)(c), 37-47-107(1)(c), and 37-48-105(1)(c), C.R.S. 1973.
130. §37-93-105(1)(f)(I), C.R.S. 1973.
131. See §37-60-106, C.R.S. 1973.
132. §24-33-102, C.R.S. 1973.
133. §24-65-104, C.R.S. 1973.
134. §24-32-202, C.R.S. 1973.
135. §37-90-111(e), C.R.S. 1973; see also, §D.1.e.(1), supra.
136. II Management and Control of Growth, 107, at 108 (ULI 1973).
137. Id.
138. Id.
139. Williams, American Land Planning Law, §100.10 (1975).
140. Id.
141. Id.

142. Fred F. French Inv. Co. v. City of New York, 39 N.Y.2d 587, 350 N.E.2d 381, 385 N.Y.S.2d 5 (1976).
143. Williams, note 120, supra, at §159.15.
144. U.S. Const. amends. V and XIV; Colo. Const. art. II, §15.
145. Diez v. Hartbauer, 46 Colo. 599, 105 P.2d 868 (19\_\_).
146. See, e.g., Baum v. City and County of Denver, 147 Colo. 104, 363 P.2d 688 (1961).
147. 160 Colo. 440, 418 P.2d 45 (1966).
148. See §D.1.e., supra.
149. §30-28-101 et seq., C.R.S. 1973, and §31-23-301 et seq., C.R.S. 1973.
150. §29-20-101 et seq., C.R.S. 1973.
151. §24-65.1-101 et seq., C.R.S. 1973.
152. §24-65.1-203(1)(h), C.R.S. 1973.
153. §24-65.1-203(1)(a), C.R.S. 1973.
154. §§24-65.1-201 and 24-65.1-203, C.R.S. 1973.
155. §30-28-201 et seq. and §31-15-601, C.R.S. 1973.
156. §30-28-106, 107, C.R.S. 1973.
157. §31-23-206, C.R.S. 1973.
158. §29-20-101 et seq., C.R.S. 1973.
159. §37-92-502, C.R.S. 1973.
160. §37-92-501, C.R.S. 1973.
161. §37-87-105, C.R.S. 1973.
162. Garnet Ditch and Reservoir Co. v. Sampson, 48 Colo. 285, 110 P. 1130 (1910).
163. See, Division of Water Resources, Office of the State Engineer, Manual of Plans and Specifications for the Construction of Reservoir Dams (1967).

164. §37-60-106, C.R.S. 1973.
165. §37-60-118, C.R.S. 1973. See §9, infra.
166. See §39-60-123, C.R.S. 1973, which could allow the board to achieve plan goals by conditioning of certain contracts.
167. §24-65-104, C.R.S. 1973.
168. §24-65.1-407, C.R.S. 1973.
169. §37-93-105, C.R.S. 1973.
170. §§37-45-118, 134, C.R.S. 1973.
171. §§37-46-107.111, 37-47-107.111, 37-48-105.112, C.R.S. 1973.
172. §37-90-111, C.R.S. 1973.
173. §37-90-110, C.R.S. 1973.
174. §37-90-130, C.R.S. 1973.
175. U.S. Const. amends. V and XIV; Colo. Const. art. II, §15.
176. §37-83-101, C.R.S. 1973.
177. §37-83-103, C.R.S. 1973.
178. Id.
179. §37-83-105, C.R.S. 1973.
180. Fort Lyon Canal Co. v. Chew, 33 Colo. 392, 81 P. 37 (1905).
181. Id.
182. Id.
183. §37-92-103(9), C.R.S. 1973 (1976 Cum. Supp.).
184. §37-92-305(3), C.R.S. 1973.
185. §37-92-305(5), C.R.S. 1973.
186. See §§37-92-103(11) and (13), C.R.S. 1973.

187. *Perdue v. Fort Lyon Canal Co.*, 184 Colo. 219, 519 P.2d 954 (1974).
188. See, §37-92-103(1), C.R.S. 1973, and §37-90-101 et seq., C.R.S. 1973.
189. §37-92-502(2), C.R.S. 1973.
190. §37-92-501, C.R.S. 1973.
191. *Kuiper v. Well Owners Conservation Ass'n*, 176 Colo. 119, 490 P.2d 268 (1971).
192. §37-60-106, C.R.S. 1973.
193. §37-93-105(1)(f)(I), C.R.S. 1973.
194. Conservancy districts, see §§37-45-118 and 134, C.R.S. 1973. Conservation districts, see §§37-46-107 and 111, C.R.S. 1973; §§37-47-107 and 111, C.R.S. 1973; and §§37-48-105 and 112, C.R.S. 1973. Irrigation districts, see §§37-41-101 and 37-42-110, C.R.S. 1973. Of all of the above agencies, the authority of irrigation districts formed under the 1905 act is least certain. All seemingly may undertake the programs described.
195. See *Perdue*, note 187, supra.
196. §37-90-111, C.R.S. 1973.
197. §37-90-130, C.R.S. 1973.
198. Wyo. Stat. Ann. (1975 Interim Supp.), §41-5.
199. Id.
200. See §37-83-101 et seq., C.R.S. 1973.
201. §37-92-305(5), C.R.S. 1973.
202. Wyo. Stat. Ann. (1975 Interim Supp.), §41-5(a).
203. Wyo. Stat. Ann. (1975 Interim Supp.), §41-5(d).
204. Id.
205. N.M. Stat. Ann. §75-5-24.
206. Id.

207. Water Resources Council, Water Resource Policy Study, 42 F.R. 36788 (July 15, 1977); Environmental Defense Fund v. East Bay Municipal Util., 52 Cal.3d 828, 125 Cal. Rptr. 60 (1975).
208. City & County of Denver v. Fulton Irr. Ditch Co., 179 Colo. 47, 506 P.2d 144 (1972). The Fulton case used these terms only with regard to "imported" water as distinguished from "domestic" water. See this subsection.
209. §37-82-106, C.R.S. 1973.
210. Supra note 208.
211. Denver's dominion in Fulton continued on through treatment of used water to the extent such was identifiable as western slope water.
212. Id.
213. Benson v. Burgess, \_\_\_ Colo. \_\_\_, 561 P.2d 11 (March 14, 1977).
214. See Denver, supra note 208; Southeastern Colorado Water Conservancy Dist. v. Shelton Farms, 187 Colo. 181, 529 P.2d 1321 (1975).
215. Pulaski Irr. Ditch Co. v. City of Trinidad, 70 Colo. 565, 203 P. 681 (1922).
216. Metropolitan Denver Sewage Disposal Dist. No. 1 v. Farmers' Reservoir and Irr. Co., 179 Colo. 36, 499 P.2d 1190 (1972).
217. See Southeastern, supra note 214; Benson, supra note 213.
218. See Denver, supra note 208; Pulaski, supra note 215.
219. There would appear to be no right to recycle return flow from irrigation or other uses, since once water becomes return flow, dominion has been lost. See, City of Boulder v. Boulder & Left Hand Ditch Co., \_\_\_ Colo. \_\_\_, 557 P.2d 1182 (1977).
220. Comrie v. Sweet, 75 Colo. 199, 225 P. 214 (1924); Ripley v. Park Center Land and Water Co., 40 Colo. 129, 90 P. 75 (1907). See Denver, supra note 208.
221. Comrie, supra note 220.
222. Id. Ripley, supra note 220.
223. §37-92-502(2), C.R.S. 1973.



224. §37-92-501(1), C.R.S. 1973.
225. §37-80-104, C.R.S. 1973.
226. §37-60-106(1), C.R.S. 1973. See §§37-60-106(1)(c) and (k), C.R.S. 1973.
227. §37-93-105(1)(f)(I), C.R.S. 1973.
228. §37-45-118, 134, C.R.S. 1973.
229. §§37-40-107 and 111, C.R.S. 1973; §§37-47-107 and 111, C.R.S. 1973; §§37-48-105 and 112, C.R.S. 1973.
230. See, §37-41-101, C.R.S. 1973; and §37-42-110, C.R.S. 1973.
231. See §37-90-111, 130, C.R.S. 1973.
232. 26 Cal. Const. art. XIV, §3; Cal. Water Code §§100 and 13500.
233. See EDF, supra note 207.
234. Denver Post, "Denver Water Recycling Sought," Dec. 16, 1977.
235. See Denver, supra note 208.
236. See Boulder, supra note 219; Pulaski, supra note 215.
237. §31-15-708(1)(a), C.R.S. 1973.
238. Id.
239. §31-35-402(1)(f), C.R.S. 1973.
240. §31-35-402(1)(i), C.R.S. 1973.
241. See also §31-25-611, C.R.S. 1973, dealing with internal improvement districts in municipalities. Through creation of such a district for water supply purposes, a municipality may acquire the power to meter water use.
242. §30-20-402 and §§30-20-402(1)(a) and (k), C.R.S. 1973.
243. §30-20-402(1)(i), C.R.S. 1973.
244. §37-92-502(2), C.R.S. 1973.

245. §37-92-502(5), C.R.S. 1973.
246. See §37-60-106(1)(c)(k), C.R.S. 1973.
247. See §37-41-113, C.R.S. 1973.
248. See §37-42-110, C.R.S. 1973.
249. See §37-45-118, C.R.S. 1973.
250. See §37-46-107, §37-47-107, and §37-48-106, C.R.S. 1973.
251. See §32-4-113, C.R.S. 1973.
252. See §32-4-406, C.R.S. 1973.
253. See §32-3-114 and §32-3-115, C.R.S. 1973.
254. §37-93-105, C.R.S. 1973.
255. §37-90-111, C.R.S. 1973.
256. §37-90-130, C.R.S. 1973.
257. §37-92-502(2), C.R.S. 1973, states that the division engineers "shall" issue waste orders.
258. Cal. Const. art. XIV, §3. See also Cal. Water Code §§100, 13500.
259. U.S. Const. amend. XIV.
260. §37-92-502, C.R.S. 1973.
261. §37-92-103(4), C.R.S. 1973.
262. §37-92-502(2), C.R.S. 1973.
263. §37-92-503, C.R.S. 1973.
264. §37-92-504, C.R.S. 1973.
265. §37-93-105(1)(f)(I), C.R.S. 1973.
266. §37-93-105(1)(f)(I)(F), C.R.S. 1973.
267. §37-87-105, C.R.S. 1973.
268. See Garnet, supra note 162.

269. Supra note 162.
270. §37-92-501, C.R.S. 1973.
271. §37-60-105, C.R.S. 1973.
272. For counties, see §30-28-101 et seq., C.R.S. 1973. For municipalities, see §31-23-201 et seq. and §31-23-301 et seq., C.R.S. 1973.
273. For counties, see §30-28-201 et seq., C.R.S. 1973. For municipalities, see §31-15-601, C.R.S. 1973.
274. §29-20-101 et seq., C.R.S. 1973.
275. §24-65.1-101 et seq., C.R.S. 1973.
276. §§30-28-133, 136, 137, C.R.S. 1973.
277. §24-65.1-407, C.R.S. 1973.
278. §24-65-104, C.R.S. 1973.
279. §37-90-111(1)(e), C.R.S. 1973.
280. §37-90-130(1)(e), C.R.S. 1973.
281. See §3, supra.
282. See §8, infra.
283. See §5.a., supra.
284. §37-92-502(2), C.R.S. 1973.
285. See Rule 106(a)(2), C.R.C.P.
286. 33 U.S.C. §1365.
287. See EDF, supra note 207.
288. See §37-82-106, C.R.S. 1973.
289. Or. Rev. Stat. §537.170(3)(e).
290. Id. §§537.160, 537.170.
291. Mont. Rev. Code §89-897 (1975 Supp.).

292. Id. §89-867(10) (1975 Supp.).
293. See §8, infra.
294. In re Water Rights of Escalante Valley Drainage Area, 10 Utah 2d 77, 348 P.2d 568 (1939).
295. Idaho Code §42-202.
296. 3-A Neb. Rev. Stat. §46-231 (1943).
297. 46-5-6, S.D. Compiled Laws 1967.
298. 82 Okla. Stat. Ann. §33.
299. Colo. Const. art. XVI, §6.
300. U.S. Const. amend. XIV.
301. Colo. Const. art. XVI, §6.
302. Colo. Const. art. II, §15.
303. Per Bob Fletcher, Denver County Public Relations Department, from study conducted in 1974.
304. §24-67-101 et seq., C.R.S. 1973.
305. See, e.g., Wyo. Stat. ch. 9.2 (1975 Supp.).
306. See §§29-20-101 et seq. and 24-65.1-101 et seq., C.R.S. 1973.
307. The Public Service Company's new Pawnee I steam electric generating facility will consume at least 10,000 acre-feet of water annually. See Ohi, Land Use Commission Staff Study re Pawnee Electric Generating Facility, Jan. 10, 1977, at 17-21.
308. Per Frank Akers and Larry Morrill, State Water Conservation Board estimate for 1976.
309. S.B. 159, 1977 Colo. Sess. Laws.
310. S.B. 432, 1977 Colo. Sess. Laws.
311. See §§31-15-708(1)(a) and 31-35-402(1)(i), C.R.S. 1973.
312. See §30-20-402, C.R.S. 1973.
313. See §§32-4-101 and 32-4-113, C.R.S. 1973.

314. See §§32-3-101 and 32-3-114, C.R.S. 1973.
315. See §§32-4-401 and 32-4-406, C.R.S. 1973.
316. See generally Annot., Right to Compel Municipality to Extend Its Water System, 48 A.L.R.2d 1222 (1956).
317. See also Neuces County Water Dist. v. Spring, \_\_\_\_\_; Kennilworth Management Co. v. City of Ithaca, 313 N.Y.S.2d 35 (Sup. Ct. 1970).
318. Neuces County, note 317, supra. Swanson v. Marin Municipality Water Dist., 128 Cal. Rptr., 484 56 Cal. App. 3d 512 (1976).
319. City of Colorado Springs v. Kittyhawk Dev. Co., 154 Colo. 535, 392 P.2d 467 (1962); Schlarb v. North Suburban Sanitation Dist., 144 Colo. 590, 357 P.2d 647 (1960); City of Fort Collins v. Parkview Pipeline, 139 Colo. 119, 336 P.2d 716 (1959).
320. National Food Stores, Inc. v. North Washington St. Water & Sanitation Dist., 163 Colo. 178, 429 P.2d 283 (1967).
321. Altanna v. Pennsylvania Public Util. Co., 168 Pa. Super. 246, 77 A.2d 740 (1948). Held valid a state statute submitting a municipality which has supplied water outside its boundaries to regulation by public utilities commission, and thus forced it to extend service. City of South Norfolk et al. v. City of Norfolk, 190 Va. 591, 58 S.E.2d 32 (1950). Held valid a statute requiring municipality to supply service to customers outside district when acquiring water plant which had previously supplied such customers.
322. Robinson v. City of Boulder, \_\_\_\_\_ Colo. \_\_\_\_\_, 547 P.2d 228 (1976).
323. See, e.g., the cases at note 318, supra.
324. §37-92-502(2), C.R.S. 1973.
325. §37-60-106, C.R.S. 1973.
326. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.
327. §24-65-104, C.R.S. 1973.
328. §24-65.1-407, C.R.S. 1973.
329. §37-93-105, C.R.S. 1973.

330. See §37-42-110(2)(a), C.R.S. 1973. This section applies to districts under the 1921 act only. It is less certain that districts under the 1905 act have such power. See §37-41-101, C.R.S. 1973.
331. §37-45-118, C.R.S. 1973, particularly §§37-45-118(1)(b)(III) and §37-45-118(1)(j).
332. §§37-46-107, 111, 37-47-107, 111, and 37-48-105, 112, C.R.S. 1973.
333. §30-90-111, C.R.S. 1973.
334. §30-90-130, C.R.S. 1973.
335. In reality, building permit limits would likely be more severe since, in some cases, persons denied the right to tap a municipal system could utilize a well water supply.
336. §§31-23-301, 31-23-302, and 31-23-303, C.R.S. 1973.
337. §§30-28-111, 30-28-113, and 30-28-115, C.R.S. 1973.
338. §§29-20-104(1)(e), (f), (g), and (h), C.R.S. 1973.
339. §§24-65.1-203(1)(a), (g), and (h), C.R.S. 1973.
340. Construction Indus. Ass'n of Sonoma County v. City of Petaluma, 522 F.2d 897 (9th Cir. 1976), cert. denied, 424 U.S. 934 (1976); Golden v. Town of Ramapo, 30 N.Y.2d 359, 285 N.E.2d 291, 334 N.Y.S.2d 138 (N.Y. 1972).
341. Swanson, note 318, supra.
342. Robinson, note 322, supra. See Wood Bros. Homes, Inc. v. City of Colorado Springs, \_\_\_\_ Colo. \_\_\_\_, 568 P.2d 487 (1977).
343. See §§24-65-104 and 24-65.1-407, C.R.S. 1973.
344. §§31-23-301, 31-23-302, and 31-23-303, C.R.S. 1973.
345. §§30-28-111, 30-28-113, and 30-28-115, C.R.S. 1973.
346. See §32-3-114, C.R.S. 1973, re metropolitan districts; §32-4-113, C.R.S. 1973, re water and sanitation districts, and §32-4-406, C.R.S. 1973, re metropolitan water districts.
347. §37-92-502(2), C.R.S. 1973.
348. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.

349. §37-60-106, C.R.S. 1973.
350. §37-93-105, C.R.S. 1973.
351. §§24-65-104 and 24-65.1-407, C.R.S. 1973.
352. See §37-42-110(2)(a), C.R.S. 1973, re districts under the 1921 act. Again, the authority of 1905 districts is less certain. See §37-41-101, C.R.S. 1973.
353. See §§37-46-107, 111, 37-47-107, 111, and 37-48-105, 112, C.R.S. 1973.
354. §37-45-118, C.R.S. 1973.
355. §§30-28-111, 30-28-113, and 30-28-115, C.R.S. 1973.
356. §§31-23-301, 31-23-302, and 31-23-303, C.R.S. 1973.
357. §§29-20-104(1)(g), and (h), C.R.S. 1973.
358. §§24-65.1-203(1)(f) and (h), C.R.S. 1973.
359. §24-65-104, C.R.S. 1973.
360. §24-65.1-407, C.R.S. 1973.
361. §37-92-502(2), C.R.S. 1973.
362. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.
363. §37-60-106, C.R.S. 1973.
364. §37-93-105, C.R.S. 1973.
365. §37-90-111, C.R.S. 1973.
366. §37-90-130, C.R.S. 1973.
367. §§30-28-111, 30-28-113, and 30-28-115, C.R.S. 1973.
368. §§30-28-301, 30-28-302, and 30-28-303, C.R.S. 1973.
369. §§29-20-104(1)(g) and (h), C.R.S. 1973.
370. §§24-65.1-201 and 24-65.1-203, C.R.S. 1973.
371. See §37-42-110(2)(a), C.R.S. 1973, re districts under the 1921

act and §37-41-101, C.R.S. 1973, re districts under the 1905 act, the latter's powers being substantially more limited.

- 372. §37-45-118, C.R.S. 1973. See also §37-2-101(1)(f), C.R.S. 1973.
- 373. §§37-46-107, 111, 37-46-107, 111, and 37-48-105, 112, C.R.S. 1973.
- 374. §24-65-104, C.R.S. 1973.
- 375. §24-65.1-407, C.R.S. 1973. See also §§24-65.1-201 and 24-65.1-203, C.R.S. 1973.
- 376. §37-92-502(2), C.R.S. 1973.
- 377. §§37-92-501 and 37-80-101 et seq., C.R.S. 1973.
- 378. §37-60-106, C.R.S. 1973.
- 379. §37-90-111, C.R.S. 1973.
- 380. §37-90-130, C.R.S. 1973.
- 381. §37-93-105, C.R.S. 1973; see especially §§37-93-105(1)(f), (h), and (i), C.R.S. 1973.
- 382. §37-92-502(2), C.R.S. 1973.
- 383. §37-92-501, C.R.S. 1973.
- 384. Per conversation with Bruce Debrine, state engineer's office, Jan. 9, 1978.
- 385. §37-60-105, C.R.S. 1973.
- 386. §37-93-105(1)(f)(I), C.R.S. 1973.
- 387. §37-93-105(1)(f)(I)(F), C.R.S. 1973.
- 388. §§37-45-118 and 37-45-134, C.R.S. 1973.
- 389. §§37-46-107, 111, 37-47-107, 111, and 37-48-105, 112, C.R.S. 1973.
- 390. §§37-40-101 and 37-41-110, C.R.S. 1973.
- 391. § 37-90-111, C.R.S. 1973.
- 392. §37-90-130, C.R.S. 1973.



393. §§30-28-111, 30-28-113, 30-28-115, 31-23-301, 31-23-302, and 31-23-303, C.R.S. 1973.
394. §§24-65.1-203(1)(g) and (h), C.R.S. 1973.
396. §29-20-104, C.R.S. 1973.
396. §32-4-113, C.R.S. 1973.
397. §32-3-114, C.R.S. 1973.
398. §32-4-406, C.R.S. 1973.
399. §37-92-502(2), C.R.S. 1973.
400. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.
401. §37-60-106, C.R.S. 1973.
402. See the TEP power at §24-65-104, C.R.S. 1973, and the LUC's H.B. 1041 powers at §24-65.1-407, C.R.S. 1973.
403. §37-90-111, C.R.S. 1973.
404. §37-90-130, C.R.S. 1973.
405. §37-93-105, C.R.S. 1973; see especially §§37-93-105(1)(f), (h), and (i), C.R.S. 1973.
406. §37-42-110(2)(a), C.R.S. 1973, re 1921 act districts. See also §37-41-101, C.R.S. 1973, re 1905 districts.
407. §37-45-118, C.R.S. 1973.
408. §§37-46-107, 111, 37-47-107, 111, and 37-48-105, 112, C.R.S. 1973.
409. §§30-28-201 et seq. and 29-20-104, C.R.S. 1973.
410. §§31-15-401, 31-15-601, and 29-20-104, C.R.S. 1973.
411. §24-65.1-203(1)(h), C.R.S. 1973.
412. §37-92-502(2), C.R.S. 1973.
413. §§37-80-101 et seq. and 37-82-501, C.R.S. 1973.
414. §37-60-106, C.R.S. 1973.

415. See TEP power at §24-65-104, C.R.S. 1973, and the LUC's H.B. 1041 powers at §24-65.1-407, C.R.S. 1973, which may also be applicable.
416. §37-90-111, C.R.S. 1973.
417. §37-90-130, C.R.S. 1973.
418. §37-93-105, C.R.S. 1973.
419. See notes 396, 397, and 398, supra.
420. §31-15-708(1)(a), C.R.S. 1973.
421. §31-35-402(1)(i), C.R.S. 1973.
422. §30-20-402(1)(i), C.R.S. 1973.
423. §37-92-502(2), C.R.S. 1973.
424. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.
425. §37-60-106, C.R.S. 1973.
426. §37-90-111, C.R.S. 1973.
427. §37-90-130, C.R.S. 1973.
428. §37-41-113, C.R.S. 1973, pertaining to districts under the 1905 act, and §37-42-110, C.R.S. 1973, pertaining to those formed under the 1921 act.
429. §37-45-118, C.R.S. 1973.
430. §§37-46-107, 111, 37-47-107, 111, and 37-48-106, 112, C.R.S. 1973.
431. §37-93-105, C.R.S. 1973.
432. §32-4-113, C.R.S. 1973.
433. §32-4-406, C.R.S. 1973.
434. §§32-3-114 and 32-3-115, C.R.S. 1973.
435. See, e.g., Mesa County Planned Development District §XVII, art. II, at B.3.; Proposed Rio Blanco County PUC-I District, §304.11.F.5.G.
436. Mont. Rev. Code §70-802 et seq. (1976 Supp.).
437. Id.

438. Wash. Rev. Code §80.50.01 et seq. (1976 Supp.).
439. Wyo. Stat. §35-502.76(c) (1975 Supp.).
440. Wyo. Stat. §35-502.87 (1975 Supp.).
441. Wyo. Stat. §35-502.84 (1975 Supp.).
442. Cal. Pub. Res. Code §25500.
443. Reduced residential use to 40 gallons/day/person, 10 percent cut to commercial and irrigation use. Per Vi Coltz, Water Resources Board drought information on Jan. 9, 1978.
444. One hour per week lawn watering. Per Vi Coultz, Water Resources drought information on Jan. 9, 1978.
445. California PUC Decision No. 85940.
446. Cal. Const. art. X, §2.
447. Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922); Baum v. City and County of Denver, 147 Colo. 104, 363 P.2d 688 (1961).
448. Baum, note 146, supra.
449. Id.
450. See, e.g., Bilbar Constr. Co. v. Easttown Township, 393 Pa. 62, 141 A.2d 851 (1958).
451. Perhaps the tap allocation proposal may be viewed as a direct regulation of water.
452. See §IX.B., supra.
453. U.S. Const. amend XIV.
454. Service Oil Co. v. Rhodus, 179 Colo. 335, 500 P.2d 807 (1972); Roosevelt v. City of Englewood, 176 Colo. 576, 492 P.2d 65 (1972).
455. \_\_\_ Colo. \_\_\_, 543 P.2d 1258 (1975).
456. Colorado Supreme Court No. 27462 (Feb. 6, 1978).
457. §38-6-201 et seq., C.R.S. 1973.

458. Johnston v. Wanamaker Dev. Co., 95 Colo. 551, 38 P.2d 907 (1934).
459. Id.
460. Id.
461. §37-86-112, C.R.S. 1973. The statute was upheld as limited in Farmers' High Line Canal Co. v. Southworth, 13 Colo. 111, 21 P. 1028 (1889). The decision in Johnston, at note 458, supra, cited this statute when speaking of rotation, though the statute does not appear to authorize such.
462. Note 458, supra.
463. §§37-2-101(1)(f) and 37-45-118, C.R.S. 1973.
464. See §37-41-101, C.R.S. 1973, re districts under the 1905 act, and §37-42-110, C.R.S. 1973, re districts under the 1921 act.
465. §§37-46-107, 37-47-107, and 37-48-105, C.R.S. 1973.
466. §7-42-101, C.R.S. 1973.
467. §7-44-101 et seq., C.R.S. 1973.
468. 22 Colo. 191, 43 P. 1028 (1896).
469. See also Johnston, note 458, supra.
470. It is interesting to note §37-84-121, C.R.S. 1973, imposing a monetary penalty upon a superintendent of a ditch company who willfully neglects to deliver water. Whether "willful neglect" includes the failure to deliver water through use of rotation or other techniques is uncertain.
471. §37-92-502(2), C.R.S. 1973.
472. §§37-92-501 and 37-80-102(1)(k), C.R.S. 1973.
473. §37-60-106, C.R.S. 1973.
474. §37-93-105, C.R.S. 1973.
475. §30-90-111, C.R.S. 1973.
476. §39-90-130, C.R.S. 1973.
477. 124 Colo. 366, 237 P.2d 116 (1951).

478. §37-83-105, C.R.S. 1973.
479. Fort Lyon Canal Co. v. Chew, 33 Colo. 392, 81 P. 37 (1905).
480. §§37-92-103(9) and 37-92-302, C.R.S. 1973.
481. Wyo. Stat. §41-70.
482. Wyo. Stat. §41-70(c).
483. Id.
484. Fla. Stat. Ann. §373.246 (West 1973 Supp.).
485. Or. Rev. Stat. §537.170(2) and §537.190(1).
486. Alaska Stat. §76.15.100.
487. See §37-86-112, C.R.S. 1973, and Farmers' High Line, note 461, supra.
488. See Wheeler v. Northern Colo. Irr. Co., 10 Colo. 582, 17 P. 487 (1887), holding that, once acquired, the right to use water continues in the appropriator, unless forfeited.
489. §37-92-302, C.R.S. 1973.
490. §37-92-305, C.R.S. 1973.
491. §37-92-305(6), C.R.S. 1973.
492. §§37-90-137(2) and (4), C.R.S. 1973.
493. §§37-92-305(3) and (4), C.R.S. 1973.
494. §§37-92-103(6) and (7), C.R.S. 1973.
495. §§37-90-107 and 37-90-108, C.R.S. 1973.
496. §§37-90-107(3) and 37-90-108(2), C.R.S. 1973.
497. §§37-90-107 and 37-90-108, C.R.S. 1973.
498. See §d. infra.
499. Mountain Meadow Ditch & Irr. Co. v. Park Ditch & Reservoir Co., 130 Colo. 537, 277 P.2d 527 (1955).
500. Cooper v. Shannon, 36 Colo. 98, 85 P. 175 (1906).

501. Utah Code Ann. §73-3-8.
502. Fla. Stat. §373.236(1) (1972 Supp.).
503. N.J. Stat. Ann. §58:1-44.
504. See Colo. Const. art. XVI, §6. See also Archuleta v. Boulder & Weld County Ditch Co., 118 Colo. 43, 192 P.2d 891 (1948).
505. See Archuleta, note 504, supra. See also Armstrong v. Larimer County Ditch Co., 1 Colo. App. 49, 27 P. 235 (1891).
506. See Wheeler, note 488, supra.
507. See Armstrong, note 505, supra.
508. City and County of Denver v. Sheriff, 105 Colo. 193, 90 P. 836 (1939).
509. Colo. Const. art. XVI, §6.
510. See §§37-90-107 and 37-90-108, C.R.S. 1973.
511. See Colorado Water Conservation Board, Colorado State Water Plan, Phase I--Appraisal Report (Feb., 1974), at 6.6 and 6.8.
512. See §38-6-201 et seq., C.R.S. 1973, regulating municipal condemnation of water rights.
513. Diez v. Hartbauer, 46 Colo. 599, 105 P. 868 (1909).
514. Id.
515. Id.
516. §37-92-305(3), C.R.S. 1973.
517. Id.
518. §37-92-305(4), C.R.S. 1973.
519. See Diez, note 513, supra.
520. Mont. Rev. Code §89-892(3) (1975 Supp.).
521. Mont. Rev. Code §89-803.
522. S.D. Compiled Laws Ann. §§46-5-33 through 46-5-35.

523. Neb. Const. art. XV, §§4-7.
524. Wyo. Stat. §41-2.
525. Johnson v. Little Horse Creek Irr. Co., 13 Wyo. 208, 79 P. 22 (1904).
526. Wyo. Stat. §41-4.
527. Wyo. Stat. §41-9.
528. Wyo. Stat. §41-10.1.
529. See Diez, note 513, supra.
530. §37-92-305(3), C.R.S. 1973.
531. Colo. Const. art. II, §15.
532. See, e.g., City of Cherry Hills Village v. Trans-Robles Corp., 181 Colo. 356, 509 P.2d 797 (1973).
533. Baum v. City and County of Denver, 147 Colo. 104, 363 P.2d 688 (1961).
534. Colo. Const. art. XVI, §6.
535. Farmers' High Line Canal Co. & R.R. Co. v. City of Golden, 129 Colo. 575, 272 P.2d 629 (1954).
536. Id. Telephone calls to each of the water divisions revealed that certain divisions had established duty standards which could be varied in individual cases. They seem to be in the minority.
537. Farmers', note 535, supra.
538. Id. See also, Trinchera Ranch Co. v. Trinchera Irr. Dist., 83 Colo. 451, 266 P. 204 (1928).
539. §37-92-502(2), C.R.S. 1973.
540. §§37-80-101 et seq. and 37-92-501, C.R.S. 1973.
541. §37-60-106, C.R.S. 1973.
542. §§37-41-101 et seq. and 37-42-110, C.R.S. 1973.

543. §37-45-118, C.R.S. 1973. See also §37-2-101, C.R.S. 1973.
544. §§37-46-107, 37-47-107, and 37-48-105, C.R.S. 1973.
545. §37-93-105, C.R.S. 1973.
546. §37-93-105(1)(f)(I), C.R.S. 1973.
547. §§37-90-107 and 108, C.R.S. 1973.
548. §37-90-111, C.R.S. 1973.
549. See Enterprise Irr. Dist. v. Willis, 135 Neb. 827, 284 N.W. 326 (1939). See also Quinn v. John Whitaker Ranch Co., 54 Wyo. 367, 92 P.2d 568 (1939).
550. In re Water Rights of Escalante Valley Drainage Area, 10 Utah 2d 77, 348 P.2d 678 (1960).
551. See Farmers', note 535, supra.
552. Trelease, Water Law: Resource Use and Environmental Protection, 2d ed., at 67.
553. Idaho Code §42-202.
554. See Escalante Valley, note 550, supra.
555. Id.
556. Id.
557. 3-A Neb. Rev. Stat. §46-231 (1943).
558. §46-5-6, S.D. Compiled Laws 1967.
559. 82 Okla. Stat. Ann. §33.
560. Idaho Code §42-202.
561. Cal. Water Code §1004.
562. Farmers', note 535, supra.
563. Id.
564. Enterprise, note 549, supra.



565. Escalante Valley, note 550, supra.
566. Farmers', note 535, supra; Trinchera, note 538, supra.
567. Colo. Const. art. XVI, §6.
568. Farmers', note 535, supra.
569. See §6, supra.
570. Colo. Const. art. XVI, §6.
571. 42 U.S.C. §1962 et seq.
572. §37-60-118, C.R.S. 1973.
573. 42 U.S.C. §1962c-2.
574. Colorado Water Conservation Board, Colorado State Water Plan, Phase I--Appraisal Report (Feb., 1974) (hereinafter "Phase I").
575. Id. at 6-31.
576. Colorado Water Conservation Board, Colorado State Water Plan, Phase II--Legal and Institutional Considerations (Aug., 1974) (hereinafter "Phase II").
577. See Phase I, note 574, supra, at iii-iv.
578. Cal. Water Code §10004 et seq. See The California Water Plan, California Department of Water Resources Bull. No. 3 (May 1957).
579. Newsletter, Water Action Plan, Vol. 1, No. 1, California Department of Water Resources (Oct. 3, 1975).
580. Cal. Water Code §13200 et seq. The water quality plans are being coordinated with §208 planning efforts under the FWPCA. See letter to Colorado Department of Natural Resources from W. Don Maughan, vice chairman, State Water Resources Control Board (Nov. 23, 1976).
581. Johnson Rancho County Water Dist. v. State Water Rights Bd., 45 Cal. Rptr. 589, 235 Cal. App. 863 (1965).
582. See the Summary Report, Conclusions, and Recommendations for the State Water Plan--Part II, Snake River Basin, Idaho Department of Water Resources (March, 1976).

583. Idaho Const. art. 15, §7.
584. Or. Rev. Stat. §536.220.
585. Or. Rev. Stat. §536.340.
586. Letter to Colorado Department of Natural Resources from James Sexson, director, Oregon Water Resources Department (Sept. 27, 1976).
587. North Coast Basin Statement, May 9, 1973.
588. Or. Rev. Stat. §§536.350 and 536.360.
589. Or. Rev. Stat. §§536.370 and 536.400.
590. Or. Rev. Stat. §§540.520 and 540.530.
591. Wyo. Stat. §§41-1.42 to 41-1.46 (1975 Supp.).
592. Fla. Stat. Ann. §373.036(1) (West 1972 Supp.).
593. Or. Rev. Stat. §§536.220, 536.340, 536.350, 536.360, 536.370, 536.400, 540.520, and 540.530.
594. Wyo. Stat. §§41-1.42 to 41-1.46 (1975 Supp.).
595. Fla. Stat. Ann. §373.036(1) (West 1972 Supp.).
596. California Water Plan, note 578, supra, at chs. IV, V, and VI.
597. Idaho Draft Water Plan, note 582, supra, at 9-25.
598. Id. at 71-102.
599. California Water Plan, note 578, supra.
600. Cal. Water Code §§108, 232, 10505, and 11460 et seq. This portion of the California plan would appear to be mandatory, despite the Johnson Rancho County case, note 581, supra.
601. See California Water Plan, note 578, supra, at chs. III, IV, and V.
602. §37-60-115, C.R.S. 1973.
603. See Idaho Draft Water Plan, note 582, supra, at 7.
604. See §XIII.C., infra.

605. Idaho Draft Water Plan, note 582, supra, at 13.
606. Id. at 72-103.
607. California Water Plan, note 578, supra, at chs. II, III, IV, and V.
608. See §a, supra.
609. 30 U.S.C. §1288.
610. See §§24-65.1-201, 30-28-111 and 113, and 30-23-301, 302, and 303, C.R.S. 1973.
611. People v. Emmert, Dist. Ct. Grand County, Criminal Action No. 626 (1977).
612. Cal. Water Code §10004.
613. See §b, supra.
614. Larimer County Reservoir Co. v. People, 8 Colo. 614, 9 P. 794 (1885).
615. U.S. Const., amend. XIV; Colo. Const. art. II, §15.
616. Archuleta v. Boulder & Weld County Ditch Co., 118 Colo. 43, 192 P.2d 891 (1948).
617. Designated ground water--rights to which may be acquired by permit only--is an exception. See §37-90-101 et seq., C.R.S. 1973.
618. §37-60-106(1), C.R.S. 1973.
619. See, e.g., Mont. Rev. Code §§89-890 and 89-8-103; Wash. Rev. Code §90.54.050 (1975 Supp.); Or. Rev. Stat. §536.410.
620. §37-60-106, C.R.S. 1973.
621. See also, §37-60-106(1)(m), C.R.S. 1973.
622. See, e.g., Or. Rev. Stat. §538.200, reserving water to maintain certain falls on the Columbia River Highway; Or. Rev. Stat. §538.270, creating a limited reservation for fishing purposes; Mont. Rev. Code §89-8-103 (1975 Supp.).
623. §§37-80-101 et seq., 37-92-301, and 37-92-501, C.R.S. 1973.

624. §37-92-501, C.R.S. 1973.
625. §37-92-301(3), C.R.S. 1973.
626. §37-80-104, C.R.S. 1973.
627. In certain cases diversions may also be curtailed. Id.
628. §37-93-105, C.R.S. 1973.
629. §§37-46-107(1)(j), 37-47-107(1)(j), 37-48-105(1)(j), C.R.S. 1973.
630. The authorization actually states that the districts may "file upon and hold for the use of the public" certain waters. On its face, that may comprehend more than appropriation. Cases seem to indicate that appropriation is the power granted. Colorado River Conservation Dist. v. Rocky Mountain Power Co., 158 Colo. 331, 406 P.2d 798 (1965).
631. Colorado River Dist., note 630, supra.
632. §§37-92-103(3) and (4), C.R.S. 1973.
633. §§37-46-107(1)(c), 37-47-107(1)(c), and 37-48-105(1)(c), C.R.S. 1973.
634. §37-92-103(4), C.R.S. 1973.
635. §37-92-103(3), C.R.S. 1973.
636. §37-45-118(1)(j), C.R.S. 1973.
637. §37-92-103(4), C.R.S. 1973.
638. §37-92-103(3), C.R.S. 1973.
639. §37-90-103(6), C.R.S. 1973.
640. §§37-90-111 and 37-90-130, C.R.S. 1973.
641. Mont. Rev. Code §89-8-103; Wash. Rev. Code §90.54.050.
642. Id. See also Utah Code Ann. §73-6-1.
643. See note 622, supra.
644. Or. Rev. Stat. §536.410.

645. Wash. Rev. Code §90.54.060; Mont. Rev. Code §89-890; Or. Rev. Stat. §536.410; Utah Code Ann. §73-6-1.
646. See Mont. Rev. Code §89-8-103 (1975 Supp.).
647. See Wash. Rev. Code §90.54.060; Mont. Rev. Code §89-890; Or. Rev. Stat. 536.410.
648. Mont. Rev. Code §89-890.
649. Mont. Rev. Code §89-8-103.
650. Or. Rev. Stat. §536.420.
651. Utah Code Ann. §73-6-1. The suspension power is much like Montana's statutory moratorium. See note 646, supra.
652. Utah Code Ann. §73-6-2.
653. Id.
654. Wash. Rev. Code §90.54.060. The withdrawal power is much like Montana's moratorium. See note 646, supra.
655. Wash. Rev. Code §90.54.010.
656. Wash. Rev. Code §90.54.060.
657. See §IX.B., supra.
658. *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1969).
659. It would seem futile to argue that moratoria are valid because they prohibit "appropriations" and not "diversions." The great majority of appropriations require that the diversions be made.
660. Colo. Const. art. XVI, §5. See *Stockman v. Leddy*, 55 Colo. 24, 129 P. 220 (1912).
661. See, e.g., *Larimer County Reservoir Co. v. People*, 8 Colo. 614, 9 P. 794 (1885), stating that, while the manner of diversions may be regulated, the right may not be prohibited.
662. See Colo. Const. art. II, §15.
663. See Ariz. Rev. Stat. §45-147; Fla. Stat. §373.236(1) (1972 Supp.). See also *Baeth v. Hoisveen*, 157 N.W.2d 728 (N.D. 1968).

664. But see Ariz. Rev. Stat. §45-147 establishing a statutory order of uses.
665. Fla. Stat. §§373.236(1) (1972 Supp.).
666. Haw. Rev. Stat. §177-27.
667. Town of Sterling v. Pawnee Ditch Extension Co., 42 Colo. 421, 94 P. 339 (1908); Black v. Taylor, 128 Colo. 449, 264 P.2d 502 (1953); Strickler v. City of Colorado Springs, 16 Colo. 61, 26 P. 313 (1896); Montrose Canal Co. v. Loutzenhizer Ditch Co., 23 Colo. 233, 48 P. 532 (1896). See also Nevius v. Smith, 86 Colo. 178, 279 P. 44 (1929); People v. Hinderlider, 98 Colo. 505, 57 P.2d 894 (1938).
668. 23 Colo. 233, 48 P. 532 (1896).
669. 128 Colo. 449, 264 P.2d 502 (1953).
670. Archuleta v. Boulder & Weld County Ditch Co., 118 Colo. 43, 192 P.2d 891 (1948); Armstrong v. Larimer County Ditch Co., 1 Colo. App. 49, 27 P. 235 (1891).
671. Haw. Rev. Stat. §177-27.
672. Fla. Stat. §373.236(1) (1972 Supp.).
673. §37-92-302, C.R.S. 1973.
674. See §§37-92-302, 303, 304, and 305, C.R.S. 1973.
675. See §§37-92-103(2), (3), and (4), C.R.S. 1973.
676. See §§37-80-102 and 37-80-501, C.R.S. 1973.
677. §37-92-301(3), C.R.S. 1973.
678. §37-92-502(2), C.R.S. 1973.
679. §37-60-106, C.R.S. 1973.
680. §§37-2-101 and 37-45-118, C.R.S. 1973.
681. §§37-41-101 et seq. and 37-42-101 et seq., C.R.S. 1973.
682. §§37-46-107, 37-47-107, and 37-48-105, C.R.S. 1973.
683. §37-93-105, C.R.S. 1973.

684. §§37-90-107 and 108, C.R.S. 1973.
685. §37-90-111, C.R.S. 1973.
686. §37-90-130, C.R.S. 1973.
687. See §e., infra.
688. City and County Denver, v. Sheriff, 105 Colo. 193, 96 P.2d 836 (1939).
689. Ariz. Rev. Stat. §45-147.
690. Id.
691. Fla. Stat. §373.236(1).
692. 157 N.W.2d 728 (N.D. 1968).
693. Wheeler v. Northern Colorado Irr. Co., 10 Colo. 582, 17 P. 487 (1887).
694. Colo. Const. art. XVI, §6. See also Archuleta, note 670, supra.
695. Colo. Const. art. XVI, §6.
696. §37-92-306, C.R.S. 1973.
697. §37-92-301, C.R.S. 1973.
698. Note 429, supra.
699. §37-92-103(3), C.R.S. 1973.
700. §37-92-103(4), C.R.S. 1973. See Fuller v. Swan River Placer Mining Co., 12 Colo. 12, 19 P. 836 (1888).
701. Id.
702. Id.
703. §§37-90-107 and 108, C.R.S. 1973.
704. §37-90-107, C.R.S. 1973.
705. City and County of Denver v. Sheriff, 105 Colo. 193, 96 P.2d 836 (1939).
706. Note 700, supra.

707. Colo. Const. art. II, §§14 and 15.
708. Id. §14.
709. Nos. 2782, 5016, and 5017, D.C. Colo., Nov. 2, 1977.
710. 105 Colo. 193, 96 P.2d 836 (1939).
711. The term "transbasin diversion" when used alone is used to include transmountain and other transbasin diversions.
712. City and County of Denver v. Fulton Irr. Ditch Co., 179 Colo. 47, 506 P.2d 144 (1972).
713. Id.
714. It is interesting to note that while the statute and cases may encourage importation under certain circumstances, thereby depleting supplies in the exporting basin, they may also result in water conservation from a statewide perspective. The need to protect intrabasin supplies must be balanced with the need to conserve.
715. City and County of Denver v. Northern Colorado Water Conservancy Dist., 130 Colo. 375, 276 P.2d 992 (1954); United States, note 709, supra.
716. §37-45-118(1)(b)(IV), C.R.S. 1973.
717. See §§37-61-101 et seq. to 37-69-101 et seq., C.R.S. 1973.
718. §37-60-115, C.R.S. 1973.
719. §37-60-116, C.R.S. 1973.
720. See note 710, supra.
721. See §9., supra.
722. And intrabasin diversions also.
723. Cal. Water Code §§108, 232, 10505, and 11460 et seq.
724. Cal. Water Code §232.
725. Cal. Water Code §108.
726. Okla. Stat. Ann. §105.12.



727. Neb. Rev. Stat. §46-206.
728. Colo. Const. art. II, §15.
729. §37-92-103(6), C.R.S. 1973, states that a conditional right provides a "right to perfect" by completion of an appropriation. See also Archuleta v. Boulder & Weld County Ditch Co., 118 Colo. 43, 192 P.2d 891 (1948).
730. See, e.g., City of Cherry Hills Village v. Trans-Robles Corp., 181 Colo. 356, 509 P.2d 797 (1973).
731. "Substantial beginning" is a term of art which many courts have used to determine when constitutional protection attaches. See, e.g., Application of Campsites Unlimited, 215 S.E.2d 73 (N.C. 1975); American Nat'l Bank & Trust Co. v. City of Chicago, 311 N.E.2d 325 (Ill. App. 1974).
732. Board of County Commr's v. City and County of Denver, 160 Colo. 198, 372 P.2d 152 (1962).
733. Id.; see Hunter v. City of Pittsburgh, 207 U.S. 161, 28 Sup. Ct. 40, 52 L. Ed. 151 (1907).
734. Gomillion v. Lightfoot, 364 U.S. 339, 81 Sup. Ct. 125, 5 L. Ed. 2d 110 (1960); United States ex rel. Van Hoffman v. Quincy, 4 Wall. (71 U.S.) 535, 18 L. Ed. 2d 403 (1867).
735. School Dist. No. 23 v. Planning Comm., 146 Colo. 241, 361 P.2d 360 (1861).
736. Pierce v. City and County of Denver, \_\_\_\_ Colo. \_\_\_\_, 565 P.2d 1337 (1977).
737. Colo. Const. art. XX, §§1 and 6.
738. See Colo. Const. art. XVI, §5.
739. Colo. Const. art. XVI, §6.
740. See note 711, supra.
741. See §IX.B., supra.
742. Central Colorado Water Conservancy Dist. v. Colorado River Water Conservation Dist., 186 Colo. 193, 526 P.2d 302 (1974).
743. Pierce v. City and County of Denver, \_\_\_\_ Colo. \_\_\_\_, 565 P.2d 1337 (1977).

744. Id.
745. Id.
746. Note that while certain sections of art. XX on their face apply only to Denver, all home rule municipalities have such authority according to art. XX, §6.
747. \_\_\_\_ Colo. \_\_\_\_, 543 P.2d 1258 (1975).
748. Art. XVI, §5, of the state constitution, for example, holds that all the waters of the state's natural streams are the property of the public.
749. Colo. Sup. Ct. No. 27462 (Feb. 6, 1978).
750. §38-6-201 et seq., C.R.S. 1973.
751. City and County of Denver v. Sheriff, 105 Colo. 193, 96 P.2d 836 (1939).
752. Id. See also §31-35-201, C.R.S. 1973.
753. Colorado Open Space Council, Inc. v. City and County of Denver, \_\_\_\_ Colo. \_\_\_\_, 548 P.2d 1258 (1975).
754. See White, M.D., Draft Partial Master-Referee Report regarding the claims of the City and County of Denver acting by and through its board of water commissioners in and to certain portions of the Roberts Tunnel Collection System and in and to the Eagle-Colorado Collection System, September 23, 1977. The ruling also held that, with respect to the particular rights in question, Denver had not formed the necessary intent for application of the doctrine of relation back.
755. A referee's ruling addressing essentially the same issue, i.e., municipal authority to make appropriations of water for extraterritorial use only, and answering the issue as the Master-Referee did in his draft report was overturned by the water court upon a protest. See In the Matter of the Application for Water Rights of the City and County of Denver, acting by and through its water commissioners, for the Two Forks Reservoir project, water court, Water Division No. 1, Case No. W-3075-74 (March 12, 1975). No appeal of the court's ruling was taken.
756. \_\_\_\_ Colo. \_\_\_\_, 547 P.2d 228 (1976).

757. *City of Englewood v. City and County of Denver*, 123 Colo. 290, 229 P.2d 667 (1951). The Master-Referee also cited other grounds for that conclusion. See White, note 754, supra, at 114 ff.
758. §31-30-201, C.R.S. 1973.
759. §37-82-106, C.R.S. 1973. Note that this right exists independently of the statute. *City and County of Denver v. Fulton Irr. Ditch Co.*, 179 Colo. 47, 506 P.2d 144 (1972).
760. §38-6-201 et seq., C.R.S. 1973.
761. §38-6-207, C.R.S. 1973.
762. §38-6-203, C.R.S. 1973.
763. §38-6-202(2), C.R.S. 1973.
764. §38-6-204, C.R.S. 1973.
765. §§38-6-209, 210, 211, and 214, C.R.S. 1973.
766. See §(4), infra.
767. §31-15-708(1)(b)(I), C.R.S. 1973.
768. Id.
769. §31-35-101(1)(c), C.R.S. 1973.
770. §31-15-708(1)(d), C.R.S. 1973.
771. §31-35-402(1)(b), C.R.S. 1973.
772. §§37-92-302 and 304, C.R.S. 1973.
773. In *City and County of Denver v. Sheriff*, 105 Colo. 193, 96 P.2d 836 (1939) the water court's conditioning of a municipal transmountain diversion, which condition was designed to restrict the size of the diversion, was overturned by the supreme court.
774. §37-60-106, C.R.S. 1973.
775. §§37-80-102 and 37-92-501, C.R.S. 1973.
776. §37-45-118(1)(j), C.R.S. 1973.
777. §37-45-134(1)(a), C.R.S. 1973.

778. §§37-46-107(1)(c), 37-47-107(1)(c), and 37-48-105(1)(d), C.R.S. 1973.
779. §§37-46-111, 37-47-111, and 37-48-113, C.R.S. 1973.
780. §37-93-105(1)(f)(I), C.R.S. 1973.
781. §37-93-105(1)(f)(I)(F), C.R.S. 1973.
782. §37-93-105(1)(f)(I)(C), C.R.S. 1973.
783. *Pierce v. City and County of Denver*, \_\_\_\_\_ Colo. \_\_\_\_\_, 565 P.2d 1337 (1977).
784. Id.
785. Id.
786. Note that while certain sections of art. XX apply on their face to Denver only, §6 applies to all home rule municipalities. All sections of art. XX do, however, apply to all home rule municipalities.
787. \_\_\_\_\_ Colo. \_\_\_\_\_, 543 P.2d 1258 (1975).
788. Colo. Sup. Ct. No. 27462 (Feb. 6, 1978).
789. The question of whether the condemnation act may constitutionally be applied to statutory municipalities was not answered by the Thornton decision.
790. See *Town of Holyoke v. Smith*, 75 Colo. 286, 226 P. 158 (1924). Earlier, more liberal cases include In re Senate Bill, 12 Colo. 188, 21 P. 481 (1888) and *Milhiem v. Moffat Tunnel Improvement Dist.*, 72 Colo. 208, 211 P. 649 (1922). See also *City of Thornton v. PUC*, 157 Colo. 188, 402 P.2d 194 (1965); *City of Englewood v. City and County of Denver*, 123 Colo. 290, 229 P.2d 607 (1951).
791. See, e.g., *Landoner v. City and County of Denver*, 52 Colo. 15, 119 P. 156 (1911). The determination is reviewable by a court only if made fraudulently or in bad faith. *Colorado State Bd. of Land Comm'rs v. District Court*, 163 Colo. 338, 430 P.2d 617 (1967); *Dallasta v. Dep'y of Highways*, 153 Colo. 519, 387 P.2d 25 (1963); *Mack v. Highway Comm'n*, 152 Colo. 300, 381 P.2d 987 (1963).
792. \_\_\_\_\_ Colo. \_\_\_\_\_, 553 P.2d 790 (1976). The Greeley decision relied upon art. XXI, §4, and art. V, §35, of the Colorado Constitution in striking down the submission of a municipal-union dispute to

arbitration. The Greeley rule is largely an extension of the "special commission" rule of art. V, §35, as interpreted by case law. See note 790, supra.

793. See note 754, supra.
794. §32-10-101 et seq., C.R.S. 1973. For a variety of reasons, the Three Lakes District has had trouble achieving its purposes. To a large degree, those problems would be eliminated by Environmental Protection Agency funding. The agency is currently reviewing such.
795. See §32-2-101 et seq., C.R.S. 1973, re Metropolitan Districts, §32-4-101 et seq., re Water and Sanitation Districts, §32-4-401 et seq., C.R.S. 1973, re Metropolitan Water Districts; and §32-7-101 et seq., re regional service authorities. Regional service authorities in particular were created by constitutional amendment to solve the kinds of problems under discussion. See Colo. Const. art. XIV, §17. They have not succeeded as hoped, however; and the solution seems now to require legislative intervention.
796. Cal. Const. art. X, §2.
797. 52 Cal. 2d 828, 124 Cal. Rptr. 60 (1975), cert. granted, by Cal. Sup. Ct. (Feb. 26, 1976).
798. Ore. Rev. Stat. §537.170(3).
799. Mont. Rev. Code §89-885 (1975 Supp.). See also Mont. Const. art. IX, §1.
800. Alaska Stat. §6.15.080.
801. Wash. Rev. Code §90.54.020 (1976 Supp.).
802. Fla. Stat. Ann. §73.223(2) (West 1972 Supp.).
803. 186 Colo. 193, 526 P.2d 302 (1974).
804. Board of County Comm'rs v. City and County of Denver, 150 Colo. 198, 372 P.2d 152 (1962).
805. See Gomillion v. Lightfoot, 364 U.S. 339, 81 Sup. Ct., 125, 5 L. Ed. 2d 110 (1960); United States ex rel. Van Hoffman v. Quincy, 4 Wall (71 U.S.) 535, Sup. Ct. 18 L. Ed. 403 (1867).
806. See School Dist. No. 23 v. Planning Comm., 146 Colo. 241, 361 P.2d 360 (1961).

807. Note 803, supra.
808. Notes 805 and 806, supra.
809. Colo. Const. art. II, §15.
810. Note 803, supra.
811. Note 803, supra. See also Hunter v. City of Pittsburgh, 207 U.S. 161, 28 Sup. Ct. 161, 52 L. Ed. 151 (1907); Williams v. Mayor of Baltimore, 289 U.S. 36, 53 Sup. Ct. 431, 77 L. Ed. 1015 (1933).
812. Note 804, supra.
813. Note 805, supra.
814. Board of County Comm'rs v. Pfiefer, \_\_\_\_\_ Colo. \_\_\_\_\_, 546 P.2d 946 (1975).

X. PROTECTION OF THE PUBLIC INTEREST THROUGH INCREASED SPENDING  
OF PUBLIC FUNDS.

A. Public Purpose Is the Basic Requirement.

There are several basic principles which describe the spending power of a state:<sup>1</sup>

- (1) Public funds may be used only for a public purpose.
- (2) The "public purpose" concept changes conditions, thus creating changes in public needs. Each case must be decided upon its own particular facts and circumstances.
- (3) The legislature is vested with broad discretion in determining what constitutes a "public purpose" for which funds may be used. Its actions cannot be controlled by the courts unless the "public purpose" is clearly evasive.
- (4) The paramount test is whether the expenditure confers a direct benefit of a reasonably general character to a significant part of the public, as distinguished from a remote or theoretical benefit.
- (5) The fact that some individuals will receive a direct benefit from a public expenditure does not deprive the expenditure of its public nature if the primary purpose is public.

B. Appropriations for Protection of Water Rights.

In Colorado, expenditure of public funds to protect the state's interest in water must meet the general principles listed in §A., supra. The scope of the spending power with respect to the water resources of the state is, however, undoubtedly enlarged by the special public role that water has played in the life and laws of the state. Section 5 of art. XVI of the Colorado Constitution declares the water of every natural stream to be the property of the public and dedicated to the use of the people of the state. In Stockman v. Leddy,<sup>2</sup> the court considered the following specific question:

May the General Assembly, out of the public revenues, appropriate money for the purpose of protecting and defending its rights, or those of its citizens, in the waters of the natural streams of the state?

The court answered its own question with an unqualified "yes," although the specific appropriation under consideration was held invalid because it would have been made to a legislative committee and the separation of powers doctrine would have been violated. Stockman assuredly did, however, settle the general question of whether public monies could be spent to benefit the state's interest in preserving, protecting, and increasing its waters.

The spending power in Colorado, as a tool to promote the state's interest in its waters, has evolved over the state's history. Initially, the state played no part in the funding of water projects, as is indicated by the following quotation:<sup>3</sup>

In the early development of the state, through the industry of the pioneers and by means of comparatively inexpensive works, the waters of our natural streams were utilized in irrigation in the immediate vicinity of the source of the water supply. Later, when the possibilities of this method of development had become exhausted, more ambitious irrigation programs were devised. This era was marked by the formation of irrigation districts and the expansion of mutual and private ditch and reservoir companies by means of projects financed by private capital.

Even a cursory review of legislative action over the last 25 years, however, clearly indicates that the state has abandoned its original laissez-faire attitude in favor of supporting, to a fairly significant extent, the protection and expansion of water use and availability in the state. In 1957, the legislature appropriated \$100,000 to the Colorado Water Conservation Board to study the water resources available on the western slope of the Continental Divide,<sup>4</sup> and \$3,000 was similarly appropriated in 1955 for an evaluation of deliveries required by the terms of the Rio Grande basin compact.<sup>5</sup>

In 1967, the duties of the board were enlarged to include acquisition of property for flood control purposes, and the board was also directed to participate in work authorized by Congress by the Water Resources Planning Act.

In 1971, the legislature significantly enlarged the concept of the board by authorizing it to enter into contracts for the construction of conservation projects.<sup>6</sup> Concurrently, a fund was created which is known as the "Colorado Water Conservation Board Construction Fund."<sup>7</sup> By 1977, the General Assembly appropriated \$7,705,000 to this fund for 14 separate projects:



PROJECT	AREA	AMOUNT
1. Dove Creek	Southwest	\$ 400,000
2. Hayden	Northwest	\$ 300,000
3. Delta	West	\$ 450,000
4. Rico	Southwest	\$ 80,000
5. Hotchkiss	West	\$ 570,000
6. Keenesburg	East	\$ 405,000
7. Brighton	Central	\$ 460,000
8. Trinchera	Southeast	\$ 400,000
9. Winter Park	West Central	\$ 750,000
10. Overland Ditch Co.	West	\$ 850,000
11. Montrose	West	\$1,000,000
12. Gray Lakes	North Central	\$ 160,000
13. Cache la Poudre Reservoir	Central	\$ 880,000
14. Yamcolo	Central	\$1,000,000
	Total	\$7,705,000

It is notable, however, that this \$7,705,000 was not appropriated out of general fund monies derived from Colorado taxes. The source for this appropriation was the Mineral Leasing Fund, which consists of monies received from the federal government as Colorado's share of rents and royalties derived from federal lands located in Colorado.

May the state not only appropriate funds to protect and defend its water rights, as was approved in Stockman v. Leddy,<sup>8</sup> or to build multi-million dollar conservation projects, for which a sum of almost \$8 million was appropriated in 1977, but may it go further and spend money to reach into the skies to enlarge the total quantity of annual precipitation? The General Assembly's answer is found in the Weather Modification Act of 1972, which declares:<sup>9</sup>

The general assembly declares that the state of Colorado claims the right to all moisture suspended in the atmosphere which falls or is artificially induced to fall within its borders. Said moisture is declared to be the property of the people of this state, dedicated to their use pursuant to sections 5 and 6 of article XVI of the Colorado constitution and as otherwise provided by law. It is further declared that the state of Colorado also claims the prior right to increase or permit the increase of precipitation by artificial means for use in Colorado. The state

of Colorado also claims the right to modify weather as it affects the people of the state of Colorado and to permit such modification by activity within Colorado.

The 1977 General Assembly appropriated \$350,000 for weather modification. It is difficult to believe that any court would hold state expenditures to increase water supplies to be expenditures for an unlawful purpose.

Although appropriations of state funds for water purposes are normally made to state agencies, notably the Colorado Water Conservation Board, appropriations to or for local governmental units are not unknown. The type of local unit which might become a recipient of state funds for implementation of state water policies would be the special quasi-municipal districts formed under the Water Conservancy Act, the various conservation district acts, or other similar acts. Again, some history is pertinent.

The impetus for the Water Conservancy Act in 1937 arose from the inability of special assessment districts to obtain either support of landowners or adequate credit, and their special assessment liens were cut out by general tax sales. It was the Water Conservancy Act which permitted the use of the general tax power. The constitutionality of the statute was strongly attacked in People v. Letford,<sup>10</sup> but the statute was upheld. Among the comments of the court appeared the following:

It is reasonably asserted by competent engineering authority that, by the construction of adequate water storage and diversion systems, water may be carried from regions within our state having a surplus to those suffering from the lack of sufficient supply, and by this process our statewide water supply made to do full duty before flowing from our borders. Such a program of conservancy is eminently a matter of statewide concern.

These circumstances demonstrate, and we conclude, as the language of the act states, that its objects are of sufficient public benefit and advantage to the people of Colorado as a whole to constitute a public purpose and that the water conservancy districts authorized thereby are state agencies and public corporations.

The final paragraph of the opinion also deserves attention, since it indicates the court's attitude of tolerance toward the

legislative creation of new types of vehicles for the implementation of state policy:<sup>11</sup>

We have refrained from discussing the policy of the act or the wisdom of its provisions, since within the lawful limits of its discretion these are matters of legislative concern over which we have no control. Neither must our holding that the act itself is constitutional be taken as a conclusive determination that the district may not transgress through the manner in which it may exercise some of the powers conferred.

While it presently seems unlikely that the Colorado legislature would by-pass the Colorado Water Conservation Board and make appropriations directly to local districts, the experience in the field of education does provide a precedent. During the mid- and late 1960s, a political battle raged in the Colorado General Assembly concerning the funding of various junior colleges which had been established and financed in local tax districts. As the decade progressed, state funds were appropriated to supplement the local funds and eventually the colleges were completely absorbed into the state higher education system. Despite the precedent, however, political resistance must be expected to any proposal for state appropriations being made directly to local districts.

Perhaps the most legally troublesome public expenditures are those on behalf of private individuals. Yet it can be expected that great public gain is the promotion of proper water use, and enhancement of water supply can be obtained through payments to certain individuals. Fortunately, not all such payments will be held to be unlawful. The rules for determining the legality of such expenditures are fairly well established.

Funding proposals which involve payments to individuals or private organizations are subject to challenge on constitutional grounds. The Colorado Constitution provides:<sup>12</sup>

No appropriation shall be made for charitable, industrial, educational, or benevolent purposes to any person, corporation, or community not under the absolute control of the state, nor to any denominational or sectarian institution or association.

This provision (and similar provisions in other states) is not as all-encompassing as it might seem, however, and precedents for payments being made directly to individuals are to be found under the

broad categories of pensions, welfare payments, agricultural subsidies, and bounties.

In Colorado, the leading case is Bedford v. White,<sup>13</sup> in which the granting of pensions to retired justices was upheld over the complaint of the state auditor that the cited provision of the constitution would be violated. The court dismissed arguments that pensions, as a practical matter, would be for purposes "not under the absolute control of the state" by declaring flatly, "However, it is universally held that if such payments are for a public purpose, the incidental fact that the recipients are private persons does not violate this constitutional provision."<sup>14</sup> Pensions, the court noted, are not granted primarily for the benefit of the recipients, but for the benefit of the state to induce justices to retire before infirmities deprive them of their abilities to provide efficient services and, also, to induce others to enter the judiciary.

A similar prohibition in the Texas Constitution against grants to individuals did not bar bounties for killing wolves and other animals. In Weaver v. Scurry County,<sup>15</sup> the purpose was not to benefit the individuals who received the bounties, but to recompense them for killing the animals "in order to avert the public calamity otherwise wrought." In Colorado, authority for several types of bounties was recognized in Mute, etc. Inst. v. Henderson.<sup>16</sup> "That the legislature has the power to provide for the payment of bounties is not contested." The bounties were held unconstitutional, however, due to the mechanism provided for their payment. The flaw in the payment procedure was that the bounties were to be paid in the first instance by county treasurers and such amounts were then to be taken as credits by the county treasurers in their settlements with the state treasurer. The court found that this mechanism violated art. 5, §33, of the constitution, which restricted disbursements from the state treasury to those made upon appropriations and warrants. The court concluded by stating, "If the legislature desires to pay bounties, it may do so, for all practical purposes, by making the necessary appropriations therefor, to be paid out upon warrant drawn by the auditor upon the state treasurer."<sup>17</sup>

Only one bounty case has been found directly relating to water. That case, State v. Horton,<sup>18</sup> upheld the payment of a bounty for the drilling of an artesian well in order to increase water supplies.

Welfare payments to individual recipients are so commonplace that they need no discussion of their legality. Furthermore, they are only remotely related to possible mechanisms for implementation of state water policies. Agricultural subsidies, on the other hand, are pertinent. Courts have recognized that "agriculture is an industry upon which the public welfare ultimately depends."<sup>19</sup>

Grants, loans, price supports, and other subsidies for farmers are commonplace. The statutes which provide such assistance are enacted in furtherance of the state's police power, exercised for the general welfare.<sup>20</sup>

Water, particularly in the West, is of equal importance to the public welfare as agriculture. It is safe to assume that subsidies to support state water policies would certainly receive favorable consideration in Colorado courts.

#### C. Political and Budgetary Considerations.

The foregoing analysis leads to one clear conclusion which deserves emphasis. The most important limits on the use of the spending power as a device for affecting the development and consumption of water in Colorado are not legal or constitutional limitations--the limits are the practicalities of political and budgetary forces which invariably dominate the actions of any General Assembly. Despite universal recognition of the importance of water to the economic and social well-being of the state, the Colorado General Assembly traditionally has not appropriated any significant sums from its general fund in furtherance of any state water policy. The legal power to make such appropriations is readily available, however, whenever the political and budgetary conditions are ripe.

#### D. Potential Spending Projects.

In an era in which there is no end in sight to the ascending importance of water, any project which increases the availability or usefulness of supplies becomes a potential candidate for taxpayer support.

The variety of projects on which public monies could be spent in implementation of a state water policy is probably as endless as the number of individuals who would benefit from such expenditures; but, as previously noted, the fact that some individuals may receive a direct benefit from a public expenditure does not deprive the expenditure of its public nature if the primary purpose is public.

To illustrate the gamut of ideas, it is appropriate to list suggestions which have already received discussion. The projects can be categorized in numerous ways; but, for present purposes, it will suffice to group them generally as projects which enlarge the original supply, projects which make better use of supplies, and projects which reduce demand (thereby freeing supplies for other uses).

Projects which enlarge supplies include weather modification, stream diversion projects, storage projects (not only for natural flows and flood waters, but also for collection from storm sewers), collection of seepage from mines and fields, drilling of wells, and increasing flows by use of pumps to supplement gravity.

Projects which make better use of supplies include: prevention and correction of system losses (not only by plugging leaks in pipe systems, but also through minimization of evaporation and seepage losses), speeding the delivery of water (through stream channelization and use of canals and conduits in lieu of streams), recycling and reuse, and improvements in irrigation techniques, exchanges, pilot projects, and research.

Projects which encourage a reduction in the demand for water include both voluntary and involuntary conservation programs, installation of meters on domestic users, building code requirements, and pricing techniques.

#### E. Mechanisms for Implementation of Funding Programs.

The most natural vehicle for administering funds which the General Assembly might appropriate for water projects is the Colorado Water Conservation Board. The board already has statutory authority to enter into contracts for the construction of conservation projects,<sup>21</sup> to conduct a continuous study of the water resources of the state,<sup>22</sup> to conduct a comprehensive water planning program in conjunction with the federal government,<sup>23</sup> and to determine the economic and engineering feasibility of construction projects.<sup>24</sup> It would be a simple step to enlarge the authority of this agency to administer any of the potential projects, such as have been mentioned, regardless of whether the ultimate recipient is a contractee of the state, a unit of local government, or an individual who has shown himself to be qualified to receive a bounty.

#### F. Recommendation for a Survey of Potential Projects.

Colorado's growth, the drought of 1977, controversy over projects of the Denver Water Board, and President Carter's efforts toward establishment of a new federal water policy have combined to create a heightened awareness of the importance of water in Colorado. If ever the time were ripe for appropriation of state funds for improvements in the state's water policies and practices, the time would be now.

The first step for those who would use the state's spending power in furtherance of improvements in Colorado water policies and practices would be a determination of what projects would yield the greatest benefit for the dollars spent. One can conceive of an effort being organized to obtain suggestions from all segments of society knowledgeable about water--farmers and farm organizations, industrial users, municipalities, lawyers, engineers, recreational organizations, industrial users, conservationists, environmental organizations, and others concerned with water use. An initial draft of ideas and projects, an enlargement and refinement of the list included in section D above (Potential Spending Projects), could be prepared and circulated to stimulate discussion and generate specific proposals.

Once the state has an inventory of suggested projects, each idea would have to be given a rigorous cost-benefit analysis and also be assessed for its political and environmental acceptability. Means for implementing the projects holding the most promise could then be developed. Perhaps all logic would indicate that the Water Conservation Board should be the instrumentality to receive appropriations and disburse funds, or perhaps creation of a new agency would then seem desirable. Would some projects be financed best through a bounty system? As previously indicated, the variety of means is endless, and what might be appropriate for one worthwhile project might be totally inappropriate for another. Only when a specific project is under consideration is it possible to suggest the most appropriate means for implementation. Projects which pass muster for economic soundness and probable political and environmental acceptability, and which have been developed into a logical administrative format, would then be presented to the General Assembly for its consideration.

A survey of potential projects such as outlined above could readily be undertaken by the executive director of the Department of Natural Resources on his own initiative, or by the Colorado Water Conservation Board, or it could be prompted by legislative resolution. The latter method would give the effort its maximum notoriety and status. It would also serve as a preliminary test of the attitude of the General Assembly toward embarking into a new field of state spending.

X. PROTECTION OF PUBLIC THROUGH INCREASED  
SPENDING OF PUBLIC FUNDS

REFERENCES

1. Citations for a seemingly endless number of cases in support of these principles are to be found in 81A C.J.S.; States §205, 63 Am. Jur. 2d, Public Funds, §68 et seq.
2. 55 Colo. 24, 129 P. 220 (1912).
3. People v. Letford, 102 Colo. 284, 79 P.2d 274, 281 (1938).
4. L. 53, at 645, §1 et seq.
5. L. 55, at 936, §1.
6. §37-60-106(1)(e), C.R.S. 1973.
7. §37-60-121, C.R.S. 1973.
8. Supra note 2.
9. §36-20-103, C.R.S. 1973.
10. Supra note 3.
11. Supra note 3, at 290.
12. Colo. Const. art. V, §34.
13. 106 Colo. 439, 106 P.2d 469 (1940).
14. Supra note 13, at 106 P.2d 469, 476.
15. 28 S.W. 836 (Tex. Civ. App. 1894).
16. 18 Colo. 98, 31 P. 714, 18 L.R.A. 398 (1892).
17. See In re Bounties, 32 P. 423, 18 Colo. 273 (1893); 11 C.J.S., Bounties, §§1-19; and 12 Am. Jur. 2d, Bounties §5.
18. 31 Nev. 300, 30 P. 876 (1892).
19. See 3 Am. Jur. 2d, Agriculture §§19-33, 3 C.J.S., Agriculture, §§57-64.
20. 3 Am. Jur. 2d, Agriculture §20.



21. §37-60-106(1)(1), C.R.S. 1973.
22. §37-60-115, C.R.S. 1973.
23. §37-50-118, C.R.S. 1973.
24. §37-60-122(c), C.R.S. 1973.

## XI. TAXATION OF WATER RIGHTS OR OF TRANSFERS OF

### WATER RIGHTS.

#### A. Introduction.

Generally, water rights are not taxed separately from land, aside from special assessments or charges for water supplied by various special districts. However, the value of water is assessed indirectly in several ways. The enhancement of the value of land resulting from irrigation is considered when determining the value of agricultural land. Water rights might be included in estimating the net worth of corporations owning water rights and domestic water companies when taxed as public utilities.

The types of taxes which could be imposed to achieve certain objectives relating to water rights and their use are discussed in this chapter. Several alternatives are briefly outlined, including severance tax, sales tax, use tax, and transfer tax. Possible problems in taxing changes or transfers of water rights are also covered.

#### B. The Extent of State or Local Power to Levy a Property Tax on Water.

##### 1. The Colorado Definition of Water Rights.

In Colorado, the legislature authorized the taxation of "all property, real and personal, not expressly exempted from taxation by law."<sup>1</sup> Water rights are considered to be real property and may be taxed under the category of "improvements," which includes "all structures, buildings, fixtures, fences, and water rights erected upon or affixed to land, whether or not title to such land has been acquired."<sup>2</sup> Whether water rights are "affixed to the land" is open to question, but the intent of the legislature to permit taxation of water rights appurtenant to or in some way connected to the land seems clear.

Along with water rights and other types of real estate, water mains and pipes are classed as "improvements."<sup>3</sup> Dams, floodgates, reservoirs, and reservoir beds are not taxable as "improvements"; however, their value is taken into account when taxing the land and water rights.<sup>4</sup>

Water rights are probably not exempt from property taxes, but two leading cases in Colorado arrive at opposite conclusions on this point. In Board of County Commissioners v. Cortez Land & Securities Co.,<sup>5</sup> the court held that water rights were exempt. Ten years later, on

similar facts, the court held that a water right could be assessed as an improvement to determine the land's total value for property tax purposes.<sup>6</sup> Both cases involved water rights represented by shares in a mutual ditch company. It is uncertain to what extent an exemption for corporate stock might have influenced the courts' decisions.

A state constitutional provision and a conflicting statute have raised some question as to whether water rights are covered by a tax exemption created for ditches:

Ditches, canals, and flumes owned and used by individuals or corporations for irrigating land owned by such individuals or corporations, or the individual members thereof, shall not be separately taxed so long as they shall be owned and used exclusively for such purposes. (Colo. Const. art. 10, §3.)

The following shall be exempt from general taxation under the provisions of arts. 1 to 13 of this title:

(c) Ditches, canals, and flumes owned and used by any person for irrigating land owned by such person, so long as they shall be owned and used exclusively for such purposes. (§39-3-101(1), C.R.S. 1973.)

Evidently the purpose of this statute was to prevent double taxation in cases where the water carried by the ditch was used exclusively by the owners of the ditch on their property, provided the land was taxed to cover the increased value. The statutory exemption is probably void under art. 10, §6, of the Colorado Constitution, which states that "all laws exempting from taxation property other than that specified in this article shall be void." Although the courts have not specifically declared the statute to be unconstitutional, they construe the provision so as to permit the taxation of the ditches so long as they are not assessed separately.<sup>7</sup> The power to tax the water right itself appears to be unaffected.

Dams, reservoirs, and other waterworks are exempt if owned by federal, state, or local government. Privately owned dams, reservoirs, floodgates, and reservoir beds have all been included under the category of "ditches, canals, and flumes,"<sup>8</sup> so they may not be separately assessed.<sup>9</sup> What this means is that the value of ditches, dams, et cetera, located on a landowner's property is presumed to be included when the land is valued and taxed as "irrigated." It might be possible to separately tax stored water and the physical structures comprising a reservoir which furnishes water for manufacturing purposes, but this is only speculation.<sup>10</sup>

There is also provision for a reduction in the property tax

assessment for those water users who build storage reservoirs on their land. Or, those who donate land for such a purpose are entitled to a reduction in the property tax on which the reservoir is located.<sup>11</sup>

## 2. Separate Assessment and Taxability.

If water rights or other interests are not exempt, how are they to be taxed? More specifically, can they be assessed and taxed separately from the land?

There is no clear-cut answer. A Colorado statute indicates that certain assessments cannot be made separately:<sup>12</sup>

Improvements shall be appraised and valued separately from land, except improvements other than buildings on land which are used solely and exclusively for agricultural purposes, in which case the land, water rights, and improvements other than buildings shall be appraised and valued as a unit. [Emphasis added.]

This seems to require that water rights used in connection with irrigation (along with ditches and other facilities) are to be valued along with the land in a unit assessment. The logic behind the provision is that water rights or ditches or dams do not have value until they are used to irrigate the land. If the land is taxed as irrigated--that is, having a certain measurable capacity to produce--then the value of that water right is implicitly valued in the assessment of the land. By implication, water rights used for other purposes may be assessed separately.

The requirement of a unit assessment is fairly straightforward when both the water right and the irrigated land are owned by the same individual or corporation. But the issue of whether a separate assessment can be made grows complex when dealing with water supply organizations such as mutual ditch companies, domestic water companies, and so-called municipal corporations such as irrigation districts. These groups sell not the water right itself, but the right to receive water. Whether this interest is taxable at all may depend on whether the right to receive water is characterized as a property interest in the actual water right (which is taxable), or as merely a right to a service (which is not taxable as real property but may be subject to some form of excise tax).<sup>13</sup>

In order to determine whether the water supplier or the water user possesses any taxable property interest in water facilities used for the storage and distribution of water and whether such interest may be taxed separately, it is helpful to focus on the various

arrangements made for water distribution.

a. Mutual Companies.

There are two types of mutual ditch companies.<sup>14</sup> With carrier ditch companies, the ownership of the water right is vested in the water user and the facilities for distribution are owned by the company. In this situation, the water right may properly be taxed with the land. The ditches, while not separately assessed per se, are probably included in the valuation of the companies' property.

In the other type, the company retains the title to the water right, and the shareholders are entitled to receive a fixed quantity or a certain percentage of the water available for distribution. It is uncertain whether the company should be taxed for its share. In Beaty v. Board of County Commissioners,<sup>15</sup> the court resolved the matter by stating that the shares were "muniments" of title to a water right and were taxable along with the land as real property. In most instances, this type of mutual company is a nonprofit, cooperative venture organized among farmers. Property of the company would be exempt under the exemption created for nonprofit or charitable organizations.<sup>16</sup>

b. Domestic Water Companies.

One court has stated that property owned by water companies, including irrigation systems, water, and water rights, is taxable, even though the company may own no lands upon which the water is applied for irrigation.<sup>17</sup> But it is not certain whether this determination is still valid when considered together with the statute requiring unit assessment of land and water rights. The two views might be reconciled by interpreting §39-5-105 to allow separate taxation of water rights when owned by an entity other than the landowner.

If the entity is classed a domestic water company, it is taxable as a "public utility" under §39-4-101. There is some confusion over whether the term "domestic" means "not foreign" or "for municipal use." The definition adopted by state tax authorities includes water companies in the state acting as common carriers which supply water for manufacturing as well as domestic use.<sup>18</sup> Profit-making companies supplying water not exclusively for irrigation purposes fit into this category.

Property owned by the public utility is assessed by the state property tax administrator. Value depends on both tangible property

comprising its plant and intangible property less depreciation, capitalized income, and market value of stocks of securities.<sup>19</sup> Water rights, ditches, and so forth, are not valued or taxed separately. Once the value of the company as a whole is determined, it is apportioned among the various counties in which the property is located. The county assessors then tax the company.

This leaves the issue of whether the water user may be taxed separately for water supplied by the water company. The user is not subject to direct taxation on the water that he receives. But the water user is being indirectly taxed for any water he uses to irrigate land since irrigated land is taxed at a higher rate than dry land. In this respect, the right to receive water is a taxable property interest which is assessed in the value of the land.

c. Bureau of Reclamation Projects.

Taxability of water supplied through U.S. Bureau of Reclamation projects depends on whether the water right is owned by the bureau (in which case it would be exempt as federal property) or by the landowner. The courts have not yet resolved this issue, but one authority says the general trend seems to be towards taxing the water right as part of the landowner's property.<sup>20</sup>

d. State-affiliated Organizations.

This discussion pertains to water conservancy districts, conservation districts, and other special districts which were created either by statute or by some procedure pursuant to statute. These bodies function to provide various services to different locations and segments of the population. They provide services similar to those provided by certain privately-owned companies, but they are treated differently, particularly with respect to the matter of taxation. (The subjects of publicly-owned water organizations, their tax-exempt status, and their taxing powers are combined in this section.)

Water rights and other property owned by state-affiliated water suppliers are probably exempt from taxation, but such exemption is not clear. Article 10, §5, of the Colorado Constitution states:

The property, real and personal, of the state, counties, cities, town, and other municipal corporations and public libraries shall be exempt from taxation. [Emphasis added.]

Property owned by a municipal corporation supplying water for domestic use is exempt under §32-4-214. However, statutory exemptions for irrigation district and drainage district property<sup>21</sup> were found to be unconstitutional by the court in Logan Irrigation District v. Holt.<sup>22</sup> The exemptions were void because, in the court's view, "an irrigation district is a public corporation, but it is not in any true sense a branch or subdivision of the sovereignty. Its purposes are chiefly private and for the benefit of landowners."

Recently, in Game and Fish Commission of Colorado, et al. v. Cleland N. Feast, et al.,<sup>23</sup> the court ruled that property held by state-affiliated bodies having the power to levy taxes is exempt from the operation of tax statutes. If applied to irrigation districts and other special districts having the power to make special assessments, the decision overrules Logan and exempts the property of such public corporations.

Special districts have been created by the state legislature to administer and finance various water-related projects which provide direct and indirect benefits to the community. The taxing power of the various districts vary. Irrigation districts and drainage districts do not have the power to tax property on a general ad valorem basis to raise revenue, but are strictly limited to levying special assessments to pay for the costs of construction of water projects.<sup>24</sup> The land is assessed on a graduated scale according to the benefits received by the project. Internal improvement districts are also empowered to make local assessments on lands benefited by supply of storage water or flood protection.<sup>25</sup>

Water conservancy districts, as well as the Colorado River Water Conservation District, the Southwest Water Conservation District, and the Rio Grande Water Conservation District, may impose general levies on all real and personal property within district boundaries, in addition to making special assessments or fixed charges against lands to which water is allotted on the basis of value per acre-foot of water.<sup>26</sup> Conservancy districts are also empowered to charge for water allocated to municipalities or other public corporations.<sup>27</sup>

Ground water management districts are authorized to levy and annually collect taxes (not to exceed one-half mill on the dollar) necessary to finance their activities. They are also empowered to make special assessments on water wells not to exceed five cents per gallon per minute of the registered pump capacity of the well.<sup>28</sup>

River basin authorities have the most explicit authority as regards taxation of interests in water. The statute authorizes raising revenues:<sup>29</sup>

. . . by a tax upon the taxable real property right of the right to use water. The situs of the water right

for purposes of taxation shall be that where the water is applied to beneficial use. Such tax shall be levied according to the benefits received by water users, and the authority may define classes of water users, and the tax levies need not be equal except among members of the same class. In determining the class of water users and the tax levy upon each, the authority shall determine the benefits to be received by each class, and in this connection, shall take into account historic diversions, priority dates, and other relevant data.

The statute also provides that a uniform levy of no more than three cents per acre-foot of water delivered may be levied for purposes of paying for the planning of various water projects.<sup>30</sup>

The power of special districts to tax is usually limited to levying a charge for water supplied and generally taxing property at a uniform rate for indirect benefits.

One example, the Northern Colorado Water Conservancy District, was created to repay the federal government a portion of the costs of the Colorado-Big Thompson project and administer water allocation. The district charges a fixed contract rate for water and also collects a mill levy on property in the district. It is projected that in 1982 \$481,175 will be collected for water use (the amount collected has remained the same since the district was created) and \$637,777 in property taxes (the amount has steadily increased due to rising property values).<sup>31</sup>

Permanent transfers or changes in use within the district may be granted by the board of directors. The water allotment usually runs with the land, but the board may sever it from the land and reallocate the water. The tax liens for water use are then removed from the land from which the water is being transferred and are created on lands to which the allotment is transferred.<sup>32</sup>

Normally, special districts do not directly tax water rights since they usually own the water rights. The various water districts may do one of the following: (1) charge for water allotments or other special benefits at a fixed rate, (2) impose ad valorem taxes on both real and personal property within the district, or (3) levy taxes on the right to receive water at a rate dependent upon the use to which the water is applied.

The River Basin Authority Act outlines the procedure for organizing river basin authorities which would have power to tax water rights. So far, no river basin authorities have been created.<sup>33</sup>



e. Counties.

The county assessor's office in six counties--Denver, Jefferson, Garfield, Otero, Crowley, and Park--when asked about taxation of water, all gave basically the same answer: Water rights are not taxed separately. However, it appears the counties have the authority to do so in certain cases. In a few counties, shares of stock in mutual companies were taxed separately, but this practice has been phased out in favor of taxing the value of the land as enhanced by irrigation.<sup>34</sup>

In several instances, water rights are taxed indirectly by the county. The value of water is taken into account in the assessment of land as irrigated. Agricultural land is not taxed on a piecemeal basis; instead, the tax is computed on the basis of the productivity of the land. The range of rates goes from \$18/acre for dry pasture to \$215/acre for irrigated hay land.<sup>35</sup>

The value of access to water is included in other ad valorem tax assessments. Some counties value land as improved (having water and electrical services) or unimproved (lacking such amenities).<sup>36</sup> And at least one county taxes lake front property at a rate which covers the value of the water in the lake and the land on which it is located.<sup>37</sup>

Counties do not separately assess wells, although their value is probably reflected in the total assessment of the land. There are fees charged for applications to drill wells, final permits, permits to replace or modify existing wells, license fees for commercial well drillers, and so forth.<sup>38</sup>

While water mains are taxed to landowners (usually included in a base plumbing charge), dams, reservoirs, and any unallocated water within them are not usually taxed.<sup>39</sup>

Since most ditch companies operate on a nonprofit basis for irrigation purposes, they are rarely taxed. Easements for ditches and canals are not taxed unless the land has been deeded to the ditch company. The assessment of the subservient land may be reduced in proportion to the decrease in the land value resulting from the easement.

Carrier ditch companies and other profit-making domestic water companies are taxed as public utilities. The property is assessed as a unit; each ditch is not taxed separately.

Corporations (such as Coors) which own water rights and use large amounts of water for profit-making purposes are not separately taxed for those water rights. Corporations are subject to both income tax (based on the power to generate income) and property tax (usually based on costs of the physical plant less depreciation). The formula

used to compute corporate taxes will not be discussed here, but information suggests that, at best, only a portion of the value of water rights is being taxed even indirectly.<sup>40</sup>

### 3. Problems in Valuation.

Assessment of water rights with the land creates several problems. While it makes some sense to assess the value of irrigated land as a whole rather than breaking it down into smaller interests, it could hamper efforts to tax all water rights on a "uniform" basis, as required by the Colorado Constitution.<sup>41</sup>

However, making a separate valuation of the water rights alone has its own difficulties. Methods used to estimate property values have only a limited use when trying to estimate the value of a water right. After determining where the water right is to be taxed (the land served by the right),<sup>42</sup> and when the right became taxable (the right relates back to the date it was put to beneficial use),<sup>43</sup> it is necessary to determine the quantitative yield of the right. Valuation of this amount may depend on priority date, the amount diverted as proposed to the amount used, comparison with other properties of known or recognized value, market value in the ordinary course of trade, carrying or productive capacity, availability of other sources, et cetera.

The only provision which would allow taxation of a change or transfer in water right is the documentary fee required to record a written instrument conveying real property. The fee is based on the amount of consideration paid. Although water rights are not listed as exempt from fee, the fee is not usually collected since water rights need not be filed with the county clerk.

A documentary fee is required on any deed or written instrument involving consideration of \$500 or more.<sup>44</sup> Unless the fee is paid, the written instrument or deed will not be recorded. Changes in transfer of water rights are not included in the list of exemptions, so it appears that the fee of 1¢ for each \$100 of consideration should be paid for all conveyances involving water rights. But since there is no requirement that water rights be recorded in the Office of County Clerk and Recorder, the only time the documentary fee is paid on a transfer of water rights is when they are conveyed with the land.

As the law stands now, a fee of \$25 must be paid on all applications to obtain or change water rights.<sup>45</sup> Rulings of water referees are to be filed with the water clerk and become effective upon filing.<sup>46</sup> There is a water clerk in each of seven divisions whose

duty it is to maintain records of all proceedings related to appropriations, determinations of water rights, changes of water rights, et cetera.<sup>47</sup> Judgments and decrees ordering transfers or changes in water rights are to be filed with the state engineer and the respective division engineer upon payment of a \$2 fee.<sup>48</sup>

There is not much other information available which is applicable to taxing changes or transfers. Taxable property which has not been valued may be reappraised and taxed accordingly, allowing county officials to take into account newly-acquired water rights.<sup>49</sup> There is also a provision dealing with a change to agricultural use, which provides for reclassification of the land and reassessment at a lower rate.

### C. Types of Taxes Relating to Water Rights and Their Use.

There are several major goals or policies which might be achieved by various methods of taxation. One possibility is raising revenues to pay for general government expenses. It has been suggested that such revenues be used not just to keep the wheels of state and local government turning, but should be used to fund a state water bank or to finance the purchase of easements and water rights for a state scenic river system. Another objective is the preservation of water in agricultural use by taxing transfers or changes in use. A third policy is simply conserving water and cutting down on its use. Fourth, more water might be made available to water users by the imposition of special assessments for construction of additional water projects in the state.

These and possibly other policies might be realized by imposing various types of taxes.<sup>50</sup> However, the effectiveness of some of these methods is questionable.

#### 1. Property Tax.

Presently, counties have the power to tax nonirrigation water rights separately from the land without additional legislation. But before separate assessment and taxation of water rights could take place, it might be advisable to make a statewide hydrographic survey in order to determine who is entitled to water and how much each should get, instead of taxing what are actually only paper water rights. It may also be necessary to increase the staffs and funding for county assessors' offices.<sup>51</sup> Since the authority to tax property lies with the county, the state's role in levying property tax

on water rights is probably limited to making suggestions and providing advice to county officials.<sup>53</sup>

## 2. Documentary Fee.

For the documentary fee on conveyors of real property to be applicable to water rights, an act would be required mandating that all water rights be recorded with the county clerk's office. This approach would leave leased water untaxed. The low fee charged (1¢ per \$100 of consideration) would probably be totally useless so far as deterring changes in or transfers of water rights and would do very little to raise revenues.

## 3. Severance Tax.

Various license fees, severance taxes, and royalties are imposed on coal and oil and may provide a useful model for taxing water. Where there has been no severance of ownership--that is, where there is a mere privilege to remove minerals--those minerals are still taxable to the owner. A similar situation exists with respect to water rights; where there is only a leasing of water rights or a privilege to use the water, the owner of the water rights should be taxed. The oil and gas conservation tax imposed on producers and interest owners, to the extent of their ownership at time of production, might be adapted for water suppliers and users.<sup>53</sup>

## 4. Sales and Use Tax.

In Colorado, the sales tax is to be levied by the state on all retail sales of "tangible personal property" and upon telephone and telegraph service, gas and electric service, and steam service.<sup>54</sup> Complementing the sales tax is the use tax which is imposed on the storage, use, or consumption of "tangible personal property."<sup>55</sup> "Tangible personal property" is defined as "corporal personal property,"<sup>56</sup> and regulation 138-5-2(11) states:

Not included in the definition of tangible personal property are real estate or any interest therein.  
. . . Property severed from real estate or property capable of being severed from real estate without damage to the real estate is tangible personal property.

An analogy can be made to the sales tax on gas or electric services sold by municipal or public or private corporations for domestic or commercial use. Electricity, like water, does not come under the category of "tangible personal property." Unfortunately the analogy falls short. Unlike electricity, water rights are real property and are subject to ownership. It could be argued that a water right is capable of being severed from real estate, but it is very doubtful that a sales or use tax could be imposed on water rights without further legislation specifically extending the tax to apply to the use of water. Even then, the statute would probably be challenged on the grounds that water rights are real property, and are not subject to sales tax.

Assuming for a moment that the statute was passed, one of the primary difficulties would be in determining the amounts of water used. A graduated sales tax might be imposed in areas which require water meters (such as Aurora) in order to reduce water use and act as a conservation incentive. And it could be possible to base the tax on a percentage of the amount paid for the water, rather than the actual amount consumed.

#### 5. Transfer Tax.

It appears that the most probable, effective taxing method to preserve water for agricultural production (i.e., keeping the status quo as regards water allocation) would be to impose a fee or tax on the privilege of transferring or leasing water rights or changing the uses of water (sort of a combination between a documentary fee and a sales tax). So that it will not be challenged as a sales tax on real property, the bill should clearly indicate that it is a tax on the privilege of transferring rights. Commenting on taxation of water rights, Sato states:<sup>57</sup>

If the right is separately assessed, the assessor might give consideration to alternative uses of the water; the highest and best use under current water-demand conditions may not be the use to which the user is currently applying the water.

This remark, which seems to suggest taxing of transfers of water at different rates based on some hierarchy of preferred uses, might be called to question on constitutional grounds as a denial of equality and uniformity. Research as to what constitutes discrimination in classification of property or in rates of assessment produced no clear-cut answer.<sup>58</sup> But it is probable that any sizable discrepancy in rates of taxing transfers would be struck down on equal protection grounds. In view of the fact that the price of water varies depending

on its use, the same results might be achieved by a bill taxing the amount paid for or the value of the water right.

Here are some suggestions for such a bill:

- (1) The stated purpose of the bill might cite the need for the counties and the state to be informed of transfers and changes in use of water in order to evaluate the land for property tax purposes, and for the development of a "coherent state water policy"; it might also mention that the funds raised by the fee would be used to fund a state water bank, a state hydrographic survey, a state scenic river program, or some other public interest-oriented water program.
- (2) The fee would be imposed on conveyances of water rights with the land, on leasing of water rights for a total period of not less than three months, on transfers or changes in the use of water rights granted by water courts or referees, and on all other transactions involving property interests in water.
- (3) The amount of the fee could be based on a percentage of the consideration paid for the sale or lease. If no consideration is paid, then a percentage of the estimated market value of the water or water right could be paid.
- (4) An exemption might be made for permanent transfers which do not involve a change in use, so that transfers between agricultural users would not be subject to the fee. But since the cost for agricultural water is much lower than that for municipal water, it might not be too great a burden to collect the fee regardless of whether or not there is a change of use.
- (5) The fee could be paid to the water clerk's office, who would record information regarding the parties involved in the transaction, the consideration paid (or the estimated value), and the fee paid.

A proposed statute of this sort would probably encounter strong opposition in the Colorado General Assembly. To be effective at deterring changes in water use, it would have to provide for taxation of water rights at a high percentage of the purchase price or value. Such a high rate might not be justified by the social costs or policies involved. Even then, it is unlikely that the tax would deter those with the money to spend or those likely to profit from the transaction. The costs of the tax would probably be eventually

passed down to the consumer either in water rate hikes or in higher prices for manufactured products.

Finally, the transfer tax may be ineffectual in deterring transfers out of agriculture into municipal use, since municipalities would probably be exempt from paying the tax.<sup>59</sup> However, in several states, courts have held that municipalities, while not required to pay a tax on property, are subject to excise or privilege taxes.<sup>60</sup>

#### D. Other States.

Since the subject of taxation of water rights is often obscure and confusing, rather than attempting to analyze the tax laws pertaining to water in western states, a very brief comment on a few of the applicable statutes and cases in California follows.

On the whole, California seems to be more receptive to the prospect of taxing water rights. Water rights are not classed as improvements<sup>61</sup> (which are exempt in some cases) but are separately assessable as land.<sup>62</sup> One court held that excise taxes may be levied on water which is purchased outside a municipality for distribution within the municipality.<sup>63</sup> There is also a statute imposing ground water replenishment assessments for certain water users.<sup>64</sup>

#### E. Summary.

Under Colorado law, water rights are defined as "improvements" which are taxable as "real property." There seems to be no prohibition against taxing water rights, but there is confusion regarding whether water rights (and dams, reservoirs, etc.) can be assessed separately from the land on which they are used, and whether certain water suppliers are exempt from taxation.

In the final analysis, it appears that counties do have the authority to tax the value of irrigated land (which takes into account the value of the water). They cannot separately tax water rights used for irrigation purposes, but they do have the power to impose an ad valorem tax based on value of water rights used for other purposes (manufacturing, energy development, etc.).

In addition, certain agents of state government such as water conservancy districts, irrigation districts, and so forth, have the authority to levy special assessments for water allocations or other direct benefits and may also impose ad valorem taxes on property indirectly benefited by water projects.

XI. TAXATION OF WATER RIGHTS OR OF TRANSFERS OF WATER RIGHTS

REFERENCES

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2. §39-1 102, C.R.S. 1973.
3. C.F. & I. v. Pueblo Water Co., 11 Colo. App. 352, 53 P. 232 (1898).
4. Kendrick v. Twin Lakes Reservoir Co., 58 Colo. 281, 144 P. 884 (1914).
5. 81 Colo. 266, 254 P. 996 (1927).
6. Beaty v. Board of County Comm'rs. 101 Colo. 346, 73 P.2d 982 (1937).
7. Empire Land & Cattle Co. v. Board of County Comm'rs, 1 Colo. App. 205, 28 P. 482 (1891), Murray v. Board of County Comm'rs, 28 Colo. 427, 65 P. 26 (1901), and Shaw v. Bond, 64 Colo. 366, 171 P. 1142 (1918).
8. Kendrick, supra note 4, and Logan Irr. Dist. v. Holt, 110 Colo. 253, 133 P.2d (1943).
9. §39-3-101(1), C.R.S. 1973. In Antero & Lost Park Reservoir Co. v. Board of Comm'rs, 65 Colo. 375, 175 P. 148 (1918), the court held that the dam itself was not taxable, but that the water in the dam and the land on which it is located are taxable.
10. Discussion with Doug Sutherland, Jack O'Donnel, Kenneth Smith, and John Williams, Property Tax Division, Department of Local Affairs, July 19, 1977.
11. §37-87-116, C.R.S. 1973.
12. §39-5-106, C.R.S. 1973.
13. Sho Sato, "Tax Problems Relating to Water Rights and Waterworks," 1 Clark, Waters and Water Rights (1967), at 450.
14. Id. at 451.
15. 101 Colo. 346, 73 P.2d 982 (1937).
16. Telephone conversation with Doug Sutherland, Property Tax Division, Department of Local Affairs, July 18, 1977.



17. San Luis Power & Water Co. v. Trujillo, 93 Colo. 385, 26 P.2d 537 (1933).
18. Supra note 16.
19. §39-4-102, C.R.S. 1973.
20. Sato, supra note 13, at 455.
21. §§37-41-115 and 37-21-113, C.R.S. 1973.
22. 110 Colo. 253, 133 P.2d 530 (1943).
23. 157 Colo. 303, 402 P.2d 169 (1965).
24. §§37-42-128 and 37-23-101, C.R.S. 1973; and Henry Wilcox & Son v. Riverview Drainage Dist., 93 Colo. 115, 25 P.2d 172 (1933).
25. §§37-44-114, 37-44-119, and 37-44-123, C.R.S. 1973.
26. §§37-45-118(f), 37-46-109, 37-47-109, and 37-48-107, C.R.S. 1973.
27. §37-45-121, C.R.S. 1973.
28. §37-90-132, C.R.S. 1973.
29. §37-93-105(b)(I), C.R.S. 1973.
30. §37-93-105(b)(II), C.R.S. 1973.
31. L. M. Hartman and Don Seastone, Water Transfers: Economic Efficiency and Alternative Institutions, Baltimore: John Hopkins Press, 1970, at 61.
32. Id. at 56.
33. Telephone conversation with Bill Smith, deputy state engineer, July 22, 1977.
34. Telephone conversation with Jane Masbarena, Otero County Assessor's Office, July 20, 1977.
35. Telephone conversation with Dave Calder, Jefferson County Assessor's Office, July 20, 1977.
36. Telephone conversation with Winifred Mallet, Garfield County Assessor's Office, July 20, 1977.
37. Calder, supra note 35.

38. §§37-90-105, 37-90-107, 37-90-108, and 37-90-116, C.R.S. 1973.
39. Calder, supra note 35.
40. Conversation with John Williams, Property Tax Division, Department of Local Affairs, July 21, 1977.
41. Colo. Const. art. 10, §3.
42. §137-1-1(5), C.R.S. 1973.
43. City and County of Denver v. Northern Colorado Water Conservancy Dist., 130 Colo. 375, 276 P.2d 992 (1954).
44. §§39-13-101 through 108, C.R.S. 1973.
45. §37-92-302, C.R.S. 1973.
46. §37-92-303, C.R.S. 1973.
47. §37-92-204, C.R.S. 1973.
48. §§37-80-110 and 37-92-304, C.R.S. 1973.
49. §39-2-114(1), C.R.S. 1973.
50. No references to site value or land value increment taxes were made in a related letter of March 8, 1977, from Sandy White. Sources in the Property Tax Division of the Colorado Department of Local Affairs had never heard of site value or land value increment taxes. They may be types of property tax which use a standard of valuation different from the usual ad valorem, market-value method of assessment--possibly a classification scheme.
51. Telephone conversation with John McGee, Park County Assessor's Office, July 20, 1977.
52. Conversation with John Williams, Property Tax Division, Department of Local Affairs, July 22, 1977.
53. See C.R.S. tit. 34, art. 60 (1973).
54. §39-26-104(1), C.R.S. 1973.
55. §39-26-202, C.R.S. 1973.
56. §39-26-102(10), C.R.S. 1973.

57. Sato, supra note 13.
58. See Ames v. People ex rel. Temple, 26 Colo. 83, 56 Pac. 656 (1899); Citizens Comm. for Fair Property Taxation v. Warner, 127 Colo. 121, 254 P.2d 1005 (1953); and City and County of Denver v. Lewin, 106 Colo. 331, 105 P.2d 854 (1940).
59. Conversation with Bob Martinez, Sales and Use Tax Division, Department of Revenue, Aug. 4, 1977.
60. See City of Phoenix v. Bowles, 65 Ariz. 315, 180 P.2d 222 (1947); Brunton v. Superior Court of Los Angeles County, 20 Cal. 202, 124 P.2d 831 (1942).
61. Alpaugh Irr. Dist. v. Kern County, 113 Cal. 286, 248 P.2d 117 (1952).
62. City of Los Angeles v. Inyo County, 167 Cal. 736, 335 P.2d 166 (1959).
63. City of Glendale v. Crescenta Mt. Water Co., 135 Cal. 784, 288 P.2d 105 (1955).
64. Cal. Water Code §§ 60000, 60315-60317.

## XII. LEGAL ANALYSIS OF A STATE WATER BANK.

### A. Introduction and Abstract.

The purpose of this study is to examine certain legal and administrative problems involved in the creation and operation of a state "water bank." The concept of "water bank" as used herein is a state-owned and controlled fund of water rights which are distributed at the discretion of the state government for the purpose of effectuating certain state policy goals. The actual method of ownership or control may be subject to certain variations. It may involve outright fee ownership of appropriation rights which are to be understood in Colorado to be usufructs--intangible rights to use the water. It may involve leasehold or contractual interests to receive water pursuant to the water rights of others. Conceivably, it might involve the ownership of a less-than-fee interest in water rights retained by others, such as a negative easement limiting the water right to certain policy-preferred uses.

Certain possible state policies, illustrative in nature, were suggested by the contract for this study:

Preservation of irrigated agriculture.

Support for small/family ranchers or farmers.

Facilitation of instream flow needs for fishery and environmental purposes.

Facilitation of water administration and exchanges.

Assistance for drought or other emergency aid to particularly needful users.

Inherent in the concept is the ability of the state to control and allocate water to uses or combinations thereof perceived to be in the public interest. Presumably, water best used for one purpose during certain times would be reallocated during others. The motivation for a water bank is a desire to achieve policy ends through some device other than, or as a supplement to, police power restrictions.

The threshold question explored is the extent of presently-existing statutory power in the several state agencies to conduct such a program: first, the power to make acquisitions or to own the necessary water rights; second, the delegated purposes sufficient to allow the discretionary allocation of the owned water. We have concluded that while many agencies have certain powers to own or acquire, none have the broad purposes required to reliably support the water bank function.

Possible additional legislative delegations to create water bank authority were explored. We have concluded that the most attractive

candidate under existing state administrative structures would be the Colorado Water Conservation Board.

Assuming the existence of authority for a water bank, certain suggested means of "funding" it with the necessary water and water rights were examined. We conclude that new appropriations generally cannot provide the necessary water in our largely over-appropriated state. The levy of an in-kind tax or reservation of a state share in water rights, either newly appropriated, or undergoing a subsequent change in decreed types or places of use, appears to be of dubious legality and practicality. Although the possibility of general ad valorem taxes imposed on water rights may be legally sound and may represent an untapped revenue resource, their use to fund a state water policy purpose may tend to be counterproductive. The tax would largely fall on the resource to be preserved--for example, irrigated agriculture. Assuming that the rationale for state activity in water allocation is the achievement of public policy objectives presumably statewide, the funding base would need to be equally broad--the entire state public. We conclude as a matter of practicality that such funding would need to come from the state general fund.

Our general investigation of the subject suggests it is late in the game to commence a water bank in the state. It would be difficult for one to exist on a meaningful scale and operate cost-effectively. Smaller, more focused, state-owned funds for particular purposes might be effective. Long-term, more passive funds consisting of interests in water might effectively achieve certain preservation objectives. Alternatively, a state-administered, federally funded voluntary pooling program might be able to simulate the desire enlargement of supply at tolerable cost by achieving improved distributional efficiencies. This concept, however, is somewhat beyond the scope of the present inquiry, and should be closely scrutinized before it is recommended for adoption.

#### B. State Authority to Acquire Water Rights.

Present statutory authority of the state to acquire water is quite limited. Such authority as exists lies most obviously in the several agencies of the state. But beyond that, other public entities such as public or quasi-municipal corporations also have acquisition powers. The first section of this report, then, will analyze the powers of state agencies with respect to the formation of a state water bank; and further, the similar powers of public entities, considering the possibility that the state might achieve its purpose through some sort of district.

Since implementation of a state water bank would likely be a politically controversial action, this section is concerned with finding clear and present authority to acquire water. Where acquisition powers are inferential at best, a new enabling act would be recommended, rather than exposing an ambitious water bank program to potential legal and political limbo.

## 1. Authority of State Agencies.

Various state agencies are expressly given the authority to acquire water rights. Whether any of these agencies have either the powers or the scope of responsibility to individually initiate and administer a water bank is doubtful at best. Either the grants of power are limited to acquisition of water rights for a specific purpose, or the scope of the agency's responsibility is so narrow that, even if the stated purposes were broad enough to include a water bank, it would be ill-equipped to administer such an extensive and diverse project. What follows, then, is a review of the existing acquisition powers of state agencies and the reasons for their unsuitability to the administration of a multi-purpose state water bank.

### a. State Board of Land Commissioners.

The State Board of Land Commissioners is authorized to acquire water to "irrigate and improve" any state lands susceptible to improvement by irrigation<sup>1</sup> through the initiation of water rights or by the purchase of existing water rights.<sup>2</sup> The board can also enter into contracts to provide for such irrigation and can petition such lands into irrigation districts.<sup>3</sup> The board has the power of eminent domain, but the statutory grant limits it to rights and easements on United States public lands.<sup>4</sup>

Although the power to contract for water, when coupled with the ability to initiate or purchase water rights, might arguably serve the objectives of a water bank, the purposes for which these powers can be exercised are so limited that the state, through this agency, would have no authority to acquire water for nonstate lands or even for nonirrigation purposes on state lands. The State Board of Land Commissioners is thus not presently empowered to singlehandedly administer the type of multi-purpose water bank envisaged here.

### b. Wildlife Commission.

The Wildlife Commission may acquire "land and water" or "interests in land and water" by gift, transfer, devise, lease, purchase, or long-term operating agreement for purposes the commission finds to be "necessary, suitable, or proper for wildlife purposes or for the preservation and conservation of wildlife."<sup>5</sup> It further may lease, exchange, or sell water. The sale is to be public, and the commission has the right to reject any and all bids.<sup>6</sup>

Although the powers of this agency are broad, and specifically

refer to water as opposed to real estate or real property,<sup>7</sup> the purpose of preserving wildlife is narrow. "Wildlife" is statutorily defined as wild vertebrates, mollusks, crustaceans, and fish,<sup>8</sup> thereby eliminating farm or ranch animals. It may be arguable, however, that the preservation of wildlife would necessarily include consideration of the environment of wildlife, involving a large amount of privately-owned land, especially that devoted to agriculture. Deer and antelope feed on private land; migratory birds feed and nest on private land--and maintenance of the feeding and nesting, or breeding, ground of wildlife is obviously fundamental to the preservation of such wildlife. However, to use this analysis to show that the Wildlife Commission could administer a state water bank is to ignore the tenor of the statute and the general scope of the Wildlife Commission itself. First, it is difficult to argue that the sale of water without regard to the priority system, or the maintenance of certain land in agriculture, will significantly affect wildlife unless the specific land is a known habitat of some species of wildlife. Even then, the water bank so obviously has purposes and ramifications far beyond the broadest possible reading of the organic act, and the control or the maximization of water usage goes so far beyond any action "necessary, suitable or proper" for wildlife that the Wildlife Commission is an inappropriate choice to administer a water bank under present statutory authority. The general scope of the agency, most aptly illustrated by its title, is simply too narrow for water bank purposes.

c. Board of Parks and Outdoor Recreation.

The Board of Parks and Outdoor Recreation, through broad language of purpose, offers one existing agency that might have authority to acquire water rights for water bank purposes. The board may acquire land and water or interests in land and water by gift, transfer, lease, purchase, or long-term operating agreement, for the purposes which the director deems "necessary, suitable or proper for parks or outdoor recreation purposes or for the preservation or conservation of sites, scenes, open space, and vistas of public interest."<sup>9</sup> Further, the board may lease, exchange or sell water which becomes surplus or which, in the proper management of the board, the director desires to lease, exchange or sell. The sales are to be public with the board retaining the right to reject any and all bids.<sup>10</sup>

The Board of Parks and Outdoor Recreation has broad powers of acquisition, lacking only the authority to condemn water rights, so that the test here lies in the purpose for which those powers can be exercised. There is no statutory definition of "sites, scenes, open space, and vistas of public interest." These categories are

arguably broad and indefinite enough so as to encompass the maintenance of agricultural land or other water bank purposes. A wheat field would certainly be open space in comparison to a housing development. When contrasted with a natural grassland, however, it may not be. Using water for the state to encourage agriculture might very well be categorized as the preservation of open space. The categories of "sites," "scenes," and "vistas of public interest" are even more open to interpretation. What is essentially involved is an aesthetic value judgment. In the final analysis, almost any conceivable purpose could arguably be subsumed under the heading "conservation and preservation of sites, scenes, open space, and vistas of public interest."

Despite broad powers of acquisition and even broader purpose, the Board of Parks and Outdoor Recreation is far from the ideal agency to administer the water bank. In fact, the very vagueness of purpose that might allow the agency to administer a program far beyond its probable intended scope in the first place places in the hands of the director, subject only to approval of the executive director, almost unbridled discretion in deciding what qualifies as "open space" deserving of preservation. In the end, the choice would have to be based on rather loose and subjective aesthetic preferences, rather than on an objective and uniform standard based on ascertainable and measurable environmental and economic values. This could jeopardize the credibility of the Board of Parks and Outdoor Recreation, and indeed imperil the viability of the water bank concept. Moreover, if the director were to solely utilize objective standards rather than aesthetics, he would exceed the boundaries of his statutory powers.

The final power of the board, which will be of interest later in this study, is the power to sell, exchange, or lease water which (1) becomes surplus, or (2) the director desires to sell, as long as it is in keeping with the proper management of the board. The question of proper management momentarily aside, this ability to sell, or otherwise divest itself of, water for unspecified purposes is precisely the type of power the administrator of a water bank would need.<sup>11</sup>

#### d. State Soil Conservation Board.

The State Soil Conservation Board may obtain options upon and acquire, or acquire control of, by purchase, exchange, lease, gift, grant, bequest, devise, or otherwise, any property, real or personal, or rights or interests therein.<sup>12</sup> The purposes for which these water rights can be acquired include the establishment of "a constructive method of land use providing for the conservation and preservation of



natural resources including adequate underground water reserves, the control of wind and water erosion, and the reduction of damage resulting from floods."<sup>13</sup>

Whether a water bank could service any of the listed purposes would depend upon the physical and organizational makeup of the bank and the extent to which the agency might accomplish a conservation purpose while in the process of furthering a much broader water bank goal. For example, if the water bank includes actual storage, then to the extent that rampaging flood waters could be detained in storage, flood damage might be mitigated. This, certainly, would be a way to develop a water bank within the limitations of the statute. Although making the success of such an ambitious project depend upon the availability of flood water would be foolish, ownership of water rights for years of normal precipitation might be acquired for purposes of conservation. The allocation of water thus acquired to selected agricultural uses in time of shortage might very well prevent wind erosion of dry, loose soil. The counterargument, of course, is that any project encouraging agriculture encourages erosion since soil left undisturbed, with its natural cover, is less likely to blow or wash than cultivated soil. Yet as agriculture exists, the increased availability of water in dry years is certainly a "conservation" of the soil.

A water bank could also be designed to artificially recharge underground water reserves. This could be accomplished in many ways, such as shallow basins located in sandy areas where the rate of recharge to the aquifer would be fairly rapid. This water could be sold to farmers with junior rights to use in plans of augmentation, allowing them to divert irrigation water which they otherwise could not purchase. Whether this could actually be called recharging underground water reserves is not clear. Perhaps only a recharge with no subsequent diversion would qualify, thereby limiting most of the envisaged purposes of a water bank.

One further problem is that, unlike the Wildlife Commission and the Board of Parks and Outdoor Recreation statutes, the organic act of the State Soil Conservation Board does not specifically mention the right to acquire water or water rights. However, there are several Colorado cases classifying water rights as real, and water stock or water diverted from the stream as personal, property.<sup>14</sup> Therefore, water should be included in the statutory provision when it refers to "real or personal property."

The State Soil Conservation Board, then, lacks only powers of eminent domain in the acquisition of water. Further, its purposes encompass some of the possible objectives of a state water bank with much less argument than did the provisions in the Wildlife and the Parks statutes. There is still, however, a fundamental problem with

suggesting that the State Soil Conservation Board has the present authority to develop and administer a water bank. The traditional function of the agency is with soil conservation projects, and only with water as an incident to such projects. To elevate this agency to the status of "water manager" not only may be beyond the principal scope of the agency as it presently exists, but may cause inter-agency conflicts. Giving such broad powers to the Soil Conservation Board over such agencies as the Water Conservation Board, who are traditionally involved in water matters, may be an administrative mistake which, in the end, would cause more problems than would an attempt to pass specific new legislation designed to authorize the water bank functions.

e. Water Conservation Board.

The Water Conservation Board has the power to acquire "any real property or interest therein" by grant, purchase, bequest, devise or lease, or by eminent domain. These powers, however, relate to any project specifically authorized by the United States Congress for the prevention or control of floods.<sup>15</sup> The board may also file an application in the name of the Department of Natural Resources for the appropriation of waters.<sup>16</sup> The only limitation on this latter power of acquisition is the general duty to "promote the conservation of the waters of the state . . . in order to secure the greatest utilization of such waters and the utmost prevention of floods."<sup>17</sup> The board also has the right to appropriate, under S.B. 97, water for minimum stream flows.<sup>18</sup> The board has the power of eminent domain to acquire "real property or interest therein" with respect to projects specifically authorized by the U.S. Congress for flood control.<sup>19</sup>

This agency is, at the same time, the most and the least promising for water bank purposes. Since water rights are real property, then the Water Conservation Board has every conceivably necessary power, including eminent domain, to acquire water. However, the purpose for which these can be exercised is so narrow (viz., flood control projects authorized by Congress) as to render the powers worthless for water bank purposes. In order for the Water Conservation Board, as presently empowered, to administer the water bank, it would have to be a project authorized by the U.S. Congress for flood control. It would be much simpler to get a new enabling act through the Colorado legislature authorizing some agency to administer a water bank than it would to gain the approval of the U.S. Congress for a flood control project, let alone a water bank project. In addition, United States involvement might at least complicate state water goals whose achievement is the reason for establishing the bank in the first place. Therefore, the broad acquisition powers of the board are of no practical use to a state water bank.

On the other hand, the power to initiate appropriation can be exercised with reference to a purpose that practically embodies the proposed water bank. "The greatest utilization of such waters" could easily include the creation of a water bank, yet the appropriation of water is a very narrow power. Most of the state's major rivers are already heavily overappropriated. Any state right would be junior and thereby subject to perpetually being called out. Therefore, the power would be of little use in securing a dependable physical supply of water for allocation. In the final analysis, therefore, the Water Conservation Board is not presently authorized to create or operate a multi-purpose water bank.

f. Department of Institutions.

There is one agency which apparently has many of the powers necessary to the creation of a water bank, yet to suggest that it should administer a water bank is ludicrous. The Department of Institutions can build state canals and reservoirs,<sup>20</sup> can contract for water rights to fill these facilities,<sup>21</sup> and then lease the water to any individual or corporation who desires to lease it.<sup>22</sup> Moreover, these powers may be exercised for projects for irrigation of state or other lands and to furnish work for convicts.<sup>23</sup> Of these two, the latter is obviously the predominate reason for the existence of the statute as the State Board of Land Commissioners has all the necessary powers to irrigate state lands. So, even though the statute apparently gives the Department of Institutions the power to create a water bank, if "contracting" for water rights would be an adequate method for funding it, by no stretch of the imagination would this agency be suited for such a role.

One further provision of the Department of Institution's powers absolutely eliminates it from consideration. The state reservoirs built by the department are to be controlled by the county commissioners of the county in which such reservoir is located, with distribution of the water to be under the direction of the division engineer of the district.<sup>24</sup> Therefore, if the state water bank were a physical storage facility, to have it built by the Department of Institutions under existing statutory authority would be to vest control of the bank not in the state, but in the specific water division or county of its situs.

g. Department of Administration.

The executive director of the Department of Administration, with the approval of the governor, is authorized to acquire, by purchase, donation, or exercise of the power of eminent domain, a fee simple

title, or lesser interest therein, to any "real property." The only purpose given for the exercise of this power is "for present or future use by the state."<sup>25</sup> In addition, the executive director may rent or lease any such property not presently needed for state use.<sup>26</sup>

Although at first glance this may seem to authorize the acquisition of water rights by the state to be used at its discretion, this is probably not the case. Although case law has defined water rights as real property,<sup>27</sup> rules of statutory construction would probably not allow the exercise of unfettered discretion. The title of an act is used as a guide to the legislative purpose and works as a limitation on the scope of the enactment.<sup>28</sup> Here, the article is entitled "State Property," which is broad enough, but Part I is entitled "Capital Building--Acquisition of Property." This makes it very unlikely that the provision would be construed as authorizing the executive director to acquire water rights, especially in terms of a project of the magnitude of a water bank. And finally, the executive director of the Department of Administration is hardly equipped to administer a state water bank.

#### h. State Engineer.

The state engineer has no powers of acquisition. His authority is merely administrative and supervisory.<sup>29</sup>

#### i. A Multi-agency Project.

A further possibility exists for the creation of a water bank. A consortium of agencies might create a state water bank in the form of a principal storage facility, or even a water rights portfolio. Such a consortium is, in fact, presently authorized by statute:<sup>30</sup>

Agencies within the department of natural resources of the state of Colorado, quasi-municipal corporation, and political subdivisions of the state, including, but not exclusively, counties, towns, cities, cities and counties, water conservancy districts, water conservation districts, water and sanitation districts, soil conservation districts, drainage districts, and special improvement districts are authorized to become members of organizations existing or to be organized within the state of Colorado, to assist in or contribute

the the protection, conservation, and development of water within the state of Colorado. Any such organization shall be construed to be an instrumentality of the agencies and political subdivisions which are members thereof. No such organization shall be ineligible under this section by virtue of the fact that it also admits private individuals and organizations to membership.  
[Emphasis added.]

This statute, in addition to the individual organic acts of the various state agencies, would seem to be all the authority needed to form a state water bank. To test this, it is necessary to examine the concept of a multi-agency water bank and determine whether it would be able to perform all the functions the state envisions for the bank to perform. If new legislation were required, then it would probably be preferable to write a complete enabling act to specifically create water bank authority in a single agency.

The structure of a multi-agency project would consist of the various state agencies under the aegis of some sort of administrative body. The purposes and powers of each individual agency would be, in the absence of any further legislation, the parameters of the water bank, limiting how it could function. Each agency would have to have an "account" in the bank, consisting of water rights separately acquired for and used by that agency for its specific statutory purposes. To create, from these various purposes, an integrated whole would be an administrative challenge of the first order. In fact, whether the administration of a multi-agency project could be effectuated without additional legislation is not clear. How are decisions to be made? Who is to control the bank? How many votes does it take to make a decision? Whether new legislation is needed for the resolution of such questions depends on whether the statute allowing the agencies to create the organization in the first place also carries with it the implied authority to establish their own system of internal governance.

Assuming the administration of the bank could be accomplished without new legislation, an important role would evolve for the executive director of the Department of Natural Resources, as he is presently charged with overall supervision of those agencies which are likely candidates for participation in a multi-agency water bank.<sup>31</sup> The agencies that have the power to acquire water are either under the executive director's control directly by statutory grant of authority<sup>32</sup> or by the fact that the powers granted to the division are to be exercised under the Department of Natural Resources and the executive director thereof.<sup>33</sup> A further indication of the suitability of the executive director to be in charge of the water bank is that the state engineer, who has many specific powers with regard to the Division of Water Resources, such as supervision, rule-making, coordi-

nating, and contracting authority,<sup>34</sup> is subject to the direction of the executive director whenever matters involving the Division of Water Resources involve coordination with other branches of the Department of Natural Resources.<sup>35</sup>

The water bank, since it involves these divisions, would then be under the supervisory control of the executive director, with the specific action being taken by the individual agency so authorized. The executive director would thus be an ex officio coordinator, but under present statutory authority, have no direct powers of acquisition, disposition, et cetera. The question that necessarily arises, then, is whether the executive director should be allowed to wield this tremendous amount of power. Normally, when decisions of the magnitude of those involved here are to be made, a board is usually deemed to be the appropriate body to make them. Democratic process has traditionally been hesitant to place too much power in the hands of a single individual, especially an appointed official. Keeping in mind the politically controversial nature of a water bank in the first place, it would probably be more prudent to place its control in the hands of a board rather than a single individual. Yet the creation of a board almost certainly would require new legislation. So, under existing authority, if a multi-agency project is to be coordinated at all, it would have to be a function of the executive director.

The administration problem aside, it is necessary to consider whether a multi-agency consortium would have the necessary powers under existing law to create a broad purpose water bank. It is clear that the state agencies could organize to form a water bank, could individually acquire water rights and could pool the rights into the water bank. Each agency, then, could use the rights purchased by it for its particular purposes. If this is the only thing that a multi-agency bank could accomplish, its formation is pointless, in that if an agency can serve a water bank purpose, it can do so individually.

The interesting question, whose answer is not clear, is whether a consortium of agencies might be able to accomplish what may not be within the scope of any individual agency's power. To illustrate why a consortium might have powers greater than the sum of its parts, the following chart lists the agencies which have any power to acquire water rights which would be useful to a water bank, and the purposes for which the power may be exercised:

AGENCY	PURPOSE
State Board of Land Commissioners	irrigate and improve state lands
Wildlife Commission	preservation and conservation of wildlife
Board of Parks and Outdoor Recreation	for parks and outdoor recreation, preservation of sites, scenes, open space and vistas of public interest
State Soil Conservation Board	preservation of natural underground water reserves, control of wind and water erosion, reduction of flood damage
Water Conservation Board	control of floods

The previous sections have illustrated that many of these purposes are broad enough to arguably include the proposed water bank, although the analysis suggests that the very scope of the agency itself limits the purposes it can serve. A consortium of agencies, however, overcomes this inherent limitation in scope involved with any one particular agency, while retaining the broad powers of each. For example, if the preservation of certain agricultural lands can be called the preservation of open space, then the only argument against using water rights acquired by the State Soil Conservation Board for general water bank purposes (i.e., that the agency is not equipped to control state water and water policy) falls when five divisions of the Department of Natural Resources are jointly administering the bank. Further, purposes of these agencies may overlap. Supplying an eastern plains irrigator with water may prevent soil erosion, provide drinking water for antelope, and preserve open space.

One of the basic assumptions, then, of a multi-agency water bank would be that the broad language of purpose in the organic acts of the various agencies does indeed cover activity not traditionally carried on by that agency. This assumption must, however, be tested against basic rules of statutory construction. There are several Colorado cases which are relevant, although not controlling in the instant case. First, an unusual or extraordinary investiture of power should not be inferred from doubtful or ambiguous statutory

language.<sup>36</sup> It is arguable whether reading "open space" to include agriculture is investing the Board of Parks and Outdoor Recreation with extraordinary powers. On the other hand, it certainly broadens the board's power of water acquisition.

Another rule of statutory construction is that the legislature's intent must be taken into consideration, and that a good clue is the declaration of policy which forms part of the enactment.<sup>37</sup> This rule is of little aid in the present problem, as in every case except the Board of Parks and Outdoor Recreation, as the language of policy is the same as the language of purpose, or equally as broad. However, "sites, scenes, open space and vistas of public interest" might not, under this test, be read as broadly as a water bank purpose, as the policy declaration clearly involves "recreation":<sup>38</sup>

It is the policy of the state of Colorado that the wildlife and their environment and the natural, scenic, scientific, and outdoor recreation areas of this state are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and visitors to this state. It is further declared to be the policy of this state that there shall be provided a comprehensive program of outdoor recreation in order to offer the greatest possible variety of outdoor recreation opportunity to the people of this state and its visitors and that to carry out such program and policy there shall be a continuous operation of planning, acquisition, and development of outdoor recreation lands, waters, and facilities.

The policy declaration, however, strengthens the argument for the Wildlife Commission by including the environment of wildlife.

Finally, case law holds that statutes conferring broad powers or investing duties must be strictly construed and must be treated not merely as grants of power, but also as limitations thereon.<sup>39</sup> Here, the question is not whether the grant of power to acquire water to preserve open space implies an authorization to acquire water for agriculture, but whether acquiring water for agriculture is an action preserving open space. The question is whether the specific activity falls under the broad language of purpose.

There is no way to predict, short of action by the legislature or the courts, whether the purposes of these agencies include the goals of a water bank. It seems clear, however, that it is more likely that a multi-agency project could pursue goals which may not have been within the contemplation of the legislature under any individual organic act than that a single agency could devote a majority of its



resources to such a project.

In the final analysis, then, a multi-agency water bank would be based on several uncertainties: (1) Can the executive director of the Department of Natural Resources administer the project without additional authority? (2) Would it be politically prudent for him to do so? (3) Will the courts or the legislature allow the purpose language of the agencies' organic acts to be construed as broadly as would be necessary for water bank purposes? The success of the water bank would be dependent upon a favorable judicial result in a predictable legal challenge.

A multi-agency project is clearly the only viable possibility for creating a water bank under present statutory authority. It does not offer, however, the clear and present authority that such an endeavor seems to require. To the extent that the state wants to acquire a group of water rights that can be used for evolving and discretionary purposes, the multi-agency bank would likely offer too many restrictions of power to be of much use. All of these problems could be avoided by the passage of new legislation specifically authorizing the creation of a water bank agency. Even in light of the difficulty involved in getting such legislation passed, this latter route would be a far more advisable one to take in creating a multi-purpose bank. It would give the project flexibility and a solid legal foundation. Authority under existing law would be a tenuous foundation indeed.

## 2. Authority of State-created Entities.

Colorado law provides for the creation of a variety of entities whose authority to acquire water is broader than that delegated to state agencies. Many of these "public bodies corporate," or quasi-municipal districts, might readily establish a water bank. Further, the purposes of the districts are, in many cases, broad enough to encompass the activities of the proposed water bank. However, there are fundamental problems involved in trying to carry out state policy through a district, which is a local governmental entity. The state must be able to control the activities of the district. If this control is contingent upon the ability of the state to persuade elected local officials to administer the district so as to effectuate state goals, it would be extremely unwise to entrust a state water bank project to a district. One possible approach, albeit anathema to local interest, would be for the state to attain political control over the sponsoring district.

Analysis of these problems is necessarily complicated by the tremendous variety of special district corporate forms. Ranging from fire protection districts to river basin authorities, Colorado districts

have a broad range of powers and purposes. In order to organize the following discussion, Novak's system of classification is employed.<sup>40</sup> His classification of legal powers situates all districts considered in this study<sup>41</sup> under the headings of either public corporations or quasi-municipal corporations with one exception--water conservation districts.

a. Public Corporations.

Public corporations are independent "public bodies corporate" which are organized for a private purpose and have tax liability, yet have public powers such as the power to levy special benefit assessments and the power of eminent domain. Finally, there is a certain territoriality involved in public corporation. At inception, certain geographical boundaries are set within which the district functions.<sup>42</sup> Those districts under consideration--which may be classified as public or quasi-public corporations--are drainage,<sup>43</sup> irrigation,<sup>44</sup> soil conservation (or erosion),<sup>45</sup> and conservancy.<sup>46</sup>

(1) Drainage Districts.

Drainage districts are organized by a vote of resident landowners within the proposed district<sup>47</sup> upon presentation of a petition signed by a majority of landowners and presented to the county commissioners,<sup>48</sup> or by authorization of the county commissioners if an election is impracticable, or if the petition so requests.<sup>49</sup> The board of directors of such a district has the power of eminent domain only for the construction of drainage works across thoroughfares and rights-of-way<sup>50</sup> or across lands outside the drainage district.<sup>51</sup> The board is also empowered to take "conveyances or assurances" in the name of the board for all property acquired by it.<sup>52</sup> All of these powers are exercised with regard to the general purpose of the reclamation of lands which are susceptible to cultivation or other use by drainage.<sup>53</sup>

It is doubtful whether these grants of power could be construed so as to include the acquisition of water in any way. There is certainly no express grant of the right to condemn water, and other acquisition of water would not seem to be of any use in the improvement of lands by drainage.

In addition to lacking the requisite powers, drainage districts are not amenable to state control. Although there is no statutory definition of such key words as "person" or "landowner," it is obvious that there is no way the state can gain control. Initially, the state could sign a petition as landowner.<sup>54</sup> The state is considered a freeholder in all respects,<sup>55</sup> yet it is not clear that such classifica-

tion would enable it to vote, since such a landowner must be a citizen of the United States.<sup>56</sup> Yet, even if the state were allowed to vote, since each landowner gets only one vote, the state would not be able to control the outcome of the election. Therefore, it would be impossible to use a drainage district as a means of creating a state water bank.

### (2) Irrigation Districts.

Irrigation districts organized under the 1905 law are authorized to acquire, purchase, or condemn water rights necessary for the use of those districts.<sup>57</sup> The board of directors is authorized to lease water rights to the occupants of land within or without the district.<sup>58</sup> Districts organized under the 1921 law may acquire water rights by use, appropriation, purchase or condemnation such as are "necessary or useful" for carrying out the objectives of such districts.<sup>59</sup> A district may lease water it acquires in excess of its own needs, or which is capable of other uses, for domestic, agricultural, power, or mechanical purposes, within or without the district.<sup>60</sup>

The powers of an irrigation district are certainly broad enough for water bank purposes. However, irrigation districts do not lend themselves to state control. Under the 1905 law, the state can petition lands into irrigation districts<sup>61</sup> yet there is no declaration that the state is to be considered a freeholder. Under the 1921 law, the state is authorized to petition land into the district and is specifically included in the category "landowner."<sup>62</sup> In both cases, however, it is fairly clear that the state cannot vote. There are criteria for voting in both the 1905 law<sup>63</sup> and the 1921 law,<sup>64</sup> both of which are apparently superseded by a third provision.<sup>65</sup> An elector, then, is a resident owner of taxable real property who is qualified to vote in the general election.<sup>66</sup>

If the state is eliminated as an eligible voter, it would have no direct voice in the selection of directors and certainly no guarantee of control of the district. To have an irrigation district create a water bank, but to lack a method for the imposition of state policy upon the administration of the bank, would be an act of futility. Therefore, irrigation districts must be ruled out as entities which might be useful for water bank purposes.

### (3) Soil Conservation Districts.

Soil conservation districts are initiated by a petition, signed by not less than 25 percent of the owners of land within the district, addressed to the state board,<sup>67</sup> whereupon hearings and an election are

held.<sup>68</sup> The district organized thereby has the power to acquire any real or personal property or rights or interests therein by obtaining an option upon it or by purchase, exchange, lease, gift, grant,<sup>69</sup> bequest, devise, or otherwise to acquire or acquire control of same. The districts have a very limited power of eminent domain that can be exercised only upon approval of two-thirds of the resident landowners, owning at least 50 percent of the privately-owned land, only for projects designed exclusively for flood and/or sediment control as authorized by Public Law 566 (1954).<sup>70</sup> Soil conservation districts can receive income from their properties and can sell, lease, or otherwise dispose of such properties<sup>71</sup> so as to provide a constructive method of land use providing for the conservation and preservation of natural resources, including adequate underground water reserves, the control of wind and soil erosion and the reduction of flood damage.<sup>72</sup>

These districts have all the requisite powers of acquisition except eminent domain. They differ from other districts considered thus far in that the state may vote through an authorized agent in any district in which it owns land.<sup>73</sup> Further, there is a possibility that the state could exercise practical control through the Board of Supervisors. Three members are elected, while two are appointed by the State Soil Conservation Board,<sup>74</sup> who could theoretically be under the control of the state. Further, a candidate for the elected seats can be an authorized representative of the state.<sup>75</sup> However, there would be no assurance that a representative of the state would be elected, thereby creating a state-controlled majority on the board. Even though the state can vote, voting is not by acreage. Each landowner has only one vote,<sup>76</sup> and a majority of voters elect the supervisors. Since state control of a soil conservation district is not assured this option is not terribly attractive.

#### (4) Conservancy Districts.

The conservancy districts are to be distinguished from water conservancy districts. The former are primarily for flood control while the latter are designed to provide for the "greatest beneficial" use of the waters of the state. There are currently two flood control districts organized under the conservancy district statute.<sup>77</sup>

Conservancy districts are established by a district court of a county included partially or totally within the district<sup>78</sup> upon presentation of a petition signed by 200 or a majority of the landowners within the proposed district.<sup>79</sup> The court-appointed board of directors may acquire water rights by donation, purchase, or condemnation, and may lease, use, hold, sell, encumber, or control the same, in or out of the district.<sup>80</sup>

These powers may be exercised to prevent floods<sup>81</sup> and for "the

conservation, development, utilization, and disposal of water for agricultural, municipal, and industrial uses thereof, when desirable as a part of a project or undertaking the principal purpose of which is one or more of the purposes set out in this section."<sup>82</sup> This language would seem to authorize the creation of a project such as the proposed water bank so long as one of its functions was flood control.

The pivotal question, then, is state control. The statute also offers room for speculation in this regard. The formation of a conservancy district controlled by the state might be accomplished by "gerrymandering," as the territory need not be contiguous,<sup>83</sup> and if all the land in a proposed district were state-owned, the state could sign the petition as "the majority" of landowners.<sup>84</sup> No protesting petition would be possible, as that must be signed by a majority of the landowners.<sup>85</sup> The district court should then declare the district organized. One problem would arise when the court acts to appoint a board of directors, which must be comprised of three persons who are residents.<sup>86</sup> "Person" is defined as other than a political subdivision.<sup>87</sup> There is a question as to whether a person could be appointed in his capacity as a state official. The financial administration would have to be different from that envisioned by the statute, which calls for assessments to be levied on property within a district.<sup>88</sup> As all property is state-owned, this would not be a source of income for the district. Therefore, the state would have to supply the funds for the district in order to create the water bank. To do so would likely be unconstitutional. Article XI, §1, of the Colorado Constitution declares:

Neither the state, nor any county, city, town, township or school district shall lend or pledge the credit or faith thereof, directly or indirectly, in any manner to, or in aid of, any person, company or corporation, public or private, for any amount, or for any purpose whatever; or become responsible for any debt, contract or liability of any person, company or corporation, public or private, in or out of the state.

This would seem to prohibit the mingling of state funds with district funds. Only one case involving a special district has arisen under this provision, and it involved an improvement district which was not a corporation, had no separate legal existence apart from the municipality, and could neither sue nor be sued.<sup>89</sup> The question is whether the public monies of the state can be mingled with that of a conservancy district, which is a separate corporate entity.

The Colorado Supreme Court has referred to conservancy districts as "public corporations."<sup>90</sup> Therefore, any pledge of credit by the state to the district would probably be unconstitutional. There is no

doubt that the state legislature could create some type of district as a subdivision of the state, with no separate legal existence, and circumvent the constitutional provision. However, under the existing conservancy statute, any district created is a separate corporate body, and specifically not a direct agency of the state. This provision, therefore, probably prohibits the state from creating a water bank under the aegis of a state conservancy district.

(5) Internal Improvement Districts.

One other district which could be classified as a public corporation is the internal improvement district. Such districts are authorized to condemn lands for drainage systems<sup>91</sup> but have no power to condemn or otherwise acquire water. They therefore are of no concern to the present inquiry.

b. Quasi-municipal Corporations.

Quasi-municipal corporations are independent corporate entities controlled only by the legislature. They are much more akin to municipal corporations than are public corporations. They are primarily created to provide municipal services in unincorporated areas. Their purposes are essentially public in nature, making them somewhat more attractive for the purposes of a water bank. Quasi-municipal corporations have the power to levy taxes and are themselves exempt from state and county taxes.<sup>92</sup> Included in the quasi-municipal corporations are water conservancy districts<sup>93</sup> and water and sanitation districts.<sup>94</sup>

(1) Water Conservancy Districts.

A water conservancy district is established by the district court when petitioned by not fewer than 1,500 owners of irrigated lands within the district but without incorporated cities or towns if total valuation for assessment purposes is over \$20 million,<sup>95</sup> or by not fewer than 25 percent of such owners if less than \$20 million.<sup>96</sup> If a protesting petition is filed with the requisite number and type of signatures, the court shall order an election.<sup>97</sup>

The board of directors of such a district is authorized to acquire water by appropriation, grant, purchase, bequest, devise, or lease<sup>98</sup> and to subscribe for or purchase water stock.<sup>99</sup> The board may also exercise the power of eminent domain and dominant eminent domain except that the power may not be used to acquire title to or beneficial use of vested water rights for transmountain diversion.<sup>100</sup>

The powers of a water conservancy district would easily allow it to form a water bank. There are, however, effective bars to state control. The 15-member board of directors is court-appointed, and these members must be resident owners of real property.<sup>101</sup> In districts formed after March 12, 1945, electors of the district can pray for the election of board members, rather than having them appointed by the court.<sup>102</sup> Nevertheless, there is obviously no way to insure state control, making a water conservancy district a poor candidate for sole water bank administration.

### (2) Water and Sanitation Districts.

Water and sanitation districts are initiated by a petition to the district court signed by not less than 100, or 10 percent (whichever is smaller), of the taxpaying electors of the district,<sup>103</sup> whereupon a hearing and election will be held.<sup>104</sup> Such districts are authorized to "acquire, dispose of and encumber" water rights or any interest therein, including leases and easements<sup>105</sup> and have broad, dominant powers of eminent domain to take "any property necessary," to the exercise of granted powers, both within and without the district.<sup>106</sup> This seems broad enough to include water rights. The districts can also levy taxes on all taxable property.<sup>107</sup>

The basic purposes of these districts make them unsuitable for water bank purposes. Sanitation districts are organized to provide for storm or sanitary sewers, flood and surface drainage, and disposal works.<sup>108</sup> Water districts are organized to supply water for domestic purposes.<sup>109</sup> Both of these combined are not nearly broad enough to encompass the activities of the proposed water bank. In view of the broad powers and purposes of other districts, there is little need to consider water and sanitation districts as possible administrative bodies for a state water bank.

### (3) River Basin Authorities.

River basin authorities are quasi-municipal corporations authorized by statute, although none have ever been created. The authorities can tax the "real property right or the right to use water,"<sup>110</sup> appropriate unappropriated water and "satisfy vested rights within or without the river basin with water sources other than natural river flow."<sup>111</sup> Other than by appropriation, the only suggestion as to how this is to be accomplished is by the authority granted to enter into contracts for water and water delivery.<sup>112</sup> Further emasculating the powers of such authorities is the exclusion of the City and County of Denver. Also excluded, unless specifically agreeing otherwise, are

areas served with an urban or industrial water supply by a municipal or quasi-municipal corporation, or an industry served by its own water supply.<sup>113</sup> The authorities' power to condemn is limited to lands for construction of dams, ditches, and other physical works.<sup>114</sup>

The grant of powers to the river basin authorities is too limited (e.g., there being no power to accept gifts or devises) and the territorial exclusions too extensive for them to be of great value to a water bank project.

c. Other Special Districts: Water Conservation Districts.

There are several districts which Novak classifies neither as public corporations nor quasi-municipal corporations. Of these, only the water conservation districts are of any interest to a water bank project.

Three specific water conservation districts are established by statute--the Colorado River Water Conservation District, the Southwestern Water Conservation District and the Rio Grande Water Conservation District--for the conservation, use, and development of water resources of the Colorado, San Juan and Dolores, and Rio Grande Rivers, respectively.<sup>115</sup> These districts may "acquire" real property for these purposes.<sup>116</sup>

The conservation districts have the right of eminent domain to acquire ditches, reservoirs, and other works or lands or rights-of-way which are needed to carry out the powers of the district (or any subdivision or special district thereof) and the same right of eminent domain "conferred on other districts"<sup>117</sup> pursuant to the eminent domain statutes. What eminent domain powers the water conservation districts actually possess as a result of this provision is something of a mystery. The eminent domain power conferred on other districts is extremely varied. Drainage districts can only condemn for the construction of drainage works across rights-of-way; irrigation districts can condemn water rights; the eminent domain power of soil conservation districts is limited to cases where 66 percent of the landowners note their approval; and river basin authorities have no power of eminent domain at all. Does this provision mean that water conservation districts possess all power that any other district has, or no power that all districts do not have? This could result in incredibly broad powers, or in no power at all. One tenable interpretation of this ambiguity is that the only eminent domain powers of water conservation districts are those specifically granted--that is, the right to condemn ditches, reservoirs, and other works or lands, since Colorado case law holds that where language is vague or doubtful, the power of eminent domain is withheld.<sup>118</sup>



Water conservation districts are not presently empowered to create and administer a state water bank. First, only three are authorized by statute, and those three are already in existence, thereby limiting the geographical coverage of a water bank program. Second, the use of such water rights as may be acquired is limited to the river basin within which the districts are located. Although the purposes for which they were created could easily support the activities of a state water bank, the powers are not as broad nor the allowable uses of water rights as varied as in some of the previously-mentioned districts.

The conclusion of this survey of present statutory authority is that a district is not an appropriate body to develop a state water bank under present law. There is no safe method to insure state control, and districts are either specifically limited to their own territory, or their purposes are not broad enough to include a multi-purpose water bank. Even more fundamentally, districts (at least those which can acquire water for broad purposes) are units of local government, independent corporate bodies to which the state has delegated certain governmental or proprietary powers. An effort by the state to control such a district seems no less a usurpation of power than an attempt to control a county or a town. There are certain spheres in which state government controls, and other spheres in which local government is free to carry on independent activity. This balance might be upset by the state if it attempts to gain control of a quasi-municipal or public corporation. If the legislature were to create a special district or commission, specifically as an agency of the state, to create and administer a state water bank, these problems would not exist. It is another matter to attempt to carry out state policy through an independent body whose enabling act does not contemplate state control.

### 3. Implied Authority to Acquire Water Rights.

To complete this survey of existing acquisition authority, it is interesting to briefly consider whether an implied grant of police power authority to control the use of natural resources might be so extensive as to legitimize an effective confiscation of water rights for the benefit of a state water bank. In so doing, the authors note the fact that chapter IX of this study will extensively consider the constitutional boundaries of the police power as applied to water rights, and the reader is referred to that study for the detailed analysis which is so critical in this area of constitutional law. However, as will develop below, it is unnecessary for the purposes of the present inquiry to resolve the constitutional dilemma in order to arrive at a recommendation regarding reliance upon implied authority by a state water bank.

The courts of a few states have found such an implied authority in those states to own or control real property based not on statute, but rather on the inherent administrative role of the state. This so-called "public trust doctrine" is generally applied to property owned by the state which is held "in trust" for the people of the state and cannot, therefore, be disposed of.<sup>119</sup> The "public trust" language has been extended by the Supreme Court of Wisconsin to include the power of the state to restrict the use of private property in order to preserve the natural condition of the environment. That court upheld an ordinance which prevented an owner of wetlands on the shore of a navigable lake from filling them in.<sup>120</sup>

There is, however, no implied authority in Colorado law that would authorize the creation of a state water bank. The Colorado courts have never adopted the "public trust doctrine" with regard to state-owned property, and the Wisconsin extension of the doctrine to private property has no relevance here. That case was based on a county ordinance that was authorized by state statute,<sup>121</sup> and therefore did not involve "implied" authority at all, and if the Colorado legislature enacted such a law, the result would not be the acquisition of water rights, but rather the implementation of state water policy through the control of the use of privately-owned water rights. Most significantly, it is highly doubtful that the courts would find implied authority to restrict the use of water rights in Colorado when they have consistently held that the right to a change of use is a fundamental incident of the ownership of a water right.<sup>122</sup> Any limitation on use would certainly have to be by legislative enactment and would be open to a constitutional challenge.

It is necessary, therefore, to conclude that no authority, express or implied, presently exists upon which to base the formation of such a large and politically sensitive project as a state water bank. No state agency is presently empowered to undertake such a project; there are effective bars to creating a state project through a district of any sort, and no implied power exists on the part of the state to restrict the use of privately-owned water rights. New legislation is therefore needed. It will be the purpose of §C. to explore what forms the new authority might take and how a state water bank might be created and administered.

### C. New State Authority.

#### 1. Agency Candidates.

Currently, there are three state agencies with major responsibilities involving water. These are the Division of Water Resources (commonly known as the state engineer's office), the Colorado Water

Conservation Board, and the Colorado Water Quality Control Commission. Historically, the state engineer has performed an administrative and distributive, and not an allocative, function in Colorado, as opposed to the more sweeping powers vested in the state engineers of some neighboring states. The various powers and duties of the state engineer are itemized by the enabling statute.<sup>123</sup> In connection with his primary responsibility to distribute the state's water according to priorities, the state engineer is also required to gather, analyze, and publish hydrologic data which is of great interest to water users, those in the water-related professions, and the public at large. The current statutes, however, clearly reserve the determination of the validity of an appropriation, including the issue of what constitutes a beneficial use, to the water courts. This division of authority is intentional, and stems from a common fear of the potential ill effects of amassing all authority over waters in one individual. The Jeffersonian notions that underlie the constitutional doctrine of separation of powers are thus most clearly perceived with respect to the state's most valuable resource--its water.

The Colorado Water Conservation Board, also being a creature of statute, derives its powers and duties from its enabling act.<sup>124</sup> That act makes clear that the Water Conservation Board is presently involved in two separate endeavors: the promotion of projects which, at least in part, would result in the development of additional supplies of water for agricultural use, or, in the control and beneficial management of floods.<sup>125</sup> More recently, the Water Conservation Board has been given the authority to acquire or initially appropriate minimum stream flows or lake levels for fish and wildlife conservation purposes.<sup>126</sup> The statutory charge of the board and the traditional background of its membership are both strongly geared to the promotion of agricultural values. As presently comprised, the board consists of 13 members, nine of whom are appointed by the governor.<sup>127</sup> Of the nine appointed members, at least six are assured to come from relatively rural drainage basins, and can be expected to reflect the interests of those areas.

The Colorado Water Quality Commission is the third agency with significant involvement in the water field in Colorado. However, as the name implies, its role is strictly limited to water quality matters, and its expertise and interest in quantity matters are at best incidental to its statutory role. For that reason, the commission is eliminated from further consideration as a possible management agency for a state water bank.

A fourth possibility would be the creation of a new agency specifically for the purpose of managing a state water bank program. Although this would enable the legislature to assure representation of many different competing interests in the water bank, it would also involve the proliferation of agencies at a time when the state and

its citizens are seriously discussing consolidation or elimination of portions of the state's administrative machinery. To create still another agency or board to manage a water bank would necessarily create a host of new problems of coordination with the existing agencies and as a result would tend to insulate the responsible officials from direct contact with affected citizens even more than at present.

Rather than creating a new water bureaucracy, it might be appropriate to consider a restructuring of the Colorado Water Conservation Board to carry out the water bank management function in a manner consistent with the perceived role and objectives of the bank. This might be accomplished, for instance, by amending the statutory qualifications for board members to provide at least one member for each competing type of use, as well as for each of the seven water divisions in the state. In addition, to the extent certain economic sectors are felt to be under-represented by such a scheme, additional board seats could be reserved for representatives of small farming, small business, and rural householders, for example. All appointees should have a demonstrated long-term expertise in water matters and should be appointed based upon merit, even within their own interest sectors.

An alternative to a restructuring or expansion of the Water Conservation Board would be to leave the present structure of the board intact but create seven regional water bank boards, with boundaries identical to those of the seven statutory water divisions each with substantial authority and independence in administering its regional bank. Under such a model, the regional banks would have the final authority for making all intrabasin allocations, provided such allocations were made in compliance with a set of enumerated statewide criteria which would give form to the perceived state water policy. All interbasin allocations, however, would remain within the province of the Water Conservation Board, thereby retaining more fundamental policy decisions at the state level. Under this system, a balance would be struck between overall state interests on the one hand and regional impacts on the other. The regional boards might have membership qualifications designed to assure the participation of the significant water using groups within that region, while the Water Conservation Board would continue to be appointed on the basis of geography, thereby assuring some sort of equity between regional water banks. The Water Conservation Board would supply the funding for the regional banks, although the regional banks themselves would exercise the appropriate powers somewhat independently, perhaps subject to a withholding of funds if they exercise those powers in a manner contrary to the statewide criteria.

## 2. Scope of Powers.

If the latter approach were adopted by the legislature and seven

regional water bank boards created, they would need to have adequate authority to carry out the perceived purposes of the water bank program. The regional boards would thus need to be vested with authority to initiate appropriations in native and developed water, acquire water rights by purchase or gift, and condemn water rights upon the payment of fair market value compensation. For the reasons developed further in §E. of this chapter, taxation is not recommended as a means of funding the regional water banks. Because the regional banks are envisioned as somewhat independent agents carrying out centralized state water policy, it might be both appropriate and pragmatic for their activities to be financed out of the state's general fund. This would assure the revenue base necessary to assemble the regional water banks, finance their ongoing operations, and assure some degree of freedom from regional interest pressures.

D. Nature of a Water Bank.

1. Possible Concepts.

At least two distinct models are available for the attainment of water bank purposes. Some of the suggested purposes of such a water bank are as follows:

- a. Preservation of irrigated agriculture.
- b. Support for small farmers and ranchers.
- c. Facilitation of instream uses.
- d. Facilitation of water exchanges (for the maximization of beneficial use of the fixed water supply).
- e. Allocation of emergency supplies during drought.

The most obvious model is that of water in storage, in one or more reservoirs, that would be owned or otherwise controlled by the state, and could be released in a somewhat discretionary fashion to promote any of the aforementioned goals. As a practical matter, due to the fact that none of the seven water divisions of the state is immune from shortage, a minimum of seven such storage facilities would be required. The release of "wet water" at times and places selected by a regional water bank authority might, in some cases, prove to be a synergistic solution to several problems. For example, a release of water to maintain a minimum stream flow in a critical fishery reach of a stream could also serve to supply preferred downstream demands. On the other hand, certain of the express goals of the water bank program might be internally inconsistent, and the release of water to promote one goal could be antagonistic to the attainment of

another goal. For instance, preservation of the maximum amount of irrigable acreage in the state might suggest the allocation of discretionary water supplies to large-scale corporate agribusiness, because of its inherent economies of scale. To do so, however, would tend to undermine the vitality of competing individual family farmers, whose livelihood may be felt to be a matter of statewide concern. In order to resolve the intra-use allocation disputes that are inevitable, it is recommended that the Water Conservation Board, as the proposed supervising agency, first analyze and itemize the inherent qualities of agriculture which are felt to be worthy of statewide concern as a prerequisite to the promulgation of statewide water bank policies and criteria. Upon analysis, the board may conclude that promotion of agriculture is justified because of a prognosis of worldwide famine and rapidly escalating food prices. Alternatively, agriculture might be thought beneficial for reasons of open space preservation or population dispersion. The relative importance of such beneficial aspects of agriculture will need to be determined by the board as a prerequisite to establishing water allocation criteria for the governance of regional water bank authorities.

An alternative to the "wet water in storage" model might be a state-owned portfolio of fee water rights and/or less-than-fee interests in water rights. While substantial hydrologic and engineering background work would be necessary, this type of water bank would not require the substantial capital outlays for reservoir construction inherent in the storage model. The aim here would be to acquire fairly senior water rights or less-than-fee interests therein at strategic points in the stream systems of the state. The types of interests which might be employed are more fully discussed in §E., *infra*, but it will suffice here to say that such a portfolio could promote both water use controls as well as discretionary allocation based upon evolving state priorities. For example, the state might acquire certain future interests in water rights which would effectively assure that those water rights continue to be used for a preferred purpose, such as agriculture. The state might also acquire fee interests in water rights and lease the same back to selected users on an annual lease basis. The latter type of holding would theoretically give the state a fund of discretionary water whose allocation would be determined by the economic, ecologic, and political needs of the state as they evolve. The technical and legal problems associated with either model of a water bank are discussed more fully in §F. of this report.

## 2. Other Models.

As part of the groundwork for this report, the authors have conducted a telephone survey of the water resource agencies of the other

western states in which the prior appropriation doctrine applies throughout the majority of those states to ascertain what, if any, water bank programs were in existence and might serve as a model or starting point for the proposed Colorado Water Bank. The results were not surprising. None of these states has established any type of state-controlled or funded water bank, and few are even considering such even in this critical year of regionwide shortage. A few states do have statutory or constitutional provisions establishing a preference system between types of use, although in every case such preference systems have fallen into disuse because of adverse judicial interpretations or the inability of the preferred right to compensate the taken right at fair market value. Even if a preference system were financially realistic, it would not necessarily effectuate statewide interests, except when private economic interests happen to coincide with the state's programmatic goals.

The only existing real allocation mechanism discovered by this survey was the standard clause incorporated into California water project contracts which provides that in the event of shortage, agricultural users shall suffer across-the-board reduced deliveries before any other type of users are rationed. For example, in the contract between the State of California Department of Water Resources and the Metropolitan Water District of Southern California,<sup>128</sup> it is provided that nonagricultural users will not be curtailed until agricultural users have been allocated deliveries reduced by an amount of up to 50 percent in any one year or a total of 100 percent in any seven consecutive years of their otherwise applicable contract entitlement. Reallocation by contract is more effective in California where approximately 75 percent of all appropriated water is distributed under contract from the California Department of Water Resources or the U.S. Bureau of Reclamation.<sup>129</sup> Contractual reallocation clauses would have little room for immediate operation in Colorado where the overwhelming bulk of the state's good water rights are held in private hands or are subject to outstanding federal allocation contracts which do not contain such clauses.

At the federal level, several bills were introduced earlier this year which were designed to establish a voluntary water bank program through the auspices of the Bureau of Reclamation.<sup>130</sup> These bills were all similar in empowering the Secretary of the Interior to acquire water rights by lease or outright purchase from willing sellers, and to redistribute these rights to water users presently participating in federal reclamation projects according to priorities to be established by the secretary.<sup>131</sup> The committee reports accompanying these bills reveal that the congressional intent was to secure a fund of water for endangered perennial crops and to do so in a manner totally consistent with state water rights law.<sup>132</sup>

The California and federal models described above would thus be of little immediate value to a Colorado water bank. The state currently

has essentially no water to allocate or reallocate in a discretionary fashion, and consensual purchase-leaseback arrangements would probably require a period of years in which to develop and flourish. While consensual arrangements would, of course, be preferable, the practical realities are that a water bank of any meaningful proportion in the short-term future would have to be assembled by means of eminent domain or voluntary acquisition at subsidized sale prices. The following part of this report will discuss the legal and technical constraints on the use of consensual acquisition, condemnation, and taxation as alternative or cumulative means of assembling a state water bank program.

#### E. Funding the Water Bank.

If the political and institutional barriers could be overcome and a water bank project actually begun, the state would have to acquire water or water rights to fund the bank. Basically, the state could acquire water rights by acquisition or initiation, or by taxation. Within these categories, however, there is a broad range of possibilities for innovative methods of acquiring water. The state might be able to impose an "in-kind" tax, taking not money but a certain amount of water, or initiate rights to the water produced by weather modification or acquire a future interest in water rights. The following section will examine various methods of funding the water bank and analyze the usefulness of each to the proposed bank.

#### 1. Initiation or Acquisition of Water Rights.

##### a. Initiation of New Appropriations.

The initial appropriation of water rights subject to call would be of little use to the state in the actual acquisition of water for the water bank. First, most of the streams and aquifers in Colorado are already overappropriated. Any new right would be extremely junior and would probably produce little water. This is particularly true in the areas where a water bank would be most appropriate. There may, at least theoretically, however, be opportunities for the state to initiate appropriations of water free from the call of the river. If the state's weather modification projects produce an appreciable amount of precipitation, the state might attempt to claim a right to developed water.

"Developed water" is a term of art which refers to water brought into a river basin from an external source, rather than native water salvaged from historic loss.<sup>133</sup> The legal question presented is



whether precipitation, solely due to the efforts of a weather modification project, could be claimed as developed water.

The Colorado legislature passed a statute concerning weather modification:<sup>134</sup>

The general assembly declares that the state of Colorado claims the right to all moisture suspended in the atmosphere which falls or is artificially induced to fall within its borders. Said moisture is declared to be the property of the people of this state, dedicated to their use pursuant to Sections 5 and 6 of Article XVI of the Colorado Constitution and as otherwise provided by law. It is further declared that the state of Colorado also claims the prior right to increase or permit the increase of precipitation by artificial means for use in Colorado. The state of Colorado also claims the right to modify weather as it affects the people of the state of Colorado and to permit such modification by activity within Colorado.

There have been no cases to date construing this section, and, as a threshold matter, it should be noted that the language is capable of two divergent readings. All water which falls into the state from the atmosphere is declared to be the property of the state, to be appropriated under the priority system. The clause "and as otherwise provided by law" seems to make the entire body of state water law operative with respect to any water artificially produced by weather modification, just as it does with water produced by natural meteorological conditions. This in effect would appear to say that the doctrine of developed water could be invoked to claim any precipitation which falls in a basin solely through the efforts of a weather modification project, such water being the property of the developer free from the call of the river.<sup>135</sup> On the other hand, the state's "claim" under this section might be read as an exclusive reservation of all such developed water to itself, thereby precluding the initiation of private water rights through weather modification.

Under either reading, there remain two significant problems involved with state acquisition of a water right for developed water from a weather modification project--proof and the nature of the right acquired. Proof involves showing not only that the precipitation would not have fallen naturally, in the absence of any cloud-seeding, but also that it did not thereby prevent precipitation on another part of the same basin. (The Colorado Supreme Court has pointed out the difference between a water developer and a water robber.<sup>136</sup>) A study done for the Office of Water Research and Technology<sup>137</sup> suggests that such scientific proof may be available.<sup>138</sup> The scientific proof involves the application of statistical and

modeling techniques to precipitation data. Although no significant results from warm-season cumulus clouds (producing rain) have been obtained, researchers feel that cold orographic clouds (producing snow) present definite possibilities:<sup>139</sup>

It is entirely within the state-of-the-art to analytically derive precipitation changes in the target area, even though snowpack increases on a short-term basis, using statistical methods, cannot be detected.

At least one legal commentator has taken a critical view of the persuasiveness of such evidence. Fischer notes: "At best the results show the incidence of probability rather than the fact of the result, and . . . the validity of the probability of result is dependent entirely upon the validity of the assumed hypotheses."<sup>140</sup> This is precisely the proof problem facing the state in attempting to obtain a water right based on water developed through weather modification. The standard for scientific proof may not be binding in a court of law. The scientific "proof" is far from unquestionable, even when stated in statistical terms of confidence levels. In fact, the study done for the Office of Water Research and Technology points out: "[M]aterial that is presented in this report in terms of scientific development should be considered as such until it has stood the test of the adversary system."<sup>141</sup>

Even if the proof available for increased snowfall were legally persuasive, or if the state-of-the-art for increasing rainfall reached such a level, there remains the problem of the nature of the water right obtained for artificially produced precipitation. Fischer underscores the basic problem:<sup>142</sup>

We have said that even though there is widespread scientific acceptance of the fact that weather modification programs do increase precipitation and run-off, it will be difficult to present satisfactory proof of the exact amount and timing of the resulting run-off so as to allow recapture.

What would the right look like? Would the state have to apply for a right each time it seeded a cloud, or could it get a judicial determination that it was entitled to "X" amount of water every time it seeded "Y"-type of clouds under a specific set of conditions? It is likely that the latter would be the case, yet that raises myriad problems for the court: When can the state take the water? How will it determine when the runoff reaches a certain point in the stream so as to permit recapture? Especially as regards snow, this would change from year to year depending on spring weather. If conditions differ or methods of seeding change, must the state seek a new

court determination for each contingency? These and other questions are engineering problems which may someday be solved to the satisfaction of a water court. Yet such a complex decree with so many contingencies would be open to virtually endless litigation. Each time the state diverted water it would be open to the charge that one of the conditions was not met and therefore the diversion was injurious to vested rights in the stream.

The initiation of a right to water developed through weather modification will probably be attempted at some time in the future. The chance of obtaining water free from the call of the river is too enticing to be ignored forever. However, the problems involved with proof, with shaping the decree and with subsequent defense of the right to divert under the decree are tremendous. The state must consider all of these carefully before attempting to initiate such a right, and if such an attempt is made, be prepared to offer an enormous amount of engineering data and scientific proof to the court. Even if such a right were granted, there is no way to estimate how much water the state might be allowed, and where it would be required to collect it. The court would probably be conservative, resolving potential inaccuracies or discrepancies in favor of the stream. Thus, it would certainly not be advisable for the state to rely on any water from this source to fund a water bank in the near-term.

b. Acquisition by Condemnation.

Before any body, public or private, or any individual may exercise the power of eminent domain, that power must be expressly granted to it by the legislature, unless otherwise provided in the constitution.<sup>143</sup> If the power arises only by implication, then it will be held not to exist.<sup>144</sup> Thus, in order for the state to lawfully condemn water rights, the legislature must expressly grant it that power. As shown in §B.1., supra, no agency of the State of Colorado is presently so empowered.<sup>145</sup>

Article XVI, §6, of the Colorado Constitution contains a clause relating to the preferred uses of water in times of shortage, which might be read to restrict any power of eminent domain over water rights which might be granted by the legislature:

[W]hen the waters of any natural stream are not sufficient for the service of all those desiring the use of same, those using water for domestic purposes shall have the preference over those claiming for any other purpose, and those using water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

The precise implications of this clause as a shield rather than as a sword are not entirely clear. The Colorado Supreme Court has held that although the clause allows preferred uses to condemn lower preference rights, compensation must be paid:<sup>146</sup>

[Article VI Section 6] states that those using water for domestic purposes shall have preference over those claiming for any other purposes, but this provision does not entitle one desiring to use water for domestic purposes . . . to take it from another who has previously appropriated it for some other purpose without just compensation.

The question that remains unanswered is whether the preference system might also protect preferred uses:<sup>147</sup>

It is possible that the preference might also be a protection against condemnation. Since domestic users are preferred, an attempt to condemn an existing domestic right for agricultural or manufacturing purposes might be restricted on the grounds that the constitution shields domestic uses from conversion to a less preferred use. This prospect is startling in that if pushed to this extreme conclusion, the preference would limit the state's acquisition of water rights by condemnation if the state's purposes were not a preferred (domestic or agricultural) one. Thus, there is a possible conflict between the sovereign power of eminent domain over private property, and a constitutionally protected use for a certain kind of property.

Although it is clear that whatever the state condemns it must pay for, and that it may condemn water for agricultural purposes that is now used for manufacturing, or purposes not specified in the preference clause, it is not clear, and no case has decided, whether the clause would prevent the state from condemning water for agricultural uses which was previously used as domestic or agricultural water.

If a court so held, the state could only condemn water for the agricultural beneficiaries of the water bank program that was previously used for manufacturing, or any other nondomestic, non-agricultural use. In some cases, this might make the cost of compensation very high indeed. Water already used in industrial processes, such as in the manufacture of steel or beer, would likely be very expensive, probably making the condemnation of water rights untenable as the sole means of reallocating water to agriculture.

c. Acquisition by Consensual Arrangement.

(1) Fee Simple Acquisition.

The most straightforward way of assembling a water bank, whether the bank be conceived of a series of wet water storage vessels or as a statewide portfolio of key water rights, would be by negotiated purchase of fee simple interests in the underlying usufructs. Generally, such acquisitions would invest the state with no better rights than the seller had, so that all the attendant restrictions on type, place, and quantity of use would constrain the state's flexibility in managing the water bank. Of course, under Colorado water law, changes in any of these attributes of a water right may be made via an appropriate water court (or perhaps ground water commission) procedure, provided that the change does not result in injury to any other water right. However, as a practical matter, such changes are often fraught with great delay and expense due to hydrologic uncertainty, title disputes, and political strategies. Since it is presumed here that the water bank was conceived of as a means for expediting discretionary reallocations of water under emergency situations, such as in the current regional drought, the usual procedure involved in transfer cases would not be satisfactory, except to the extent such transfers might advance longer-term statewide goals. To amass a fund of "flexible" water rights which were totally insulated from the need of a judicial or administrative transfer proceeding, the state might well consider acquiring water rights at key locations with excellent long-term consumptive use records, since the portion of a water right which has historically been consumed may generally be transferred without injury to any other rights. The water rights selected for acquisition could be either rights to native or developed water with the only criteria for selection being the unit price of the consumptive use attributable to a given right and its reliability under conditions of variable supply.

Once the purchasing decisions have been made, the state, through its water bank agency or regional boards, would then bring application for change of type and place of use including alternate types and places of use, in the appropriate forum. The water bank applicant should request in its application, and should insist at trial, that the ultimate decree or ruling of the water court or ground water commission contain the provision that the amount determined to be the historic consumptive use of the right be available for all types and places of use at the state's discretion, free from any senior call. If such decrees or rulings could be obtained, a state water bank could be given a fund of totally discretionary water, the size of which would be determined by the budget available for acquisition and transfer proceeding expenses.

Obviously, such an acquisition and transfer program would be extremely expensive, and could only be economically justified if the

state were to make interim beneficial use of the flexible water rights. This might be accomplished, for example, by a purchase-leaseback program under which the state would acquire the fee simple in certain selected water rights, either by consent or by condemnation, at fair market value, and then turn around and lease the same water rights back to their previous owners for the previous use and the then-prevailing fair rental value for that type of use. For example, where municipal competition for agricultural water rights is brisk, the state might purchase or condemn the sought-after irrigation rights at the rate cities would pay for such water rights, but lease the same back to the historic irrigators at an annual rent comparable to the rents charged for irrigation rights in that vicinity. The net effect of such a purchase-leaseback program would be to subsidize irrigated agriculture, upon the assumption that externalized or future benefits to the public at large due to the preservation of agriculture would more than offset the present cost of the subsidy. By allocating the use of water on an annual lease basis, the state would retain future flexibility in the allocation of water rights to enable it to respond to unforeseen contingencies.

(2) Less-than-fee Interests in Water Rights.

Since water rights have been held to be real property in Colorado since before the turn of the century,<sup>148</sup> it is interesting to consider the use of certain less-than-fee property interests that are commonly used in connection with land as possible tools for assembling a state water bank program. Although the less-than-fee interests considered here would not produce "wet water" for immediate discretionary distribution, they could be employed to control long-term allocation decisions, and potentially so at reduced cost over full fee acquisition.

A potentially useful, present property interest for water bank purposes is the negative easement in gross. Such an easement could theoretically be structured, for example, so as to permit the holder (in this example, the state) to enjoy any use of a water right other than the specified use or uses. In the language of property law, the burdened water right would be the "servient tenement," and since there would be no "dominant tenement," or adjacent property benefitted by the easement, the easement would be classified as being "in gross," benefitting the holder personally rather than a particular estate in real property. Unfortunately, negative easements appurtenant have been traditionally limited to restrictions on property use benefitting the holder's light, air, view, or lateral support<sup>149</sup> while negative easements in gross, which do not benefit a specific piece of property, have been judicially disfavored.<sup>150</sup> To rectify this situation, in 1976 the Colorado legislature passed

a statute<sup>151</sup> specifically authorizing the creation of conservation easements, which are defined as:<sup>152</sup>

. . . right[s] in the owner[s] of the easement[s] to prohibit or require, a limitation upon, or an obligation to perform, acts on or with respect to a land or water area or air space above the land or water owned by the grantor appropriate to the retaining or maintaining of such land, water, or air space, including improvements, predominantly in a natural, scenic, or open condition, or for wildlife habitat, or for agricultural, horticultural, recreational, forest, or other use or condition consistent with the protection of open land having wholesome environmental quality or life-sustaining ecological diversity, or appropriate to the conservation and preservation of buildings, sites, or structures having historical, architectural, or cultural interest or value.  
[Emphasis added.]

The pivotal question that has yet to be addressed by the Colorado courts, and which is more properly within the scope of another report in this study series, is whether a conservation easement could be created in water rights per se or only in lands underlying specific bodies of water. However, even assuming that conservation easements were amenable only to the latter possibility, some limited water bank purposes might be accomplished through this new statutory device. For instance, the owners of a private reservoir might be solicited to grant a conservation easement to the state, whereby the reservoir lands would never be used for the storage of any water right decreed for nonagricultural use. Private property owners might actually consider donating such an easement if they were also able to realize a charitable tax deduction for the fair market value of the speculative attributes of the burdened land and simultaneously achieve a reduction in assessed valuation of the property.<sup>153</sup>

Obviously, though, conservation easements in the water rights themselves, rather than in their underlying or riparian lands, would be a much more direct approach to the public control and allocation of privately-held resources. Unfortunately, the validity of this approach must remain uncertain until the conservation easement statute is construed by the courts or a clarifying amendment is enacted.

As an alternative, the creation of a negative easement appurtenant to an S.B. 97 minimum stream flow right might be considered. Conceptually, such an easement would enjoin the transfer or change of a correlative servient water right, particularly a pivotal senior right in the critical reach of the stream to different types or places of use which interfere with the minimum stream flow. The

difficulty with this arrangement is that dominant estates in property law have always been thought of as land, and the authors are aware of no case that ever considered whether a water right can serve instead of a parcel of land as a dominant estate for purposes of a negative easement appurtenant, although there seems to be no good reason why it could not. Until this problem is resolved statutorily or judicially, the validity of this approach must also remain in limbo.

There are two future interests, the remainder and the possibility of reverter, which might be used to acquire water or for other water bank purposes. A remainder is a future interest created simultaneously (and by the same instrument) with a prior possessory estate in a person other than the transferor.<sup>154</sup> A reversion is the interest retained by the grantor when he grants a fee simple determinable estate.<sup>155</sup> Neither of these interests would give the state present title to any water rights. They might be useful, however, in funding the bank in the future or in carrying out certain state water policies without the acquisition and disposition of water itself.

The state would acquire a remainder if the grantor of a water right transferred a less-than-fee interest, such as a life estate or an estate for years, to a grantee with the remainder to the state.<sup>156</sup> At the expiration of the prior estate (upon the death of the life tenant or the expiration of the fixed term) the state would hold complete title to the water right. Tax or other incentives might be used to induce the acquisition of remainders for the water bank. The owner of a water right could create a life estate in himself, or devise a life estate to his beneficiaries, with the remainder in the state. He or his beneficiaries would have present use of the water, yet the state would be assured of coming into present possession eventually. This certainly would not be a dependable method by which to fund the bank for present purposes, as there is no way of predicting at what point the state's remainders would ripen into possession. However, the state water bank agency would be empowered to accept remainders as they would serve as long-term acquisition "funds" for the bank(s).

A reversion would allow the state to control the use of water rights. The state would have to purchase a right<sup>157</sup> and then grant it subject to certain use restrictions. For example, the state could sell a right to a farmer "so long as the water is used for agricultural uses." The farmer could hold, use, alienate, or devise his interest so long as this change in use were not attempted. If it were, the title to the water right would automatically revert to the state. This future interest would give the state present possession of little, if any, water. It would, however, enable the state to carry out its articulated water policies by the nature of the triggering



event it imposed on the fee simple determinable right. So long as the restrictions were strictly on use rather than sale,<sup>158</sup> the state could exercise some control on the water it sold. The major drawback to this future interest is that the state would, in effect, subsidize the resale. The water right would be purchased at fair market value for unrestricted water rights but could only be sold at the value of a water right as restricted. Thus, the state might decide that use restrictions would not be productive enough to merit the expenditure of funds that could be used to purchase fee interests in water rights for actual funding of the bank.

d. Acquisition of Abandoned Water Rights.

Abandoned water rights may not be acquired per se. Colorado water law holds that once abandonment is established, upon proof of intent and nonuser, the quantity of water decreed to be abandoned priority reverts to the stream.<sup>159</sup> Conceptually, upon abandonment the usufruct which was once created by appropriation ceases to exist. This water augments the stream and establishes conditions as they would have been, had the right in question never come into existence. Other holders of rights on the stream have more water from which to satisfy their respective priorities. Junior priorities thereby gain an increased chance of being supplied.<sup>160</sup>

Any acquisition of this water could only be accomplished by subsequent appropriation. The right acquired thereby would be junior to all existing rights. Therefore, the notion of state acquisition of abandoned water rights to create a water bank is not a viable one.

2. Taxation of Water Rights.

a. Taxability of Water Rights in General.

All tax exemptions granted by the legislature must arise directly from constitutional authorization.<sup>161</sup> There is only one provision of the revenue article of the state constitution that is even remotely related to water rights. Article X, §3, states, in part:

Ditches, canals and flumes owned and used by individuals or corporations for irrigating land owned by such individuals or corporations, or the individual members thereof, shall not be separately taxed so long as they shall be owned and used exclusively for such purposes.

Both an analysis of cases construing this section and the strict general rule involving exemptions from taxation suggest that this provision does not prohibit the taxation of water rights.

Initially, this section does not grant a tax exemption for the express items; it merely states that ditches, canals, and flumes may not be taxed separately from the lands to which they are appurtenant.<sup>162</sup> The purpose of §3, then, is to prevent the double taxation of irrigation water conveyance systems. Such systems add to the value of land which is taxed as irrigated land, having a much higher assessed valuation than nonirrigated land.<sup>163</sup>

[T]he value of a mutual irrigation system depends upon the cost of the enterprise as a whole. . . . When water rights are taxed in connection with the land they irrigate, the unit is taxed as a whole. The situs for taxation is declared by statute to be upon the land where the water is used.

Therefore, there is no blanket exemption for ditches, canals, and flumes. If such facilities are not used exclusively by their owners to irrigate their lands, then they may be separately taxed.<sup>164</sup>

There is also no tax exemption for water stock. When the stock represents the amount required to irrigate the holder's land, then it is not to be separately taxed,<sup>165</sup> but is included in the value of the irrigated land. If it is not used on the stockholder's land, it may be separately taxed as an improvement on the land.<sup>166</sup> The taxation as an increment of land value is a statutory, and not a constitutional, provision. The pertinent statute provides that: "Improvements shall be appraised and valued separately from land, except improvements on land which is used solely and exclusively for agricultural purposes, in which case the land, water rights, and improvements shall be appraised and valued as a unit."<sup>167</sup> Therefore, water stock, irrigation systems, and decreed water rights are either taxed implicitly as an increment to the value of agricultural land, or as improvements to the land, but not both. Article X, §3, thus simply assures that irrigation systems will not be doubly taxed.

The cases that hold that certain water rights cannot be taxed follow the logic of the constitutional provision but are decided on statutory grounds. Taxation is not permitted if the taxpayer would be paying taxes both on the water right and on the incremental value of land improved by that water.<sup>168</sup> As a constitutional matter, there does not seem to be any bar to a legislative change of the situs of the water right for purposes of taxation. If water were not taxed as an increment to the value of land, then, like excess water stock,

there is no constitutional barrier to taxing it separately as an "improvement" on the land.<sup>169</sup>

In summary, the state may constitutionally tax water rights. Although they are currently taxed as part of the land upon which they are beneficially applied, there is no bar to a change in the situs of water rights for purposes of taxation. If water rights are not taxed as an increment to land value--that is, at the point of beneficial use--they could be taxed at the point of diversion. The next sections will deal with several possibilities for a separate tax on water rights.

b. In-kind Taxation of Water Rights.

Under current Colorado law, the required payment of taxes in-kind would probably be illegal. Colorado's legal tender statute states:<sup>170</sup>

The gold and silver coin issued by the government of the United States shall be a legal tender for the payment of all debts contracted April 5, 1893, between the citizens of this state. The same shall be received in payment of all debts due to the citizens of this state and in satisfaction of all taxes levied by the authority of the laws of this state. [Emphasis added.]

Although this provision does not prevent the state from accepting payment in-kind in lieu of legal tender, it strongly implies that such in-kind payment is optional with the taxpayer, and cannot be imposed as the sole means of payment by the taxing authority. Thus, if the state desires to levy an in-kind tax, it must first modify this law to remove the requirement that the state government accept legal tender in payment of taxes.

However, the federal government itself may not prohibit the states from imposing mandatory in-kind taxes. In the only case found by the authors to have ever addressed the issue, Lane County v. Oregon,<sup>171</sup> the United States Supreme Court was called upon to construe an Oregon tax law in light of the federal legal tender acts. The Oregon law required county treasurers to pay over the taxes they had collected to the state government in gold and silver coin. Lane County had collected taxes in U.S. notes and tendered them instead as payment of taxes due to the state. Oregon brought suit to compel payment in gold and silver coin. Lane County defended on the ground that the federal legal tender acts of 1862 and 1863 required the state to accept U.S. notes in satisfaction of the taxes due. These acts, in pertinent part, stated that U.S. notes:<sup>172</sup>

. . . shall be receivable in payment of all taxes, internal duties, excises, debts and demands due to the United States, except duties on imports, and of all claims and demands against the United States of every kind whatsoever, except interest on bonds and notes, which shall be paid in coin; and shall also be lawful money and legal tender in payment of all debts, public and private, within the United States, except duties on imports and interests as aforesaid. [Emphasis added.]

The Supreme Court disagreed with Lane County and held that taxes were not debts within the meaning of the federal legal tender acts. The court said the constitution contemplated the existence of states which have all the functions essential for a separate and independent existence. Taxation is such a function and, though the power is shared with the federal government, both governments are supreme within their proper spheres. Thus, in defining the scope of the states' taxing power vis-a-vis federal restraints, the court concluded:<sup>173</sup>

The extent to which it shall be exercised, and the mode in which it shall be exercised, are all equally within the discretion of the legislatures to which the states commit the exercise of power. . . . There is nothing in the Constitution which contemplates or authorizes any direct abridgement of this power by the national legislature. . . . If, therefore, the condition of any state, in the judgment of its legislature, requires the collection of taxes in kind, that is to say, by the delivery to the proper officers of a certain proportion of products, or in gold and silver coin, it is not easy to see upon what principle the national legislature can interfere with the exercise, to that end, of this power, original in the states, and never as yet surrendered. [Emphasis added.]

The court advanced a second argument in support of its conclusion. It construed the statutory language quoted above so as to give effect to both clauses, reasoning that the plain language of the first clause applied only to taxes due the federal government, while the second clause applied only to debts originating in contracts or demands carried to judgment, since to conclude otherwise would strip much of the meaning from the first clause.

Thus, Lane County stands for the proposition that state taxes are not considered debts within the meaning of the U.S. legal tender acts so that a state may not be compelled to accept U.S. notes in satisfaction of its taxes. It also espouses the constitutional principle that the states have very broad taxing powers, which are subject to little limitation by the federal government. The extent to which the court's dictum about the discretion of state legislatures in determining the medium of payment of a tax remains good law is open to question, particularly in view of the 1868 vintage of the case. The Supreme Court has not subsequently cited this case for that proposition. Yet, the case has not been expressly overruled on that or any other point. At a minimum, it gives some support to the constitutionality of a mandatory in-kind tax on water as an exercise of state sovereignty.

Apart from the dictum in Lane County, there appears to be no federal or state case decided on the precise issue of whether a state may legally impose an in-kind tax on specific property, although in Colorado there is a case which indirectly sheds some light on the subject. People v. Hull<sup>174</sup> involved a situation in which the legislature had provided that county taxes could be paid with county warrants instead of cash. This law was subsequently repealed. In the interim during which the law was in effect, a county had entered into service contracts with the plaintiff. A basic assumption underlying these contracts was that the plaintiff would be able to use the warrants to pay his county taxes. After the law's repeal, the county refused to take the warrants. The court sustained the payment of the taxes with warrants, stating that there was nothing in the constitution which prohibited payment of taxes with warrants when the power to do so was conferred by statute.

Thus, People v. Hull can be seen as implicitly validating payment of taxes in-kind. The warrants exchanged for the tax obligation represented the value to the county of the services rendered to them. When the warrants were exchanged for cancellation of the tax obligation, the services rendered were being recognized in payment of the tax. The case thus seems to establish that there is no constitutional requirement that state taxes be payable only in legal tender. The legislature is thus free to permit an alternate medium of payment if it so desires, although the extent of the legislature's discretion in selecting the medium of payment was not disclosed.

The question here, however, is whether the state may require payment only in some specific form of nonmonetary property. The legislature could attempt to require payment of taxes in-kind by failing to authorize another medium of payment and by repealing the state legal tender statute. This specific question was left unanswered by People v. Hull, since that case involved a consensual relationship

which did not require the plaintiff to pay his taxes with county warrants. He had always had the option to pay with money. The obvious feature of a mandatory in-kind tax on specific property (e.g., water rights) is that the payment is required in the property right itself or its fruits. Money has some attributes other property lacks, such as complete liquidity (by definition) and universally accepted value, both of which make it more convenient for the payment of debts. Are these attributes so significant as to form the basis of a constitutional rule?

The distinguishing feature of a mandatory in-kind tax, as opposed to a tax payable in money, is that one has no choice but to pay in the property taxed. The specific property taxed may be unique (and particularly so in the case of water rights), hard to replace, or of great value to the taxpayer. In this sense, the taxpayer literally has his property "taken." Yet, when payment is in money, the very same things may be said about choice. However, money is different in that it is completely fungible and may be acquired by a variety of means such as exchange of services or sale of property. This nonuniqueness, the many ways in which it may be obtained, and its role as the common medium of exchange are features that set it apart from other types of property. When specific property, other than money, is required in payment of a tax, the action seems more intrusive, more offensive to basic notions of private property ownership.

The usual way in which the state acquires specific property from an individual is by eminent domain. By exercising this power, the state may condemn private property and take it for state uses provided the purpose to which it will be put is a public one and just compensation is paid for the property taken. These restraints are imposed by the Fourteenth Amendment to the federal Constitution and art. II, §15 of the Colorado Constitution. This power of eminent domain ". . . has been restrained by constitutional limitations in the protection of individual property rights."<sup>175</sup> (Emphasis added.)

With the power to tax specific property in-kind, the state could accomplish the same results as it can by exercising the power of eminent domain. Does this mean that taxation ought to be subject to the same limitations as the exercise of the power of eminent domain in order to protect individual property rights? If so, why is it that taxation is not unconstitutional as a taking of private property without just compensation?

[T]he power of taxation should not be confused with the power of eminent domain. Each is governed by its own principle. . . . A tax is an enforced contribution for the payment of public expenses. It is laid by some rule of apportionment according

to which the person or property taxed share the public burden, and whether the tax operates upon all within the state, or upon those of a given class or locality, its essential nature is the same.<sup>176</sup>

Eminent domain, on the other hand, is the power to take a specific parcel of land because the public necessity requires it. It is taken not as an owner's share in a public burden but as so much beyond his proportionate share.<sup>177</sup>

Eminent domain is the power the government has to acquire specific property when public necessity requires it. This power is limited by constitutional restraints designed to insulate private citizens from arbitrary and confiscatory action. An in-kind tax can have exactly the same effect as an exercise of the power of eminent domain. Although styled as a tax, it may not be governed by the same constitutional constraints. It is likely that a court would view an in-kind tax as an attempt to defeat the limitations imposed on the state's power of eminent domain. As such, a reviewing court would probably declare an in-kind tax on water rights to be an unauthorized, uncompensated taking which must be struck down.

As a member of the Supreme Judicial Court of Massachusetts, Justice Holmes opined:<sup>178</sup>

It may be said that the difference is only one of degree; most differences are when nicely analyzed. At any rate, difference of degree is one of the distinctions by which the right of the legislature to exercise police power is determined. Some small limitations of previously existing rights incident to property may be imposed for the sake of preventing manifest evil; large ones could not be except by the exercise of the right of eminent domain.

It might be possible to frame an in-kind tax on water rights that would pass constitutional muster, although the task would be fraught with risk. For example, the state might attempt to avoid the "taking" charge by making the in-kind tax an alternative method of payment, under which the owner of a water right could either pay the tax in money or divert his decreed entitlement, less the amount of the tax. A major shortcoming of such a tax would develop in acquiring a dependable supply for water bank purposes. In wet years, the state might get water, but in dry years, would almost certainly

get money. Another possibility would be to levy the in-kind tax not on ownership, but on the event of a change of water right. For example, if a water right were changed from irrigation to municipal use, then not only would protection against potential injury have to be taken into account, but a certain additional portion of the water right or the water produced thereby might pass to the state as a tax on the transfer.

Regardless of the manner in which an in-kind tax were imposed, though, a constitutional challenge would be a virtual certainty, with the court's resolution of the issue likely to be influenced by the degree to which the tax carries the appearance of an outright confiscation. In fact, the "difference of degree" which Justice Holmes was talking about distinguished takings from the police power, not from the taxing power. Therefore, it is worth considering whether the state should attempt to exercise its police power, by way of forced dedication, over water rights with greater safety than through the blunt device of an in-kind tax, but with the same effective result.

In recent years, more and more cities and towns have imposed substantial controls on subdivision development. Some of these controls have required the developer to dedicate land for public use as a condition upon platting. Earlier cases<sup>179</sup> approved the required dedication of land for specific purposes directly related to the impact of the development. Later cases<sup>180</sup> approved ordinances requiring developers to dedicate a certain portion of their land for public purposes that were at best indirectly related to the social costs imposed by the development.

The rationale for upholding these dedications, which have the effect of taking private property for public purposes, was stated by the Connecticut Supreme Court.<sup>181</sup> In upholding a law which required the dedication of a certain portion of subdivision land for public parks, that court said:<sup>182</sup>

It is clear that the requirement which is cast upon the plaintiff by the regulation and statute with which we are concerned is uniquely and solely attributable to its activity in undertaking to establish a subdivision. When it undertakes to subdivide, the population of the area is necessarily increased and the need for open space for its people becomes a public one. . . . Basically, however, the complaint is that the plaintiff should be able to assert an individual interest in filling the entire area with housing as superior to the public interest in maintaining a more healthful open space environment. For the reasons already discussed, the public welfare must be paramount. [Emphasis added.]



The basic rationale underlying these forced dedication decisions is that the proposed use of the property will generate certain new social costs, such as the need for more open space, school facilities, or streets. The developer is prevented from making the public bear the social costs which are uniquely and solely attributable to his use of the property, and is forced to internalize some of these costs on the theory that the interest in public welfare far outweighs his private interest in development.

These regulations are enacted pursuant to the state's police power. As such, they must have a rational relation to the public welfare objectives to be obtained. Furthermore, they must be reasonable and impartial. Thus, in framing a measure requiring a forced dedication of water, it will be necessary to identify situations in which the use of water generates social costs uniquely and solely attributable to that use. It will also be necessary to show that the value of the forced dedication of water bears a rational relationship to the costs imposed.

A good example of this might be a change in type of use of a water right from its historic agricultural use to municipal use by subdivision dwellers. One social cost is the displacement of farm families and the drying up of agricultural land, a seemingly inevitable trend as a result of the current economics of development. This cost is rapidly becoming of great concern to Colorado and other western states. First, with the rapidly expanding world population, food production is becoming a priority of the highest order. Drying up productive agricultural land has serious implications in a world where starvation is a fact of life, particularly since reallocation of water from agriculture to municipal development is generally an irreversible process. Second, the Colorado farmer is frequently the direct descendant of the homesteader who settled the western plains. His life has been devoted to agriculture, and his skills are uniquely suited to the occupation. Displacement of these people into large metropolitan areas causes not only problems of tremendous personal adjustment, but is a waste of human resources and threatens the economy of rural communities whose businesses are supported by agriculture. It seems obvious, then, that a change of a water right from agricultural to municipal uses presents costs that reverberate throughout the social and economic order of the state.

Such a change of water rights involves definite social costs which the state could call upon the water developer to defray by forced dedication. However, without attempting to decide the constitutionality of a specific forced dedication measure, which is beyond the scope of the present inquiry, it is enough to say that this method of acquiring water rights would place such an inherent limitation on them that their usefulness to a water bank would be very limited. In order to maintain a reasonable relationship between

the forced dedication and the social costs caused, the water right dedicated to the state would probably have to benefit agricultural land in the vicinity of the site where the purchased water right was historically used.

Moreover, either a tax or a forced dedication upon transfer assumes the future occurrence of transfers. It would not be wise for the state to depend on future transfers to supply a water bank project designed to achieve any immediate implementation of state policy. The following section reveals additional constitutional barriers that render further consideration of an in-kind tax unnecessary.

c. Constitutional Limitations on the Taxing Power.

(1) Constraints on the Use of an Ad Valorem Tax.

There are two general types of taxing measures: ad valorem taxes and excise taxes. Ad valorem taxes are computed upon a valuation of property and are levied pursuant to the state's taxing power.<sup>183</sup> Excise taxes are imposed pursuant to the state's police power for purposes of regulation and restraint, not for the raising of revenue.<sup>184</sup> An excise tax must bear a reasonable relationship between the tax imposed and the cost of services performed in regulation.<sup>185</sup>

The state's power to tax for revenue purposes is established by art. X of the Colorado Constitution. The primary limitations on the state's taxing power are contained in art. X at §§2 and 3. Those sections provide:

The general assembly shall provide by law for an annual tax sufficient, with other resources, to defray the estimated expenses of the state government for each fiscal year.<sup>186</sup>

All taxes shall be uniform upon each of the various classes of real and personal property located within the territorial limits of the authority levying the tax, and shall be levied, assessed, and collected under general laws, which shall prescribe such methods and regulations as shall secure just and equalized valuations for assessments of taxes upon all property, real and personal, located within the territorial limits of the authority levying the tax; provided, however, that the general assembly may, by law, exempt from taxation household furnishings and personal effects which are not used for the production of income at any time. . . .<sup>187</sup>

Section 3 is the primary limitation on the state's taxing power, imposing classification and uniformity requirements on taxing measures. For a particular classification to be upheld, it must appear that the classification is<sup>188</sup>

. . . reasonable and not arbitrary and is based upon substantial differences having a reasonable relation to the object or persons dealt with and to the public purpose sought to be achieved by the legislation involved.

Hence, a property classification will stand unless it fails to meet a minimum rationality test, making it quite difficult to overturn a classification. The burden of proof placed on one challenging a tax classification was announced by the Colorado Supreme Court in American Mobile Home Association v. Dolan.<sup>189</sup> There, the court stated:<sup>190</sup>

If the classification conceivably rests upon some reasonable considerations of difference or policy, there is no constitutional violation. The burden is therefore on the one attacking the classification to negative every conceivable basis which might support it, at least where no fundamental right is imperiled. [Emphasis added.]

Obviously, with such a substantial burden of proof, as a practical matter, classifications for tax purposes are unreviewable except in the most extreme cases. If the state can advance any type of colorable argument in support of its purpose, the measure will likely be sustained.

The uniformity requirement of art. X, §3, is an equal treatment principle requiring that those similarly situated be treated alike. "The uniformity and equality enjoined by the constitution requires that the same means and methods be applied impartially to all the constituents of each class, so that [the tax] operates equally and uniformly upon all persons and corporations in similar circumstances."<sup>191</sup> This is not a stringent standard. If the aim of the legislature is toward achieving equality and uniformity, then the tax is not invalid because precise equality is not achieved.<sup>192</sup> The uniformity standard, like the classification standard, takes a great deal to be overturned. "If the rules or regulations provided by statute are not clearly calculated to produce gross inequality and injustice in the 'assessment of different parcels of property belonging to the same class, the courts will not interfere."<sup>193</sup>

Assuming for the moment that an in-kind tax on water rights

would be a valid exercise of the state's taxing power per se, the actual tax would still have to satisfy the aforementioned constitutional tests. First, it would have to be imposed for the purpose of defraying state expenses. Because, by the very nature of an in-kind tax, the state would be taking specific (and historically "unique") real property rather than perfectly fungible money, an inference could readily be drawn that such a tax was no more than a poorly disguised confiscation of property barred by the Fourteenth Amendment. To structure the tax so as to preclude the inference of confiscation, it would be necessary to limit its applicability to only those specific water rights which the water bank could use to fulfill its specified purposes. If the in-kind tax were applied across the board to all water rights within the state (or to all water rights within a legally recognized class--e.g., designated ground water), it would necessarily take into its broad sweep certain rights which were geographically or hydrologically useless to the state water bank. As to such rights, the tax would arguably not defray any state expenses and would likely be struck down as an unconstitutional confiscation of property.

To prevent this situation from arising, the in-kind tax would have to be assessed only on certain specific water rights whose value to the water bank was verified by hydrologic analysis. However, the very exclusion of some water rights from taxation would ironically raise new constitutional doubts about the uniformity of the tax. Even though, as discussed above, the uniformity standard is a fairly weak one, it is not toothless. It is hard to believe that a valid line could be drawn for tax purposes between water rights that were necessary to a water bank, and therefore taxable, and water rights that were useless to a water bank, and therefore tax-exempt. To single out certain property owners for the dubious honor of defraying the state's water bank expenditures merely because their property was the very property needed to fulfill the state's purpose, strongly smacks of a disguised exercise of the eminent domain power, which may not constitutionally be invoked without appropriate compensation.

## (2) Constraints on the Use of an Excise Tax.

An excise tax is distinguished from an ad valorem tax in the way it is levied and the object that is taxed. It is an exercise of the police power rather than of the taxing power. An excise tax is imposed directly by the legislature for the purpose of regulation or restraint. Excise taxes frequently take the form of license taxes, although taxes for curb cuts, sales taxes on petroleum products, and mineral severance taxes have all been classified as excise taxes.

To qualify as an excise tax, the measure must have a well-defined purpose other than raising of revenue. However, just because the measure has the incidental effect of raising revenue, it will not be declared a revenue-raising measure.<sup>194</sup> Once a measure qualifies as an excise tax, the constitutional constraints on property taxes found in art. X are generally held to be inapplicable, including the uniformity requirement of §3.<sup>195</sup> However, where the regulation or restraint is negligible, the measure will be judicially classified as a revenue measure and thus subject to the limitations of art. X.<sup>196</sup> The amount of an excise tax must be reasonably related to the cost incurred in regulating the activity.<sup>197</sup> Once again, assuming the legality of a mandatory in-kind tax, excise taxes could be preferable to ad valorem taxes, in that the only serious limitation on them seems to be the requirement that the amount of the tax be reasonably related to the cost of the regulation imposed.

Within these parameters, for every purpose that the state now regulates water rights, it could theoretically impose an excise tax. In practice, however, the opportunities for in-kind taxation would present numerous administrative obstacles of the first magnitude. First, it would be necessary to identify the state activities which incur the regulatory expenses sought to be defrayed. These activities would include the distributive and administrative functions of the state engineer's office and the Ground Water Commission and the judicial and quasi-judicial functions of the water courts and the Ground Water Commission. Although allocation of the cost of these functions to individual water rights would no doubt be a matter of great controversy, it would not be an impossible task. Such semi-arbitrary cost allocations are, to some extent, already made through charges for water court filing fees and permit application fees. To the extent that such regulatory activities are already supported by existing fees, the rationale for an additional in-kind tax tends to vanish. As to other regulatory activities which are currently subsidized by the general fund (e.g., the work of water commissioners in administering water rights), the peculiar need for water rather than money to defray the resulting costs justifying an in-kind tax again appears to be non-existent. Consequently, even if the myriad administrative problems associated with valuation and assessment could be overcome, it is likely that the in-kind nature of the tax would result in its classification by the courts as an unconstitutional taking.

#### d. Monetary Taxation of Water Rights.

Since, as shown above, an in-kind tax would likely face a serious constitutional challenge, the state could opt to impose only a more traditional tax on water rights payable in money in order to generate funds for the water bank's acquisition program. Such a tax could at

least conceivably be levied as a prerequisite to appropriation, or on ownership, or in the event of an interuse transfer.

A tax levied upon the initiation of appropriations might well be deemed to be an unconstitutional burden on the right to appropriate guaranteed by art. XVI, §6, of the Colorado Constitution.<sup>198</sup> Even if it could withstand constitutional review, however, such a tax would not, as a practical matter, generate substantial revenues because the overappropriation of most of the major stream systems in the state leaves little water for new appropriators other than occasional flood waters.

As demonstrated above, there is no constitutional barrier to a separate ad valorem tax on the ownership of water rights. However, such a tax would violate the Biblical injunction against "robbing Peter to pay Paul" since it would fall most heavily on the type of use sought to be protected by a water bank program--agriculture. As a matter of policy, an ad valorem tax would conflict with an underlying premise of the water bank--that there are public interests in water which are not presently being served by the traditional system of private water rights in Colorado. If these public concerns justify a reallocation of private property interests, it seems only equitable that the public beneficiaries of the water bank should pay for the reallocation through the state's general fund, rather than those burdened by the reallocation.

While a tax on the event of transfer, which could be defined as water court approval of a "change of water right,"<sup>199</sup> might be sounder from a policy standpoint, it would put the state in the somewhat schizophrenic position of attempting to discourage certain interuse transfers on the one hand, while relying on their occurrence to fund the water bank program on the other. Because the frequency of water right transfers is a poorly understood function of economic conditions throughout the state, a transfer tax would not assure the water bank program the financial stability necessary to assure its continuity and political independence.

In view of the unsuitability of a monetary tax on any of the three attributes of water rights, it is recommended that the envisioned water bank program be financially supported directly out of the state's general fund. This would assure the stable revenue base and independence from affected interest groups, which are important elements of such a politically sensitive program.

#### F. Water Bank Feasibility, Generally.

The fundamental problem in utilizing the allocation of water by

state discretionary means as a device of effectuating broad-ranging state policy is largely one of scale. There is nothing inherent in the "water bank" concept which is unworkable given appropriate supporting legislation and funding.

The idea of promoting and preserving agriculture, for example, by having available a supply of agricultural water to give or lease to those in need, is grandiose. The great majority of water use in Colorado currently goes to agriculture; the large part of that is by virtue of private ownership of the right to divert and use water, or by virtue of permanently allocated rights to use water from federally-constructed projects. To be valuable to agriculture, the water bank would have to provide water available during times of short supply. In order to make any substantial impact upon agricultural stabilization, an enormous quantity of water would be required and at the worst possible times.

Moreover, the economic impetus to change water rights from agricultural uses to other uses is only partially influenced by the variable supply of water or the cost of water supply in general. High costs of farm operation and low agricultural income would have a great deal to do with the flow of water rights to the lucrative municipal market.

The only state that we are aware of that has any sort of water bank operational is California, although not in any form deliberately conceived of as a water bank or as a vehicle for altering state policy, but rather in the form of a massive California water project. There, standard form contracting reserves sufficient control in the state to protect "public interests." The project, of course, was started long ago and was based upon appropriation and development of additional water and upon expenditure of huge sums of money. That system is integrated with federal reclamation projects to the degree that considerable public control is obtained in California over the allocation of water.

Colorado, of course, enjoys certain federal projects which do contribute greatly to the public benefit through agricultural, municipal, and industrial water availability. Although there may be some public policy input from the state executive branch, the majority of the allocation decisions are divided between local conservancy districts and federal interim officials.

Although the question of cost-effectiveness and feasibility is an engineering matter outside the scope of this inquiry, we feel obliged to remark, on our own notice, that additional large-scale projects are not likely to occur in Colorado in the future and do not offer a realistic state policy vehicle. More optimistically, continued state-level political pressure may provide additional state

policy tools through the decision-making processes of existing federal project water allocation.

Inherent in the concept of a flexible fund of state-controlled water is the presence of actual "wet" water. The very idea is for continued decision-making to allocate an increment of the water supply to the purpose that is then presently appropriate to state policy. This would seem to require sufficient control of the water resource to be able to immediately dispatch a delivery of water to the needed use. Unfortunately the "wet water" requirement also leads directly to the need for substantial structural facilities to hold, divert, and deliver the same. The opportunity for additional facilities is limited--and economically and environmentally costly.

It would appear that the storage of water is essential. The basic notion of a highly flexible supply of water would suggest the need for storage. Conceivably a water bank could be made up of a portfolio of direct flow and storage rights. The state could transfer its acquired direct flow rights to storage. This can be done under our present statute, even though earlier case law seemed to suggest it was prohibited. It is necessary, however, to limit the amount transferred to storage to the historic consumptive use of the direct flow right and perhaps to provide other protective conditions such as maintenance by reservoir releases of historically occurring delays in return flow from the old direct flow use. Once transferred to storage, the right takes on great flexibility. There will be no additional need to protect reliance on return flow, such reliance having been safeguarded in the transfer. Subsequent reliance would not develop in a carefully run water bank, in which dominion and control of the entire fund of water by some disposition to appropriate state policy uses would always be maintained.

Changes in use of water rights do require an accounting of and compensation for all injurious effects on other water rights. The ability to make an initial change in type and place of use of a direct flow right to multiple alternate points of diversion exist under current law. Unless the flexibility is substantially compromised by specifying certain uses and points of diversions, the direct flow right change probably would not be allowed.

The possibility of the state acquiring the right of use of existing facilities is good, although obviously considerable funding may well be required. Generally, the foregoing analysis of legal authority of the existing agencies to acquire water rights or interests therein also applies to the acquisition of leasehold interests in existing storage and diversion facilities. Although some agencies have the power to acquire, they lack the statutory purpose to use for general water bank purposes. Remedial legislation would surely adequately cover the power to lease, however, in providing basic



powers to the water bank.

The cost of a program of leasing existing facilities would be expected to be fairly great. In the case of reservoir space, an exclusive lease of space may pre-empt the storage of water by the lessor, and effectively reduce the yield of his storage water right. The lease of facilities, then, may be tantamount to the lease of the water rights as well. Furthermore, the limitation of serving the selected policy purposes may cause the leasing program to be counterproductive. The perceived beneficiality of the use of water to be displaced by the lease must be less than that of the desired policy purpose. In some instances, inefficient uses may well be displaced with positive results. As an across-the-board method, however, lease of existing facilities may not add at all to the one suggested objective of preserving agriculture.

Leasing of water and space from federal projects is a definite possibility. There are no fundamental reasons under the applicable water law why this cannot be done with authorizing legislation. Each federal project has certain of its own rules which must be worked within and which present initial barriers to the lease of water bank sources. First, each project is subject to the limitations imposed by its congressional authorizing legislation. Whether the use of a portion by the state fits within the permitted uses and purposes of the project is a specific question which must be addressed in each circumstance. Similarly, the administration of each project is encumbered by operating criteria and terms and conditions of repayment contracts. In many cases, specific adaptations to these limiting documents would have to be negotiated with the Bureau of Reclamation and project beneficiaries. Second, the current control over project water allocation generally lies with a local conservancy district whose concurrence in a water bank plan would be required. We believe that, while in specific instances successful adaption of a water bank lease arrangement may be made, in many instances it will not be possible to successfully restructure the project to permit water bank use. Each use will require separate consideration.

Our general conclusion with regard to water bank feasibility is pessimistic. While specific purposes at particular sites can be successfully served, and in some instances within existing legislation, the broad-ranging ambitious concept of a statewide flexible multiple-purpose water bank seems to us to require too much control of too much wet water to be practical or realistic.

Again, outside the lawyer's area of legitimate comment, one promising, remaining avenue of possible state control of water resource allocation for public policy objectives lies in possible improvements of efficiency by systematic management. Nonstructural management systems have some potential to succeed politically in the

nation today in a way which the large-scale structural water project no longer does. Nonstructural state programs, perhaps less ambitious, may be highly effective. Although not flexible to changing policies, a long-term program for acquiring less-than-fee interests in water rights designed for the preservation of existing values perceived to be consistent with stable public policy may be promising. A conservation easement upon a water right preventing future transfers to purposes other than agriculture would serve the function of preserving agriculture as against an otherwise unfavorable economic climate. Conservation easements on key downstream senior rights might preserve presently beneficial instream flow conditions.

If such an easement program were proposed to be immediately effective, the costliness would be nearly as difficult as the wet water approach. On the other hand, a state-administered foundation, set up for the long haul, could accept gifts and bequests from willing donors and, in many years, a meaningful fund of easements may accumulate. Private conservation organizations have had reasonable success with donation programs for easements of land, largely motivated by mutual values of the donor and by tax incentives.

In Colorado, the current statute defining conservation easements, §38-30.5-101, C.R.S. 1973 et seq., may have to be broadened to cover water rights with clarity. In connection with a donation program, the purchase of certain key easements may be highly cost-effective and may give to the whole program some greater initial success. Although beyond the major area of our inquiry, it is suggested that the state's new natural areas program might be readily expanded to cover less-than-fee water right interests.

The broader interest of establishing meaningful state control of much of the water resource seems to require a different device than the water bank. It is suggested that a broad-scale non-structural management alternative may exist. Additional water can be made available for use by increasing the efficiency of distribution under the present priority system--for example, the high sophisticated exchange program voluntarily evolved on the Cache la Poudre River. Such management system could be established which allows the state to have policy level control on the managed-for values and leave most of the individual decision-making and implementation at the local level. The same problems of immediately establishing such a program exist. To purchase water rights and leaseback is impractically grandiose.

A more patient and long-term approach is to set up programs of voluntary leasing of rights of the water user community, with leaseback. The main value inducing the lease would be enhanced reliability of supply rather than lease payment. In essence the

suggested program represents a "pooling" of private water rights for increased efficiency and to allow serving simultaneous policy objectives. It should be possible to structure such programs under the existing water conservancy statute, perhaps with the federal government providing the money and technical expertise to support the systems analysis back-up for a large-scale management pool. It would be necessary for the state government to create its policy input alternative at the outset in the formulation and creation of the program. Having done so, however, and being the author of a program allowing modern nonstructural reclamation projects to be developed, the state may find itself in the best possible position to control resource allocation and to do so in a way which does not involve a huge capital investment.

## XII. LEGAL ANALYSIS OF A STATE WATER BANK

### REFERENCES

1. §36-4-104, C.R.S. 1973.
2. §36-4-105, C.R.S. 1973.
3. §36-4-101, C.R.S. 1973.
4. ~~§§36-4-106~~ to 108, C.R.S. 1973.
5. §33-1-112(1), C.R.S. 1973.
6. Id.
7. See, e.g., §§B.l.d. and B.l.e., infra.
8. §33-1-102(44), C.R.S. 1973.
9. §33-30-105(1)(a), C.R.S. 1973.
10. §§33-30-105(1)(b), C.R.S. 1973.
11. For a further discussion of this point, see §B.l.h., infra.
12. §35-70-103(6)(f), C.R.S. 1973.
13. §35-70-102, C.R.S. 1973.
14. Brighton Ditch Co. v. City of Englewood, 124 Colo. 366, 237 P.2d 116 (1951).
15. §37-60-106(1)(j), C.R.S. 1973.
16. §37-60-106(m), C.R.S. 1973.
17. §37-60-106(i), C.R.S. 1973.
18. §37-92-102(3), C.R.S. 1973.
19. Supra note 15. Some confusion might be generated by §37-92-102(3), C.R.S. 1973, which "in this article should be construed as authorizing any state agency to acquire water by eminent domain. . . ." The key words are "in this article"; this disclaimer should not be construed as affecting the specific grant of power to the Water Conservation Board in art. 60. Since the Colorado Supreme Court has previously held that unless

specifically granted, the power of eminent domain is denied (Beth Medrosh Hagodel v. City of Aurora, 126 Colo. 267, 248 P.2d 732 (1952)), this language is apparently just an emphatic reminder that unless elsewhere granted the power, no state agency can condemn water.

20. §37-88-101, C.R.S. 1973.
21. §37-88-105, C.R.S. 1973.
22. Id.
23. §37-88-101, C.R.S. 1973.
24. §37-88-109, C.R.S. 1973.
25. §24-82-102(1), C.R.S. 1973.
26. §24-82-102(2)(a), C.R.S. 1973.
27. Supra note 14.
28. Blanchard v. Griswold, 121 Colo. 29, 214 P.2d 362 (1950). This case involved a group of sororities who sued a jewelry manufacturer for making replicas of their insignias. A statute whose title involved only the use of special insignias was held not to reach the case of their manufacture.
29. §37-80-102(1), C.R.S. 1973.
30. §37-40-102, C.R.S. 1973.
31. The divisions of the Department of Natural Resources are as follows:
  1. The Colorado Water Conservation Board
  2. The State Soil Conservation Board
  3. The State Board of Land Commissioners
  4. The Division of Mines, which consists of the following sections:
    - a. The Bureau of Mines of the State of Colorado and the Office of Commissioner of Mines
    - b. The Chief Inspector of Coal Mines, the District Inspectors of Coal Mines, and the Board of Examiners
    - c. The Mining Industrial Development Board
    - d. The Land Reclamation Board
  5. The Division of Water Resources, which consists of the following sections:
    - a. The Office of the State Engineer
    - b. The Division Engineers
    - c. The Ground Water Commission
    - d. The State Board of Examiners of Water Well and Pump Installation Contractors
    - e. The Irrigation District Commission

6. The Oil and Gas Conservation Commission of the State of Colorado
7. The Colorado Geological Survey and the Office of the State Geologist
8. The Division of Wildlife and the Wildlife Commission
9. The Division of Parks and Outdoor Recreation and the Board of Parks and Outdoor Recreation

§24-33-104, C.R.S. 1973.

32. The Division of Parks and Outdoor Recreation can acquire water only as the executive director approves. §33-30-105(1)(a), C.R.S. 1973.
33. See, e.g., the Wildlife Commission. §33-1-106(8), C.R.S. 1973.
34. §37-80-102, C.R.S. 1973.
35. §37-80-102(6)(a), C.R.S. 1973.
36. People v. District Court, 18 Colo. 26, 31 P. 339 (1892).
37. St. Luke's Hosp. v. Industrial Comm'n, 142 Colo. 28, 349 P.2d 995 (1960).
38. §33-1-101(1), C.R.S. 1973.
39. Union High School Dist. No. 2 v. Paul, 105 Colo. 93, 95 P.2d 5 (1939).
40. Novak, "Legal Classifications of Special District Corporate Forms in Colorado," 45 Den. L. J. 347 (1968).
41. I.e., those which may acquire water or water rights.
42. Novak, supra note 40, at 357-367.
43. Colorado Inv. & Realty Co. v. Riverview Drainage Dist., 83 Colo. 468, 266 P. 501 (1928).
44. Holbrook Irr. Dist. v. First State Bank, 84 Colo. 157, 268 P. 523 (1928).
45. People v. Parker, 118 Colo. 13, 192 P.2d 417 (1948).
46. People v. Lee, 72 Colo. 598, 213 P. 583 (1923).
47. §37-20-101, C.R.S. 1973.
48. §37-20-102(1), C.R.S. 1973.

49. §37-20-110, C.R.S. 1973.
50. §37-24-103, C.R.S. 1973.
51. §37-24-104, C.R.S. 1973.
52. §37-21-110, C.R.S. 1973.
53. Supra note 47.
54. §37-30-102, C.R.S. 1973, provides that the State Board of Land Commissioners can petition state lands into drainage districts.
55. §37-30-103, C.R.S. 1973.
56. §37-20-116, C.R.S. 1973.
57. §37-41-113(3), C.R.S. 1973.
58. §37-41-113(7), C.R.S. 1973.
59. §37-42-113(1), C.R.S. 1973.
60. §37-42-135, C.R.S. 1973. There is a conflict between this statute, providing for such a lease to be made only upon approval of a majority of the members, and §37-43-124, C.R.S. 1973, which calls for a two-thirds vote.
61. §37-4-101, C.R.S. 1973, gives the State Board of Land Commissioners such power.
62. §37-42-115(1), C.R.S. 1973, gives the State Board of Land Commissioners such power.
63. §37-41-104, C.R.S. 1973.
64. §37-42-105, C.R.S. 1973.
65. §37-43-104, C.R.S. 1973.
66. Id.
67. §35-70-104(1), C.R.S. 1973.
68. §35-70-105, C.R.S. 1973.
69. §35-70-108(1)(e), C.R.S. 1973.
70. Id.

71. Id.
72. §35-70-102, C.R.S. 1973.
73. §35-70-104(6)(c), C.R.S. 1973.
74. §35-70-107(1), C.R.S. 1973.
75. Id.
76. The statute refers to a "majority of the voters," with no reference to acreage. §35-70-103(4)(f), C.R.S. 1973.
77. Division of Local Government, Department of Local Affairs, Local Government Financial Compendium (1974 and 1975 Appendix). These are small districts, one on the Dolores River, and one on the Arkansas River in Prowers County.
78. §37-2-101(1), C.R.S. 1973.
79. §37-2-102, C.R.S. 1973.
80. §37-3-103(1)(h), C.R.S. 1973.
81. §37-3-103, C.R.S. 1973.
82. §37-2-101, C.R.S. 1973.
83. §37-2-102(2), C.R.S. 1973.
84. The petition may be signed by the governing body of a "public corporation" (§37-2-102(1), C.R.S. 1973) which is defined so as to qualify all governmental agencies (§37-1-102(4), C.R.S. 1973). Therefore, the State Board of Land Commissioners could sign.
85. §37-2-105(1), C.R.S. 1973.
86. §37-3-101, C.R.S. 1973.
87. §37-1-102(4), C.R.S. 1973.
88. §37-5-102, C.R.S. 1973.
89. *Montgomery v. City and County of Denver*, 102 Colo. 427, 80 P.2d 434 (1938).
90. People v. Lee, supra note 46.
91. §37-44-103(1)(b), C.R.S. 1973.



92. Novak, supra note 40, at 369-375.
93. People v. Letford, 102 Colo. 284, 79 P.2d 275 (1938).
94. Schlarb v. North Suburban Sanitation Dist., 144 Colo. 590, 357 P.2d 647 (1960).
95. §37-45-109(1)(a), C.R.S. 1973.
96. §37-45-109(2)(a), C.R.S. 1973.
97. §37-45-112(5)(b), C.R.S. 1973.
98. §37-45-118(1)(a), C.R.S. 1973.
99. §37-45-118(1)(j), C.R.S. 1973.
100. §37-45-118(1)(c), C.R.S. 1973.
101. §37-45-114, C.R.S. 1973.
102. §37-45-114(2), C.R.S. 1973.
103. §32-4-104(1), C.R.S. 1973.
104. §37-4-107, C.R.S. 1973.
105. §32-4-113(1)(f), C.R.S. 1973.
106. §32-4-113(1)(j), C.R.S. 1973.
107. §32-4-114, C.R.S. 1973.
108. §32-4-102(4), C.R.S. 1973.
109. §32-4-102(6), C.R.S. 1973.
110. §37-93-105(1)(b)(I), C.R.S. 1973.
111. §37-93-105(1)(d), C.R.S. 1973.
112. §37-93-105(1)(g), C.R.S. 1973.
113. §37-93-108, C.R.S. 1973.
114. §37-93-105(1)(a), C.R.S. 1973.
115. §§37-46-101, 37-47-101, 37-48-101, C.R.S. 1973.

116. §§37-46-107(1)(b), 37-47-107(1)(b), 37-48-105(1)(b), C.R.S. 1973.
117. §§37-46-107(1)(i), 37-47-107(1)(i), 37-48-105(1)(i), C.R.S. 1973.
118. Beth Medrosh Hagodel, supra note 19.
119. Illinois Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892).
120. Just v. Marinette County, 56 Wisc.2d 7, 201 N.W.2d 761 (1972).
121. Id.
122. See, e.g., Brighton Ditch Co., supra note 14; Farmers' High Line Canal and Reservoir Co. v. City of Golden, 129 Colo. 575, 272 P.2d 629 (1954).
123. §37-80-102, C.R.S. 1973.
124. §37-60-101 et seq., C.R.S. 1973.
125. §37-60-106, C.R.S. 1973.
126. §37-92-102(3), C.R.S. 1973.
127. §37-60-104(2), C.R.S. 1973.
128. Contract between the State of California Department of Water Resources and the Metropolitan Water District of Southern California, ¶18(a) (Nov. 4, 1960, amended Feb. 1, 1973).
129. M. Archibald, Governor's Commission to Review California Water Rights Law, Appropriative Water Rights in California 195 (1977).
130. E.g., S.B. 925, H.R. 4537, and H.R. 5117, 95th Cong., 1st Sess. (1977).
131. See, e.g., H.R. 5117, 95th Cong., 1st Sess. §1(b) (1977).
132. H.R. Rep. No. 95-155, 95th Cong., 1st Sess. 4 (1977); S. Rep. No. 95-50, 95th Cong., 1st Sess. 5 (1977).
133. See, e.g., Southeastern Colorado Water Conservancy Dist. v. Shelton Farms, Inc., \_\_\_ Colo. \_\_\_, 529 P.2d 1321 (1975).
134. §36-20-103, C.R.S. 1973.
135. Southeastern, supra note 133, lists three situations in which a decree for developed water can be granted: the importation of water from another source, the capture and storage of flood

water, and the finding of water which would not normally reach the river and its tributaries. Water produced by weather modification seems to fit in the first category.

136. In Southeastern, supra note 133, the court speaks of phreato-phytes (water-using plants) as "water robbers."
137. A division of the U.S. Department of the Interior.
138. E. Jones and C. Leaf, Generalized Criteria for Verification of Water Developed through Weather Modification (1975).
139. Id. at 93.
140. W. Fischer, "Weather Modification and the Right of Capture," 8 Nat. Res. L. 644, 647, (1975).
141. Leaf and Jones, supra note 138, at 9.
142. Fischer, supra note 140, at 657.
143. See Potashnik v. PUC of Colo., 126 Colo. 98, 247 P.2d 137 (1952); Beth Medrosh Hagodel, supra note 19; Game and Fish Comm'n v. Farmers' Irr. Co., 162 Colo. 301, 426 P.2d 562 (1967).
144. Mack v. Town of Craig, 68 Colo. 337, 191 P. 101 (1920).
145. Several state agencies have the power of eminent domain. However, none of these specifically involves water rights. See §B.1.. supra.
146. Town of Sterling v. Pawnee Extension Ditch, 42 Colo. 421, 94 P. 339, 340 (1908). See also Montrose Canal Co. v. Loutenhizer Ditch Co., 23 Colo. 233, 48 P. 532 (1896).
147. Carlson, "Report to Governor John A. Love on Certain Colorado Water Law Problems," 50 Den. L. J. 293, 313 (1973).
148. See, e.g., Travelers' Ins. Co. v. Childs, 25 Colo. 360, 54 P. 1020 (1898); Armstrong v. Larimer County Ditch Co., 1 Colo. App. 49, 27 P. 235 (1891).
149. 3 Powell, Real Property §405 (1974).
150. See, e.g., introductory sentence in the 1976 Colorado conservation easement statute, C.R.S. §38-30.5-101 (Cum. Supp. 1976).
151. §38-30.5-101 et seq., C.R.S. 1973.

152. §38-30.5-102, C.R.S. 1973.
153. See, e.g., §38-30.5-109, C.R.S. 1973: "Real property subject to one or more conservation easements in gross shall be assessed, however, with due regard to the restricted uses to which the property may be devoted."
154. W. Schwartz, Future Interests and Estate Planning, §2.3 (1964).
155. Union Colony Co. of Colorado v. Gallie, 104 Colo. 46, 88 P.2d 120 (1939).
156. The state would want to acquire a remainder indefinitely vested so as to avoid a potential problem with the Rule Against Perpetuities.
157. Reversions can be created only in the grantor and cannot be alienated in Colorado. See Union Colony, supra note 155.
158. Restraints on alienation are invalid. See, e.g., Cronk v. Shoup, 70 Colo. 71, 197 P. 756 (1921).
159. City and County of Denver v. Just, 175 Colo. 260, 487 P.2d 367 (1971); North Boulder Farmers' Ditch Co. v. Leggett Ditch and Reservoir Co., 63 Colo. 522, 168 P. 742 (1917).
160. Farmers' Reservoir & Irr. Co. v. Fulton Irr. Ditch Co., 108 Colo. 482, 120 P.2d 196 (1941).
161. Young Life Campaign v. Board of County Comm'rs, 134 Colo. 15, 300 P.2d 535 (1956).
162. In 1891, the Colorado Court of Appeals held that when a ditch is owned by a corporation and the water carried by the ditch is exclusively used by the corporation's shareholders, the ditch is not to be taxed separately from the land. The land is taxed as irrigated land; therefore, the value of the ditch to the landowner is included in the increment of valuation between the assessment of nonirrigated and irrigated land. Empire Land & Canal Co. v. Board of County comm'rs, 1 Colo. App. 205, 28 P. 482 (1891). This is also true of flumes and canals. Board of Comm'rs of Montezuma County v. Cortez Land and Securities Co., 81 Colo. 266, 254 P. 996 (1927). If such property is used solely for the irrigation of lands of the members of the corporation or the individual who owns them, then they are not separately taxable. The prohibition against separate taxation of irrigation systems owned or exclusively used by the owner or stockholders was extended in 1943 to include all integral parts of the water carriage system such as headgates, reservoir beds, etc. Logan

Irr. Dist. v. Holt, 110 Colo. 253, 133 P.2d 530 (1943). This does not, however, include repair tools or construction equipment. Id. Accord, Jacobucci v. District Court, \_\_\_ Colo. \_\_\_, 541 P.2d 667 (1975).

163. Shaw v. Bond, 64 Colo. 366, 171 P. 1142, 1144 (1918).
164. San Luis Power & Water Co. v. Trujillo, 93 Colo. 385, 26 P.2d 537 (1933). This case also seems to hold that the water rights owned by a carrier ditch company are also separately taxable to the company as the irrigators do not hold legal title to them.
165. Montezuma County, supra note 162. This case further holds that if the "extra" shares are used by other shareholders in the corporation, then they likewise are not to be separately taxed. Although this case is distinguished by Beaty v. Board of County Comm'rs of Otero County, 101 Colo. 346, 73 P.2d 982 (1937), which holds that any shares a stockholder owns over and above the amount "needed" to irrigate his own land, even if inuring to the sole benefit of the other stockholders, are separately taxable, the two cases seem flatly inconsistent on this point, as the Beaty dissent points out.

It is interesting to note that in both Montezuma County and Beaty, the putative taxpayers admitted that a certain number of shares were in excess of their needs. It is unclear what standard of need the court would apply in a disputed case, in which an irrigator's view of "excess" water is likely to diverge widely from the assessor's.

166. Beaty, supra note 165.
167. §39-5-105, C.R.S. 1973.
168. Kendrick v. Twin Lakes Reservoir Co., 58 Colo. 281, 144 P. 884 (1914).
169. One other possible bar to the taxation of water rights can similarly be dismissed. In Wheeler v. Northern Colorado Irr. Co., 10 Colo. 582, 17 P. 487, 490 (1887), the court held that the constitution provides that "ownership of water should remain in the public with a perpetual right to its use, free of charge, in the people." (Emphasis added.) Board of County Comm'rs v. Rocky Mountain Water Co., 102 Colo. 351, 79 P.2d 373 (1938) also adopted this language. It might seem that the court's holding that the right to use is "free of charge" would make it unconstitutional to tax water rights. This would be an incorrect reading of the cases, however. Both of them involve carrier ditch companies, and the courts were construing art. XVI, §8,

involving the power of county commissioners to fix rates for water when supplied by a corporation or an individual for the use of another, and not art. XVI, §6. In Wheeler, the users held title, while in Rocky Mountain, the water company owned the water rights. Yet in both cases, the court held that their rates could not include the value of the water, but merely carriage charges. The "free of charge" language, therefore, apparently has no relevance to the taxation of water rights.

170. §11-61-101, C.R.S. 1973.
171. 74 U.S. 71 (1868).
172. 74 U.S. at 75.
173. 74 U.S. at 77.
174. 8 Colo. 485, 9 P. 34 (1885).
175. Potashnik, supra note 143, at 138; see also Beth Medrosh Hagodel, supra note 19.
176. Houck v. Little River Dist., 239 U.S. 254, 265 (1915).
177. 1 Nichols, Eminent Domain §1.41(1) (3d. ed. 1973).
178. Rideout v. Knox, 148 Mass. 368, 372, 19 N.E. 390 (1889).
179. E.g., Ayers v. City Council of Los Angeles, 34 Cal.2d 31, 207 P.2d 1 (1949).
180. E.g., Associated Home Builders v. City of Walnut Creek, 4 Cal.3d 633, 484 P.2d 606, 94 Cal. Rptr. 630 (1971); Aunt Hack Ridge Estates, Inc. v. Planning Comm'n of the City of Danbury, 160 Conn. 109, 372 A.2d 880 (1970).
181. Aunt Hack Ridge Estates, supra note 180.
182. Id. at 886.
183. Walker v. Bedford, 93 Colo. 400, 26 P.2d 1051 (1933).
184. Id.
185. Heckendorf v. Littleton, 132 Colo. 108, 286 P.2d 615 (1955); Houston v. Kirschwing, 117 Colo. 92, 184 P.2d 487 (1947).
186. Colo. Const. art. 10, §2.

187. Id. art. 10, §3.
188. District 50 Metropolitan Recreation Dist. v. Burnside, 167 Colo. 425, 448 P.2d 788, 791 (1968).
189. \_\_\_\_ Colo. \_\_\_\_, 553 P.2d 758, 762 (1976).
190. Quoting verbatim from Madden v. Kentucky, 309 U.S. 83 (1940).
191. Ames v. People ex rel. Temple, 26 Colo. 83, 56 P. 656, 664 (1899).
192. City and County of Denver v. Lewin, 106 Colo. 376, 105 P.2d 854 (1940).
193. People ex rel. Iron Silver Mining Co. v. Hendersen, 12 Colo. 369, 21 P. 144, 147 (1889).
194. Colorado Nat'l Life Assurance Co. v. Clayton, 54 Colo. 256, 130 P. 330 (1913); Chicago B. Q. R.R. v. School Dist. No. 1, 63 Colo. 159, 165 P. 260 (1917).
195. California Co. v. State, 141 Colo. 288, 348 P.2d 382 (1959); Walker v. Bedford, 93 Colo. 400, 26 P.2d 1051 (1933); Altitude Oil Co. v. People, 70 Colo. 452, 202 P. 181 (1921); Ard v. People, 66 Colo. 480, 182 P. 892 (1919); Denver City Ry. v. City of Denver, 21 Colo. 350, 41 P. 826 (1895).
196. Heckendorf, supra note 185.
197. Id.; Houston, supra note 185.
198. "The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied."
199. See §37-92-103(5), C.R.S. 1973.

### XIII. ESTABLISHMENT OF WILD AND SCENIC RIVERS.

#### A. Introduction.

This chapter focuses on three major areas of wild and scenic river legislation: first, the Federal Wild and Scenic Rivers Act, describing the procedure for addition of rivers to the national system, the management of designated river areas, and discussion of some of the practical problems that operation of the system has produced;\* second, state wild and scenic programs, noting the various methods used to achieve controlled development in the river corridor and to maintain the free-flowing condition of the river; and third, a brief history of previous legislative attempts to pass wild river legislation in Colorado, and discussion of possible options and obstacles for a Colorado wild and scenic river system.

#### B. The Federal Act.

The Federal Wild and Scenic Rivers Act was passed by Congress on October 2, 1968.<sup>1</sup> Upon passage of the act, eight rivers were immediately included in the wild and scenic river system. Twenty-seven others were designated for potential inclusion. In 1975, 11 rivers were added to the system (totaling 19 rivers covering 1,655.15 miles) and an additional 29 rivers (including 12 in Colorado) were designated for study.<sup>2</sup> The act mandates three classifications of rivers:

- wild--no impoundments, essentially undeveloped shores and watershed, inaccessible except by trails.
- scenic--no impoundments, shorelines and watershed still largely undeveloped although some traditional uses such as farming, grazing, and lumbering permitted; accessible in places by roads.
- recreational--some impoundments or diversions in the past, some developments along the shoreline and watershed, traditional uses permitted, readily accessible by roads.

The program classified certain river segments which "possess

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\*Research for this section is primarily from the text of the act and from D. Tarlock and R. Tippy, "The Wild and Scenic Rivers Act of 1968," 55 Cornell L. Rev. 707-35 (May, 1970).



outstandingly remarkable scenic, recreational, geological, fish and wildlife, historic, cultural, or other similar values" in order to preserve them in a "free-flowing condition" and protect their immediate environments "for the benefit and enjoyment of present and future generations."

The purpose of the act is twofold: (1) to prohibit construction of federally sponsored water projects and other modifications of the waterway (such as impoundments, diversions, straightening, rip-rapping, etc.), and (2) to limit and regulate development (including mining, logging, and other construction) within the river corridor. Offsetting the established national policy of dam and other water-related construction, the act is also an attempt to limit development of certain rivers and their banks to permit recreational use.<sup>3</sup>

#### 1. Study and Inclusion.

Additions to the system may be made by a later act of Congress in response to a completed river study or by the Interior Secretary's approval of a governor's request to include a state wild and scenic river in the national system, in which case that river will be administered exclusively at that state's expense.

The act authorizes the Secretary of the Interior (through the Bureau of Outdoor Recreation) or the Secretary of Agriculture (through the Forest Service if national forest land is involved) to conduct studies to be completed within a specified period to determine whether rivers originally or subsequently proposed should be added to the system. The studies are to determine:

- (1) the possible classification(s) of the river;
- (2) current land ownership and use in the area;
- (3) the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area is included in the system;
- (4) the extent to which it is proposed that the state and local agencies share in the administration of the area (including possible costs); and
- (5) the estimated costs to the United States of acquiring land and interests in land and of administering the area.

Priority of completion of studies is to be given to those rivers most likely to be developed inconsistently with purposes of the act, and

which have the greatest proportion of private land within their areas. Joint federal-state studies are permitted if the state so requests. With the passage of the amended act, Congress appropriated a maximum of \$2,175,000 for completion of the 29 additional studies. States may also contribute to the funding of studies.

Once a study is completed, it is submitted to federal agencies for recommendations, and to the governor of the state affected if land acquisition is necessary. Following agency, state, and Presidential recommendations, the proposal is sent back to Congress for passage or to the Secretary of the Interior for his approval if a state government had originally requested wild and scenic designation.

## 2. State Rivers in the National System.

Inclusion of a state scenic river in the national system has two main advantages. First, no United States agency may sponsor or assist in the construction of water resource projects within the protected area, and other federally funded construction may be limited as well. Secondly, inclusion in the national system may result in national recognition and publicity. However, such publicity could increase tourism, lead to increased congestion within the protected area, and result in a diminution of wilderness values.<sup>4</sup>

The act directs the Secretary of the Interior to encourage and assist states in formulating and carrying out outdoor recreation plans. The secretary is also authorized to grant financial assistance to states (pursuant to the Land and Water Conservation Fund Act of 1965), as well as provide technical assistance and advice to states, local governments, and private interests, including non-profit organizations who want to establish wild, scenic, and recreational river areas. Financial assistance has not been requested by Colorado since any funds allocated would have to come from money supporting existing federal programs within the state.<sup>5</sup>

## 3. River Protection.

Both rivers in the system and rivers designated for study are protected from construction of water resource projects which require a Federal Power Commission (FPC) license.<sup>6</sup> They are also protected from projects requiring licensing or funding from other federal agencies and having a direct and adverse effect on the river as determined by the Secretary of the Interior or the Secretary of Agriculture. This provision gives the secretary veto power over proposals for dams or related developments. Projects which would

not have a detrimental impact on the river may still be constructed with the permission of the Secretary of the Interior. Limitations may also be placed on developments below or above a designated river area or on its tributaries which "invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values in the area."

Further protection of rivers designated for study from timber harvesting, road construction, and similar activities which "might be contrary to the purposes of this Act" remains the discretion of the project sponsor--that is, the Secretary of the Interior, the Secretary of Agriculture, or heads of other federal agencies.

The act does not limit the application of mining laws or mineral lease laws, except that mineral development of all land within one-fourth mile of the bank of a river in the "wild" category is withdrawn, subject to valid existing rights. While mineral rights perfected prior to a river's inclusion are not affected, all claims and leases made after a river's inclusion into the system are subject to regulations issued by the Secretary of the Interior or of Agriculture. Minerals located within one-quarter mile of the bank of all study rivers are withdrawn from appropriation for the specified period.

The act only briefly mentions the need for controlling water pollution and directs the administrator to cooperate with state water pollution control agencies for the purpose of eliminating or diminishing water pollution.

#### 4. Acquisition of Land.

The act permits land acquisition by the federal government to provide a protective river corridor. In certain instances, selective purchase of private land that is partially developed may permit designation of an area otherwise precluded from inclusion. Subject to certain restrictions, both fee titles and easements (scenic and access) may be acquired by the Secretary of the Interior or of Agriculture. The scope of a scenic easement was broadened by the 1975 amendment from "the right to control the use of the land (including the air space above such land) for the purpose of protecting the scenic view from the river" to the "rights to control the use of land . . . for the purpose of protecting the natural qualities of a designated wild, scenic or recreational river area, but such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement." This type of property interest appears to act as a flexible zoning-type restriction on future use.

Boundaries of the protected river corridor are limited to an average of 320 acres per mile on both sides of the river, and acquisitions of land in fee simple are restricted to an average of 100 acres per mile on both sides of the river. Condemnation in fee is not permitted if 50 percent or more of the river area is publicly owned (although easements may be taken) or if the area is subject to a zoning ordinance which conforms to the purposes of the act; that is, restricting commercial and industrial development and protecting the river banks by acreage, frontage, and setback requirements. When improved property is condemned, the owners retain a right of use and occupancy for a term of 25 years, or until the death of the owner. Land may be acquired by other means including donation by the state or by trade of nonfederal lands adjacent to the river for comparable federal property.

Since public land ownership is given more weight than private ownership in determining whether to include a river in the system, much of the land adjacent to designated or proposed scenic rivers in the West is owned by the federal government. When interests are to be acquired in private lands, the favored method is purchase of scenic easements rather than condemnation of land in fee title. In 1968, Congress appropriated \$17 million for the acquisition of property interests and increased the allotments to \$40.4 million in 1975.

#### 5. Management Plans and Administration.

Classification and management plans determine what types of uses will be permitted as well as the amount of development to be allowed. Management plans are formulated by the federal agency responsible for the area's administration (Forest Service, Bureau of Land Management, National Park Service, or Fish and Wildlife Service) in cooperation with state agencies:

Section 10(e) [T]he Federal agency charged with the administration of any component of the national wild and scenic rivers system may enter into written cooperative agreements with the Governor of a State, the head of any State agency, or the appropriate official of a political subdivision of a State for State or local governmental participation in administration of the component. The States and their political subdivisions shall be encouraged to cooperate in the planning and administration of components of the system which include or adjoin State or county owned lands.

Statutory authority for administration is principally derived

from the Multiple Use--Sustained Yield Act of 1960, and the Classification Multiple Act of September 19, 1964. If any part of the river corridor is located within a national wilderness area, it will be subject to both the Wilderness Act and the Wild and Scenic Rivers Act, with the more restrictive provisions applying in case of conflict.

Since much of the effectiveness of the Wild and Scenic Rivers Act depends upon the discretion of administrators to veto water resource projects which would have a harmful impact on the river or river corridor, the question has been raised as to whether judicial review of agency decisions may be obtained. While the act is silent on this issue, Tarlock and Tippy suggest that judicial review probably would be available and that conservation groups would have standing to seek review of public land management decisions.<sup>7</sup>

To supplement the criteria found in the act, the Departments of the Interior and Agriculture, in 1970, issued "Guidelines for Evaluating Wild, Scenic and Recreational Areas."<sup>8</sup> While the guidelines lack the force of law, they specify certain characteristics that any river included in the system should meet, such as being long enough to provide a meaningful experience, having a sufficient volume of water during normal years to permit full enjoyment of water-related outdoor activities, being generally pleasing to the eye, and so forth.

Also suggested in the guidelines are methods to achieve management objectives which include restrictions on motorized land travel; acquisitions and removal of unsightly habitations; location of major public use areas, such as large campgrounds outside the designated river area; prohibition of new structures unless consistent with river management objectives; and implementation of management practices to enhance or improve the natural character of the area. It is obvious that despite efforts to objectify river classification and administration, a great deal of subjective assessment and discretion on the part of the administrative agency is unavoidable. For example, how does one objectively determine whether a river and its environment is "outstandingly remarkable," or whether an improvement is "non-harmonious" and should therefore be removed.

## 6. Problems in the Operation of the Act.

### a. Reserved Rights and Preservation of Minimum Flows.

While the act has two major objectives--to restrict development of the river banks in order to preserve the essential character

of the river, and to prohibit impoundments and diversions to insure free-flowing conditions for recreational purposes--it seems that the act's failure to mention water supply could possibly result in the existence of a "wild and scenic" river lacking one very important element--water.

It has been suggested that one way to get at the matter of preservation of minimum flows is through the federal reserved water rights doctrine. However, the relationship between federal and state water law in river management is unclear and, unfortunately, the language of the act contributes to the confusion:

Section 13(b) The jurisdiction of the States and the United States over waters of any stream included in a national wild, scenic or recreational river area shall be determined by established principles of law. Under the provisions of this Act, any taking by the United States of a water right which is vested under either State or Federal law at the time such river is included in the national wild and scenic rivers system shall entitle the owner thereof to just compensation. Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

(c) Designation of any stream or portion thereof as a national wild, scenic or recreational river area shall not be constructed as a reservation of the waters of such streams for purposes other than those specified in this Act, or in quantities greater than necessary to accomplish these purposes.

(d) The jurisdiction of the State of waters of any stream included in a national wild, scenic or recreational river area shall be unaffected by this Act to the extent that such jurisdiction may be exercised without impairing the purpose of this Act or its administration.

Tarlock and Tippy contend that the clause "by established principles of law" implicitly incorporates Supreme Court cases which hold that state laws inconsistent with federal water programs may be supplanted by Congress. They also contend that the act may be read to include an assertion of federal supremacy and reservation of water rights.<sup>9</sup> They cite First Iowa Hydro-Electric Cooperative v. FPC, 328 U.S. 152 (1946), in which the petitioner sought a license under the Federal Power Act for construction of a dam without submitting his proposal to a designated state agency. The court held that obtaining the

federal permit was not contingent on complying with state requirements since there was no "saving clause" protecting state laws from being superseded by federal law, particularly laws dealing with "administration of public lands and reservations of the U.S."

However, they note that it also may be argued that the act provides that state water law is exclusively to control the management of system rivers despite the fact that the western doctrine of prior appropriation traditionally has had little regard for preservation of water for scenic uses.

Generally, the reserved rights doctrine holds that a federal reservation of public domain has appurtenant to it the right to divert as much water within or bordering upon the reservation as is necessary to serve the purposes for which it was created.<sup>10</sup> This approach to the water controversy raises more questions than it resolves, particularly with respect to the priority date of the reserved right and the quantity of the water which will serve the purposes of the reservation. A reserved right generally arises from the date of withdrawal, but in the case of wild and scenic rivers the use of the water differs substantially from the uses that might have been foreseen when the land was purchased or withdrawn. National forests were created to furnish a continuous supply of timber rather than serve recreational uses, and it has been unsuccessfully argued that the priority date should be assigned from the creation of national forest areas in the early 1900s.<sup>11</sup> More acceptable alternatives include fixing the priority date from the Multiple Uses Act of 1960, when preservation of minimum stream flow for recreational purposes became a recognized use, or from the date of a river's inclusion in the wild and scenic river system.

However, it is clear that whatever the amount, water rights perfected prior to the date of the reservation are superior to reserved rights. This creates serious problems in western states in which there may not be any water left for appropriation. The act fails to include minimum stream flow requirements, but rather is written in terms of preserving the river in a "free-flowing condition" and "existing or flowing in a natural condition without impoundment, diversion . . . or other modification of the water way." The "Guidelines for Evaluating Wild, Scenic and Recreational Areas" state, "In the event the existing supply of water is inadequate, it would be necessary to show that additional water can be provided reasonably and economically without unreasonably diminishing the scenic, recreational and fish and wildlife values of the area," though the act itself gives no guidance for resolving this controversy.<sup>12</sup>

b. Acquisition of Land.

Since the Wild and Scenic Rivers Act has been in effect, one of the greatest obstacles it has faced is public outcry against acquisition of land in fee and easements. While not as great a problem in the West where much of the land is publicly owned, attempts to condemn land in the eastern United States, where most riparian land is in private hands, have met with resistance. Landowners complain of unjust compensation, of the presence of undesirable visitors, and of the inability to control their own destinies.

c. Overcrowding.

A complaint more common to the West is overuse and overcrowding of rivers (both rivers designated as wild and scenic and those not in the system) by boaters and floaters. To preserve the natural environment, rafting permits are required on rivers which border on certain federally administered lands, including the Yampa and the Green through Dinosaur National Park in Colorado, and on white-water stretches of the Colorado, the Green, the San Juan, the Yampa, and the Green in Utah. Efforts have been made to arrive at an equitable ratio between commercial outfitters and private recreationists, but permit distribution has been weighted heavily in favor of commercial interests.

d. Classification Scheme.

The three-category classification system (wild, scenic, and recreational) has also been frequently derided, and the suggestion has been made to replace it with one "protected" class. There is little to distinguish between classifications which are ambiguous, vague, and overlapping. In part, this problem is semantic; the "wild" class has been misinterpreted to include only white-water segments, and the term "recreational" has conjured up visions of amusement park use.

e. Lack of Public Involvement.

Lack of public involvement in the designation of rivers and river protection generally has been a concern of many, including the American Rivers Conservation Council. Public hearings are required to be held by the National Environmental Protection Act, but in some instances public notice was ineffective and participation was poor. Another criticism leveled at the act is its use as a political tool,



as illustrated by the fact that 12 rivers in Colorado are under study, due allegedly to former Colorado Senator Peter Dominick's courting of environmentalists in his unsuccessful 1974 re-election bid.<sup>13</sup>

f. Inventory of Other Possibilities.

The Federal Bureau of Outdoor Recreation (BOR) recently began the monumental task of a nationwide systematic inventory of free-flowing rivers and has developed a six-step procedure for narrowing the possibilities for inclusion in the national wild and scenic river system. This process has included receipt of input from conservation groups and other interested parties.<sup>14</sup> Critics of such an inventory are afraid that the list of candidate rivers will eliminate from consideration other rivers deserving of protection and will in effect "put the lid on" expansion of the system. Since the BOR is placing emphasis on "outstandingly remarkable" rivers from each physiographic section (such as high mountain streams), it is also feared that significant rivers in the same area may be excluded from protection.

g. Costs of Land and Administration of the Program.

Finally, costs of the program have been a major concern. The difference in costs between eastern and western rivers is substantial. For the Dolores (Colorado), the projected cost of easements is \$220,000, while land acquisition along the Gasconade in Missouri is estimated at \$7.1 million. Costs of development and management can be high as well. The estimated budget on the Dolores for the first year is \$453,000 and \$90,000 per year thereafter.<sup>15</sup> The economic return on the public's investment is not a major selling point for the wild and scenic river system. But it is felt that in this age of dwindling resources and limited funds, the nation's rivers are one of its most valuable and irreplaceable commodities, providing incalculable social, cultural, and psychological benefits. The preservation of some segments of some rivers is believed to be needed regardless of price.

7. The Federal Program in Colorado.

At the present time there are no Colorado rivers in the federal system, but 12 rivers are under study for possible inclusion. The State of Colorado is participating in all of the studies, through the Colorado Water Conservation Board (CWCB) and the Division

of Wildlife (DOW). Estimates of average federal costs of these Colorado studies range from \$200,000 to \$250,000, while state participation approximates \$60,000, which is taken directly from the Department of Natural Resources budget. The state has offered some aid for the management of the Dolores River when and if included in the wild and scenic river system, contingent upon approval by the state legislature, but at present has no plans to contribute management funds for other rivers under study.

The Dolores River, which combines the characteristics of a high desert river and a high country stream, is eligible for inclusion from the proposed McPhee Dam to the Highway 90 Bridge, a total of 105 miles. The Dolores study, conducted jointly by the Bureau of Outdoor Recreation, the U.S. Forest Service, and the Colorado Department of Natural Resources, was completed in January, 1976, and is now under review by the Office of Management and Budget. No Congressional action has yet been taken on the study recommendations.

Portions of rivers representing the high desert region are now under study and include the Yampa River in Dinosaur National Monument, the Green River from below the boundary of Dinosaur National Monument, the Colorado River from a point about 20 miles inside Colorado downstream to its confluence with the Dolores River in Utah. The studies on the Utah segment of the Dolores, and the Gunnison River from the upstream boundary of the Black Canyon of Gunnison National Monument downstream to its confluence with the North Fork, are also under way. This research was initiated early in 1976 and will be completed in 1979.

Seven Colorado rivers, often characterized as high mountain streams, are also under study:

- (1) the Piedra River and its tributaries (southwestern Colorado);
- (2) the Conejos River (south-central Colorado) in the mountains west of the San Luis Valley;
- (3) the Los Pinos River (southwestern Colorado) principally in the Weinuche Wilderness;
- (4) the Cache la Poudre River (northern Colorado) just west of Fort Collins inside Roosevelt National Forest and Rocky Mountain National Park;
- (5) the Elk River (north-central Colorado) between Steamboat Springs and the Colorado-Wyoming state line;
- (6) the Encampment River (north central Colorado); and

(7) the Big Thompson River in Rocky Mountain National Park.

These reports are scheduled for completion sometime between late 1977 and 1979.<sup>16</sup> Tentative plans exist for construction of water impoundment facilities on four of these rivers--the Elk, the Cache la Poudre, the Colorado, and the Gunnison. River mileage presently under study in Colorado is approximately 600-685 miles, although various groups and individuals in the state have identified an additional 1,425-1,700 miles of stream which might be incorporated into the federal program or a state scenic river system.<sup>17</sup>

### C. State Wild and Scenic River Systems.

State involvement in the preservation of rivers dates from 1915, when the Oregon legislature withdrew certain waterfalls and streams in the Columbia River basin from appropriation in order to preserve their scenic beauty and enhance their recreational potential.<sup>18</sup> Since that time, 25 states have enacted some type of wild and scenic river protection, many of which are patterned after the Federal Wild and Scenic Rivers Act. This section will examine wild and scenic legislation from five states (Tennessee, Michigan, Oregon, California, and New York), taking note of provisions dealing with land use control and maintenance of free flows.

The primary focus of the statutes of the five states examined is the regulation of land uses in the river corridor. A prohibition against impoundments and diversion is included in several of the acts. Unfortunately, minimum stream flows are never explicitly mentioned although it could be maintained that some minimum flow requirements may be implied by legislative intent to preserve rivers in their "free-flowing condition." Each of the acts designates one or more state agencies to study possible additions to the system in compliance with a management plan.

In order to avoid some of the problems which have arisen under the federal program, some states have adopted different measures. For example, scenic easements and other forms of land use control are generally relied on as opposed to acquisition of land in fee. Several states maximize public involvement in the river protection process and require mandatory public hearings in the counties involved, citizen input in designation of rivers for study and participation of citizen groups (including conservation groups) in the actual study process. While all of the statutes have the similar objective of preserving rivers possessing "outstanding natural, scenic, historic, ecological, and recreational values," the methods by which this goal is to be attained differ from state to state.

### 1. Tennessee.

Tennessee passed one of the first statewide scenic rivers acts in April, 1968, designating 11 rivers for protection.<sup>19</sup> The Tennessee Scenic Rivers Act of 1968 is similar to its federal counterpart in most respects and features three river classifications--natural, pastoral, and partially developed. The act combines acquisition of land and conservation easements with zoning, tax incentives, and other means in order to limit development. The act also restricts "impoundment, diversions, straightening, riprapping, or other modifications of the waterway" to safeguard the natural flowing condition of the river.

### 2. Michigan.

Michigan's natural resources program is one component of Michigan's complete land management program.<sup>20</sup> Six rivers consisting of 251 miles of main stream and 380 miles of tributaries are presently included in the system established by the Natural River Act of 1970. Further additions must be initiated locally. Land use control is achieved by the adoption of zoning regulations consistent with a long-range comprehensive plan for a designated river area prepared and adopted by the State Natural Resources Commission. The commission is to direct county and local governments to establish zoning ordinances; if local government fails to act within one year of notification, or if the ordinance fails to meet minimum standards, the commission may issue zoning ordinances on its own. Existing uses not in conformity with the ordinance may continue, although it is left open, to provide for "the reasonable completion, restoration, reconstruction, extension, or substitution of such non-conforming uses." Land or interest in land may be acquired only with the owner's consent. Easements may be obtained to provide for preservation of scenic values without opening the area to public access or use. The commission may enter into lease agreements to administer the land. These measures were designed to minimize public resistance to the act. A major thrust of the program has been to increase public involvement in the planning process and broaden public understanding of the program.

### 3. Oregon.

The Oregon Scenic Waterways Act, adopted by initiative in 1970, formulates a land use plan based on rules and regulations issued by the State Highway Commission through the Department of Transportation (under the Oregon State Constitution, highway funds may be used for recreation and scenic preservation).<sup>21</sup> A landowner who

wants to change the use of "related adjacent land," make improvements, or engage in mining or tree cutting must give the department written notice at least one year prior to such proposed use. If the department determines that the proposed use will "substantially impair the natural beauty of the scenic waterway," it may enter into negotiations with the landowner to reach some agreement on a use that will not impair the waterway. However, if negotiations are terminated without agreement, the landowner may carry out the proposed use one year after notification of the department. At this point, the state may institute condemnation proceedings to acquire the land in fee title; however, scenic easements may not be condemned. The act's intent is to regulate use without acquisition of land. In three and a half years of administration, the state has resorted to condemnation only once. The state has purchased 488 acres in fee title and scenic easements on 106 acres for a total cost of \$698,864, protecting eight river segments.<sup>22</sup> Additional scenic waterways may be designated by the governor pursuant to reports submitted by the Department of Transportation with the Water Policy Review Board.

The Oregon act goes further than some of the statutes in dealing with the issue of water quantity. It declares that "the highest and best uses of the waters within scenic waterways are recreation, fish and wildlife uses. The free-flowing character of these waters shall be maintained in quantities necessary for recreation, fish and wildlife uses." The act prohibits the construction of dams, reservoirs, or other water impoundment facilities and limits the construction or use of facilities except by right previously established or as permitted by the state's water resources director.

#### 4. California.

The "California Wild and Scenic Rivers Act," enacted in 1972 and providing protection for nine river segments, is similar to the Oregon statute, although it does not detail how land use controls are to be implemented.<sup>23</sup> However, the act does recognize the state's right to use the power of eminent domain.

Much of the designated river corridor or "area of direct influence" (usually canyon areas one to three miles wide) is publicly owned. River management plans which will soon be introduced into the California state legislature call for land use controls on privately-owned land to be put into operation through local zoning ordinances. There has been no acquisition of land-in-fee or of easements because of the costs of and public opposition to such measures.

The act designates scenic, recreational, fishery, or wildlife

uses as "the highest and most beneficial use" and "a reasonable and beneficial use under the State Constitution." It forbids the construction of dams or other impoundments and excludes construction of water diversion facilities "unless and until the Secretary [of the Resources Agency] determines that such facility is needed to supply domestic water to the residents of the county or counties through which the river flows, and unless the Secretary determines that such facility will not adversely affect its free-flowing condition or natural character." These provisions have been interpreted as an appropriation by the state to insure instream flows. A diversion project proposed by the Bureau of Reclamation on the Klamath River raised questions as to the validity of this interpretation, but it appears that the bureau has backed down for now.

Public reaction in the area of designated rivers has been generally unfavorable--many of the rural communities do not appreciate any type of governmental interference. The timber industry views the program as a threat to its economic well-being and has opposed any restrictions on logging practices. Even some of the logging-oriented policies of the Forest Service have come into conflict with the program.<sup>24</sup>

#### 5. New York.

The New York Wild, Scenic, and Recreational Rivers System was enacted in 1973 and protects over 1,214 miles of more than 17 river segments.<sup>25</sup> The act relies on regulation of future land uses in order to preserve the natural environment, rather than on acquisition of land or easements. Existing land uses may be continued subject to regulation, but may not be changed unless the Commissioner of Environmental Conservation orders such use to be discontinued and adequate compensation made. The result of strict regulation of future uses may at times be "a taking" requiring compensation. The act has not yet been tested in court, since all but 23 miles of river are located in Adirondack State Park which has similar land use regulations in effect. Operation of the system has been supplemented by existing programs dealing with agricultural land use incentives and fishing rights. The coordinator of the New York program believes that better results would be achieved if local government is included in the planning at the outset of the program. While the act does not specifically address the issue of maintaining stream flows, state rules and regulations presently in preparation could include minimum stream flow requirements.<sup>26</sup>

#### D. A Colorado Program?

Two unsuccessful attempts have been made in Colorado for a state scenic river program to supplement the federal program. A state program could include those rivers which were not included in the federal system, but which merit protection for their scenic, recreational, and fish and wildlife values and which are a source of local sentiment and state pride. Such a system could be administered by the Department of Natural Resources through the Division of Water Resources, Division of Wildlife, and Division of Parks and Outdoor Recreation.

##### 1. Past Attempts.

Two wild rivers proposals have been introduced into the Colorado General Assembly, but both were defeated.

The first attempt, S.B. 381, sponsored by Sen. Jim Armstrong in 1969, passed the Senate but died in the House Natural Resources Committee.<sup>27</sup> The bill directed the executive director of the Department of Natural Resources to conduct a study of the free-flowing waters of the state in order to develop a river management policy, and coordinate the state policy with other governmental programs and private interests. Information and findings gathered were to be reported to the General Assembly.

The second bill, S.B. 278, sponsored by Sen. Joe Schieffelin, et al., in 1971, did not emerge from the Senate Game, Fish, and Parks Committee.<sup>28</sup> This attempt picked up where the first bill left off. It designated 12 river segments as "wild." Included in the system were primitive type streams accessible only by trails. The act authorized the divisions of wildlife and parks to acquire land in fee title and scenic easements. For land acquired in fee, the owner was permitted to retain a right of use and occupancy until his death or a period not to exceed 25 years. Condemnation proceedings were to be limited to clearing title and acquiring easements.

At first glance, a wild and scenic rivers program would seem to have universal appeal, but it has been frequently condemned by legislators. After its most recent defeat, it was doubtful that another scenic river bill could obtain a sponsor or any open endorsement. It is virtually certain that any attempt by the state to acquire land by the power of eminent domain or to obtain water rights for a state scenic river program will come under heavy attack. Future legislation will have to go a long way to assuage the fears of landowners and appropriators if it is to have any chance of passage. A watered-down scenic rivers bill might float politically if it received a large and vocal measure of public backing.

## 2. Some Options.

Tarlock's ingredients for a state river protection program include: (1) an inventory of all streams and rivers in the state which might be worthy of preservation, prepared by the water resources agency in conjunction with recreation and fish and wildlife agencies; (2) the designation of preservation of free-flow as a beneficial use; and (3) guidelines which would authorize the Department of Natural Resources to formulate a program to control development along river banks and implement the program by the acquisition of access rights and scenic easements.<sup>29</sup> Viewing such a river protection program as a tool to attain the two major goals of preserving the essential character of a river and incurring minimum stream flows to permit fish, wildlife, and recreational uses, the state has several courses (complete with pitfalls and dead ends) that it may pursue to reach those goals.

## 3. Land Use.

Any system developed to regulate private land use in the river corridor should not rely extensively on acquisition by eminent domain. Landowners have been less than enthusiastic about federal condemnation and any state bill authorizing acquisition of land in fee should be based on seller willingness. Although condemnation of scenic easements has also faced public resistance, once landowners are informed of the benefits of that method (which would allow continued present uses along with a lump sum payment and reduced property taxes) some of the hostility directed towards "government interference" might be lessened. However, easements can be expensive--one estimate sets the cost of state protection of a 20-mile stretch of river from \$10,800 to \$236,000, depending on the type of easement obtained.<sup>30</sup> Zoning, particularly by local governments in accordance with a statewide scenic river zoning plan, presents a low-cost, publicly acceptable alternative. However, in some instances it would be necessary to create local land use planning commissions, and such bodies might choose to serve private interests at the expense of river corridor preservation. Zoning could be suitable as a temporary measure in some areas.

In order to hold down costs and provide protection for a greater area, it would probably be advisable to institute some combination of scenic easements, rights of access, leasing arrangements, zoning, and tax incentives.

## 4. Minimum Stream Flows.

Although minimum stream flows have been overlooked in the



federal program, it should be of primary concern to Colorado, and other western states in which water is a scarce and valuable resource, to determine minimum flows and obtain some type of interest in water under a scenic rivers program. Provisions dealing with minimum stream flows should take into account both over-appropriated streams as well as those with remaining unappropriated water. One method which could conceivably be employed would be to direct the Water Conservation Board, as authorized under S.B. 97, to apply for and obtain water rights on any protected river.<sup>31</sup> While this would give the state junior rights on over-appropriated streams, such a right could provide some measure of protection since, in many instances, senior water users are located downstream. The water rights would allow the Water Conservation Board to contest or protest any change in place, type, or amount of use which would injure its right or impair the use for which the water was appropriated. However, S.B. 97 only authorized the board to appropriate such waters "as may be required to preserve the natural environment to a reasonable degree." Narrowly interpreted, this would limit appropriations for instream flow to the amount necessary to sustain fisheries and wildlife, rather than the much greater amounts required for some recreational uses. Senate bill 97 might be amended to extend the board's authority to appropriate water for recreational uses or "beneficial uses in the public interest."

Another strategy would be to reserve minimum flows in the name of the people of Colorado (in streams with unappropriated waters remaining) for scenic river legislation. Subject to existing rights, such action would withdraw water from further appropriation, the priority dating from the time the river is included in the system. While there is virtually no difference between reservations and water rights, the reserved rights doctrine lends itself to a greater degree of flexibility and might be more acceptable from a political standpoint. An automatic review after a specified period could be written into the act, thereby permitting the legislature to determine whether the reservation should remain in effect or whether the water should be appropriated for other uses. However, this approach might not be feasible without an amendment to the Colorado Constitution, since it might be in conflict with art. XVI, §6, guaranteeing that "the right to divert shall never be denied."

In overappropriated streams, the state could consider acquiring water rights by condemnation, donation, or outright purchase. The question of whether the state may condemn water rights of preferred users for a lower preference use is unsettled.<sup>32</sup> In order to designate recreational, fish, and wildlife uses in a scenic river system as the highest and most beneficial uses, a constitutional amendment would be required. Such an amendment would have no chance of passage.

A plan devised by the Water Conservation Board to protect fisheries could be used in conjunction with a state scenic river program at a very low long-range cost. The plan avoids the need for condemnation, and involves a revolving fund of approximately \$3 million (funded by state appropriations and/or revenues from fishing licenses) which could be used to buy water rights upstream and sell or lease them to other appropriators at some point downstream, thus preserving a certain flow in the stream.<sup>33</sup> Any profits made would be channeled back into the fund. The state might also be able to locate water rights that have been forfeited or abandoned and acquire those at reduced costs.

Regardless of the tactics employed to obtain water, it would probably be advisable to call a moratorium on appropriations on a river designated for study in order to forestall thirsty developers and other potential appropriators. Such a moratorium presents legal problems of its own (§IX.D.10., supra).

#### 5. Diversions and Impoundments.

Prohibition of diversions and impoundments on protected rivers is sure to be subject to both political and constitutional challenges. Such obstacles might be avoided by generally precluding the construction of dams and other modifications of the waterway such as straightening, rip-rapping, etc., but permitting other water diversion facilities to be built as needed.

#### 6. Other Concerns.

Apart from the issue of minimum stream flows, inclusion of certain Colorado rivers in a scenic river program would present special management problems. The Big Thompson River, which serves as a conduit for a transmountain diversion from one of the tributaries of the Colorado River, could be affected by high releases, with resulting detrimental impact on fish and wildlife and the stream channel itself. The Encampment River may be subject to similar concerns. It is uncertain whether rivers receiving transmountain diversions should be included in either federal or state scenic river programs and, if they are, how stream flows are to be regulated to permit various types of uses.

Another concern is the actual use of protected rivers by the public. Subject to appropriation, Colorado streams are the property of the people of the state. However, ownership of the banks and channel is vested in the owner of adjacent lands. Floating, boating,

or fishing on rivers running through private land is legal so long as the public doesn't trespass on the banks or the river bed itself. Easements should perhaps include rights to use a narrow portion of the bank for recreational purposes as well as providing access to the river in certain areas.

#### 7. Some Additional Options.

To avoid the political turmoil and legislative inaction that is associated with previous attempts to enact scenic river legislation in Colorado, proposals have been made which would use existing mechanisms to implement some type of river protection. It has been suggested that fishing easements regularly obtained by the Division of Wildlife be expanded to include shore and channel protection. Another possibility applicable to various state- and federally-owned lands would be to set up interagency agreements that would forbid channel modification and preserve a natural river corridor.<sup>34</sup>

#### 8. A Forecast.

The present political climate in Colorado does not present optimal conditions for the introduction of another legislative scenic river proposal. Although there is potential support for the system in Colorado, it would be advisable to postpone any real push for the program until action has been taken on Colorado rivers now under study for designation in the federal system. It appears likely that most of the rivers under consideration in Colorado, with the exception of the Big Thompson and the Los Pinos, will be recommended for inclusion in the federal system.

### XIII. ESTABLISHMENT OF WILD AND SCENIC RIVERS

#### REFERENCES

1. U.S. Laws. Wild and Scenic Rivers Act. Oct. 2, 1968, Washington: U.S.G.P.O., 1968. (Pub. L. 90-542, 82 Stat. 906-18.) The act was subsequently amended by Public Laws 92-560, 94-199, 93-279, 94-486, and Public Law 93-621 (enacted Jan. 3, 1975).
2. Designated rivers include: (1) Middle Fork Clearwater, Idaho; (2) Eleven Point, Missouri; (3) Feather, California; (4) Rio Grande, New Mexico; (5) Rogue, Oregon; (6) St. Croix, Minnesota and Wisconsin; (7) Middle Fork Salmon, Idaho; (8) Wolf, Wisconsin; (9) Allagash Wilderness Waterway, Maine; (10) Lower St. Croix, Minnesota; (11) Chattooga, North Carolina, South Carolina and Georgia; (12) Little Miami, Ohio; (13) Little Beaver, Ohio; (14), Snake, Idaho and Oregon; (15) Rapid, Idaho; (16), New, North Carolina; (17) Missouri, Montana; (18) Flathead, Montana; (19) Obed, Tennessee. The Allagash, Little Miami, Little Beaver, and the New are managed solely by their respective states, while the Obed and the Lower St. Croix are subject to both state and federal administration.
3. Tarlock, D. and Tippy, R., "The Wild and Scenic Rivers Act of 1968," 55 Cornell L. Rev. 707, May, 1970.
4. Supra note 3, at 715.
5. Conversation with Duane Helton, Colorado Water Conservation Board, July 1, 1977.
6. Study rivers are protected from water resource project construction "during the ten-year period following enactment of this Act or for a three complete fiscal year period following any Act of Congress designating any river for potential addition to the national wild and scenic rivers system, whichever is later." The period of protection may be extended a maximum of three years to permit consideration of the study report by Congress. Section 7(b)(i), (ii), "Wild and Scenic Rivers Act," Jan. 3, 1975 (Pub. L. 93-621).
7. Supra note 3, at 727.
8. U.S. Department of the Interior, "Guidelines for Evaluating Wild, Scenic and Recreational River Areas," Washington: U.S.G.P.O., 1970.

9. Supra note 3, at 734.
10. Meyers, "The Colorado River," 19 Stanford L. Rev. 65 (1966).
11. "Master-Referee's Partial Report," U.S. v. District Courts in and for Water Diversions 4, 5, 6, 36, 37, 51, and 52, (1977), at 8-9.
12. Supra note 8, at 4.
13. Bavarkis, J., "Preserving the Wild Rivers," Straight Creek Journal, No. 25, June 23, 1977, at 2-3.
14. Id.
15. U.S. Bureau of Outdoor Recreation, U.S. Forest Service, and Colorado Department of Natural Resources, Dolores River Wild and Scenic River Study Report, March, 1976, at 105 (revised).
16. "Wild and Scenic Rivers," Outdoor Recreation Action, No. 43, Spring, 1977, at 27-28.
17. Worley, H., "Social Value Judgment Task--Paper for Water Policy Study," Colorado Department of Natural Resources, June 8, 1977, at 4.
18. Tarlock, D., "Preservation of Scenic Rivers," 55 Kentucky L. J. 762 (1967).
19. 3A Tenn. Code Ann. §§11-1401-1417 (1968).
20. 14 Mich. Comp. Laws Ann. §§281.761-.766 (1970).
21. 3 Ore. Rev. Stat. §§390.805-.925 (1970).
22. Supra note 16, at 15.
23. Cal. Code Ann. §§5043.50-.69 (1972).
24. Conversation with Jerry Mensch, California Department of Fish and Game, Aug. 10, 1977.
25. 17-1/2 N.Y. Comp. Laws Ann. §§15-2701-2723 (1973).
26. Conversation with Nicholas Barth, New York Department of Environmental Conservation, July 6, 1977.
27. Armstrong, Schieffelin, and Fuhr, "A Bill for an Act Establishing the Colorado Wild River System," S.B. 381 (1969).
28. Schieffelin, Shoemaker, Bermingham, et al., "A Bill for an Act

Concerning the Establishment of a State System for the Preservation of Wild Rivers," S.B. 278 (1971).

29. Supra note 18, at 767.
30. Perry, "Memorandum Regarding Wild and Scenic River Studies," May 31, 1977, at 11.
31. "An Act Concerning the Appropriation of Water, and Providing for the Appropriation of Water by the State of Colorado to Protect the Natural Environment," S.B. 97 (1973).
32. Carlson, "Report to Governor Love on Certain Colorado Water Law Problems," 50 Denver L. J. 561 (1973).
33. Martinez, "Memorandum Regarding Minimum Stream Flow Program," May 26, 1977, at 1-4.
34. Supra note 30, at 12.

SPECIAL LEGAL ISSUES

#### XIV. PLANS FOR AUGMENTATION.

##### A. Introduction.

This paper discusses a rather new creation of Colorado water law, the plan for augmentation. A plan for augmentation is the latest effort to give what, at its outset, may have seemed a rigid appropriation doctrine the necessary flexibility to adapt to changing times, in this instance the change being a dramatic increase in the use of ground water. However, the principles behind the plan for augmentation have their roots in such traditional and comfortable concepts of Colorado water law as changes in points of diversion, exchanges of water, and the like.

The use of water rights in Colorado, spurred by the necessity to integrate the use of ground and surface water, is increasingly complex and creative. A plan for augmentation is rapidly becoming the vehicle which permits this trend to accelerate.

Changes in the use of water rights in Colorado have been permitted under the condition that the change causes no "substantial" injury to vested water rights. Yet, over the last 100 years, the cumulative effect of junior appropriations, changes in water rights, and exchanges of water rights has been substantial indeed, and the regimen of our rivers is quite different from the time of the first appropriation. These changes have, without doubt, helped some water rights, while injuring others. Colorado has had a dynamic history, and its water laws have adapted to this dynamism. This chapter does not discuss the perplexing problems of how and when the government, as sovereign, should intervene in the use of water rights. It does describe how the government, as a proprietor, and all other water users, may adapt uses of water rights to changing conditions, even at the risk of gradually encroaching on those "property rights" which are called water rights.

Whether the plan for augmentation will permit this adaptation to continue at a slow enough pace to allow water users to absorb the changes so as to avoid invoking the doctrine of no injury to vested rights, and at a fast enough pace to make unnecessary the entry of the government, as a sovereign, into the allocation of water, remains unanswered. Whatever the outcome, there can be little doubt that time-honored principles of Colorado water law, wrapped up as they are in the plan for augmentation, now offer the Colorado Supreme Court a major role in determining the pace of this trend.

##### B. The 1969 Legislation Creating a "Plan for Augmentation" and Its Subsequent Modification.

Justice Groves, in Fellhauer v. People,<sup>1</sup> hailed what he called



the "new drama" of water administration in Colorado:<sup>2</sup>

As administration of water approaches its second century the curtain is opening upon the new drama of maximum utilization and how constitutionally that doctrine can be integrated into the law of vested rights. We have known for a long time that the doctrine was lurking in the backstage shadows as a result of the accepted, though oft violated, principle that the right to water does not give the right to waste it. [Emphasis in original.]

The Colorado legislature adopted this language in its declaration of the legislative intent underlying the Water Right Determination and Administration Act of 1969.<sup>3</sup> This statute arose out of the pressing need to reconcile the growing conflict between surface water use and the development of underground water by means of wells, which were becoming increasingly important in the economy of an arid state:<sup>4</sup>

Long after the reliable surface flows of the major eastern Colorado streams had been fully developed, a large number of wells were drilled. It has become apparent that removal of water from the underground source has the effect of reducing the flow of nearby streams and interfering with established surface water rights. By the early 1960's a substantial agricultural economy had become based on the use of the underground resource, presenting the state with a serious dilemma in the adjustment of this conflict.

According to the Colorado legislature, it was the policy of the state, as embodied in the 1969 act,<sup>5</sup>

. . . to integrate the appropriation, use, and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the beneficial use of all the waters of this state.

The legislature recognized that existing laws had given "inadequate attention to the development and use of underground waters of the state."<sup>6</sup> To correct this situation, "the existing use of ground water, either independently or in conjunction with surface rights, . . . [should] . . . be recognized to the fullest extent possible."<sup>7</sup>

Furthermore, the legislature declared its intent that "the use of ground water may be considered as an alternative or supplemental source of supply for surface decrees entered prior to June 7, 1969,"<sup>8</sup> while at the same time considering the need to protect vested rights.

One of the major tools introduced by the 1969 act for accomplishing the statute's express purpose of maximizing the beneficial use of Colorado's waters through the integration of tributary ground water and surface water is the plan for augmentation. The 1969 act defined "plan for augmentation" as<sup>9</sup>

. . . a detailed program to increase the supply of water available for beneficial use in a division or portion thereof by the development of new or alternate means or points of diversion, by a pooling of water resources, by water exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means.

An "augmentation plan," as originally defined in the 1969 act, appeared to include any reasonable plan of water management which increased the supply available for beneficial use. This broad definition held out the promise of opening up countless possibilities for such plans, limited only by the imagination and inventiveness of the people formulating them. It has, however, been narrowed since the passage of the 1969 act. In Southeastern Colorado Water Conservancy District v. Shelton Farms, Inc.,<sup>10</sup> the Colorado Supreme Court held that killing phreatophytes, or water-consuming vegetation, did not produce a water right for the amount of water not transpired which was superior to all senior decreed rights in the stream. But the 1969 act's broad definition of a "plan for augmentation," together with the realization that stifling creativity in finding new water supplies was contrary to the goal of maximizing beneficial use,<sup>11</sup> obviously caused the court some uneasiness. The Colorado General Assembly, responding to the court's plea for legislative action,<sup>12</sup> merely avoided the issue by amending the definition of "plan for augmentation" to specifically exclude:<sup>13</sup>

. . . the salvage of tributary waters by the eradication of phreatophytes . . . [and] . . . the use of tributary water collected from land surfaces which have been made impermeable. . . .

In view of the Colorado Supreme Court's rulings a year and a half ago in the two landmark decisions dealing with plans for augmentation,<sup>14</sup> the use of the word "increase" in the definition of plan for augmentation, as well as the term "augmentation" itself, are

misleading. According to the court, the 1969 act does not require that new or developed water be introduced into a river system before there can be an acceptable plan for augmentation. Rather, the replacement alone of the previous consumptive use of the existing water rights involved in the plan constitutes a valid basis for such a plan.<sup>15</sup>

The 1969 act places few restrictions and offers only minimal guidelines with regard to the substantive aspects of a legal plan for augmentation. But the 1969 act, as amended by S.B. 7 in 1974,<sup>16</sup> sets out, in some detail, the procedures for initiating and obtaining approval of a plan. The statute provides that either individuals or people acting in concert may initiate and implement plans for augmentation. It specifically authorizes water conservancy districts, irrigation districts, mutual or public ditch and reservoir companies, municipalities, or similar entities to undertake augmentation plans for the benefit of all water users within their boundaries.<sup>17</sup> An application for approval of a plan for augmentation, like all applications for water rights or changes of water rights, must be filed with the water clerk in quadruplicate, and must be accompanied by a verified application containing facts supporting the application.<sup>18</sup> In addition, the application must contain a complete statement of the plan.<sup>19</sup> Where the proposal requires the construction of a well, the statute states that no decision shall be entered until the application is supplemented by a permit to construct a well, evidence of its denial by the state engineer, or evidence of the state engineer's failure to grant or deny such a permit within six months after an application for a well permit is filed with the Office of the State Engineer.<sup>20</sup>

The heart of the 1969 act with respect to plans for augmentation is found in §37-92-305, C.R.S. 1973. The statute directs the water court to approve a plan for augmentation, including a water exchange project, if the plan<sup>21</sup>

. . . will not injuriously affect the owner of  
or persons entitled to use water under a vested  
water right or a decreed conditional water right.

Moreover, if the court determines that the plan, as proposed, would cause injury to other rights, the statute provides that it shall afford the applicant or the opponents to the application an opportunity to suggest terms and conditions aimed at preventing the injury.<sup>22</sup> The terms and conditions for preventing injury include any "conditions as may be necessary to protect the vested rights of others."<sup>23</sup> Since practically any proposal may conceivably cause some injury, the presence of protective conditions and restrictions is generally an integral part of every plan for augmentation which has been judicially approved.

The 1969 act, as originally enacted, also set out what it termed "special procedures with respect to plans for augmentation."<sup>24</sup> The statute prescribed these procedures in recognition of the fact that plans for augmentation may be used to fulfill the two purposes which are central to the 1969 act itself--namely, the integration of ground and surface waters and the maximization of beneficial use.<sup>25</sup>

In contrast to the standard procedures set out for other water rights applications, one of the "special procedures" established by the 1969 act was that the water judge of each division should hold hearings and rule on all proposed plans for augmentation, rather than referring them to the water referee. In making a ruling on an individual plan, the statute gave the water judge the authority to consider it in relation to any other plans.<sup>26</sup> This special status awarded to plans for augmentation was recently done away with by S.B. 4.<sup>27</sup> This measure, which was enacted in June, 1977, amended the 1969 act to provide that the water referee "shall in the first instance have the authority and duty to rule upon determinations of water rights and conditional water rights," including plans for augmentation.<sup>28</sup>

The statutory section setting forth special procedures for plans for augmentation introduced the concept of temporary augmentation plans. As originally enacted, it gave the state engineer and the division engineers<sup>29</sup>

. . . the broadest latitude possible in the administration of waters under their jurisdiction to encourage and develop temporary augmentation plans and voluntary exchanges of water. . . .

In addition, it authorized the state engineer and the division engineers to adopt rules and regulations and take other "reasonable action" necessary to "allow continuance of existing uses and to assure maximum beneficial utilization of the waters of this state."<sup>30</sup> However, §37-92-307, C.R.S. 1973, as originally enacted, did not offer either prospective applicants or the state engineer any guidance as to exactly how temporary plans for augmentation fit into the overall augmentation framework laid out in the 1969 act.

In response to the failure of the 1969 act to provide a sufficiently detailed procedure for handling complex plans for augmentation and exchanges, the Colorado legislature amended the 1969 act in 1974 with the adoption of S.B. 7. The amendments contained in S.B. 7 stated that they specifically applied to:<sup>31</sup>

. . . applications for approval of plans for augmentation (including without limitation applications involving the use of wells as new or alternate means or points of diversion for surface water rights). . . .

Senate bill 7 considerably expanded the provisions of §37-92-307, C.R.S. 1973, pertaining to special procedures for plans for augmentation. It should be noted that this particular statutory provision was repealed in toto by S.B. 4. In spite of the recent appeal of S.B. 7, a discussion of it is essential to understanding the historical development of plans for augmentation.

Senate bill 7 considerably enlarged the role played by temporary augmentation plans and, at the same time, invoked the special expertise of the state engineer in an effort to facilitate the statutory procedures for obtaining judicial approval of a proposed plan. The state engineer was given the authority to approve applications for augmentation plans if he found they would not injure others, or by imposing conditions which would prevent any injury. His approval became effective immediately and remained in effect until the water court reached its own decision.

Senate bill 7 provided that any person who had filed an application for approval of a plan for augmentation with the water clerk could also submit the proposed plan to the state engineer for his approval as a temporary augmentation plan.<sup>32</sup> The authority delegated to the state engineer to approve the plan closely paralleled the water court's own statutory powers. Senate bill 7 directed the state engineer to approve the plan<sup>33</sup>

. . . if he can determine with reasonable assurance that it will not injuriously affect the owner of or persons entitled to use water under a vested right.

If, however, the state engineer determined that the proposed plan would cause injury, S.B. 7 required him to give the applicant an opportunity to formulate protective conditions. Or, the state engineer himself might impose protective terms and conditions, including those listed in §37-92-305(4), C.R.S. 1973. But, wherever possible, S.B. 7 urged that<sup>34</sup>

. . . the state engineer shall approve a plan for augmentation upon specifying protective terms and conditions which would permit the plan to be implemented without such injurious effect.

Senate bill 7 set out the standard to be applied by the state engineer in reviewing temporary augmentation plans submitted to him for approval:<sup>35</sup>

In reviewing a proposed temporary plan for augmentation and in considering terms and conditions which may be necessary to avoid injury, the state engineer shall consider the depletions from an applicant's use or proposed use of water, in quantity and in time, the amount and timing of augmentation water which would be provided by the applicant, and the existence, if any, of injury to any owner of or persons entitled to use water under a vested water right or a decreed conditional water right. A temporary plan for augmentation shall be sufficient to permit the continuation of diversions when curtailment would otherwise be required to meet a valid senior call for water, to the extent that the applicant shall provide replacement water necessary to meet the lawful requirements of a senior diverter, at the time and to the extent the senior would be deprived of his lawful entitlement by the applicant's diversion. The state engineer shall make written findings in support of his determination with respect to the temporary plan for augmentation.

Perhaps the most controversial feature of S.B. 7 was the weight which it accorded the findings of the state engineer. If the state engineer approved a temporary plan for augmentation, then his findings in support of this determination constituted<sup>36</sup>

. . . prima facie evidence, unless challenged by competent countervailing evidence, that the augmentation water to be provided to the stream system is sufficient in quantity and time and that the protective terms and conditions are sufficient to prevent injury to the owner of or persons entitled to use water under a vested water right or a decreed conditional water right.<sup>36</sup>

Similarly, where the state engineer rejected a proposed temporary plan for augmentation, or approved it upon terms which were unsatisfactory to the applicant, his findings were considered prima facie evidence that the plan would not sufficiently prevent injury to other water rights, unless there was competent evidence to the contrary.<sup>37</sup>

Senate bill 7 reaffirmed the directive in the 1969 act that

the state engineer and division engineers should encourage the development of augmentation plans and voluntary exchanges of water, expressly giving them the authority to make any rules and regulations needed to achieve this goal.<sup>38</sup> In addition, in order to provide guidelines for the approval of temporary plans for augmentation, S.B. 7 went one step further in authorizing the state engineer to adopt rules and regulations as provided in §37-92-501, C.R.S. 1973, prescribing the standards which he would apply in reviewing proposed plans. The adoption of such rules was not a prerequisite, however, to the state engineer's exercise of his authority to review and approve temporary plans for augmentation.<sup>39</sup>

Although the state engineer, C. J. Kuiper, did not adopt rules and regulations pursuant to §37-92-501, C.R.S. 1973, pertaining to the approval of temporary plans for augmentation before §37-92-307, C.R.S. 1973 (as amended by S.B. 7), was repealed by the legislature in June, 1977, he did issue a memorandum dated June 14, 1974, entitled "Evaluation Criteria for Plans of Augmentation Under Senate Bill 7." This memorandum specified only one standard for judging temporary plans for augmentation:<sup>40</sup>

Any depletions which occur from the proposed plan to the detriment of any vested water right or decreed conditional water right shall be replaced both in quantity and time to eliminate any such potential damage.

As the memorandum admitted, this was a "minimum objective" for any plan submitted. In addition, the memorandum listed the "minimum" amount of information or documents which an applicant was required to submit, including a general description of the proposed plan and its objectives, topographic maps, copies of pertinent water rights decrees, information pertaining to any wells involved, the expected consumptive use, data with regard to historic use, and any engineering or geologic reports which would assist in the evaluation of the plan.<sup>41</sup>

The review procedure set out in the memorandum provided that an applicant should submit a written request to the state engineer for approval of his temporary plan for augmentation. Upon receiving the request, the state engineer would determine whether all the information needed for an adequate review had been submitted. If not, he would notify the applicant and suspend the review until the information was provided. If, as a result of his review, the state engineer concluded that the plan, as proposed, would injure other water users, he would give the applicant an opportunity to amend the plan. If it appeared that other water users might be adversely affected by the proposed plan, the state engineer would request

comments from them. After completing his review, the state engineer would prepare a written opinion with regard to the plan, either setting forth any conditions of approval or stating the reasons for denial. A copy of all opinions rendered by the state engineer would be forwarded to the appropriate water court.<sup>42</sup>

The memorandum issued by the state engineer attempted to remedy an obvious defect in S.B. 7: the absence of any provision for notice to other water users of applications for temporary plans for augmentation which were submitted to the state engineer for approval. Coupled with the prima facie effect to be given the state engineer's findings, a strong argument could be made that the lack of notice would invalidate these findings on the grounds of a denial of due process.<sup>43</sup>

The memorandum provided that although S.B. 7 did not require the state engineer to give any notice, he would publish in his newsletter all applications for temporary approval of plans for augmentation received during the preceding month. In addition, the memorandum stated that the state engineer would recommend to the water courts that a filing of a plan for augmentation indicate whether or not that particular plan would be filed with the state engineer for temporary approval. As the memorandum observed,<sup>44</sup>

This office has been contacted by several persons who are concerned about a Plan of Augmentation being given temporary approval and exercised for a considerable period of time when potential objectors have not been given notice. It is hoped that inclusion of the above statement in the filing for approval in the Water Court's resume will provide potential objectors with adequate notice.

C. The Historical Setting for Plans for Augmentation.

1. Changes in Points of Diversion.

The right to change a point of diversion was established in Colorado as early as 1883 in Sieber v. Frink.<sup>45</sup> However, the change sought did not change "the quantity of water diverted, and no one was injured by the removal; the use and points of application to such use remain the same."<sup>46</sup>

Five years later, the Colorado Supreme Court held, in Fuller v. Swan River Placer Mining Co.,<sup>47</sup> that the place of use of a water right



could be changed, while affirming the Sieber holding that a point of diversion could be changed. Again, the change could occur only if it caused no injury to others. In Fuller the change in the place of use was to adjoining land.

In 1891, Strickler v. Colorado Springs,<sup>48</sup> which permitted a change in use from irrigation to municipal purposes, unequivocally held that a water right could be sold separately from the land on which it was used, and ruled that if Fuller permitted a change in use to adjoining land, there was no reason a water right could not be used at a more distant place. "The principle permitting [a change to adjoining land] being established, the exercise of the right cannot be made to depend upon the locus of the use, provided the rights of others are not injuriously affected by the change."<sup>49</sup>

Strickler relied on and emphasized that the water right was a property right that could be transferred without restriction, subject to not injuring others. It added that if waste resulted, a new factor would be introduced that was not then before the court.

Fluke v. Ford<sup>50</sup> disclosed that when no objection was made, at least some water commissioners prior to 1899 had permitted a change in point of diversion. It is likely that changes in place and type of use were permitted on the same basis, and it is also probable that water rights were being exchanged or used in ways different from the water right as adjudicated. The history of exchanges is described in §C.2., infra.

In 1899, laws were passed establishing a procedure for changing a point of diversion and, in addition, authorizing the loan or exchange of a water right on a temporary basis "for the purpose of saving crops or of using the water in a more economical manner."<sup>51</sup>

Decisions following the change in point of diversion laws of 1899 reflect that this legislation was needed to protect water commissioners administering water rights, as well as to notify water users of a proposed change and permit them to participate in the determination of whether it causes injury.<sup>52</sup> The 1899 laws remained in effect until 1969 and were the basis for an almost unending line of decisions interpreting and expanding the principles first enunciated in Sieber, Fuller, and Strickler.

These decisions established, among other things, that there was no generally applicable rule for determining whether injury would result from a change in point of diversion,<sup>53</sup> that a junior appropriator has the right to assume fixed conditions, "at least without substantial change," from the time of his appropriation,<sup>54</sup> and that it was difficult to transfer a nonconsumptive water right without injury to other appropriators.<sup>55</sup> The decisions also went back and

forth on where the burden of showing injury or lack thereof would fall<sup>56</sup> until it became fairly well established that a petitioner for a change in point of diversion need not set out in the petition how potential injury to specific water users would be met<sup>57</sup> and that a petitioner need only satisfy the court that any specific objections alleged by protestants would be overcome.<sup>58</sup> In preparing decrees to prevent injury, the trial court was directed to take an active, not a passive, role in framing conditions for the avoidance of injury and in providing for the administration of a changed water right.<sup>59</sup> As the law for permitting changes in points of diversion developed, the expertise brought to such proceedings increased, as did the complexity a change presented.<sup>60</sup>

While the law applicable to changes in water rights developed, alternate points of diversion were permitted only in the sense that water rights could be loaned or exchanged. Then, in 1957, municipalities were permitted one alternate point of diversion, again so long as there was no injury.<sup>61</sup> Ten years later, in 1967, multiple points of diversion, "alternate or supplemental," were authorized for any appropriator.<sup>62</sup>

The 1967 law expanding the right to alternate points of diversion reflects only part of the discussion then in progress for integrating ground water and surface water rights. It was an interim modification.

In 1969, a change of water rights was defined to mean:<sup>63</sup>

. . . a change in the type, place, or time of use, a change in the point of diversion, a change from a fixed point of diversion to alternate or supplemental points of diversion, a change from alternate or supplemental points of diversion to a fixed point of diversion, a change in the means of diversion, a change in the place of storage, a change from direct application to storage and subsequent application to direct application, a change from a fixed place of storage to alternate places of storage, a change from alternate places of storage to a fixed place of storage, or any combination of such changes. The term 'change of water right' includes changes of conditional water rights as well as changes of water rights.

This broad definition of a change of water rights was based on a very substantial body of law--statutory and court decisions--that had developed, setting forth extremely flexible rules for guiding water users in how to use their right to change a water right, a right which had previously been held to exist independent of statute.<sup>64</sup>

The fact that the only change of substance in the definition from the draft of December 9, 1968--which became S.B. 81--and the bill as enacted, was the addition of "time" of use in the first line, which establishes how well settled are the principles that now guide changes in water rights.

## 2. Exchanges and Substitutions.

The 1969 act views water exchanges as potentially an integral part of a plan for augmentation. It expressly provides that the term "plan for augmentation" should be recognized as including water exchange projects.<sup>65</sup> In addition to the references to exchange projects in the 1969 act itself, the general assembly, also in 1969, enacted separate statutory provisions with regard to exchanges.<sup>66</sup>

Although the 1969 act first introduced the concept of plans for augmentation, water exchanges were nothing new in Colorado water law. As early as the late 1890s, Colorado had statutes providing for exchanges of water. These statutes have remained on the books virtually unchanged for the last 80 years and are presently found in C.R.S. tit. 37, art. 83 (1973), entitled "Exchanges of Water."<sup>67</sup>

One of the historical exchange statutes provides that the owners of water rights who take their water from the same stream may exchange with and loan to each other, for a limited time, the water to which each is entitled.<sup>68</sup> The purpose of such an exchange or loan must be either to save crops or to use water more economically. Although the language of this statute appears to grant an absolute right to exchange water from the same stream on a temporary basis for the purposes specified, the Colorado courts refused to construe the statute that broadly.

The constitutionality of the loan provision was challenged in Fort Lyon Canal Co. v. Chew,<sup>69</sup> a case in which two of the defendants, who owned water rights which were senior in priority to those of the plaintiff, loaned the water to which they were entitled to the two other defendants, whose rights were junior to the plaintiff's. After the loan was made, the plaintiff complained of a shortage of water in the stream, and maintained that if the loan had not taken place, he would have received his water before the two junior defendants were supplied. The Colorado Supreme Court upheld the statute permitting exchanges and loans, providing that there was no resulting injury to other appropriators:<sup>70</sup>

[W]hen such exchange or loan is made, if it can be done at all, it must be with due regard to the

rights of other appropriators taking water from the same source of supply. In all the decisions which recognize the legality of a sale and the right to make a permanent change of the point of diversion, or change of place of application, or the nature of the use, particular attention is called to the fact that it is not an absolute, but a qualified, right, and cannot be exercised if it injuriously affects the rights of others. Just what, in every case, such injury may consist of or how it may be shown, it is not for us now to determine.

In King v. Ackroyd,<sup>71</sup> a case predating Fort Lyon Canal Co., the Colorado Supreme Court shed some light on how it defined injury in cases involving exchanges of water. In King, the plaintiff, in order to more profitably irrigate her land, exchanged water which she owned with water from another ditch owned by other appropriators. The court ruled that the exchange was permissible since the defendant, an appropriator junior in right to the plaintiff, had suffered no injury as a result. Specifically, the court found that the plaintiff was using no greater quantity of water than had been used before, so that the defendant had not been harmed.<sup>72</sup>

A second historical exchange statute provides for exchanges between reservoirs and ditches or streams.<sup>73</sup> So long as the rights of others are not injured, it is lawful for the owner of a reservoir to deliver stored water into the stream to supply other appropriators, while taking in exchange an equal amount of water from an upstream point of diversion. There are apparently no recorded decisions construing this particular exchange provision.

In spite of significant differences, elements from both of the historical exchange statutes, §§37-83-104 and 105, C.R.S. 1973, have found their way into the concept of plans for augmentation and the separate 1969 exchange legislation. The mechanics of the exchanges and loans envisioned by §37-83-105, C.R.S. 1973 were too restrictive to provide a useful basis for the separate 1969 exchange legislation:

Owner may loan water right. It is lawful for the owners of ditches and water rights taking water from the same stream to exchange with, and loan to, each other, for a limited time, the water to which each may be entitled, for the purpose of saving crops or using the water in a more economical manner. . . . [Emphasis added.]

Unlike this statutory predecessor, plans for augmentation are not

limited to temporary exchanges or loans from the same stream for agricultural purposes. But, on the other hand, the Colorado Supreme Court's interpretation of this exchange statute, namely that exchanges will be allowed so long as other users are not injured as a result, has become the guiding principle of the 1969 act's provisions dealing with augmentation plans and the separate 1969 exchange provisions. In the case of the other historical exchange statute, §37-83-104, C.R.S. 1973, its requirement that equal amounts of water be returned to the stream is not the standard applied by the courts to the 1969 legislation. But its concept of reservoir releases to compensate for out-of-priority surface diversions has become a predominant feature of the present-day plans for augmentation.

While the 1969 act makes it clear that plans for augmentation may include water exchanges, it is the separate 1969 exchange legislation found in §37-80-120, C.R.S. 1973, which explicitly outlines the statutory procedures for an exchange:<sup>74</sup>

Individuals and private or public entities, alone or in concert, may provide a substituted supply of water to one or more appropriators senior to them, not to exceed that to which any senior appropriator is entitled from time to time by virtue of his appropriations, and to the extent that such substituted water is made available to meet the appropriative requirements of such senior, the right of such senior to draw water pursuant to his appropriation shall be deemed to be satisfied. The rights of such senior may be used for effectuating such substitution during the period while it is in operation, and the practice may be confirmed by court order as provided for determining water rights.

The 1969 act, in setting out standards for the water courts, states:<sup>75</sup>

In the case of plans for augmentation, including exchange, the supplier may take an equivalent amount of water at his point of diversion or storage if such water is available without impairing the rights of others.

Similarly, the separate 1969 exchange statute uses the phrase "equivalent amount" to describe the amount of water which a supplier of substitute water is entitled to take.<sup>76</sup> But it also adds some qualifying language which suggests that an "equivalent amount" may

be something less than absolute equality:<sup>77</sup>

Whenever substitute water is supplied to the senior ditch, the supplier or his assignee may take an equivalent amount for beneficial use from water of the state of Colorado to the fullest extent possible without impairing the availability of water lawfully divertible by others.

In fact, the phrase, "to the fullest extent possible without impairing the availability of water lawfully divertible by others," was seized upon by proponents of plans for augmentation in at least one case to support their argument that a plan is required by statute to replace only stream depletions, and not total diversions.<sup>78</sup>

Senate bill 7, in defining the state engineer's authority to approve temporary augmentation plans, adopted the concept underlying the exchange and substitution provisions of the 1969 act<sup>79</sup> and the separate 1969 exchange legislation<sup>80</sup> that a senior appropriator is required to accept tendered substitute water to the extent that it satisfies his lawful requirement. As S.B. 7 provides, a temporary plan for augmentation "shall be sufficient" to the extent that<sup>81</sup>

. . . the applicant shall provide replacement water necessary to meet the lawful requirements of a senior diverter, at the time and to the extent the senior would be deprived of his lawful entitlement by the applicant's diversion.

The total effect of the various statutory provisions dealing with water exchanges is that senior appropriators are now required by statute to accept tendered exchange water instead of water that they would derive from their historical sources. As long as the substitute water is in the same amount, arrives at the same time, and is not diminished in quality, the water court shall decree the exchange.

### 3. Legislative History.

Reconstructing a reliable legislative history of so complex a statute as the "Water Right Determination and Administration Act of 1969" is next to impossible. There are few readily available documents for reference and none for the extensive hearings that

took place. As a result, only a few milestones can be marked.

The Colorado General Assembly considered two companion bills, S.B. 81 and H.B. 1307, and plans for augmentation were not a major point of difference between them. As will be seen below, S.B. 81's provisions dealing with plans for augmentation were rather stark, and part of the compromise leading to its passage included expanding on these provisions with language from H.B. 1307.

A December 9, 1968, draft of what became S.B. 81 contained the following definition of a plan for augmentation:

. . . a detailed program to increase the supply of water available to water rights in a division or portion thereof by the development of new or alternative means or points of diversion, by a pooling of water resources, by the development of new sources of water or by any other appropriate means.

But a report to the General Assembly in December, 1968, explaining proposed water legislation<sup>82</sup> made no mention of a plan for augmentation.

Amendments proposed in the House of Representatives inserted the phrase, "for beneficial use," in place of "to water rights" in the definition, and by April 24, 1969, the House had added "by water exchange projects" and "by providing substitute supplies of water," so that the definition then read as it was ultimately enacted.

The December 9, 1968, draft of what became S.B. 81 contained the requirement of §37-92-303(1), C.R.S. 1973, that a ruling on a plan for augmentation "include a complete statement of such plan . . ." without the words "approved or disapproved," which were later added by the Senate.

The December 9, 1968, draft also provided that a change of water right or a plan of augmentation should be approved only if

. . . such change or plan will not injuriously affect the decreed rights of any other owner of, or person entitled to use water under, a water right or conditional water right. If the division engineer determines that the proposed change or plan as presented in the application would cause such injurious effect, he shall endeavor to devise, in consultation with the applicant or applicants and such other persons as he may choose, terms and conditions which would prevent such injurious effect. If such terms and

conditions can be devised to the mutual satisfaction of the applicant or applicants and the division engineer, then the division engineer's ruling shall specify such terms and conditions. If such terms and conditions cannot be so devised, then the division engineer's ruling shall deny the application, and the applicant or applicants may protest in the court proceedings hereinafter specified.

It was not until the House write-up of S.B. 81 on April 24, 1969 that the language now in the statutes as §37-92-305(3), (4), and (5), C.R.S. 1973, appeared. The language in these sections was adopted from similar language in what became H.B. 1307 and is far more affirmative in requiring that conditions be found to permit the adoption of a proposed plan for augmentation.

The exact language of the February 4, 1969, draft of then soon-to-be H.B. 1307 is as follows:

(5) In making determinations of changes of water rights, the ruling shall give the name or names of the applicants with respect to each water right or conditional water right involved; the name and description of the ditch, reservoir, well or other structure from which the change is sought; the amount and priority date of the water right sought to be changed; the point of diversion or place of storage as fixed in the original decree, or in any supplemental proceedings; a description of the new type or place of use, or the new, supplemental or alternate points or places of diversion or storage as granted by the commission, and the terms and conditions being imposed by the commission, if any, to prevent injurious effect to the vested water rights of others.

(6) In imposing terms and conditions to protect the vested rights of other appropriators, regardless of whether or not a protest has been filed to any application, the commission may order:

(a) An annual quantitative limitation on the use of the water which is subject to the change in terms of acre feet.

(b) The abandonment of part of the decree for which the change is sought or the abandonment of other decrees owned by the applicant which are



used by the applicant in conjunction with the decree for which the change has been requested.

(c) A time limitation on the diversion of water for which the change is sought in terms of months per year.

(d) Such other conditions as may be necessary to protect the vested rights of others.

By April 24, 1969, the following language, which is very similar to §37-92-305(5), C.R.S. 1973, appeared in what was then the current version of H.B. 1307:

(2) Whenever substitute water is supplied to a senior appropriator, the supplier may take an equivalent amount of water at his point or points of diversion or storage, if such water is available without impairing the rights of others. Any substituted water shall be of a quality and quantity so as to meet the requirements for which the water of the senior appropriator has normally been used, and such substituted water shall be accepted by the senior appropriator for his normal supply.

House bill 1307 did not provide for a plan of augmentation. Its principal author, Felix L. Sparks, believed that plans for augmentation duplicated or were in conflict with other provisions of both S.B. 81 and H.B. 1307.<sup>83</sup> House bill 1307 did provide, however, for changes in water rights and for water exchange projects. The standards from H.B. 1307 that eventually became part of S.B. 81 as enacted were originally designed for changes in water rights and water exchange projects.

An examination of S.B. 81 and H.B. 1307 as they evolved, along with an examination of such records and memoranda as are available, establishes that H.B. 1307 was designed to involve, and perhaps accommodate through water exchange projects and special determination procedures for large areas, large entities and water user groups.

For example, H.B. 1307 provided that "persons alone or in concert may initiate water exchange projects. Water conservancy districts, irrigation districts, mutual or public ditch and reservoir companies, municipalities, or other entities which are governed by a board of directors or similar body may initiate water exchange projects for the benefit of all water users within their boundaries. . . ." and assess costs to the beneficiaries. The quoted portion becomes law. House

bill 1307 also provided that to the "maximum extent possible under mutually acceptable terms and conditions, persons who have a common interest in a water diversion, storage, or distribution facility or system, or who are located within an area served or which might be served by such facility, may join in a consolidated application [for changes of water rights or for a water exchange project]."

Mr. Sparks argued that no special recognition was given in S.B. 81 to "accumulated" problems in the Arkansas, South Platte, and Rio Grande valleys and that there was a need to "approach these areas on a river basin concept." He contended the "sketchy directions" for integrating surface and ground water in S.B. 81 permitted "almost any interpretation."<sup>84</sup>

As it turned out, after a good deal of hard bargaining in mid-April, 1969, between proponents of H.B. 1307 and S.B. 81, a large portion of H.B. 1307 found its way into S.B. 81. However, it is also clear that the legislature declined to encourage, rather than just allow, any grand basinwide plans for integration of surface and ground water. It is equally clear the legislature was affirmatively encouraging the courts to find ways for approving the plans for augmentation and their component parts, such as changes in points of diversion and exchanges of water.

#### 4. Water Laws in Other States.

There is no question but that the efficient use and conservation of water is one of the most critical questions facing the western United States today. All of these states recognize some form of the appropriation system in their water laws. While the great majority of them employ a permit system to regulate ground water withdrawals, a second group of states, notably Arizona, California, and Montana, provides through legislation or by judicial decisions for permits and controls over particular sources of ground water.<sup>85</sup> In spite of these differences, the general trend in the western states is to "recognize the physical interconnection of surface and underground sources and to administer them as a common source of supply."<sup>86</sup>

As in Colorado, statutes in the other appropriation states generally permit changes in points of diversion, places of use, and manner of use, provided that no valid, existing rights are injured thereby.<sup>87</sup> In some cases, the statutory provisions permitting such changes are made expressly applicable to ground water.<sup>88</sup>

Unfortunately, it is impossible to tell from a survey of the water laws enacted in the other western states precisely how these laws operate in practice. To do so would require a massive research effort which is outside the scope of this study. However, since the other western appropriation states, like Colorado, do provide a statutory framework for changes in existing water rights, it seems logical to assume that the operation of their laws allows for the same kind of flexibility found in Colorado's water laws. The fact that many of the western states employ permit systems administered by a water board or commission lends support to this conclusion.

D. Application of the 1969 Law.

1. In the Courts.

a. Colorado Supreme Court Decisions.

As the proponents of plans for augmentation have vigorously asserted, the 1969 legislation, first and foremost, establishes injury to others as the sole basis for the denial of an application for approval of a plan for augmentation or for a water exchange project. Second, this legislation creates a firm statutory foundation for the practice of water exchanges and substitutions in (a) §37-92-103(9), C.R.S. 1973, which defines "plan for augmentation" to include the "pooling of water resources," "water exchange projects," and "providing substitute supplies of water"; (b) §37-92-305(3), C.R.S. 1973; and (c) the separate exchange and substitution provisions of §37-80-120, C.R.S. 1973. The provisions in the 1969 legislation pertaining to plans for augmentation and water exchange and substitution, when taken as a whole, give the proponents of plans for augmentation considerable ammunition with which to argue that "each appropriator has the right to have his appropriation satisfied as to amount and time of use, without diminution in quality, but he has no vested right in the preservation of his historic source of supply."<sup>89</sup> Whether or not the Colorado Supreme Court would uphold this far-reaching interpretation of plans for augmentation remained, until only a year and a half ago, an open question.

An indication that the Colorado courts might be receptive to a liberal view of the statutory provisions pertaining to plans for augmentation came in Kuiper v. Well Owners Association.<sup>90</sup> In that case, the Colorado Supreme Court approved the state engineer's proposed rules and regulations for Water Division No. 1, including Rule 7, which embodied the state engineer's interpretation of the exchange and substitution provisions in the 1969 legislation.<sup>91</sup> This particular rule, as promulgated by the state engineer, provided that a ground water appropriator could, by replacement or

exchange from sources other than ground water, return to the stream the amount of depletion caused by his well during the irrigation season. The rule further directed the division engineer to approve such a plan submitted in writing by the ground water appropriator, if the appropriator provided the replacement water "at the time and in the amount that the depletion takes place, so that prior vested rights are not damaged."<sup>92</sup> Rule 7, in retrospect, is an accurate description, in capsule form, of numerous plans for augmentation which have subsequently been developed, including the plans proposed by the subdividers in the Glacier View Meadows and Kelly Ranch cases.

If Kuiper v. Well Owners Association suggested that the Colorado Supreme Court would smile with judicial favor upon the concept of plans for augmentation, the Shelton Farms case,<sup>93</sup> on the other hand, cast serious doubts upon this. That case involved an ingenious scheme in which the applicant Shelton cleared his land of phreatophytes, the water-loving trees which line the Arkansas River. Shelton claimed that, as a result, he had saved approximately 442 acre-feet of water per year that had been previously consumed by phreatophytes, which was not available for beneficial use. He filed an application for a plan for augmentation, seeking the right to augment his decreed wells with the salvaged water at those times when the state engineer curtailed pumping.<sup>94</sup> Over the objections of other water users that their vested rights would be injured under the proposed plan, the water court for Water Division No. 2 awarded Shelton a decree for 181.72 acre-feet of water, free from the call of the river.<sup>95</sup>

The issue on appeal before the supreme court was whether or not Shelton, by cutting down water-consuming vegetation, could obtain a decree for an equivalent amount of water which he would be entitled to without regard to the priority system. In reversing the water court's decision, the supreme court pointed out that Shelton's plan, in effect, would substitute a standard based upon lack of injury for the time-honored priority system.<sup>96</sup> In the court's opinion, the question was not whether prior appropriators were presently injured by Shelton's actions. Rather, they had actually been injured years earlier, when the trees robbed them of water which they would otherwise have received. In the court's opinion,<sup>97</sup>

The logical implication of the injury standard is that until senior consumers have been saturated to fulfillment, any displacement of water from the time and place of their need is harmful to them. [Emphasis supplied by the court.]

Reviewing Shelton's plan in light of the 1969 act, the supreme court concluded that there was nothing in the 1969 act which would exempt the plan from the priority system:<sup>98</sup>

Thus, we hold that all water decrees of any kind are bound to the call of the river, subject to any specific exemptions found within the law. To hold any other way would be to weaken the priority system, and create a super class of water rights never before in existence.

Viewed against the backdrop of this vigorous affirmation of the supremacy of the priority doctrine, the Colorado Supreme Court's decisions in the Glacier View Meadows and Kelly Ranch cases seem to represent an abrupt about-face. As the opponents of the plans for augmentation involved in these two cases argued, these proposals were, in fact, attempts to create that very same "super class of water rights" which the supreme court had denounced only one and a half years earlier in the Shelton Farms case.<sup>99</sup> The court's attempt, in Glacier View Meadows, to reconcile its decision in that case with Shelton Farms, is not very convincing. The lack of injury doctrine, the court seemed to be saying, is not subordinate to the appropriation doctrine; rather, it is simply the other side of the same coin:<sup>100</sup>

There [in the Shelton Farms case], the senior rights had adjusted to the loss of the water caused by the growth of phreatophytes; and, once returned to the river, the water would still belong to the senior users in satisfaction of their decrees. In the instant case, the water to be used in replacement never was that of the senior users. Here, there is not displacement "from the time and place of their need." Under the findings here, the stream will be the same, irrespective of the well diversions.

Under the circumstances of this case, there is no significant difference between the prior appropriation doctrine, and the lack of injury doctrine. Here, where senior users can show no injury by the diversion of water, they cannot preclude the beneficial use of water by another. [Emphasis supplied by the court.]

When the Colorado Supreme Court decided the Glacier View Meadows and Kelly Ranch<sup>101</sup> cases in June, 1976, it handed down two landmark opinions which will assuredly shape the future development of plans for augmentation. In each case, the court considered a plan for augmentation involving the transfer of surface water rights previously used for irrigation to a large number of residential wells in mountain subdivisions. In each case, the court ruled that the plan for augmentation proposed by the subdivision developer did not require the introduction of new or developed water into the river system, or even

that gross diversions be replaced. Instead, the court ruled that such a plan is valid if it replaces the previous consumptive use of the existing water rights involved in the transfer of use. In Glacier View Meadows and Kelly Ranch, the court wholeheartedly endorsed the lack of injury standard, thereby opening the floodgates for the approval, as a plan for augmentation, of any water exchange or substitution featuring out-of-priority diversions where consumptive use is fully replaced as it occurs.

It is instructive to examine in some detail the plans for augmentation submitted for judicial approval in the Glacier View Meadows and Kelly Ranch cases. In the Glacier View Meadows case, Glacier View Meadows, a subdivision developer in the mountains northwest of Fort Collins, filed two applications for approval of a plan for augmentation with the water court for Division No. 1.<sup>102</sup> The plans, which were later consolidated, were designed to provide the future owners of residential lots in the subdivision with domestic water obtained from wells which would be drilled.<sup>103</sup> The plan for augmentation called for a maximum of 1,892 single-family residential units. The water from the wells was to be devoted exclusively to in-house, domestic use.

Glacier View Meadows owned 75 preferred shares in the Mountain and Plains Irrigation Company, entitling it to both reservoir and direct flow water from the Cache la Poudre River. The former owners of these 75 shares had historically used their water year-round. Under Glacier View Meadows' plan for augmentation, some of its reservoir rights would be used to replace the consumptive use of the proposed wells. The reservoirs which would store the replacement water and their points of discharge into the stream, as well as the residential units and their points of return flow into the stream, were all located above the points of diversion of any downstream appropriators objecting to the plan.

Of the total 1,892 residential units, the plan called for 105 units to use an evapotranspiration system of sewage disposal. The consumptive use for these units would be 100 percent of the water diverted from the wells. According to Glacier View Meadows' proposal, this loss would be replaced entirely by reservoir water in sufficient quantity to account also for evaporation losses during transportation in the stream. The remaining 1,787 residential units would have septic-soil absorption sewage systems with a consumptive use of not more than 10 percent, so that at least 90 percent of their diversions would be returned to the stream. Again, the plan for augmentation provided that releases from the reservoirs would replace this 10 percent consumptive loss, plus any transportation losses.

In the plan for augmentation unveiled by Glacier View Meadows,

a rate of flow of 4 gallons per minute would be allowed for each residential unit. The plan assumed that each unit would be occupied by 3.5 persons 365 days a year, and that each person would use 80 gallons of water per day. According to the figures presented by Glacier View Meadows, the total consumptive use of well water would not exceed 89 acre-feet per year. The plan proposed that 55 of the 75 Mountain and Plains Irrigation Company shares would be devoted to replacement of this consumptively used water. The 55 shares represented 94.71 acre-feet per year, and, after deducting 5 percent for transportation losses, the amount remaining for replacement was 89.97 acre-feet. Historically, only 25 percent of the water supplied by the 75 shares returned to the stream. The proposed plan for augmentation provided that the water from 20 of the 75 shares would remain in the stream to make up for the 25 percent return flow which would no longer exist.

In order to implement its plan, Glacier View Meadows proposed the formation of an association which would hold the 75 shares as a fiduciary. According to its proposal, Glacier View Meadows would record the judicial decree approving its plan for augmentation, thereby creating covenants running with the land which would embody all rights and obligations under the plan. Furthermore, the association would be subject to suit for the purpose of enforcing the plan. The association would have the duty of reporting any violations of the plan to the division engineer, and the state engineer would have the authority to enforce it.

The Cache la Poudre Water Users Association and the North Poudre Irrigation Company objected to Glacier View Meadows' application for a plan of augmentation. Their principal objection was that, except during flood stages, the Cache la Poudre River is already over-appropriated. They argued, therefore, that unless 100 percent of the water withdrawn by the wells was replaced, senior water rights would be injured in violation of the 1969 act and the state engineer's rules and regulations. In addition, the objectors argued that the plan was improperly based in part upon the fact that many of the wells were exempt from administration. According to the objectors, the water court had usurped the duties of the state engineer, since a request for a well permit is required to be submitted and acted upon by the state engineer as a condition precedent to the filing of an application for approval of a plan for augmentation. Moreover, under the statute, the state engineer could not issue a well permit without first making findings as to the availability of water for appropriation and the lack of injury to senior water users.

The water court for Water Division No. 1 approved Glacier View Meadows' application.<sup>104</sup> It concluded that there was unappropriated water available for withdrawal by the proposed wells.<sup>105</sup> So long as the provisions of the plan were complied with, there would be

no injury to the holders of prior rights. Based on this finding, the water court directed that the state engineer should not, either at the request of senior appropriators or on his own initiative, curtail the diversions of water through the subdivision wells while the plan for augmentation was being administered in accordance with its decree.<sup>106</sup> In the event an extended period of drought should cause insufficient water to be available for replacement, the water court ruled that the well water users would either have to acquire additional water or reduce their consumptive use, so that the water consumptively used under the plan would not exceed the water available for replacement.<sup>107</sup>

The key issue on appeal in the Glacier View Meadows case was whether Glacier View Meadows could, as it proposed to do in its application for plan of augmentation, use water rights owned by it to satisfy depletions occurring to the stream as a result of out-of-priority diversions by the proposed subdivision wells. The objectors asserted that the plan was not sufficient to protect senior water rights on the Cache la Poudre River, an over-appropriated stream, from injury. Glacier View Meadows, on the other hand, argued that if it were required to replace total diversions, rather than depletions, this would require it to give a windfall to other users. Thus, the lines were clearly drawn in the arguments presented to the Colorado Supreme Court.

In their appeal briefs,<sup>108</sup> the objectors argued that out-of-priority pumping by the subdivision wells could cause injury to senior water rights for two reasons. First of all, the objectors asserted that it was impossible to administer the release of replacement water so that it would be available to the particular senior right holder who was actually injured at any time by the well diversions. The techniques of water administration, they maintained, are simply not sophisticated enough at the present time to insure that the depletion replacements envisioned by the plan would actually be available to those vested rights which were injured by the pumping. Second, the objectors contended that the historic regimen of the stream would be upset by the proposed plan for augmentation. Since the Cache la Poudre River is already overappropriated, any out-of-priority use of waters accompanied only by the replacement of consumptive-use depletions would, in the opinion of the objectors, inevitably diminish historic return flows to the detriment of many water rights which rely primarily on return flows for the fulfillment of their decrees.<sup>109</sup>

According to the arguments of the objectors, the relevant consideration in evaluating possible injury stemming from the plan for augmentation was gross diversions, not consumptive-use depletions. The 1969 act, the objectors, maintained, recognizes that surface and



ground water are part of the same water supply. Since the Cache la Poudre River is overappropriated, the use of water by the new subdivision wells would constitute use of water belonging to someone else. The clear intent of the 1969 act, embodied in the Felhauer principle of maximum utilization, was to allow the maximum possible continued use of wells existing at the time the 1969 act was passed, in an effort to reach an accommodation between existing well users and senior surface users. The plan for augmentation submitted by Glacier View Meadows, however, did not involve existing wells, but merely proposed wells. Unlike the substantial economy which had grown up dependent upon unregulated wells prior to the Felhauer case,<sup>110</sup> the developers of new wells had not been led to believe that they could drill future wells with impunity.<sup>111</sup>

The objectors argued that the wells called for in Glacier View Meadows' plan for augmentation were not exempt domestic wells,<sup>112</sup> since they were not intended for the applicant's own use. As such, the objectors questioned whether an application for approval of a plan for augmentation which required the drilling of wells could be submitted to the water court without first requesting the state engineer to issue the necessary well permits. The Colorado statutes, the objectors pointed out, provide that the state engineer shall not authorize the issuance of a well permit unless he determines, based upon hydrological and geological data, that there is unappropriated water available for withdrawal by the proposed wells, and that the vested water rights of others will not be injured if the well is drilled.<sup>113</sup> In the case of the plan for augmentation proposed by Glacier View Meadows, however, the objectors argued that the state engineer had not even been given an opportunity to make such a determination. Therefore, by approving a plan for augmentation requiring the drilling of wells and ordering the issuance of well permits without allowing the state engineer to fulfill his statutory duties, the water court had blatantly usurped the function of the state engineer.<sup>114</sup>

The objectors recognized the historical exchange statutes<sup>115</sup> permitting a water user to make an out-of-priority diversion for either direct use or for storage, provided that he furnished from some other source an identical quantity of water as required by the senior appropriators whose waters were taken in the exchange. The 1969 act, while expressly making the practice of exchanges available for use in plans for augmentation,<sup>116</sup> adopted the requirement that the water exchanged had to be in "equivalent" amounts. What Glacier View Meadows proposed to do in its plan for augmentation, however, was to allow junior appropriators to divert out of priority by returning to the stream only 5 percent or 10 percent of the water taken from senior users. This, according to the objectors, was not exchange, but "theft."<sup>117</sup>

Glacier View Meadows, in urging the Colorado Supreme Court to affirm the water court's approval of its plan for augmentation, emphasized repeatedly in its brief<sup>118</sup> that its proposed plan would not injure any other water rights. It sought to dispel the notion that plans for augmentation are concerned with increasing the absolute number of drops of water in the stream. Rather, it argued that the purpose of a plan for augmentation, as defined in the 1969 act,<sup>119</sup> is to increase the availability of water for beneficial use.

As Glacier View Meadows argued, the water court was correct in its finding that there was unappropriated water available to implement the plan. Whether or not there is unappropriated water in a stream, contended Glacier View Meadows, is a function of the proposed means of diversion, use, and return flow, as well as the stream itself. It described unappropriated water as water which is not presently being used, and which, if used, will not interfere with or injure the historical use of any other appropriator. Based on this analysis, if an appropriator can design a system which diverts water, uses it, and then returns it to the stream in such a way that no other water users are injured, then there is unappropriated water available. Whether a system can do this is a question of fact which the water court, in this particular case, found in favor of Glacier View Meadows.<sup>120</sup>

In its brief, Glacier View Meadows challenged what it characterized as the objectors' attempt to separate the idea of priority, the cornerstone of the appropriation doctrine, from the principle of lack of injury. Far from being separate, the priority doctrine and the injury doctrine, it maintained, must work together. For example, if injury to a senior water right is not occurring, that senior water right cannot call for the curtailment of a junior right. Or, even if a senior right is experiencing a shortage, a junior which is not causing that injury may continue to divert.<sup>121</sup> The "injury doctrine," asserted Glacier View Meadows:<sup>122</sup>

. . . is not a separate doctrine at all, but simply the mechanism upon which the priority doctrine has always been based.<sup>122</sup>

In its plan for augmentation, Glacier View Meadows pointed out that all depletions of the stream would occur above the point of diversion of the first downstream appropriator. Therefore, since water would be delivered to the stream at that point in amounts greater than the depletions, the plan would insure that there would be no injury to any other appropriator.<sup>123</sup>

Glacier View Meadows did not contend that the subdivision wells called for in its plan for augmentation were entitled to a constitutional or statutory preference. Nor did it quarrel with the

objectors' assertions that a well may not be drilled without a permit, and that the state engineer can issue a permit only after finding that there is unappropriated water available and that withdrawal of that water will not cause injury to other users. It even conceded that a plan for augmentation requiring the construction of wells would necessarily have to be accompanied by proof of the issuance of the permits, or denial of the permits or of no action by the state engineer for six months after the applications for permits were filed.<sup>124</sup> What the objectors did not understand, however, was that Glacier View Meadows' plan for augmentation did not require the construction of wells, but merely permitted their construction. The plan was simply "an insurance policy which anticipates and provides for the construction of wells."<sup>125</sup> For this reason, Glacier View Meadows did not present well permits to the water court with its application for approval of the plan.

Glacier View Meadows denied that the water court, in approving its plan for augmentation, had usurped any of the duties of the state engineer. It was the water court's duty under the 1969 act to determine whether the plan would injure other water rights, to establish conditions which would prevent such injury, and to enter a decree which would accomplish this.<sup>126</sup> Once the water court had approved the plan for augmentation, the individual homeowners would subsequently have to apply to the state engineer for well permits. At that time, the state engineer would have to determine, pursuant to the statutory requirement, whether the construction of the proposed wells would cause injury.<sup>127</sup> One of the factors which he would consider in making this determination would be the decree pertaining to the plan for augmentation entered by the water court. Instead of trying to circumvent the statutory provisions established for the regulation of the wells, Glacier View Meadows asserted that its plan for augmentation would actually assist in their implementation at the time the subdivision homeowners applied for well permits.<sup>128</sup>

Glacier View Meadows agreed with the objectors that it was clear the legislature was addressing the problem of existing wells in the 1969 act. But it was also clear that the legislature, as it stated in the purposes of the 1969 act, intended to "maximize the beneficial use of all of the waters of the state."<sup>129</sup> If the statutes pertaining to plans for augmentation did not encourage the development of new wells, argued Glacier View Meadows, then it was equally true that there was nothing in the 1969 act or any other Colorado law which prevented new wells from being included in a plan for augmentation.<sup>130</sup>

In response to the objectors' argument that the historical exchange statutes<sup>131</sup> required the entire diversions of the wells to be replaced in the stream, Glacier View Meadows asserted that the

objectors were ignoring the separate 1969 exchange legislation.<sup>132</sup> Furthermore, if the supplier of replacement water had to place in the stream an amount equal to the entire amount of water diverted, he would be supplying the downstream appropriators with more water than they had historically received. Requiring the replacement of stream diversions rather than depletions would result in a windfall to other appropriators which could not be justified from the statutes or case law. Certainly, asserted Glacier View Meadows, this was no way to maximize the beneficial use of Colorado's waters.<sup>133</sup>

The plan for augmentation which was the subject of the Kelly Ranch decision closely resembled Glacier View Meadows' proposal in its major outline. Kelly Ranch, which was also a land developer, filed an application for approval of a plan for augmentation and exchange and for a change in its water rights in the water court for Water Division No. 2. As in the plan submitted by Glacier View Meadows, Kelly Ranch proposed to provide a residential water supply, by means of individual household wells, for a mountain subdivision.<sup>134</sup>

The Kelly Ranch plan actually involved three proposed subdivisions-- River Rim Estates, Freegold Hill Estates, and Quail Ridge Subdivision-- located near Buena Vista, approximately two miles from the Arkansas River. As described in the plan, Kelly Ranch owned 444 acres of land irrigated with an 1874 water right. Kelly Ranch proposed to permanently remove 14.04 acres of native pasture land from irrigation and to use the .31 cfs of the 1874 priority that had historically been used to irrigate that acreage to provide a water supply for the subdivisions. Kelly Ranch's 1874 water right had historically been used an average of 144 days per year. Since the saving of consumptive use by removing the 14.04 acres from irrigation would occur only in the summer, while the subdivisions' use of well water would continue at a steady rate throughout the year, Kelly Ranch proposed that part of the .31 cfs saved by removing the pasture land from irrigation would be stored and released to the river during the winter. These releases would be designed to balance the subdivision depletions occurring during times of nonirrigation and to prevent the injury which would result from the year-round use of the water.

The three proposed subdivisions, encompassing a total of 412 lots,<sup>135</sup> were restricted to single-family dwellings, with one house per lot. According to the Kelly Ranch plan, water use for the subdivisions would be restricted to in-house use only. Sewage disposal would be limited to nonevapotranspiration units, generally leaching fields. As envisioned in the proposal, the water delivered to the leaching fields would return to the stream.<sup>136</sup>

In order to implement its proposed plan for augmentation, Kelly Ranch conveyed title to .31 cfs of its 1874 decree to a

trustee for the benefit of the future owners of the individual subdivision lots. The trust agreement between Kelly Ranch and the trustee provided that the trustee would enforce Kelly Ranch's obligations to remove the 14.04 acres from irrigation, to permit a portion of the .31 cfs to remain in the stream, to store and release water as necessary, and would enforce the provisions of the plan in general.

In order to estimate the consumptive use of water by the proposed subdivisions, Kelly Ranch assumed that an average family would consist of 3.5 persons who would require 100 gallons of water per person per day for 365 days a year. On the basis of these figures, each household would use 127,750 gallons of water a year, to be withdrawn through wells. The plan further assumed that the consumptive use would not exceed 10 percent, so that 90 percent of the water would be returned to the stream.<sup>137</sup> Multiplying 127,750 gallons of consumption each year by the number of households (412) and converting that amount to acre-feet resulted in an annual consumptive use of 16.069 acre-feet. After this figure was adjusted for evaporation and transportation losses, the annual consumptive use each year for the subdivisions equaled 16.139 acre-feet. This annual consumptive use of 16.139 acre-feet was less than the amount of saving in consumptive use achieved by removing 14.04 acres of pasture from irrigation. Based on the state engineer's figures, the amount of irrigation water consumed by the growth of the pasture was 1.15 acre-feet per acre per year, or a total of 16.164 acre-feet of water for the 14.04 acres.

The Southeastern Colorado Water Conservancy District objected to Kelly Ranch's application for approval of its plan for augmentation. The district alleged that granting the application would result in injury to water rights which it owned on the Arkansas River and its tributaries. As it maintained, .31 cfs out of the 1874 Kelly Ranch priority would not produce water adequate to reimburse the river system for depletions resulting from the development of the subdivisions.

The hearing on Kelly Ranch's application for plan of augmentation commenced on February 27, 1974, before the water court for Water Division No. 2 and was not concluded until the end of July, 1974. During that time, the general assembly passed S.B. 7, which gave the state engineer authority to approve or reject temporary plans for augmentation. On May 10, 1974, Kelly Ranch submitted its proposed plan to the state engineer under S.B. 7. He approved the plan on June 17, 1974, and that approval was filed in the proceedings before the water court.

The water court denied and dismissed Kelly Ranch's application. It held that the proposal did not constitute a plan for augmentation,

because it did not provide for the addition of new water into the river system. As the water court stated:<sup>138</sup>

The proposal is not a "plan of augmentation" under C.R.S. 1973, §37-92-103(9). No new water is to be added to the river system, there being no "augmentation" or increase apparent. The proposal amounts to a change of point of diversion or change of water right under the provisions of C.R.S. 1973, §37-92-103(5), and should be governed by the long-established rules applicable thereto.

As a result, the water court ruled that S.B. 7 was not applicable to Kelly Ranch's proposal, since the state engineer's authority under that statute extended only to plans for augmentation. In addition, it held that the statutory provision exempting household wells from administration<sup>139</sup> applied only to individual applicants seeking to obtain a water supply for their own use. In the opinion of the water court, this provision did not apply to Kelly Ranch, which the court found was a "promoter, speculator and non-user."<sup>140</sup>

The water court found that:<sup>141</sup>

The Arkansas River is overappropriated all months of the year. Though the state engineer's finding is "prima facie evidence" should it be determined that a "plan of augmentation" is involved, the burden of proof is on the applicant to prove that the proposed plan will not injuriously affect the rights of junior or senior appropriators above or below the location for the proposed plan, and when a change from irrigation to domestic or municipal use is proposed, that change is limited to the historic usage of the irrigation right. Neither the time in which the water is used nor the volume of water diverted may be enlarged.

According to the water court's findings, Kelly Ranch's proposal would permit an enlargement of the time of use from 144 days per year to 365 per year and might legally allow an increase in the total amount of water diverted.<sup>142</sup>

The water court, in considering Kelly Ranch's plan for augmentation, was clearly troubled by the problem of attempting to reconcile a plan based upon the replacement of consumptive use and out-of-priority diversions with Colorado's strict appropriation doctrine of "first in time, first in right." In the end, the water court concluded that the priority doctrine could not be stretched far

enough to encompass approval of the plan:

The application is premised upon a theory of replacement of estimated consumptive use which would ignore the priority doctrine and which, if granted, would create a new class of water rights of developers exempt from the priority system and substitute in lieu thereof replacement of injury. No other water rights in the Arkansas River are so administered.<sup>143</sup>

As in Glacier View Meadows' appeal brief, the overriding theme in the briefs submitted to the Colorado Supreme Court by Kelly Ranch in support of its proposed plan for augmentation<sup>144</sup> was the plan's lack of injury to others. In order to deny the application for approval of its plan for augmentation and exchange, Kelly Ranch argued that under §37-92-305(3), C.R.S. 1973, and S.B. 7 the trial court must first make two findings: (1) that the proposed plan would result in injury to the water rights of the objectors; and (2) that such injury could not be prevented by imposing protective terms and conditions. As Kelly Ranch contended, the only proper test was injury to others, and not, as the water court held, whether there was an increase in volume and time of use. If volume and time of use could be increased without injury to others, Kelly Ranch asserted, the plan for augmentation must be approved according to the mandate of the 1969 act and the separate 1969 exchange legislation.<sup>145</sup> In support of a standard based on lack of injury, Kelly Ranch cited Colorado cases which it read as permitting changes in the point of diversion, place of use, and time of use absent injury to others.<sup>146</sup>

With regard to its particular proposal, Kelly Ranch argued that its plan for augmentation would supply equivalent substitute water from an independent source at the times necessary and in the amounts necessary to balance the depletions to the Arkansas River system resulting from the use of subdivision wells. According to Kelly Ranch, the river would be kept whole throughout the year. In fact, the plan would actually add more water to the river at all times during the year than was being used consumptively by the subdivisions. Therefore, Kelly Ranch contended it was impossible for any other water user to be injured by its proposed plan for augmentation.<sup>147</sup>

Kelly Ranch disputed the water court's finding that its application was not one for judicial approval of an exchange and substitution, but rather an application to transfer an 1874 water right to 312 individual points of diversion. The function of the plan, Kelly Ranch contended, was to create a water supply for the subdivisions

by an exchange project which provided a substitute water supply. Seen in this light, the proposal dovetailed perfectly with the definition of "plan for augmentation" in the 1969 act.<sup>148</sup> To conclude as the water court did, that an acceptable plan for augmentation demanded the addition of new water to the river system, ignored the statutory definition which contained the words "available," "by water exchange projects," and "by providing substitute supplies of water." In fact, the water court's narrow-minded view of a plan for augmentation would relegate such plans to the use of transbasin water only.<sup>149</sup>

In its appeal briefs, Kelly Ranch reminded the supreme court of the policy underlying the 1969 act. The Colorado courts and legislature, declared Kelly Ranch, are dedicated to the principle of maximizing the beneficial use of surface and underground water resources as long as vested rights are protected. The augmentation provisions of the 1969 act sought to achieve this by requiring the water courts to approve plans calling for substantial diversions from underground sources when these diversions were adequately balanced by replacement waters delivered to the surface stream.<sup>150</sup> As Kelly Ranch emphasized repeatedly, its proposed plan for augmentation accomplished the primary objective of noninjury to other appropriators by delivering replacement water to the Arkansas River sufficient to balance the subdivision depletions in both time and amount.

The Southeastern Colorado Water Conservancy District, in its arguments in opposition to Kelly Ranch's application,<sup>151</sup> characterized the plan for augmentation as a dangerous and insidious attack on Colorado's long-established appropriation doctrine. As the district vigorously asserted, Kelly Ranch could not, on the basis of speculation as to replacement of consumptive use, balloon the historic use of its 1874 water right by as much as 100 times on an overappropriated stream like the Arkansas River.<sup>152</sup>

The district's arithmetic showed that 312 wells continuously diverting 15 gallons per minute for one year would divert 3,248,208,000 gallons, or approximately 9,967 acre-feet per year. This figure was a staggering 113 times the amount diverted by Kelly Ranch in irrigating 24 hours a day for the average 144 days that the .31 cfs right was in priority. Although the district admitted that a ballooning of the .31 cfs right by 113 times was unlikely, nevertheless, it argued that this would be legally permissible under the theory advanced by Kelly Ranch. In addition, the 312 wells would be subject to use 365 days per year, instead of the average 114 days per year that the irrigation right had historically been used.<sup>153</sup>

The district pointed out that 312 wells withdrawing 15 gallons per minute equals approximately 10 cfs or an amount in excess of 30



times the original decreed amount of .31 cfs. Could Kelly Ranch, the district asked, simply through a plan for augmentation, change its .31 cfs surface right to 312 wells diverting up to 10 cfs at certain times, and on an annual basis up to 100 times as many acre-feet? The answer, the district asserted, was that Kelly Ranch was attempting to promote a Colorado water law based not on the diversion of quantities of water over a period of time, but on the replacement of consumptive use of quantities of water over a period of time.<sup>154</sup>

The district attacked the assumptions underlying Kelly Ranch's application, particularly the assumption that 90 percent of the water pumped by the wells would return to the stream by way of the leaching fields. It characterized this assumption as the plan's "jugular vein."<sup>155</sup> In addition, the district strenuously disputed Kelly Ranch's claim that it had met its burden of proof with regard to showing no injury to other appropriators. The district argued that Kelly Ranch's request to divert up to 113 times its historic diversions and to enlarge the time of such diversions from 144 to 365 days was injury in and of itself. According to the district, Kelly Ranch was attempting, through its proposed plan for augmentation, to do precisely what the Colorado Supreme Court had rejected in the Shelton case: substitute the priority doctrine with a lack of injury doctrine. Kelly Ranch, in effect, wanted to stand the appropriation doctrine on its head, so that it would be last in time, but first in right.<sup>156</sup>

The key issue in the appeal was abundantly clear to the district: whether injury in Colorado water law is measured by diversions or by consumptive use. The district sought to demonstrate, through an extensive review of Colorado water law decisions, that the Colorado Supreme Court had never deviated from the primacy of the standard of gross diversions of a fixed quantity for a fixed amount of time. The district was unable to find any cases involving a change of water right which held that the applicant might increase his gross diversions by even the slightest amount over the decreed amount.<sup>157</sup> Furthermore, the district pointed out that the provisions in the 1969 act dealing with exchanges of water spoke in terms of "equivalent amounts," not equal amounts of consumptive use.<sup>158</sup>

The district contended that Kelly Ranch could find little comfort in the principle of maximum utilization enunciated in the Felhauer case.<sup>159</sup> The supreme court in this case, the district argued, had been concerned about an agricultural economy that claimed a prescriptive right based upon the long-established use of wells. Wells to be drilled in the future, however, were another matter entirely, since their inevitable effect would be to deprive surface rights of the water to which they were entitled. Maximum utilization, subsequent to the Felhauer case, had necessarily been limited by

the overappropriation of Colorado's streams.<sup>160</sup> The underlying purpose of both the 1969 act and the holding in the Fellhauer case, the district asserted, was to protect vested rights, and in its opinion, there was absolutely no way that the "trickle of water" involved in Kelly Ranch's plan for augmentation could support a new city without hurting the Arkansas River system.<sup>161</sup>

The rulings of the Colorado Supreme Court in the Kelly Ranch and Glacier View Meadows cases represent a resounding victory for the pleas advanced by the proponents of plans for augmentation that they be given a wide berth in maximizing the use of a scarce natural resource. The court held that the injection of new water into a stream system is not required in order to have a valid plan for augmentation. It based this conclusion upon the legislative declaration found in the 1969 act, as well as the judicial declaration of the Fellhauer case.<sup>162</sup> The court found that the plans for augmentation presented in both the Glacier View Meadows and Kelly Ranch cases were harmonious with the 1969 act's stated purpose of integrating underground water and surface water in order to maximize beneficial use. The fact that the two rivers involved were overappropriated instead of constituting an argument against the plans, was, in the opinion of the court,<sup>163</sup>

. . . the very reason for the valid exercise of ingenuity of persons seeking to maximize the use of water, whether they are present or future owners of land and wells, developers, or as characterized by the water court here, promoters, speculators or non-users.

The Colorado Supreme Court held that where senior appropriators could show no injury stemming from the diversion of water by another appropriator, they could not prevent the beneficial use of that water. Therefore, since the court found that there was no injury to the objectors in either the Glacier View Meadows or Kelly Ranch case, they could not require the replacement of 100 percent of the water withdrawn by the proposed wells under the two plans for augmentation. According to the court's assessment of the correct standard for determining the validity of a plan for augmentation, "Water is available for appropriation when the diversion thereof does not injure holders of vested rights." Given these circumstances, the supreme court admitted that there is, in fact, "no significant difference between the prior appropriation doctrine and the lack of injury doctrine."<sup>164</sup>

With regard to the question of the status of the subdivision wells drilled to implement the plans for augmentation, the supreme court ruled that all wells involved in a plan for augmentation must be subject to regulation, regardless of the fact that they might other-

wise be exempt from administration by the state engineer.<sup>165</sup> Accordingly, after a plan for augmentation wins court approval, all applications for well permits must be submitted to the state engineer. The court admitted that judicial approval of a plan eliminated some of the factors which the state engineer would otherwise be required to consider under §37-90-137, C.R.S. 1973. But the court found that the state engineer still had statutory responsibilities remaining, although it did not state what these responsibilities were. In addition, the court anticipated that after some of the wells in a plan had actually been drilled, the state engineer, when reviewing subsequent applications, might consider whether the plan was operating as decreed.<sup>166</sup>

In the supreme court's opinion, the water court in the Glacier View Meadows case had not acted outside its powers or usurped the authority of the state engineer. The court stated that it found nothing in the 1969 act which made a permit from the state engineer to drill a well a condition precedent to an application for approval of a plan for augmentation. It was apparent from the intent of the 1969 act, the court held, that the water court should first approve or disapprove a proposed plan for augmentation. Then, if it approved a plan calling for the drilling of wells, the state engineer would become involved through the issuance of well permits.<sup>167</sup>

In the Kelly Ranch case, the supreme court ruled that the presumptive effect of temporary approval by the state engineer of a plan for augmentation pursuant to S.B. 7<sup>168</sup> was not applicable since the hearings had commenced after the enactment of this legislation. The court expressly declined to grapple with the issue of whether or not the absence of notice provisions (with regard to requests for approval of temporary plans for augmentation filed with the state engineer) rendered S.B. 7 unconstitutional on its face as a violation of due process.<sup>169</sup> The recent repeal of S.B. 7 by the General Assembly has, of course, made this issue moot.

The objectors in the Glacier View Meadows case had argued that the depletions caused by the diversions of the subdivision wells could not be determined with sufficient accuracy to allow adequate replacement from storage water. According to the court, the degree of uncertainty present with regard to the eventual effect of a plan for augmentation was no greater than the uncertainty inherent in the administration of water rights generally. Quoting from the water court's opinion, the supreme court stated that the standard was whether ". . . the assumptions upon which the plan is based allowed more than adequate latitude":<sup>170</sup>

If the plan for augmentation is operated in accordance with the detailed conditions herein,

it will have the effect of replacing water in the stream at the times and places and in the amounts of the depletions caused by the development's use of water. As a result, the underground water to be diverted by the development wells, which would otherwise be considered as appropriated and unavailable for use, will now be available for appropriation without adversely affecting vested water rights or decreed conditional water rights on the South Platte River or its tributaries.<sup>170</sup>

One final issue which was left open by the supreme court in the Glacier View Meadows and Kelly Ranch decisions was the possible effects of future water pollution caused by the operation of a plan for augmentation. The court ruled that since this issue did not affect the present parties, it was not properly before the court.<sup>171</sup>

In its decision in the Kelly Ranch case, the Colorado Supreme Court agreed with the water court that the existing evidence did not justify a finding with regard to the extent of return flow in the Quail Ridge subdivision, one of the three subdivisions proposed in Kelly Ranch's plan for augmentation. As a result, the Colorado Supreme Court remanded the case to the water court for Water Division No. 2.

In its discussion of the return flow question in the Kelly Ranch opinion, the supreme court held that the 1969 act placed the burden of proof upon the proponent of a plan for augmentation to establish the amount of return flow from in-house use of water withdrawn from wells subject to the plan. Moreover, the proponent's failure to meet this burden would, observed the court, give the water court no alternative but to order 100 percent replacement:<sup>172</sup>

If Kelly Ranch does not prove to the satisfaction of the court that there is any return flow from such use in the Quail Ridge subdivision, then the court will be obliged to order release into the stream of 100% of the amount of water withdrawn from such wells from which there is no return flow.

In accordance with the supreme court's instructions on remand, the water court took additional testimony in October, 1976, on the issue of the amount of return flow from the in-house use of water withdrawn from wells in the Quail Ridge subdivision. This additional testimony consisted primarily of testimony by expert witnesses focusing on the geologic formations under the Quail Ridge subdivision. The testimony revealed considerable disagreement between the witnesses for Kelly Ranch and those for the Southeastern Colorado Water

Conservancy District with regard to the nature of the underlying geologic structures and the effect, in turn, of these geologic structures on the length of transit time for water moving from the leaching fields to the ground water table. While Kelly Ranch contended that virtually 100 percent of the waters leaving the leaching field would reach the ground water, the expert witnesses called by the district testified that the time required for the return flow to reach the ground water would be anywhere from 21 years to over 100 years depending upon the nature and numbers of the geologic layers encountered between the leaching field and the ground water table.

The water court for Water Division No. 2, in its opinion,<sup>173</sup> expressed its dissatisfaction with both the 90 percent return flow estimated by Kelly Ranch's witnesses and the zero return flow estimated by the district's witnesses. Rather, the water court expressed the view that the correct figure was somewhere in between these two extremes. As the water court admitted, it had<sup>174</sup>

. . . even contemplated entering a decree using a half-way figure of 45% return flow and 55% consumptive use. In honesty, however, it was felt such a definite figure could not be justified on the present state of the evidence presented.

In the final analysis, the water court ruled that it could not approve Kelly Ranch's plan for augmentation for the Quail Ridge subdivision as presented to it at that time. In keeping with the policy expressed in the 1969 act that the proponent of a plan for augmentation must be given an opportunity to propose protective terms or conditions permitting the court to approve the plan,<sup>175</sup> the water court held that although Kelly Ranch's plan for augmentation for Quail Ridge subdivision could not be approved at that time, Kelly Ranch should have a reasonable time in which to propose protective terms and conditions.<sup>176</sup>

On September 14, 1976, the water court for Water Division No. 2 entered a consent decree pertaining to River Rim Estates and Freegold Hill Estates,<sup>177</sup> the two subdivisions involved in the Kelly Ranch plan in addition to Quail Ridge. In it, the water court confirmed the major outlines of the plan, namely, the removal of agricultural land from irrigation and the dedication to the plan of the water rights previously used for irrigation, to be withdrawn through in-house wells or stored during the summer months in order to enable Kelly Ranch to make the releases necessary to balance the winter subdivision depletions.

More importantly, the consent decree offers some insight into how the Kelly Ranch plan will actually be implemented. Kelly Ranch had previously conveyed the title to the .31 cfs water right, the

title to two ponds having a storage capacity of 6.5 acre feet, and the title to 14.04 acres of irrigated land to Domestic Development Water Corporation, as trustee. The consent decree provides that the trustee shall hold this property for the benefit of the lot owners and lot purchasers in each of the three subdivisions, and shall have the obligation to permanently remove the lands involved from irrigation, to supply storage water from the ponds, and to enforce any decree entered. Specifically, the consent decree provides that the trustee shall, upon order of the division engineer, set concrete monuments at the four corners of the tract to be permanently removed from irrigation. The trustee, in diverting water from the stream, storing the diverted water, and releasing waters stored back to the stream to balance subdivision depletions, shall act in accordance with the orders of the division engineer.<sup>178</sup>

In order to accurately measure and control the water stored in the two storage ponds and the water released from the ponds, the consent decree further provides that the trustee shall install and maintain such measuring devices as the division engineer may require. To monitor the amount of water used by each household, the consent decree requires that each lot owner shall install a water meter satisfactory to the division engineer. The trustee is required to supply the division engineer with readings from the household meters semiannually or more often, at the request of the division engineer. In addition, the division engineer or his employees may read any meter at any time. If the trustee determines that the subdivisions are using water in excess of the 127,750 gallons of water allotted each household for its in-house use during the year, the trustee is required, under the consent decree, to take<sup>179</sup>

. . . immediate steps to curtail household use so that the use in each house shall not exceed the total number of gallons available to it during that water year.

The consent decree further states that anyone who uses water in violation of the decree shall be subject to "all administrative and legal sanctions provided by law and by this decree," including shut-down orders issued by state water officials and loss of well permit. It expressly provides that no user diverting water under the authority of the decree shall be entitled to rely upon the domestic well exemption.<sup>180</sup>

Under the consent decree, the authority of the state engineer to order the curtailment of well diversions in the subdivisions is limited by the terms of the decree itself:<sup>181</sup>

The State Engineer and the Division Engineer of Water Division No. 2 shall not order the curtailment

of diversion through any well used to provide water for such in-house use to any of the 52 lots for which this Plan is approved so long as diversions through any such well are in accordance with the terms of this decree, and there is water available under this decree to supply the substitute water required hereby. The State Engineer or Division Engineer shall curtail well diversions at all times when well use is not in accordance with the terms of this decree, or whenever substitute water is unavailable under this decree or from other sources to balance subdivision depletions.

Finally, the consent decree provides that if experience shows the amount of water subject to the decree to be in excess of the actual in-house use requirements for the subdivisions, the trustee, at any time after the plan has been in operation for five years, may file on behalf of the subdivisions an application for approval of a plan for augmentation expanding or changing the decreed uses or otherwise making use of the excess water for the benefit of the subdivisions.<sup>182</sup>

One potentially troublesome issue with regard to plans for augmentation, which S.B. 4 has attempted to answer, is that a plan, although approved by the water court with appropriate protective terms and conditions, may nevertheless, once it is put into practice, cause future injury to other vested water rights. While the specter of future injury suggests the need for continuing jurisdiction by the water court, this consideration is counterbalanced by the necessity for the entry of a final order from which an appeal can be made.

The Colorado Supreme Court briefly alluded to this dilemma at the end of its opinion in the Kelly Ranch case. One of the conditions proposed by Kelly Ranch was to set aside an additional amount of water and irrigated land to be held subject to the water court's further order for a period of five years to meet unexpected consequences of the granting of the application.<sup>183</sup> The supreme court stated that as long as Kelly Ranch was willing to allow the water court to retain jurisdiction for five years with regard to the additional water and land,<sup>184</sup>

. . . we see no reason why it should not be accepted. We are concerned, however, lest any retention of jurisdiction prevent review of any of the water court's order which would be reviewable except for such retention. The availability of review must be retained.

While Kelly Ranch proposed, as one of the protective conditions upon which its plan for augmentation should be approved, that the water court retain jurisdiction, S.B. 4 makes this a permanent feature of every plan. It provides that in the case of a plan for augmentation, the plan<sup>185</sup>

. . . shall include the condition that the approval of such . . . plan shall be subject to reconsideration by the water judge on the question of injury to the vested rights of others for such period after the entry of such decision as is necessary or desirable to preclude or remedy any such injury.

Senate bill 4 further provides that the water judge shall specify in his decision the length of the necessary period of reconsideration. The water judge, however, may extend this period upon further decision "that the nonoccurrence of injury shall not have been conclusively established." After giving the water judge total discretion in initially establishing and then extending the period of time for retaining jurisdiction in cases involving plans for augmentation, S.B. 4 expressly provides that such decisions shall be appealable:<sup>186</sup>

All decisions of the water judge, including decisions as to the period of reconsideration and extension thereof shall become a judgment and decree as specified in this article and be appealable upon entry, notwithstanding conditions subjecting them to reconsideration on the question of injury to the vested rights of others as provided in this subsection (6).

This amendment is obviously a response to the nagging suspicion that hindsight is always better than foresight in assessing the potentially adverse effects of a plan for augmentation. To remedy this problem, S.B. 4 has gone to the other extreme and is open to the criticism that it will transform any proceeding involving the approval of a plan for augmentation into a perpetual lawsuit. Since plans for augmentation necessarily involve complex questions concerning the consumption, depletion, and replacement of a natural resource which is constantly subject to a number of unpredictable factors, such as weather, future patterns of population growth, and future legislative reordering of priorities of use, the water judge can insure that a plan for augmentation will not injure vested rights only by extending the period of reconsideration indefinitely. Such a prospect appears even more likely in view of the fact that S.B. 4 sets out no standards for a determination of "nonoccurrence of injury" by the water judge, except that it requires that this state of affairs must be "conclusively established."<sup>187</sup>



Although S.B. 4 provides for the retention of jurisdiction by the water court only for the period necessary to preclude or remedy injury to other vested rights, it is certainly conceivable that the proponents of plans for augmentation will argue that they should also be allowed to come in during the period of reconsideration to show that their plans should be modified because they have made excess water available to other vested rights. Just such a provision, permitting the modification of the plan for the benefit of the water users under the plan, was a condition contained in the consent decree entered into in the Kelly Ranch case.<sup>188</sup> Thus, S.B. 4 may, in proceedings pertaining to plans for augmentation, hold out a green light to both proponents and objectors, depending upon which side believes itself to have lost the case at the previous stage of the proceedings, to keep retrying their case at the expense of their opponents. Such a prospect will not be welcome to Colorado's already overburdened water courts.

b. Pending Applications.

The plans for augmentation which were upheld by the Colorado Supreme Court in the Glacier View Meadows and Kelly Ranch cases are typical of the majority of proposed plans for which applications are now pending in the state's water courts. The chief features of such plans for augmentation, which are often submitted by land developers, are the use of wells as alternate points of diversion for direct surface rights owned by the applicant, together with the use of surface rights to replace ground water depletions resulting from the well pumping. These plans combine a change in the points of diversion with a water exchange or substitution. In addition, they generally involve a change of use.

Some representative applications for approval of plans for augmentation which are presently pending are attached to this study as appendix A.

c. Decrees Not Appealed.

While no precise count is available, relatively few plans for augmentation were decreed prior to passage of S.B. 4 in 1977 and for even fewer has the two-year period in §37-92-304(6), C.R.S. 1973, elapsed. However, in at least one instance, a petition has been filed to reopen a final decree for a plan for augmentation.<sup>189</sup> This petition was filed under §37-92-304(10), C.R.S. 1973, which permits reopening a decree within three years after its entry to correct "substantive errors."

So far as is known, no petition has been filed requesting that a decreed plan for augmentation be reopened under the provisions of S.B. 4, §37-92-304(6), C.R.S. 1973, as amended in 1977, which provides for the water court to retain jurisdiction "to preclude or remedy" injuries, and it is not at all certain S.B. 4 could be used for that purpose. Equally uncertain is whether a decreed plan reopened under the two- or three-year statute would permit a water court to retain jurisdiction under the provisions of S.B. 4.

## 2. Who Uses Plans for Augmentation.

No tabulation has been made of plans for augmentation by water division or type of applicant. A brief review indicates that the greatest number of plans has been filed in Water Division No. 1.

The applications filed are extremely varied. Many concern integration of existing irrigation wells into the priority system, a principal objective of the legislation creating the plan for augmentation.

Kelly Ranch and Glacier View Meadows are significant because they considered most major questions raised by the use of plans for augmentation, and because they involved new wells for new residential developments. A substantial number of similar plans have been filed by developers of residential properties.

A variety of plans have been filed for municipalities, water and sanitation districts and industrial users. These involve in some instances only surface water rights and in others surface and ground water rights.

GASP (Ground Water Appropriations of the South Platte) and Central Colorado Water Conservancy District have the most extensive augmentation plans, only portions of which have been filed with the water court. The day-to-day administration of these two plans is based upon informal consultation with personnel from the office of the state engineer.

In short, as was anticipated, almost every type of water user has filed plans for almost every type of water right. A detailed analysis of the plans filed and their effects would require extensive engineering analysis which is beyond the scope of this study. Suffice it to say that the legal principles these plans rely on are those considered above.

3. Evaluation of the Law on Plans for Augmentation:  
Senate Bill 4.

Perhaps S.B. 4, by what it says after eight years of the 1969 act, provides the best framework for evaluating the law on plans for augmentation. Water judges are advised by S.B. 4 that a plan "shall be sufficient to permit the continuation of diversions when curtailment would otherwise be required to meet a valid senior call for water, to the extent that the applicant shall provide replacement water necessary to meet the lawful requirements of a senior diverter at the time and location and to the extent the senior would be deprived of his lawful entitlement by the applicant's diversion. Decrees approving plans for augmentation shall require that the state engineer curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights." §37-92-305(8), C.R.S. 1973 (as amended in 1977) (emphasis added).

The same specific charge to "curtail out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights," is imposed on the state engineer. §37-92-501.5, C.R.S. 1973 (as amended in 1977).

These sections reflect a concern expressed by many that plans for augmentation will work in theory and practice only if they are carefully considered before a decree is entered and carefully administered after so as to avoid injury to others.

Senate bill 4 imposes a specific obligation on the referees and water judges to consider "depletions from an applicant's use or proposed use of water, in quantity and in time, the amount and timing of augmentation water which would be provided by the applicant, and the existence, if any, of injury to any owner of or persons entitled to use water under a vested water right or a decree conditional water right." §37-92-305(8), C.R.S. 1973 (as amended in 1977).

This specific charge to the court, while requiring affirmative consideration of "depletions from an applicant's use or proposed use of water," will probably not be enough. The water court is ill-equipped to make an investigation of a plan's impact. It will need evidence presented by others. Comments by the state engineer and appearances by other affected individuals or entities are required in plan proceedings to be certain all aspects of a plan are thoroughly examined.

Senate bill 4 is directed, in part, to several problems discussed only briefly in Kelly Ranch and Glacier View Meadows. Those problems are the "uncertainty" that is "inherent in the hydrological and geological analysis upon which the plan for augmentation . . . is

founded"<sup>190</sup> and the concern expressed by objectors about the difficulty in administering such "small" amounts of water and the state engineer's need for additional "manpower" to administer plans for augmentation with the necessary precision.<sup>191</sup>

By having the water court retain jurisdiction to determine the effects of a plan and by requiring a plan to contain a provision that the state engineer "curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights," S.B. 4 has rather clearly stated these are important concerns and must be dealt with. It remains to be seen whether the budget for the state engineer's office will have funds for additional personnel.

It is too early to say whether §37-92-501.5, C.R.S. 1973 (as amended in 1977), which provides that the "state engineer and division engineers shall exercise the broadest latitude possible in the administration of water under their jurisdiction to encourage and develop augmentation plans and voluntary exchanges of water" and permits them to "make such rules and regulations . . . and take such other reasonable action as may be necessary in order to allow continuance of existing uses to assure maximum beneficial utilization of the waters of this state," will make the state engineer's office a source of information, or even a source of rules and regulations, against which a plan's impact can be tested.

Rules and regulations issued by the state engineer for the South Platte River and its tributaries include "guidelines" for administering plans filed, but not decreed.<sup>192</sup> These guidelines have been used by the Water Division No. 1 water court to determine the amount of water that must be made available under a plan as "replacement water."<sup>193</sup> It can be expected more definitive "guidelines" in rules and regulations issued under S.B. 4 would be similarly used. In fact, to try to avoid the "uncertainty" referred to in Glacier View Meadows and Kelly Ranch, it seems almost mandatory that the state engineer's rules and regulations change as new information and knowledge about a river system become available.

Plans for augmentation have permitted more intensive, sophisticated use of water. They are a tool for reallocating the use of, and method of using, water. They are consistent with the evolution of Colorado water law. They must be scrutinized before approval and administered after approval with great care. It seems S.B. 4 affirms these principles and provides additional methods and mandates for carrying them out.

#### 4. Should the Law Be Modified?

There are no specific statutory modifications recommended for plans for augmentation. The law has been accepted. It is being used extensively. The method of its use is still developing and probably should be allowed to further develop without significant legislative interference. Fellhauer v. People<sup>194</sup> and Kuiper v. Well Owners Association<sup>195</sup> talk of a "new era in the utilization and optimal use of water"<sup>196</sup> and that "there must be change, and courts, legislators, the State Engineer and users must recognize it."<sup>197</sup> Plans for augmentation are a principle vehicle for this change. Kelly Ranch and Glacier View Meadows established judicial acceptance of the use of plans as a vehicle for the change demanded in Kuiper v. Well Owners Association.

Senate bill 4, in turn, accepted the Kelly Ranch and Glacier View Meadows decisions and emphasized that replacement water for depletions must be carefully provided and accounted for. It is likely major water users and water user associations will step up their scrutiny of plans. It is also likely that water judges and referees will do the same now that some patterns, and expectations, for plans are beginning to emerge.

The state engineer will probably require some additional personnel to administer plans. The possibility of the state engineer issuing detailed rules and regulations governing plans for augmentation, which are modified as new information is available, should be carefully considered. This would provide some general and specific criteria against which plans could be measured.

However, even if all these events occur, more may be required. The introduction refers to how Colorado water users have adapted over the years to new appropriations and all manner of changes in the use of water. Courts have frequently referred to avoiding "substantial" or "material" injury<sup>198</sup> and Kelly Ranch and Glacier View Meadows recognized "uncertainty" in determining whether plans for augmentation are properly designed to avoid injury.

There is little doubt Colorado water users recognize the need for modifying the use of water rights as provided for by plans for augmentation. However, from numerous conversations and meetings in which the authors have been participants, more serious consideration of the cumulative impacts of these changes may be necessary.

No extensive studies have been made to substantiate the following comments. They are subjective and suggestive but, in our judgment, they should be made.

It is possible the state or other areawide entities may have to intervene with planning and funds to protect against the cumulative effect of more intense uses of water so that maximum utilization can be realized.

It is this latter point that requires immediate study. Plans for augmentation and their cousins, changes of water rights and exchanges of water rights, permit the use of water far closer to the stated goal of maximum utilization than has been true in the past.

Some assert that many plans for augmentation result in expanded use. In any event, it appears that more uses, higher on the river system, are being obtained from the same amount of water.

The cumulative effect of wells, changes in water rights, exchanges and plans for augmentation, seems, inevitably, to result in less water flowing downstream for diversion by vested rights at their time of need.

This will probably require consideration once again of basin-wide plans to deliver water to users downstream who are being adversely affected by more intensive use of water upstream. Careful consideration of the effects of a plan for augmentation, as affirmed by S.B. 4, may protect vested rights in the vicinity of the plan against "substantial injury" It is probably not sufficient to protect against the cumulative impact of such plans.

In short, if Colorado's water users want maximum utilization of water, and they clearly do, they may have to establish the means for providing a substitute supply of water to downstream users or there will be substantial injury, and this injury may creep upstream on our various rivers as the trend toward maximum utilization, through plans of augmentation, continues.

#### XIV. PLANS FOR AUGMENTATION

##### REFERENCES

1. 167 Colo. 320, 447 P.2d 986 (1968).
2. Id. at 336
3. §37-92-101, C.R.S. 1973 et seq. (The Water Right Determination and Administration Act of 1969 will be referred to as the "1969 act.")
4. D. Harrison and G. Sandstrom, "The Goundwater-Surface Water Conflict and Recent Colorado Water Legislation," 43 Colo. L. Rev. 1, 4 (1971).
5. §37-92-102(1), C.R.S. 1973.
6. §37-02-102(2), C.R.S. 1973.
7. §37-92-102(2)(b), C.R.S. 1973.
8. §37-92-102(2)(c), C.R.S. 1973.
9. §37-92-103(9), C.R.S. 1973.
10. 187 Colo. 181, 529 P.2d 1321 (1974).
11. Id. at 190.
12. Id. at 192.
13. H.B. 1191 (1975), Colo. Sess. Laws, 998, amending §37-92-103(9), C.R.S. 1973. The legislature appears to have ignored the threat made by Justice Groves (supra note 10, at 192-93), specially concurring the Shelton Farms case:

I wish to state, however, that, if the General Assembly does not act within a reasonable time in this area, I hope that the matter will be brought to this Court again. Then, in order to carry out the spirit of Fellhauer v. People, 167 Colo. 320, 447 P.2d 986 (1968), and the legislative intent expressed in the 1971 amendments quoted in the opinion, I intend to urge the Court to reverse the opinion and permit persons in the position of the claimants here to take the water. They will not be taking water from holders of decreed rights, but rather from the robbers of the decreed rights--the phreatophytes.

Water lost is water wasted. The judiciary should not sit by forever and permit this to continue, even though its remedies cannot be as equitable as those that surely the legislature can fashion.

14. Cache la Poudre Water Users Ass'n v. Glacier View Meadows, \_\_\_ Colo. \_\_\_, 550 P.2d 288 (1976) and Kelly Ranch v. Southeastern Colorado Water Conservancy Dist., \_\_\_ Colo. \_\_\_, 550 P.2d 297 (1976). (These two cases will be referred to as Glacier View Meadows and Kelly Ranch respectively.)
15. Kelly Ranch, supra note 14, at 304.
16. S.B. 7 (1974), Colo. Sess. Laws, 440.
17. §37-92-302(5), C.R.S. 1973.
18. §37-92-302(1)(a), C.R.S. 1973.
19. §37-92-302(2), C.R.S. 1973.
20. Id.
21. §37-92-305(3), C.R.S. 1973.
22. Id.
23. §37-92-305(4)(d), C.R.S. 1973.
24. §37-92-307, C.R.S. 1973. This section, as amended by S.B. 7, was recently repealed in toto by S.B. 4.
25. §37-92-307(1), C.R.S. 1973, as originally enacted.
26. §37-92-307(1)(a), C.R.S. 1973, as originally enacted.
27. S.B. 4 (1977), Colo. Sess. Laws.
28. §37-92-301(2), C.R.S. 1973, as amended by S.B. 4.
29. §37-92-307(1)(b), C.R.S. 1973, as originally enacted.
30. Id.
31. §37-92-307(1), C.R.S. 1973, as amended by S.B. 7.
32. §37-92-307(2), C.R.S. 1973, as amended by S.B. 7.
33. Id.
34. Id.



35. §37-92-307(3), C.R.S. 1973, as amended by S.B. 7.
36. §37-92-307(5), C.R.S. 1973, as amended by S.B. 7.
37. §37-92-307(6), C.R.S. 1973, as amended by S.B. 7. An indication of the extreme disfavor with which the prima facie weight given to the state engineer's findings was viewed is found in the proviso to S.B. 4's repealer of §37-92-307, C.R.S. 1973, as amended by S.B. 7. Senate bill 4 states that notwithstanding its repeal of §37-92-307, C.R.S. 1973, as amended, its provisions shall remain effective for temporary plans for augmentation submitted to the state engineer before the date of repeal, except that

. . . the provisions of subsection (5) of said section [§37-92-307] pertaining to the prima facie effect of the state engineer's findings shall not apply.

Interestingly enough, the prima facie effect will not apply only in those cases where the state engineer approves the plan (subsection (5)), but will continue to apply where the state engineer rejects a plan submitted prior to the date of repeal (subsection (6)).

38. §37-92-307(7), C.R.S. 1973, as amended by S.B. 7.
39. §37-92-307(8), C.R.S. 1973, as amended by S.B. 7.
40. "Evaluation Criteria for Plans of Augmentation Under Senate Bill 7," Office of the State Engineer, June 14, 1974; at 1.
41. Id. at 3-4.
42. Id. at 2-3.
43. This argument was raised by the objectors in the Kelly Ranch case, supra note 14, at 305. The Colorado Supreme Court found it unnecessary to reach this issue, however, since it ruled that S.B. 7 was inapplicable to the Kelly Ranch plan, which had been filed with the water court prior to the effective date of the bill. The potentially troublesome constitutional issue of notice is, of course, now moot as a result of the passage of S.B. 4.
44. "Evaluation Criteria," supra note 40, at 2.
45. 7 Colo. 148, 2 P. 901 (1883).
46. Id. at 154.
47. 12 Colo. 12, 19 P. 836 (1888).
48. 16 Colo. 61, 26 P. 313 (1891).

49. Id. at 69.
50. 35 Colo. 112, 84 P. 469 (1905).
51. 1889 Colo. Sess. Laws, 236.
52. Fluke v. Ford, supra note 50; New Cache la Poudre Irr. Co. v. Watter Supply and Storage Co., 29 Colo. 569, 68 P. 781 (1902); New Cache la Poudre Irr. Co. v. Arthur Irr. Co., 37 Colo. 530, 87 P. 799 (1906).
53. Vogel v. Minn. Canal and Reservoir Co., 47 Colo. 534, 107 P. 1108 (1910).
54. Id. at 541.
55. Denver v. Colorado Land and Livestock Co., 86 Colo. 191, 279 P. 46 (1929).
56. Baker v. Pueblo, 87 Colo. 489, 289 P. 603 (1930).
57. Colorado Springs v. Yust, 126 Colo. 289, 249 P.2d 151 (1952).
58. Hallenbeck v. Granby Ditch and Reservoir Co., 160 Colo. 555, 420 P.2d 419 (1966); Brighton Ditch Co. v. Englewood, 124 Colo. 366, 237 P.2d 116 (1951).
59. Mannon v. Farmers' High Line Canal and Reservoir Co., 145 Colo. 379, 360 P.2d 417 (1961).
60. See Farmers' High Line Canal and Reservoir Co. v. Golden, 129 Colo. 575, 272 P.2d 629 (1954); and Green v. Chaffee Ditch Co., 150 Colo. 91, 371 P.2d 775 (1962).
61. 1957 Colo. Sess. Laws, 860.
62. 1967 Colo. Sess. Laws, 957.
63. §37-92-103(5), C.R.S. 1973.
64. Colorado Springs v. Yust, supra note 57.
65. §§37-92-305(3) and (5), C.R.S. 1973.
66. §37-80-120, C.R.S. 1973. This statutory section will be referred to as the "separate 1969 exchange legislation."
67. The primary provisions in art. 83 which deal with exchanges are §§37-83-104 and 37-83-105, C.R.S. 1973.
68. 3 Mills' (Rev.) Stats. §2273c, now §37-83-105, C.R.S. 1973.

69. 33 Colo. 392, 81 P. 37 (1905).
70. Id. at 400.
71. 28 Colo. 488, 66 P. 906 (1901). This decision is apparently not based upon any statutory provision authorizing exchanges.
72. Id. at 495.
73. §37-83-104, C.R.S. 1973.
74. §37-80-120(2), C.R.S. 1973.
75. §37-92-305(5), C.R.S. 1973.
76. §37-80-120(4), C.R.S. 1973.
77. Id.
78. Brief of Applicant--Appellant Kelly Ranch, filed on Oct. 21, 1975, in the Colorado Supreme Court, Case No. 26884, at 55-56.
79. §37-92-305(5), C.R.S. 1973.
80. §§37-80-120(2), (3), and (4), C.R.S. 1973.
81. §37-92-307(3), C.R.S. 1973.
82. "Report to General Assembly: Explanation of Proposed Water Legislation," Colorado Legislative Council, Research Publication No. 143, Dec., 1968.
83. See Memorandum dated April 4, 1969, from Felix L. Sparks to Members of the Colorado Water Conservation Board and Advisory Committee.
84. Id.
85. 5 Clark, Water and Water Rights (1967), at 442.
86. Dewsnap and Jensen (eds.), National Water Commission, Summary-Digest of State Water Laws (1973), at 14.
87. Alaska Stat. §46.15.160(B); Ariz. Rev. Stat. §§45-149, 45-172; West's Ann. Water Code §§1701, 1702; 42 Idaho Code §§108, 222; Nev. Rev. Stat. §533.325; N.M. Stat. Ann. §75-5-23; N.D. Cent. Code §61-04-15; Okla. Stat. Ann. tit. 82, §105.22; Or. Rev. Stat. §§537.705, 540.510; S.D. Compiled Laws Ann. §46-5-33; Utah Code Ann. §73-3-3; Wash. Rev. Code Ann. §90.44.100; 9 Wyo. Stat. §41-4.1.

88. 42 Idaho Code §237; Or. Rev. Stat. §§537.705, 540.510; S.D. Compiled Laws Ann. §46-6-4; Wash. Rev. Code Ann. §90.44.100.
89. Brief of Applicant--Appellant, supra note 78, at 51.
90. 176 Colo. 119, 490 P.2d 268 (1971).
91. Id. at 124, 136, and 147-48. The rules and regulations are set out in full in appendix A to the court's opinion. See note 90, supra, at 150-56.
92. Rule 7, Proposed Rules and Regulations for Water Division No. 1.
93. Supra note 10. The Shelton Farms case was a consolidation of two applications before the water court. Only the application filed by Shelton, however, contained a plan for augmentation.
94. Supra note 10, at 183-84.
95. Id. at 184.
96. Id. at 188.
97. Id. at 190.
98. Id.
99. Answer Brief of Objectors--Appellees Southeastern Colorado Water Conservancy District, filed on Dec. 15, 1975, in the Colorado Supreme Court, Case No. 26884, at 29.
100. Glacier View Meadows, supra note 14, at 294.
101. Supra note 14. These are companion cases and should be read together.
102. Application for Approval of Plan for Augmentation Including Exchange, Case No. W-7438, filed on July 31, 1973, and Application for Approval of Plan for Augmentation Including Exchange, Case No. W-7629, filed on March 29, 1974, in the district court for Water Division No. 1.
103. The details of the plan (as consolidated) are set out in the Agreed Statement of Facts and Stipulation as to the Testimony of Certain Witnesses filed with the water court on Sept. 8, 1975.
104. Findings of Fact, Conclusions of Law and Decree Approving Plan for Augmentation, Case Nos. W-7438 and W-7629, filed on Sept. 8, 1975, in the district court for Water Division No. 1.

105. Id. at 7.
106. Id. at 21.
107. Id. at 11-12.
108. Brief of Objectors--Appellants Cache la Poudre Water Users Associations and North Poudre Irrigation Company, filed on Oct. 10, 1975, and Reply Brief of Objectors--Appellants Cache la Poudre Water Users Association and North Poudre Irrigation Company, filed on Nov. 21, 1975, in the Supreme Court of the State of Colorado, Case No. 26978.
109. Brief of Objectors--Appellants, supra note 108, at 6-7.
110. Supra note 1, at 336.
111. Brief of Objectors--Appellants, supra note 108, at 19-21.
112. The 1969 act does not apply to:

Wells not exceeding fifteen gallons per minute of production and used for ordinary household purposes, fire protection, the watering of poultry, domestic animals, and livestock on farms and ranches, and the irrigation of not over one acre of home gardens and lawns, but not used for more than three single-family dwellings. §37-92-602(1)(b), C.R.S. 1973.
113. §37-90-137(2), C.R.S. 1973.
114. Brief of Objectors--Appellants, supra note 108, at 22.
115. §§37-83-101 et seq., C.R.S. 1973.
116. §37-92-305(5), C.R.S. 1973.
117. Brief of Objectors--Appellants, supra note 108, at 25.
118. Brief of Applicant--Appellee Glacier View Meadows, filed on Nov. 12, 1975, in the Supreme Court of the State of Colorado, Case No. 26978.
119. §37-92-103(9), C.R.S. 1973, as amended.
120. Brief of Applicant--Appellee, supra note 118, at 13.
121. Id. at 14-17. In arguing the oneness of the priority system and the lace of injury doctrine, Glacier View Meadows relied on both the Fellhauer case, note 1, supra, and the 1969 act, specifically §37-92-502(2), C.R.S. 1973.

122. Id. at 15.
123. Id. at 23.
124. As provided for in §§37-90-137(1) and (2), 37-92-302(2), and 37-92-602, C.R.S. 1973.
125. Brief of Applicant--Appellee, supra note 118, at 9-11.
126. Glacier View Meadows relied upon §37-92-305(3), C.R.S. 1973 to support this argument.
127. §37-90-137(1) and (2), C.R.S. 1973.
128. Brief of Applicant--Appellee, supra note 118, at 9-11.
129. §37-92-102(1), C.R.S. 1973.
130. Brief of Applicant--Appellee, supra note 118, at 17-18.
131. §§37-83-101 et seq., C.R.S. 1973.
132. §37-80-120(2), C.R.S. 1973.
133. Brief of Applicant--Appellee, supra note 118, at 23-25.
134. The main outline of the plan is set out in the opinion of the Colorado Supreme Court. Kelly Ranch, supra note 14, at 299-300.
135. The number of subdivision lots was later reduced to 312. Kelly Ranch did not, however, correspondingly reduce the number of acres removed from irrigation or its consumptive use figures.
136. Just how quickly the water will return to the stream because of the nature of the underlying geologic formations still remains unresolved with regard to the Quail Ridge subdivision.
137. All of these assumptions are based on figures established by the state engineer.
138. Amended Findings of Fact, Conclusions of Law, and Decree, Case No. W-4039, filed on April 24, 1975, in the district court for Water Division No. 2, at 15-16.
139. §37-92-602(2), C.R.S. 1973.
140. Amended Findings of Fact, Conclusions of Law, and Decree, supra note 138, at 17.
141. Id. at 16.

142. Id. at 14.
143. Id. at 17.
144. Brief of Applicant--Appellant Kelly Ranch, filed Oct. 21, 1975, and Reply Brief of Applicant--Appellant Kelly Ranch, filed Dec. 30, 1975, in the Supreme Court of the State of Colorado, Case No. 26884.
145. Specifically, §§37-92-305(3) and (5) and 37-80-120(2), (3), and (4), C.R.S. 1973. Brief of Appellant--Applicant, supra note 144, at 43.
146. Brief of Appellant--Applicant, supra note 144, at 46-47.
147. Id. at 64.
148. §37-92-103(9), C.R.S 1973.
149. Brief of Applicant--Appellant, supra note 144, at 45.
150. Id. at 67-68.
151. Answer Brief of Objectors--Appellees, Southeastern Colorado Water Conservancy District, filed on Dec. 15, 1975, in the Supreme Court of the State of Colorado, Case No. 26884.
152. Id. at 7.
153. Id. at 7-9.
154. Id. at 9.
155. Id. at 12.
156. Id. at 16.
157. Id. at 26.
158. Id. at 19-20.
159. Supra note 1, at 336.
160. Answer Brief of Objectors--Appellees, supra note 151, at 28.
161. Id. at 29.
162. Kelly Ranch, supra note 14, at 303-304.
163. Id. at 29.
164. Glacier View Meadows, supra note 14, at 294.

165. Id. at 292.
166. Kelly Ranch, supra note 14, at 305-306.
167. Glacier View Meadows, supra note 14, at 294-95.
168. §37-92-307, C.R.S. 1973.
169. Kelly Ranch, supra note 14, at 305.
170. Glacier View Meadows, supra note 14, at 296.
171. Kelly Ranch, supra note 14, at 307; Glacier View Meadows, supra note 14, at 296.
172. Kelly Ranch, supra note 14, at 306.
173. Findings of Fact, Conclusions of Law, and Decree--Quail Ridge subdivision, entered on March 2, 1977, by the water court for Water Division No. 2, Cast No. W-4039.
174. Id. at 20-21.
175. §37-92-305(3), C.R.S. 1973.
176. Findings of Fact, Conclusions of Law, and Decree, supra note 173, at 21-22.
177. Findings of Fact, Conclusions of Law, and Decree--River Rim Estates and Freegold Hill Estates, entered on Sept. 14, 1976, by the water court for Water Division No. 2, Case No. W-4039.
178. Id. at 12.
179. Id. at 14.
180. Id.
181. Id. at 14-15.
182. Id. at 15-16.
183. Kelly Ranch, supra note 14, at 303.
184. Id. at 308.
185. §37-92-304(6), C.R.S. 1973, as amended by S.B. 4.
186. Id.
187. Id.



188. Findings of Fact, Conclusions of Law, and Decree, supra note 177, at 15-16.
189. In the Matter of the Application for Water Rights of E. E. Sonnenberg & Sons, Inc., water court for Water Division No. 1, Case No. W-7564.
190. Glacier View Meadows, supra note 14, at 296.
191. Kelly Ranch, supra note 14, at 307.
192. In the Matter of the Rules and Regulations Governing the Use, Control, and Protection of Surface and Ground Water Rights Located in the South Platte River and its Tributaries: Amended Rules and Regulations of the State Engineer, March 15, 1974.
193. See Findings of Fact, Conclusions of Law, Judgment, and Decree Approving Plan for Augmentation in Sonnenberg & Sons, Inc., supra note 189.
194. Supra note 1.
195. Supra note 90.
196. Supra note 90, at 150.
197. Id.
198. See, e.g., Vogel v. Minn. Canal and Reservoir Co., supra note 53; Glacier View Meadows, supra note 14; Sonnenberg, supra note 189, at 7; see also the state engineer's Rules and Regulations, supra note 192, which speak of curtailing ground water diversions "to provide for a reasonable lessening of material injury to senior appropriators."

APPENDIX A :

SAMPLE APPLICATIONS  
FOR APPROVAL OF PLANS FOR AUGMENTATION

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COPY SENT  
JAN 26 1976  
To Water Res Div.

IN THE DISTRICT COURT IN AND FOR  
WATER DIVISION NO. 1

LOIS BOHLENDER  
CLERK

STATE OF COLORADO  
CASE NO. 8083

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IN THE MATTER OF THE APPLICATION  
FOR WATER RIGHTS OF THE CITY OF  
ARVADA, COLORADO, a municipal  
corporation  
IN JEFFERSON COUNTY

)  
) APPLICATION FOR  
) APPROVAL OF  
) PLAN FOR SUBSTITUTION  
) AND EXCHANGE

1. Name and address of applicant: The City of Arvada, a municipal corporation of the State of Colorado  
8101 Ralston Road  
Arvada, Colorado 80002
2. Water rights of the applicant: the applicant owns or has pursuant to contract, inter alia, the following water rights, all in Jefferson County:

A. Storage Rights

Blunn Lake Reservoir, which is proposed for future construction and which is the subject of the pending proceeding in this Court, filed in the month of September, 1973, Case No. W-7484. The reservoir will be located in Section 3 and the NW $\frac{1}{4}$  of Section 2, T3S, R70W and in the SE $\frac{1}{4}$  of Section 34, T2S, R70W of the 6th P.M. and will store 7,300 acre feet of date October 23, 1959 from Ralston Creek, Clear Creek and western slope transmountain water for municipal, irrigation, recreation and other beneficial uses.

B. Direct Flow Rights

(i) Consolidated Juchem Ditch Company

- 322.065 inches of stock water
  - 79.287 inches of inch water
  - 77.000 inches of contract or schedule water
  - 187.680 inches pursuant to the Bomberger Agreement
- in the Consolidated Juchem Ditch, headgate located in the NE $\frac{1}{4}$  SW $\frac{1}{4}$  SW $\frac{1}{4}$  Sec. 19, T3S,

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R69W of the 6th P.M. at a point on the north bank of Clear Creek about 900 feet upstream of Eldridge St., Jefferson County. The water rights of the Ditch Company include, but are not limited to, the following direct flow water rights out of Clear Creek:

<u>Clear Creek Priority No.</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
44	May 16, 1865	October 4, 1884	4.76
54	May 24, 1870	October 4, 1884	5.98
63	March 2, 1878	October 4, 1884	18.19

(ii) Farmers Highline Canal & Reservoir Company

230.9376 inches of stock water  
 13.7500 inches of contract water  
 207.5834 inches of schedule water  
 5.0000 inches pursuant to the  
 Oberon Agreement

in Farmers Highline Canal, headgate located in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  SW $\frac{1}{4}$  Section 27, T3S, R70W, of the 6th P.M. at a point on the north bank of Clear Creek about 200 feet east of the Adolph Coors Company point of diversion, Jefferson County. The water rights of the Ditch Company include, but are not limited to, the following direct flow water rights out of Clear Creek:

<u>Clear Creek Priority No.</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
1	February 25, 1860	October 4, 1884	0.276
3	May 16, 1860	October 4, 1884	1.000
5	May 31, 1860	October 4, 1884	3.281
9	July 1, 1860	October 4, 1884	39.800
30	May 28, 1863	October 4, 1884	1.610
32	June 20, 1863	October 4, 1884	2.750

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<u>Clear Creek Priority No.</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
42	April 23, 1865	October 4, 1884	2.890
48	November 2, 1865	October 4, 1884	0.808
54	May 24, 1870	October 4, 1884	0.330
57	April 1, 1872	October 4, 1884	154.000
68	April 1, 1886	October 9, 1895	191.000
69	April 23, 1895	October 9, 1895	335.860

(iii) Golden Ralston Creek and Church Ditch Company

20 inches in the Church Ditch, headgate located in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  NE $\frac{1}{4}$  Section 32, T3S, R70W of the 6th P.M., at a point on the north bank of Clear Creek about one mile west of Golden, Jefferson County. The water rights of the Ditch Company include, but are not limited to, the following direct flow water rights out of Clear Creek:

<u>Clear Creek Priority No.</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
21	June 1, 1862	October 4, 1884	0.90
40	February 28, 1865	October 4, 1884	41.43
44	May 16, 1865	October 4, 1884	1.25
62	November 18, 1877	October 4, 1884	18.26
65	November 15, 1878	October 4, 1884	18.85
66	November 20, 1881	October 4, 1884	32.34
74	March 16, 1886	May 13, 1936	100.12
74a cond.	March 16, 1886	May 13, 1936	88.27

(iv) Slough Association of Ditches

656.9787 inches in eleven of the Slough Association Ditches, 17.11 cfs. distributed as follows:

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<u>Ditch</u>	<u>Inches</u>	<u>cfs.</u>
Wadsworth	78.8882	2.054
Swadley	317.8629	8.278
Graves North	10.5000	0.273
Wadsworth & Graves	58.9636	1.536
Graves South	57.6000	1.500
Bluff	33.5000	0.872
Rhodes Middle	11.5200	0.300
Cort & Graves	12.3000	0.320
Wolff	27.0000	0.703
Sayre & Lee	5.7000	0.148
Brown & Baugh	43.1440	1.124

All of these ditches take water from Clear Creek through the Common Slough Association Ditch which has its headgate located in the NE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 19, T3S, R69W, 6th P.M., at a point on the north bank of Clear Creek one quarter mile west of the Youngfield Street bridge, Jefferson County. The water rights of these eleven ditches include, but may not be limited to, the following direct flow water rights from Clear Creek:

<u>Clear Creek Priority</u>	<u>Ditch</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
1	Wadsworth	February 25, 1860	October 4, 1884	3.034
13	Swadley	May 14, 1861	October 4, 1884	4.683
17	Graves North	June 30, 1861	October 4, 1884	1.750
21	Swadley	June 1, 1862	October 4, 1884	4.650
22	Sayer & Lee	June 14, 1862	October 4, 1884	7.000
24	Wolff	July 5, 1862	October 4, 1884	3.060
26	Wadsworth & Graves	July 10, 1862	October 4, 1884	1.350
28	Graves South	May 21, 1863	October 4, 1884	3.000

<u>Ralston Creek Priority</u>	<u>Ditch</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
29	Bluff	May 26, 1863	October 4, 1884	2.600
33	Rhodes Middle	August 1, 1863	October 4, 1884	3.000
35	Cort & Graves	May 1, 1864	October 4, 1884	6.000
36	Bluff	May 27, 1864	October 4, 1884	2.400
38	Wolff	June 14, 1864	October 4, 1884	3.780
43	Wolff	May 6, 1865	October 4, 1884	2.060
44	Swadley	May 16, 1865	October 4, 1884	3.202
45	Brown & Baugh	May 26, 1865	October 4, 1884	10.000
46	Graves North	June 13, 1864	October 4, 1884	1.860
48	Wadsworth	November 2, 1865	October 4, 1884	8.882
60	Wadsworth & Graves	May 5, 1874	October 4, 1884	4.920

3. Statement of Plan for Substitution and Exchange

Because of the limited physical supply of water in Ralston Creek, in order to fill the proposed Blunn Lake Reservoir it will be necessary to satisfy certain senior downstream water rights by substituting and exchanging water, pursuant to C.R.S. 1973 § 37-80-120 (2)(3)(4), § 37-92-305 (5), from applicant's direct surface rights for the water which would normally reach those seniors but which will have been diverted to Blunn Lake Reservoir.

Applicant will make and hereby claims the right to the following exchanges:

A. Water from the Consolidated Juchem Ditch will be released to Ralston Creek such that an amount equal to that portion of the water released which would not reach Ralston Creek as a result of the normal historic use will be exchanged to the Swadley and Longan Ditch and/or the Manhart Ditch for an equivalent amount stored in Blunn Lake Reservoir. This exchange will be initiated whenever either or both of these ditches have a call on Ralston Creek. The Manhart and Swadley & Longan have the following priorities:

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<u>Clear Creek Priority</u>	<u>Ditch</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
1	Manhart	August 31, 1860	October 4, 1884	0.80
2	Swadley & Longan	April 10, 1861	October 4, 1884	5.50
7	Manhart 1st	June 20, 1862	October 4, 1884	0.20
11	Manhart 2nd	June 30, 1864	October 4, 1884	11.80

B. Water from either the Church Ditch or the Farmers Highline Canal will be released to Ralston Creek such that an amount equal to that portion of the water released which would not reach Ralston Creek as a result of the normal historic use will be exchanged to the Brainard & Tucker Ditch for an equivalent amount stored in Blunn Lake Reservoir. The Brainard & Tucker Ditch has the following priority:

<u>Ralston Creek Priority</u>	<u>Ditch</u>	<u>Appropriation Date</u>	<u>Adjudication Date</u>	<u>Amount cfs.</u>
5	Brainard & Tucker	May 16, 1862	October 4, 1884	2.93

C. (i) Water from either the Wadsworth Ditch and/or the Swadley Ditch, members of the Slough Association of Ditches, will be released to Ralston Creek such that an amount equal to that portion of the water released which would not reach Ralston Creek as a result of the normal historic use will be exchanged to the Manhart Ditch for an equivalent amount stored in Blunn Lake Reservoir. This exchange will be initiated only when the Manhart Ditch has a call on Ralston Creek and there are no other valid calls senior to Blunn Lake Reservoir between the reservoir and the Manhart ditch.

(ii) At such times as there is a call on the lower reaches of Clear Creek, water from the remaining Slough Association Ditches in which applicant owns water will be released to Clear Creek such that an amount equal to that portion of the water released which would not flow in Clear Creek as a result of the normal historic use will be exchanged to the Colorado Agricultural Ditch or the lower Clear Creek appropriators for an equivalent amount of Clear



Creek water stored in Blunn Lake Reservoir. This exchange will only be initiated at times when there are no other valid demands for water by users on Ralston Creek senior to the Clear Creek call or there is more than sufficient water in Ralston Creek, including water from other exchanges, to meet the needs of the Ralston Creek rights senior to the Clear Creek call.

D. At such times as there is a valid call on the South Platte River, senior to Blunn Lake Reservoir, water from any of applicant's water rights will be released to Ralston Creek or Clear Creek such that an amount equal to that portion of the water released which would not reach the calling rights as a result of the normal historic use will be exchanged to the calling rights for an equivalent amount stored in Blunn Lake Reservoir. This exchange will only be initiated at times when there are no other valid demands for water by users on Ralston Creek senior to the Platte River call or there is more than sufficient water in Ralston Creek, including water from other exchanges, to meet the needs of the Ralston Creek rights senior to the Platte River call.

4. At such times as any particular exchange is in operation, releases will also be made from the exchanged water right to each drainage to which return flows from the exchanged right have historically gone and in which there is a valid call, in amounts equal to but not to exceed the total of those historic return flows in any given year.

5. These exchanges will be performed and administered pursuant to the priority system and in such a way as to cause no injurious effect to any owner of or person entitled to use water under a senior vested water right.

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WHEREFORE, applicant seeks a determination of its right to conduct such exchanges prior to all other water users and a determination that no injurious effect to users or owners of water rights occurs as a result thereof.

MOSES, WITTEMYER and HARRISON, P.C.

By David L. Harrison  
David L. Harrison  
Special Counsels for Applicant  
P. O. Box 1440  
Boulder, Colorado 80302  
Telephone: 443-8782

DIV. I  
STATE OF COLO.

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IN THE DISTRICT COURT

LOIS BOWLER  
CLERK

IN AND FOR WATER DIVISION NO. 1

STATE OF COLORADO

Case No. W-

7912 75

IN THE MATTER OF THE	)	APPLICATION FOR APPROVAL OF
APPLICATION FOR WATER	)	PLAN FOR AUGMENTATION, INCLUDING
RIGHTS OF FRI-COLORADO	)	EXCHANGE, FOR THE ADJUDICATION
CORPORATION and MORRIS	)	OF AN APPROPRIATIVE RIGHT OF SUB-
BURK IN THE SOUTH PLATTE	)	STITUTION AND EXCHANGE UNDER THE
RIVER OR ITS TRIBUTARIES,	)	PROVISIONS OF 37-36-120(2)-(4)
TRIBUTARIES INVOLVED,	)	C.R.S. 1973, AND FOR CHANGES IN
MIDDLE FORK AND TROUT CREEK )	)	WATER RIGHT

1. Name and mailing address of Applicants: FRI-Colorado Corporation, a Colorado corporation, and Morris Burk, c/o Saunders, Snyder, Ross and Dickson, P.C., 802 Capitol Life Center, 225 E. Sixteenth Avenue, Denver, Colorado 80203, Telephone No. 961-8200.

2. Name of ditch or other structure to be augmented: The Red Hill Well or Wells to be constructed by the Applicants in the alluvium of the Middle Fork of the South Platte River at a location yet to be selected along the thread of that stream as it meanders through Sections 13, 24, 25, 30 and 31 of Township 10 South, Range 77 West of the 6th P.M. or into the alluvium of Trout Creek at a location yet to be selected along the thread of that stream as it meanders through Sections 6, 7, 18, 19, 20 and 29 of Township 10 South, Range 76 West of the 6th P.M. The Red Hill Well or Wells, when constructed, will be designed to divert from the alluvium tributary to those streams a rate of flow not exceeding .6 c.f.s, and the water to be diverted therethrough will be delivered into a central municipal water supply system and used to provide municipal and domestic water service.

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3. Statement of plan for augmentation, covering all applicable matters.

Applicants propose to increase the flow of the South Platte River by 53 acre feet per year to replace depletions resulting from the use of water withdrawn from the alluvium adjacent to the Middle Fork of the South Platte River or Trout Creek in the provision of a municipal and domestic water supply for not more than 600 residential equivalent units to be located upon 2,135 acres of land in Park County, Colorado located within:

Township 10 South, Range 77 West:

Section 1:

NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>.

Section 12:

NE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>.

Section 13:

E<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>.

Section 24:

NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>.

Township 10 South, Range 76 West:

Section 7:

W<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>.

Section 18:

W<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>E<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>.

Section 19:

W<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>.

Section 29:

W<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>W<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>.

Section 30:

W<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, E<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>.

Section 31:

N<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>.

Section 32:

S<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>.

Township 11 South, Range 76 West:

Section 3:

W<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>

916 00

With full development, a maximum of 189.8 acre feet of water per year would be withdrawn from the alluvium of the Middle Fork of the South Platte River or Trout Creek at an average rate of flow of .26 c.f.s. The consumptive use anticipated to result from the use of the water thus diverted is expected to amount to an average of .15 acre feet per day for a total of 53 acre feet per year.

Applicants propose to increase the flow of the South Platte River to replace, by substitution, the depletions resulting from the use of water produced through the Red Hill water supply facilities by reducing diversions for the irrigation of not less than 53 acres of land under the Bonnell Ditch which are owned by the Applicant FRI-Colorado, by at least 3.6 c.f.s. and permanently removing that land from irrigation with water diverted from the South Platte River, its tributaries or underflow; the total acreage the Court requires to be removed from irrigation will be identified with permanent monuments and will be located near the center of the southwest quarter of Section 23, Township 10 South, Range 77 West of the 6th P.M.

The Applicants propose to reduce diversions by at least 3.6 c.f.s. under the most senior water right decreed to the FRI-Colorado's Bonnell Ditch out of the Middle Fork of the South Platte River for 27 c.f.s. with date of appropriation of May 8, 1882 as evidenced by decree of the District Court of Park County entered on October 18, 1889.

In order to replace depletions as they occur, it will be necessary for Applicants to store on the priority of the Bonnell Ditch water right at a rate of flow of at least 3.6 c.f.s. the first 42 acre feet available on that priority each year in either or both of the following described alternate places

7912 75

of storage:

(a) Ponnell-Red Hill Reservoir - to be located in the SE/4SW/4 of Section 23, T10S, R77W of the 6th P.M. to be filled with water diverted from the middle fork of the South Platte River at the headgate of the Bonnell Ditch whence the West quarter corner of Section 13, T10S, R77W bears South 74°47' W, a distance of 3,044.1 feet, more or less;

(b) Red Hill Crooked Creek Reservoir, to be located on the thread of Crooked Creek, a tributary of the middle fork of the South Platte River at a point 1,000 feet, more or less, due east from the West quarter corner of Section 1, T10S, R77W of the 6th P.M.

Water stored in those facilities pursuant to this plan shall be released to Crooked Creek or the Middle Fork of the South Platte River as required by the Division Engineer of Irrigation Division No. 1 when needed to replace depletions occurring as a result of the use of water diverted through the Red Hill water supply facilities at times when, by operation of law, diversions under the portion of the Senior Bonnell Ditch right would not be permitted and the flow of the South Platte River would not have been reduced by reason of the consumptive use of irrigation water on the land to be removed from irrigation. To the extent that it is necessary to modify the portion of the Senior Bonnell Ditch right which is required for this program to permit storage thereunder in the above-described alternate places of storage, this Application seeks such modifications.

By removing the land from irrigation, by storing a portion of the water historically consumptively used in the irrigation of that land, by reducing diversions, once 42 acre feet of water shall have been stored, under the portion of the

7912 75

Senior Bonnell Ditch right devoted to this program and by making releases from storage as required by the Division Engineer of Water Division No. 1, Applicants' program will replace the depletions associated with the use of water diverted through the Red Hill water supply facilities, thereby permitting such diversions without adversely affecting any other water right in the South Platte River system.

WHEREFORE Applicants request this Court to:

1. Approve the plan for augmentation including exchange;
2. Confirm and adjudicate as an appropriative right Applicants' right of substitution for their program;
3. Approve the change in the portion of the senior water right decreed to the Bonnell Ditch required for this program so as to permit storage of up to 42 acre feet of water per year in the alternate places of storage requested herein; and
4. Grant such other and further relief as to the Court may seem proper.

SAUNDERS, SNYDER, ROSS & DICKSON, P.C.

By *Jack F. Ross*  
 Jack F. Ross  
 Attorneys for Applicants  
 802 Capitol Life Center  
 225 E. 16th Avenue  
 Denver, Colorado 80203  
 Telephone: 861-8200

STATE OF COLORADO            )  
   ) ss.  
 CITY & COUNTY OF DENVER    )

Gary Weiss being first duly sworn upon oath, deposes and says that he is a duly authorized agent of the Applicants herein, that he has read the foregoing Application, knows the contents thereof and that the same are true to the best of his knowledge and belief.

*Gary Weiss*  
 Gary Weiss

Subscribed and sworn to before me this 18<sup>th</sup> day of March, 1975.  
 My commission expires: Sept. 18, 1975.

*Louise Changlin*  
 Notary Public

FILED IN WATER COURT  
DIV. I  
IN THE DISTRICT COURT IN AND STATE OF COLO.

WATER DIVISION NO. 1

'73 DEC 31 AM 11:16

STATE OF COLORADO

Case No. W-

7562

LOIS BOWLENDER  
CLERK

IN THE MATTER OF THE APPLICATION	)	APPLICATION FOR APPROVAL
FOR WATER RIGHTS OF FRI-COLORADO	)	FOR PLAN OF AUGMENTATION,
CORPORATION IN THE SOUTH PLATTE	)	INCLUDING EXCHANGE, AND
RIVER OR ITS TRIBUTARIES, TRIBU-	)	FOR DETERMINATION OF
TARIES INVOLVED, MIDDLE FORK,	)	CONDITIONAL WATER STORAGE
SOUTH FORK, THREE MILE CREEK AND	)	RIGHTS REQUIRED FOR OPERATION
AGATE CREEK IN PARK COUNTY	)	OF AUGMENTATION PLAN

1. Name and Mailing Address of Applicant: FRI-Colorado Corporation, c/o J. Thomas Phoenix, 1090 Colorado State Bank Building, Denver, Colorado 80202. Telephone No. 534-9090.

2. Name of Ditch or other structure to be augmented: Walker Ranch domestic water supply wells to supply 3000 single family residential equivalent units to be located on the "Walker Ranch" comprising approximately 15,670 acres of land located in Park County which is more specifically described in Exhibit A which attached hereto and incorporated herein by reference as though set forth at length herein. The Walker Ranch domestic water supply wells will either be wells drilled pursuant to permits wssued under '63 C.R.S. 148-21-45 or wells, drilled under permits issued under other provisions of the law, which would be required to serve multiple unit structures or multiple units in separate structures; all of the Walker Ranch domestic water supply wells are expected to use as their source of supply, ground water occurring in the alluvium tributary to the South fork of the South Platte River, Three Mile Creek, Agate Creek and other tributaries of the south fork of the South Platte River which may traverse the lands of the Walker Ranch; the water occurring in those alluvial aquifers is hydraulically connected with and supports the flow of water in the described streams. None of the structures to be augmented will be used for irrigation purposes, but will



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be limited solely to the production of water for domestic, in-house use.

3. Statement of Plan for Augmentation, covering all applicable matters under C.R.S. 1963, 148-21-7(12), 18(1) and 23, as amended:

The purpose of the Walker Ranch augmentation plan is to provide a program to offset depletions to the South Platte River and its tributaries expected to result from the use of water for the 3,000 single family residential equivalent units proposed for the Walker Ranch so as to avoid material injury to other water rights in the South Platte River watershed and to assure the granting of permits for wells under '63 C.R.S. 148-21-45 and other provisions of the law and to prevent curtailment of diversions through facilities required to serve the 3000 single family residential equivalent units.

The amount of depletions resulting from the provision of water service to the 3,000 single family residential equivalent units to be replaced by exchange so as to avoid material injury to other water rights in the South Platte River watershed has been computed from the following assumptions:

A. Of the 3,000 single family residential equivalent units, 1,500 are expected to be occupied in the summer only, 1,200 are expected to be occupied on a weekend basis only and 150 on a year-round basis.

B. Because of the nature of the sewage treatment facilities contemplated for the Walker Ranch development, 10% of the water diverted for use by the 3,000 units is consumptively used.

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C. For the 150 year-round residential equivalent units, a demand of 80 gallons per capita per day for an average equivalent of 2 1/2 persons per unit was assumed.

D. For the 1,500 summer residential equivalent units, expected to be occupied on an average of 60 days per year by an equivalent of 4 persons per unit, a demand of 100 gallons per capita per day was assumed.

E. For the 1,200 weekend residential equivalent units, expected to be occupied on an average of 50 days per year by an equivalent of 4 persons per unit, a demand of 60 gallons per capita per day was assumed.

The total number of acre feet of water expected to be required for diversion for use by the 3,000 single family residential equivalent units per year is estimated at 200.1 acre feet per year with a corresponding, 10% consumptive use thereof equal to 20.01 acre feet per year.

The applicant proposes to increase the flow of the South Platte River by the amount of 20.01 acre feet per year to replace, by exchange, the anticipated consumptive use associated with the provision of the water supply for the 3,000 single family residential equivalent units. To provide that increase in flow, the applicant proposes to permanently remove from irrigation a portion of the lands historically irrigated from the exercise of the water rights decreed to the Bonnell ditch. Those water rights are described as follows:

Name	Source	Decreed Amount (cfs)	Date of Adjudication	Appro.
Bonnell	Middle fork of South Platte River	27.00	10-18-89	5-8-82
Bonnell First Enlargement	Middle fork of South Platte River	6.75	10-18-89	6-10-82
Bonnell Second Enlargement	Seepage	10.00	5-18-18	6-20-82

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The historic use of water diverted through the exercise of the water rights decreed to the Bonnell ditch has been for the irrigation of approximately 650 acres of land located in parts of Section 13, 23 and 24, Township 10 South, Range 77 West of the 6th P.M. in Park County, Colorado; the duty of water resulting from that historic use is represented by the ratio of one c.f.s. to each 14.8 acres of land irrigated with an average consumptive use resulting from evapotranspiration and other losses of 14.65 acre feet per c.f.s. per year for approximately .99 acre feet per acre of irrigated land per year.

Accordingly, applicant proposes to permanently relinquish the right to divert a total of 1.378 c.f.s. of the water rights decreed to the Bonnell ditch as follows:

Name	Amount (c.f.s.)
Bonnell	.850
Bonnell First Enlargement	.213
Bonnell Second Enlargement	<u>.315</u>
Total	1.378

Applicant also proposes to permanently remove from irrigation by use of water withdrawn from the South Platte River, its tributaries or underflow 20.2 acres of land located in the N 1/2 of the SW 1/4 of Section 23, Township 10 South, Range 77 West of the 6th P.M. in Park County, Colorado, thereby increasing the available flow in the Middle fork of the South Platte River by 20.01 acre feet per year. The amount of the increased flow thus made available will replace, by exchange, the depletion to the South Platte River watershed resulting from the withdrawal of water on the Walker Ranch for domestic water service for 3,000 single family residential equivalent units.

of the depletion from the domestic use of water for the 3,000 single family residential equivalent units is expected to occur during times when water has not historically been diverted through the exercise of the water rights decreed to the Bonnell ditch. In addition, the increase in the flow of the middle fork of the South Platte River resulting from the implementation of this plan may not be fully exchangeable of the south fork of the South Platte River in areas which might be affected by the depletions resulting from the domestic use of water on the Walker Ranch. To make water available to increase the flow in the South fork of the South Platte River during those times, the applicant proposes to construct and store water in two reservoirs to be located on the Walker Ranch, for which the applicant requests this Court to make a determination of conditional water storage rights for those reservoirs. Water stored therein will be used for recreational and fish culture purposes in addition, and as an incident to the primary purpose of releasing water into Three Mile Creek or Agate Creek, as the case may be, to increase the flow in the south fork of the South Platte River to replace depletions caused by the domestic use of water on the Walker Ranch.

4. Conditional Water Storage Right Sought on Agate Creek:

- A. Name of Reservoir: Walker Ranch-Agate Creek Reservoir
- B. Location: In the SW 1/4 of Sec. 6, Township 14 South, Range 75 West of the 6th P.M. in Park County; the West end of the proposed dam bears approximately N16°45'E 1400 feet from the SW corner of said Section 6.
- C. The Source of Water: Agate Creek, a tributary of the south fork of the South Platte River.
- D. Date of Initiation of Appropriation: November 7, 1973.

- E. Amount of Water Claimed in Acre Feet: 650 acre feet.
- F. Use or proposed use of water: For release to Agate Creek and the south fork of the South Platte River to increase the flows thereof to replace depletions resulting from the domestic use of water on the Walker Ranch as a part of the augmentation program for which approval is herein sought, and as an incident thereto, for recreational and fish culture purposes.
- G. Maximum height of dam in feet: 40 feet.
- H. Length of dam or proposed dam in feet: 600 feet.
- I. Total capacity of reservoir in acre feet: 650 acre feet.
- J. Capacity of reservoir in acre feet from bottom of outlet to lowest point on the spillway: 650 acre feet.

5. Conditional Water Storage Rights Sought on Three Mile Creek:

- A. Name of Reservoir: Walker Ranch-Three Mile Creek Reservoir.
- B. Location: In the W 1/2 of Section 26, Township 13 South, Range 74 West of the 6th P.M. in Park County, Colorado; the West end of the proposed dam bears approximately S26°10'E a distance of 1800 feet from the NW corner of said Section 26.
- C. The Source of Water: Three Mile Creek, a tributary of the South fork of the South Platte River.
- D. Date of Initiation of Appropriation: November 7, 1973.
- E. Amount of Water Claimed in Acre Feet: 250 acre feet.

- F. Use or proposed use of water: For release to Three Mile Creek and the south fork of the South Platte River to increase the flows thereof to replace depletions resulting from the domestic use of water on the Walker Ranch as a part of the augmentation program for which approval is herein sought, and as an incident thereto, for recreational and fish culture purposes.
- G. Maximum height of dam in feet: 40 feet.
- H. Length of dam or proposed dam in feet: 500 feet.
- I. Total capacity of reservoir in acre feet: 250 acre feet.
- J. Capacity of reservoir in acre feet from bottom of outlet to lowest point on the spillway: 250 acre feet.

6. The precise location of each well to be augmented by this plan is not presently known, but the recording in these proceedings of the location for each such well at the time application for permit therefor is made, will provide the certainty required to assure the proper implementation of the plan herein described. Such recording can satisfactorily occur by requiring that the applicant for each well to be augmented notify the Water Clerk of Water Division No. 1 of the location of the proposed well by reference to the specific description which he intends to include on his application for a well permit. The applicant, FRI-Colorado Corporation recognizes that the cost to the judicial system of making an adequate record of the implementation of an augmentation plan of this nature may properly be recovered through the assessment of a \$5.00 docket fee for each structure to be augmented as those structures are developed over a period of time; but that recording cost does not occur all at once upon the initial entry of a decree approving such a plan of augmentation, rather it occurs over an extended period of time as the wells to be augmented are constructed

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This applicant therefore requests that it not be required to file a docket fee for each well to be augmented at this time, but rather that the Court, in approving the plan for augmentation, make provision for the subsequent payment of such docket fees as wells are constructed and their locations identified and recorded in the Court records.

SAUNDERS, SNYDER & ROSS, P.C.

BY: *Jack Ross*  
Jack Ross  
Attorneys for Applicant  
802 Capitol Life Center  
Denver, Colorado 80203  
Telephone: 861-8200

STATE OF COLORADO )  
 ) ss.  
CITY AND COUNTY OF DENVER )

J. Thomas Phoenix, being first duly sworn upon oath, deposes and says that he is a duly authorized agent of FRI-Colorado Corporation, that he has read the foregoing application, knows the contents thereof and that the same are true to the best of his knowledge and belief.

*J. Thomas Phoenix*

Subscribed and sworn to before me this <sup>th</sup> 29 day of December, 1973.

My Commission expires: September 16, 1975

*Louise Champin*  
Notary Public

## "WALKER RANCH"

LEGAL DESCRIPTION OF PROPERTY OWNED BY  
FRI-COLORADO CORPORATIONTownship 12 South, Range 78 West of the 6th P.M.

Section 36: 19.54 acres in US Mineral Survey  
Nos. 3461, 3463 and 3465.

Township 13 South, Range 76 West of the 6th P.M.

Section 4: Lot 1, SE 1/4 NE 1/4; NE 1/4 SE 1/4, except  
portions thereof, if any, lying northerly of U.S. Highway  
#24 as now established.

Section 9: SE 1/4; S 1/2 NE 1/4; NW 1/4 NE 1/4.

Section 10: All

Section 13: N 1/2; SW 1/4, W 1/2, SE 1/4; NE 1/4 SE 1/4

Section 14: N 1/2; NE 1/4 SW 1/4; N 1/2 SE 1/4; S 1/2  
SE 1/4.

Section 23: N 1/2 NW 1/4; E 1/2; S 1/2 NW 1/4; N 1/2  
SW 1/4; S 1/2 SW 1/4.

Section 24: NW 1/4 NW 1/4.

Section 25: E 1/2 E 1/2; W 1/2 E 1/2; W 1/2.

Section 26: E 1/2 E 1/2; NW 1/4 NW 1/4.

Section 27: NE 1/4 NE 1/4.

Township 13 South, Range 75 West of the 6th P.M.

Section: : S 1/2 NE 1/4; N 1/2 SE 1/4.

Section 20: E 1/2 NE 1/4; S 1/2.

Section 21: NW 1/4; W 1/2 NE 1/4.

Section 30: NE 1/4; Lots 1, 2, 3 and 4; W 1/2 NW 1/4;  
NE 1/4 SW 1/4; SE 1/4

Township 13 South, Range 74 West of the 6th P.M.

Section 18: Lot 4.

Section 19 : Lot 2.

Section 26: SW 1/4 NW 1/4; NW 1/4 SW 1/4.

Section 27: S 1/2 N 1/2; S 1/2.

Section 28: N 1/2; SW 1/4; NW 1/4 SE 1/4; SW 1/4 SE 1/4;  
E 1/2 SE 1/4.

Section 29: S 1/2 S 1/2.

Section 30: NW 1/4 NE 1/4; SW 1/4 NE 1/4; Lots 3 and 4;  
SE 1/4 SW 1/4, SE 1/4.

Section 31: Lots 1, 2, 3, 4; E 1/2 NW 1/4; E 1/2 SW 1/4;  
N 1/2 NE 1/4; S 1/2 NE 1/4; SE 1/4.

Section 32: NW 1/4; N 1/2 SE 1/4; W 1/2 SW 1/4; NE 1/4  
SW 1/4; NE 1/4.

Section 33: N 1/2; N 1/2 S 1/2; SE 1/4 SW 1/4; SW 1/4  
SE 1/4; SE 1/4 SE 1/4.

Section 34: NW 1/4; S 1/2.

Township 14 South, Range 75 West of the 6th P.M.

Section 3: Lots 3 and 4; S 1/2 NW 1/4; SW 1/4.

Section 5: Lot 4; SW 1/4 NW 1/4; W 1/2 SW 1/4.

Section 6: Lots 1, 2, 3; SE 1/4 NW 1/4; S 1/2 NE 1/4;  
Lots 6 and 7; E 1/2 SW 1/4; SE 1/4.

Section 7: Lots 1, 2, 3, 4; E 1/2 W 1/2.

Section 8: SW 1/4 SW 1/4; SE 1/4 SW 1/4.

Section 9: E 1/2.

Section 17: W 1/2 NW 1/4; SE 1/4 NW 1/4; NE 1/2 NW 1/4;



EXHIBIT A

1362

NE 1/4; N 1/2 SE 1/4; SW 1/4; S 1/2 SE 1/4.

Section 18: N 1/2 NE 1/4; SE 1/4 NE 1/4; E 1/2 SE 1/4;

Section 20: E 1/2 W 1/2; W 1/2 E 1/2; SE 1/4 NE 1/4; E 1/2 SE 1/4; NE 1/4 NE 1/4.

Section 21: SW 1/4 SE 1/4; SW 1/4 NW 1/4; SE 1/4; NE 1/4; E 1/2 NW 1/4; NW 1/4 NW 1/4; N 1/2 SE 1/4; SE 1/4 SE 1/4.

Section 27: W 1/2 NW 1/4.

Section 28: W 1/2; SE 1/4; S 1/2 NE 1/4; NW 1/4 NE 1/4; NE 1/4 NE 1/4.

Section 19, Lots 1,2,3,4; E 1/2 NW 1/4; E 1/2 SW 1/4; E 1/2.

Township 14 South, Range 74 West of the 6th P.M.

Section 2: Lots 2, 3, 4; SE 1/4 NW 1/4; SW 1/4 NE 1/4.

Section 3: Lots 1, 2, 3, and 4; S 1/2 N 1/2.

Section 4: Lots 1, 2, 3; SE 1/4 NW 1/4; SW 1/4 NE 1/4; SE 1/4 NE.

Section 5: E 1/2 SW 1/4; Lot 4; SW 1/4 NW 1/4; W 1/2 SW 1/4.

Section 6: Lots 1, 2, 3, 4, 5, 6, and 7; S 1/2 NE 1/4;

SE 1/4; E 1/2 SW 1/4; SE 1/4 NW 1/4.

SECTION 7: Lots 1 and 2; E 1/2 NW 1/4; NE 1/4; Lots 3 and 4; E 1/2 SW 1/4; SE 1/4.

Section 8: NW 1/4, SW 1/4.

SECTION 18: E 1/2 E 1/2.

Section 19: S 1/2 N 1/2; SE 1/4; SW 1/4.

7562

The following described property situated in the Town of Balfour Park County, Colorado, being a subdivision made up on the NE 1/4 SW 1/4 and S 1/2 SW 1/4 of Section 7 and NW 1/4 NW 1/4 of Section 18, Township 13 South, Range 74 West of the 6th P.M.

---

Block 1: All  
Block 2: All  
Block 3: All  
Block 4: All  
Block 5: All  
Block 6: All  
Block 7: All  
Block 8: All, except Lot 9.  
Block 9: All, except Lots 10 and 11.  
Block 10: All  
Block 11: All  
Block 12: All, except Lots 5, 6 and 12.  
Block 13: All, except Lots 8 and 9.  
Block 14: All, except Lots 2, 10, and 17.  
Block 15: All  
Block 16: All  
Block 17: All  
Block 18: All, except Lots 1 and 2.  
Block 19: All, except Lots 3, 4, and 5.  
Block 20: All, except Lots 17 and 18.  
Block 21: All, except Lot 11.  
Block 22: All  
Block 23: All, except Lots 1, 2, 13 and 14.  
Block 24: All, except Lot 5.  
Block 25: Lots 1, 2, 3, 6, 7, 8 and 9.  
Block 26: All  
Block 27: All  
Block 28: All, except Lots 10 and 11.  
Block 29: All  
Block 30: Lots 1 to 9, inclusive.  
Block 31: All  
Block 32: All  
Block 33: All  
Block 34: Lots 1 to 9, inclusive.  
Block 35: All, except Lots 15, 16, 17 and 18.  
Block 36: Lots 1 to 5, inclusive  
Block 37: All  
Block 38: All  
Block 39: All  
Block 40: All  
Block 41: All  
Block 42: All  
Block 43: All  
Block 44: All  
Block 45: All  
Block 46: All  
Block 47: All  
Block 48: All  
Block 49: All, except Lots 8, 9, 17 and 18.  
Block 50: All, except Lots 8, 9, 17 and 18.  
Block 51: Lots 10 to 18 inclusive.  
Block 52: All  
Block 53: All  
Block 54: All  
Block 55: All  
Block 56: Lots 10 to 18, inclusive.  
Block 57: All  
Block 58: All

7562

- Block 59: Lots 10 to 18, inclusive.
- Block 60: All
- Block 61: All
- Block 62: Lots 10 to 14 inclusive.
- Block 63: Lots 1 to 5 inclusive, 10, 11, 12, 13, 14.
- Block 64: All, except Lots 6 to 9, inclusive, and 15 to 18, inclusive.

Township 13 South, Range 77 West of the 6th P.M.

Section 6: N 1/2 NE 1/4

74 SEP 30 PM 4:05

COPY SENT  
001161374  
To Water Res. Div.

IN THE DISTRICT COURT IN AND FOR THE COUNTY OF DENVER  
WATER DIVISION NO. I  
STATE OF COLORADO  
CASE NO. W-6268  
LOIS BOWEN CLERK

IN THE MATTER OF THE APPLICATION )  
FOR WATER RIGHTS OF THE DENVER )  
SOUTHEAST SUBURBAN WATER AND ) AMENDED APPLICATION FOR APPROVAL  
SANITATION DISTRICT AND TERRACOR, ) OF PLAN FOR AUGMENTATION AND  
INC., OUT OF CHERRY CREEK AND ITS ) FOR CHANGE OF USE  
TRIBUTARIES IN DOUGLAS COUNTY, )  
COLORADO )

COME NOW The Denver Southeast Suburban Water and Sanitation District, a municipal corporation of the County of Douglas and State of Colorado, and Terracor, Inc., a Utah corporation, registered to do business in the State of Colorado as a foreign corporation, Applicants, and inform and advise the Court as follows:

1. The names and addresses of the Applicants are:

The Denver Southeast Suburban Water and Sanitation District  
P. O. Box 166  
Parker, Colorado 80134

Terracor, Inc.  
529 East South Temple  
Salt Lake City, Utah 84103

2. Name of ditch or other structure to be augmented:

WELLS TRIBUTARY TO CHERRY CREEK OWNED BY APPLICANTS:

- 1) The Martin L. Bechtold Irrigation Well, Priority No. 26 in Civil Action No. 3635 entitled to divert 2.67 cubic feet per second with a priority date of August 17, 1946, for agricultural and domestic, including fire protection purposes, with the point of diversion being on the east bank of Cherry Creek and the north bank of Bayou Gulch in the SE 1/4 SW 1/4 of Section 15, Township 7 South, Range 66 West of the 6th P.M. whence the SW corner of said Section 15 bears South 35°10' West a distance of 2,335 feet.
- 2) The Lester H. Smith and Virgie M. Smith Irrigation Well, Priority No. 53 in Civil Action No. 3635, decreed 2.67 cubic feet per second for agricultural and domestic, including fire protection use, with a priority date of September 25, 1952, with the point of diversion being a point in the SW 1/4 SW 1/4 of Section 3, Township 7 South, Range 66 West of the 6th P.M. whence the Southeast corner of said Section 3 bears South 89°40' East a distance of 2,972 feet.

- 0000 14
- 3) Elbert Leroy Scott Irrigation Well No. 2, Priority No. 57 in Civil Action No. 3635, decreed 2.68 cubic feet per second with a priority date of August 17, 1953, for agricultural and domestic, including fire protection purposes, with the point of diversion being a point in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 10, Township 7 South, Range 66 West of the 6th P.M., whence the Northeast corner of said Section 10 bears North 65°36' East a distance of 3,123 feet.
  - 4) The Vestal Well, Priority No. 82 in Civil Action No. 3635, decreed 3.12 cubic feet per second with a priority date of January 18, 1956, for agricultural and domestic, including fire protection uses, with the point of diversion being a point in the SW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 10, Township 7 South, Range 66 West of the 6th P.M., whence the Northeast corner of said Section 10 bears North 48°24' East a distance of 3,411 feet.
  - 5) The Vestal's Wellshire Hills, Inc., Irrigation Well, Priority No. 88 in Civil Action No. 3635, decreed 2.45 cubic feet per second with a priority date of April 14, 1956, for agricultural and domestic, including fire protection uses, with the point of diversion being a point on the East bank of Cherry Creek and the South bank of Bayou Gulch in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 22, Township 7 South, Range 66 West of the 6th P.M. whence the Northwest corner of said Section 22 bears North 76°53' West a distance of 2,382 feet.
  - 6) The Cherry Creek Ranches Irrigation Well, Priority No. 97 in Civil Action No. 3635, decreed 3.34 cubic feet per second with a priority date of June 15, 1957 for agricultural and domestic, including fire protection uses, with the point of diversion being a point in the SW $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 15, Township 7 South, Range 66 West of the 6th P.M.
  - 7) The Millard Well as shown on the Well Filing recorded at File No. 98674, recorded May 31, 1956 in the office of the Clerk and Recorder for Douglas County, Colorado, said well currently being in the process of adjudication by the owner, Terracor, Inc., wherein the claimant seeks a decree for 1.23 cubic feet per second with a priority date of May 31, 1956, for irrigation, agricultural and domestic, including fire protection purposes with the point of diversion and location of said well being a point in the northeast Quarter of the southwest Quarter of Sec. 10, T7S, R66W of the 6th P.M. which point is 2655 feet south of the north section line and 2855 feet west of the east section line.

3. Water rights to be used for augmentation:

Applicants are the owners of the following described water rights located in Douglas County, Colorado, which they propose to use for augmentation purposes:

A. DIRECT FLOW SURFACE WATER RIGHTS.

- 1) An undivided 5/9 interest in and to the Harrison Ditch, Priority No. 83 from Cherry Creek with a priority date of May 30, 1878, for 4.36 cubic feet of water per second of time for irrigation purposes, with its headgate located in the NW $\frac{1}{4}$  of Section 22, Township 7 South, Range 66 West of the 6th P.M.

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- 2) An undivided 3/2 interest in and to the Haley Ditch, Priority No. 78 from Cherry Creek with a priority date of July 1, 1973, for 4 cubic feet of water per second of time for irrigation purposes, with its headgate located on the east side of Cherry Creek on the Southeast 1/4 of Section 10, Township 7 South, Range 66 West of the 6th P.M.

B. WELLS NOT TRIBUTARY TO CHERRY CREEK.

- 1) Terracor Deep Well No. 1, Dawson Arkose Well, Permit No. 015050-F, which well is located at a point in the SE 1/4 SE 1/4 of Section 11, Township 7 South, Range 66 West of the 6th P.M. which point is 66 feet north of the south section line and 1080 feet west of the east section line, and is presently being adjudicated in Water Division No. 1 with the claimant seeking .67 cubic feet per second with a priority date of April 10, 1970, to be used for commercial, municipal, industrial, irrigation and all other beneficial purposes.
- 2) The Denver Southeast Suburban Water and Sanitation District Well No. A, Dawson Arkose Well, Permit No. 016008-F, which well is located at a point in the NE 1/4 SW 1/4 of Section 10, Township 7 South, Range 66 West of the 6th P.M. which point is located 2690 feet south of the north section line and 2880 feet west of the east section line, and is presently being adjudicated in Water Division No. 1 with the claimant seeking 0.46 cubic feet per second with a priority date of May 10, 1972 to be used for municipal, commercial, industrial, irrigation, and all other beneficial uses.
- 3) The Denver Southeast Suburban Water and Sanitation District Well No. B, Dawson Arkose Well, Permit No. 016009-F, which well is located at a point in the NE 1/4 NW 1/4 of Section 11, Township 7 South, Range 66 West of the 6th P.M. which point is located 20 feet south of the north section line and 1870 feet east of the west section line, and is presently being adjudicated in Water Division No. 1 with the claimant seeking 0.56 cubic feet per second with a priority date of May 15, 1972, to be used for municipal, commercial, industrial, irrigation, and all other beneficial uses.
- 4) The Denver Southeast Suburban Water and Sanitation District Well No. C, Dawson Arkose Well, Permit No. 016010-F, which well is located at a point in the SW 1/4 NW 1/4 of Section 12, Township 7 South, Range 66 West of the 6th P.M. which point is located 1470 feet south of the north section line and 570 feet east of the west section line, and is presently being adjudicated in Water Division I with the claimant seeking 0.56 cubic feet per second with a priority date of May 20, 1972, to be used for municipal, commercial, industrial, irrigation and all other beneficial uses.

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- 5) The Denver Southeast Suburban Water and Sanitation District Well No. D, Dawson Arkose Well, Permit No. 017933-F, which well is located at a point in the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 12, Township 7 South, Range 66 West of the 6th P.M., which point is located 1200 feet north of the south section line and 200 feet west of the east section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, to be used for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.
- 6) The Denver Southeast Suburban Water and Sanitation District Well No. E, Dawson Arkose Well, Permit No. 016866-F (expiration in issue), which well is located at a point in the NE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 7, Township 7 South, Range 65 West of the 6th P.M., which point is located 2600 feet north of the south section line and 50 feet west of the east section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of September 21, 1972, to be used for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.
- 7) The Denver Southeast Suburban Water and Sanitation District Well No. F, Dawson Arkose Well, Permit No. 016865-F (expiration in issue), which well is located at a point in the NE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 18, Township 7 South, Range 65 West of the 6th P.M., which point is located 2000 feet north of the south section line and 2600 feet west of the east section line, and which well is presently being adjudicated in Water Division No. I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of September 21, 1972, for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.
- 8) The Denver Southeast Suburban Water and Sanitation District Well No. G, Dawson Arkose Well, Permit No. 017931-F, which well is located at a point in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 24, Township 7 South, Range 66 West of the 6th P.M., which point is located 1700 feet south of the north section line and 2600 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, to be used for Municipal (including Domestic, Commercial, Industrial, and Irrigation), Recreational and all other beneficial uses.
- 9) The Denver Southeast Suburban Water and Sanitation District Well No. H, Dawson Arkose Well, Permit No. 017932-F, which well is located at a point in the NE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 23, Township 7 South, Range 66 West of the 6th P.M., which point is located 1400 feet north of the south section line and 1800 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, to be used for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.

- 10) The Denver Southeast Suburban Water and Sanitation District Well I, Dawson Arkose Well, Permit No. 017930-F, which well is located at a point in the SE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 15, Township 7 South, Range 66 West of the 6th P.M., which point is located 800 feet north of the south section line and 2600 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational, and all other beneficial uses.
- 11) The Denver Southeast Suburban Water and Sanitation District Well K, Dawson Arkose Well, Permit No. 017928-F, which well is located at a point in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 21, Township 7 South, Range 66 West of the 6th P.M., which point is located 2600 feet south of the north section line and 2400 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational, and all other beneficial uses.
- 12) The Denver Southeast Suburban Water and Sanitation District Well L, Dawson Arkose Well, Permit No. 017934-F, which well is located at a point in the NW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 20, Township 7 South, Range 66 West of the 6th P.M., which point is located 50 feet south of the north section line and 2800 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of June 7, 1973, for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.
- 13) The Denver Southeast Suburban Water and Sanitation District Well No. M, Dawson Arkose Well, Permit No. 017929-F, which well is located at a point in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 17, Township 7 South, Range 66 West of the 6th P.M., which point is located 50 feet south of the north section line and 1400 feet east of the west section line, and which well is presently being adjudicated in Water Division I with the claimant seeking 200 g.p.m. or 0.4444 cubic feet per second with a priority date of September 21, 1972, for Municipal (including Domestic, Commercial, Industrial and Irrigation), Recreational and all other beneficial uses.

4. Applicant, Terracor, Inc., and its predecessors in title have historically used the direct flow surface water rights described in subparagraph 2A hereof and the wells tributary to Cherry Creek described in subparagraph 2B hereof for irrigation on the following described real property located in Douglas County, Colorado, and consisting of 540 acres more or less:



1. Well B(1) was historically used to irrigate 100 acres in the SW $\frac{1}{4}$  of Section 15, Township 7 South, Range 66 West of the 6th P.M.
2. Well B(2) was used to irrigate 6 acres in the SE $\frac{1}{4}$  SW $\frac{1}{4}$  and SW $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 3, Township 7 South, Range 66 West of the 6th P.M.
3. Well B(3) was used to irrigate 80 acres in the N $\frac{1}{2}$  N $\frac{1}{2}$  of Section 10, Township 7 South, Range 66 West of the 6th P.M.
4. Well B(4) was used to irrigate 78 acres in the SE $\frac{1}{4}$  NE $\frac{1}{4}$  and NE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 10, Township 7 South, Range 66 West of the 6th P.M.
5. Well B(5) was used to irrigate 86 acres in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  and NW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 22, Township 7 South, Range 66 West of the 6th P.M.
6. Well B(6) was used to irrigate 40 acres in the S $\frac{1}{2}$  SW $\frac{1}{4}$  of Section 15 and in the N $\frac{1}{2}$  NW $\frac{1}{4}$  of Section 22 all in Township 7 South, Range 66 West of the 6th P.M.
7. Well B(7) was used to irrigate 100 acres in the NW $\frac{1}{4}$  of Section 10, Township 7 South, Range 66 West of the 6th P.M.

5. Statement of plan for augmentation, covering all applicable matters unders C.R.S. 1963, 148-21-7(12), 18(1), and 23, as amended:

Applicants propose to utilize waters available from those wells tributary to Cherry Creek described in paragraph 2 hereof for municipal, industrial, commercial, irrigation, recreational and other beneficial purposes in the water distribution system of the Applicant, The Denver Southeast Suburban Water and Sanitation District, to store said water or any portion thereof in The Pinery Lake, and to augment said wells and their available water supply through:

- (a) The use of said wells as alternate points of diversion for those direct flow surface water rights described in subparagraph 3A hereof. Use through the Denver Southeast Suburban Water and Sanitation District Municipal water distribution system will be less consumptive than historic irrigation useage of the said direct flow surface water rights provided, as applicants propose, the season of use is limited to the historic irrigation season, hence the vested water rights of others will not be injuriously affected, and
- (b) The introduction into the Cherry Creek drainage of the return flows from the waters produced by those wells not tributary to Cherry Creek described in subparagraph 3B hereof which wells and the waters produced therefrom will be utilized by the Applicant, The Denver Southeast Suburban Water and Sanitation District, in its distribution system thus increasing the available water supply. The water added to Cherry Creek and its alluvial aquifer by the introduction of the return flows from Dawson Arkose water produced by the wells described in subparagraph 3B hereof and distributed through the municipal system of

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The Denver Southeast Suburban Water and Sanitation District will exceed the depletion caused by the unrestricted use of the wells described in paragraph 2 hereof under the criteria heretofore established with respect to the rules and regulations of the Colorado State Engineer for wells diverting water tributary to the South Platte River.

Applicants propose out of any or all of the water resources described above to return to Cherry Creek the same or a greater amount of water than has historically been returned and to maximize the efficient use of the above described water rights and Dawson Arkose waters.

The granting of this Amended Application will have no adverse effect upon existing rights to the use of water out of Cherry Creek and its tributaries.

WHEREFORE, Applicants pray that this Court enter a decree herein:

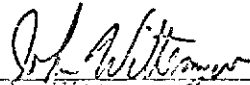
- A) Granting the Applicants the right to use the wells described in paragraph 2 hereof as alternate points of diversion for the direct flow surface rights set forth in subparagraph 3A hereof.
- B) Granting Applicants the right, at such times as the rules and regulations of the Colorado State Engineer relating to wells in the South Platte River drainage basin would otherwise curtail the use of the wells described in paragraph 2, and provided that sufficient water is simultaneously being utilized from the Dawson Arkose wells described in paragraph 3B to result in return flows from such source greater than the depletion occasioned by the use of the wells described in paragraph 2, to use without restriction or regulation all waters from the wells described in paragraph 2 hereof for municipal, industrial, commercial, irrigation, recreational and other beneficial purposes and to store the same in the Pinery Lake.

Applicants

The Denver Southeast Suburban  
Water and Sanitation District  
P. O. Box 166  
Parker, Colorado 80134

Terracor, Inc.  
529 East South Temple  
Salt Lake City, Utah 84103

MOSES, WITTEMYER AND HARRISON, P.C.

By   
John Wittemyer  
Attorneys for Applicants  
P. O. Box 1440  
Boulder, Colorado 80302  
Telephone: 443-8782

COPY SENT  
NOV 11976  
To Water Res. Div.

IN WATER COURT  
STATE OF COLO.

'76 SEP 30 PM 2:06

IN THE DISTRICT COURT

LOIS BOHLENDER  
CLERK

IN AND FOR WATER DIVISION NO. 1

STATE OF COLORADO

Case No. W-8326-76

IN THE MATTER OF THE )	APPLICATION FOR APPROVAL OF PLAN
APPLICATION FOR WATER RIGHTS )	FOR AUGMENTATION, INCLUDING EX-
OF BRANNAN SAND AND GRAVEL CO.)	CHANGE, CHANGES OF WATER RIGHTS,
IN THE SOUTH PLATTE RIVER OR )	AND FOR THE ADJUDICATION OF APPROPRIA
ITS TRIBUTARIES, TRIBUTARY )	TIVE RIGHTS OF SUBSTITUTION AND
INVOLVED, CLEAR CREEK IN ADAMS)	EXCHANGE UNDER THE PROVISIONS OF 1973
COUNTY. )	CRS-37-80-120

1. Name and mailing address of Applicant:

Brannan Sand and Gravel Company, a Colorado Corporation,  
4800 Brighton Boulevard  
Denver, Colorado 80216  
Telephone No. 534-1231

2. Name of Ditch or other structure to be augmented:

Mineral Conservation Area 20, (hereinafter called  
"MCA 20 property"; a proposed sand and  
gravel mine to be located on approximately 39 acres of  
land in the vicinity of East 73rd Avenue and  
North Washington Street in Adams County, Colorado which  
is composed of two parcels more particularly des-  
cribed as follows:

That part of the Southwest one-quarter of Section 35, Town-  
ship 2 South, Range 68 West of the 6th Principal Meridian,  
Adams County, Colorado, described as:

Beginning at the Southwest corner of Section 35; thence N00°  
00'00"E on an assumed bearing along the West line of said Section  
35 a distance of 1003.71 feet to the Westerly extension of the  
Southerly line of Lot 8, North Side Gardens:

thence N89°39'46"E along said Westerly extension and said  
Southerly line a distance of 50.00 feet to the true point of  
beginning;

thence N00°00'00"E parallel with the West line of Section 35  
a distance of 644.15 feet to a point on the North line of the  
South one-half of Lot 1 Skcel Ranch;

thence N89°42'35"E along the North line of the South one-half of Lots 1 and 2 of Skeel Ranch a distance of 1269.85 feet to the Northeast corner of the South one-half of said Lot 2;

thence N00°01'09"E along the West line of Lot 3 of Skeel Ranch, 329.02 feet to the Northwest corner of said Lot 3;

thence N89°44'01"E along the North line of Lots 3 and 4 of Skeel Ranch, 1319.96 feet to the Northeast corner of said Lot 4;

thence S00°02'19"W along the East line of said Lot 4 a distance of 656.96 feet to the Southeast corner of said Lot 4;

thence S89°41'09"W along the North line of North Side Gardens a distance of 1649.68 feet to the Northwest corner of the East one-half of Lot 9, North Side Gardens;

thence S00°00'55"W along the West line of the East one-half of said Lot 9 a distance of 628.32 feet to a point on the South line said Lot 9;

thence S89°38'17"W along said South line of said Lot 9 a distance of 129.88 feet;

thence N00°00'35"E a distance of 160.00 feet;

thence S89°38'17"W a distance of 336.00 feet;

thence N00°00'35"E a distance of 154.36 feet to a point on the South line of Lot 8 of North Side Gardens;

thence S89°39'46"W along the South line of said Lot 8 a distance of 473.82 feet to the true point of beginning.

Contains 38.429 Acres more or less.

ALSO

That part of Lot 9, North Side Gardens, a subdivision of a part of the Southwest one-quarter of Section 35, Township 2 South, Range 68 West of the 6th Principal Meridian, Adams County, Colorado, described as:

Beginning at the Southwest corner said Lot 9;

thence N89°38'17"E on an assumed bearing along the South line said Lot 9 a distance of 200.00 feet;

thence N00°00'35"E parallel with the West line said Lot 9 a distance of 160.00 feet;

thence S89°38'17"W a distance of 200.00 feet to a point on the West line said Lot 9;

thence S00°00'35"W along said West line a distance of 160.00 feet to the point of beginning.

Contains 0.735 Acres more or less.

3. Statement of Plan for Augmentation, covering all applicable matters under CRS 1973, 37-92-103(9), - 302(1) and -307 as amended.

Purpose of Plan

This Application seeks court approval of a plan for augmentation designed to:

1. hold the ground water level in the alluvial aquifer adjacent to MCA 20 high enough, through a recharge program, to permit the continuous use, without impairment, of wells pumping water from that aquifer throughout the period of time during which MCA 20 or portions thereof will be dewatered in the process of mining that area;
2. replace by exchange, to the Clear Creek-South Platte River system, depletions which may occur to that system as a result of the mining of MCA 20 and the operation of the recharge program to maintain adjacent ground water levels;
3. permit the storage in facilities other than the MCA 20 mine of sufficient water to fill the voids on the MCA 20 property which will remain after the mining operation thereon is completed, thus creating lakes thereon which will support the adjacent ground water level after the recharge program is discontinued;
4. permit, to the extent that previously stored water may not be available, the diversion of water from Clear Creek for the initial filling of the MCA 20 lakes; and
5. replace, by exchange, to the Clear Creek-South Platte River system, depletions which may occur to that system as a result of evaporation from the exposed surface of the MCA 20 lakes, and evapotranspiration losses resulting from future irrigation of portions of the MCA 20 property adjacent to those lakes.

Sources of Supply for Plan

The source of supply required in the operation of the recharge program is the alluvial aquifer located in the MCA 20 property.

The source of supply for water to replace the amount of depletions resulting from the recharge program and from evaporation off the exposed surface of the lakes, as well as from the irrigation of land adjacent thereto, will be from Clear Creek, the surface flow of which can be increased by restoring thereto appropriate portions of the depletions historically resulting from the irrigation of the MCA 20 and other lands in the exercise of the priorities of the water rights decreed to the Clear Creek & Platte River Ditch and the Colorado Agricultural Ditch; the portions of those rights which will be available, to the extent needed, include:

<u>Name of Ditch</u>	<u>Appropriation Date</u>	<u>Date Adjudicated</u>	<u>Portion (CFS)</u>
Clear Creek & Platte River Ditch	11/1/1861	10/4/1884	.23
Colorado Agricultural Ditch	11/5/1863 3/5/1867 4/5/1874	10/4/1884	.70 1.03 1.08

The source of supply for water to fill the lakes once the mining operation is discontinued will be from water diverted from Clear Creek for storage in facilities other than the MCA 20 mine under the Applicant's interest in the water rights decreed to the Clear Creek and Platte River Ditch and the Colorado Agricultural Ditch during the period of time when the MCA 20 area is being mined, a period estimated to last for approximately eight years. The water thus stored will be released for delivery directly, or by exchange, to the MCA 20 property to fill the voids left at the conclusion of mining operation.

To the extent that the quantity of such previously stored water may not be sufficient to completely fill the newly created lakes, Applicant will complete their filling with water

subsequently diverted from Clear Creek on the priorities of Applicant's portion of the water rights decreed to the Clear Creek and Platte River Ditch and the Colorado Agricultural Ditch.

Other sources of supply may include waters deliverable directly, or by exchange, to the points of diversion of the Clear Creek and Platte River Ditch, or the Colorado Agricultural Ditch from sources not originally tributary to the South Platte River, which water may or may not have once been used within the natural drainage basin of the South Platte River.

#### Operation of Program

Commencing with the opening of the first phase of mining on the MCA 20 property, and continuing throughout the period of time required to complete the mining operation, Applicant will dewater the particular portion of the property being mined by use of high capacity pumps which will continuously withdraw the water from the alluvial formation being mined and continuously deliver it into a recharge trench located along the perimeter of the MCA 20 property which will be so constructed that the water delivered into it will percolate rapidly into the aquifer, creating at and adjacent to the MCA 20 boundary, a ground water mound which will not only maintain, but slightly raise the ground water level in the alluvial aquifer adjacent to the property so that the physical supply of water to wells pumping from that aquifer will not be reduced as a result of the dewatering operation.

While the recharge program is in operation, any depletion it may cause to the Clear Creek-South Platte River system will be replaced to that system by restoring to the flow of Clear Creek an amount of water equal to that depletion from what has historically been lost to that system because of the historic exercise of a portion of the Applicant's interest in the priorities

of the water rights decreed in the Clear Creek and Platte River Ditch and the Colorado Agricultural Ditch for the irrigation of a portion of the MCA 20 property.

Applicant proposes to store in facilities other than the MCA 20 property water which becomes available on the priorities of those rights to the extent that the historic depletions from their exercise exceeds the quantity required to replace depletions resulting from the operation of the recharge program. The facilities in which such water would be stored will be so located that releases therefrom can be delivered directly or by exchange to the MCA 20 property when needed to fill the lakes created by the mining operation; the amount thus to be stored shall be sufficient to provide a net delivery for the upper MCA 20 lake of approximately 167 acre feet and for the lower MCA 20 lake of approximately 297 acre feet.

Once the MCA 20 lakes shall have been filled, depletions to the Clear Creek-South Platte River system resulting from evaporation off the 21 acres of exposed water surface together with depletion resulting from the irrigation of approximately 10 acres of land adjacent thereto will be replaced, to the extent required, by restoring to the flow of Clear Creek an amount of water equal to those depletions which has historically been lost to that system as a result of the historic irrigation of the MCA 20 and other property. The estimated average annual depletion to be thus replaced is 62 acre feet per year compared with the historic depletion associated with the irrigation of the MCA 20 property and other property of 150 acre feet per year, an excess of 88 acre feet over the amount required.

The quality of the water to be made available to replace depletions to the Clear Creek-South Platte River system resulting from the maintenance of the ground water level in the alluvial



aquifer adjacent to the MCA 20 property will meet the requirements for which water from such sources has normally been used.

Notice of this Application

Upon information and belief, Applicant avers that there may be certain persons or entities who, because of their claimed right to pump water from the alluvial aquifer adjacent to the MCA 20 property may consider themselves affected by the operation of the plan for which approval is herein sought. To assure that those persons or entities have a fair opportunity to receive notice of the pendency of this Application, Applicant requests this Court to provide not only the ordinary publication of the resume containing Application, but also to provide for a separate publication of notice of the pendency of this Application in a newspaper of general circulation published in the City of Thornton, being The Dispatch Sentinel; in addition, the Applicant requests that the Water Judge provide for mailing by the Water Clerk, by certified mail, of notice to the following three persons or entities who have heretofore indicated they may have an interest in the subject matter of proceedings of this nature, to wit:

Joseph Pedotto  
1581 E. 73rd Avenue  
Denver, Colorado 80229

Nicholas Pedotto  
1327 E. 73rd Avenue  
Denver, Colorado 80229

Center Land Company  
1550 E. 73rd Avenue  
Denver, Colorado 80229

By making this request, Applicant agrees to reimburse the Water Clerk for the cost of providing the additional publication and the mailing of notice to the three parties named above.

WHEREFORE, Applicant prays this Honorable Court to:

1. Order the special publication and mailing of notice of the pendency of these proceedings as set forth in the last preceding paragraph;

2. Find that the operation of Applicant's proposed plan for augmentation will not injuriously affect the owner of or persons entitled to use water under vested water rights or decreed conditional water rights;

3. Approve Applicant's proposed plan for augmentation and Order the Colorado State Engineer, the Division Engineer of Water Division No. 1 and other water administrative officials subject to their supervision to administer the plan in accordance with the Court's decree;

4. Approve Applicant's plan for exchange and substitution of water and enter a decree confirming and evidencing the practice as an appropriative right and directing the state water administrative officials to administer the waters of Clear Creek and the South Platte River system in accordance therewith;

5. Approve the changes herein sought in the Applicant's interest in the water rights decreed to the Clear Creek and South Platte Ditch and the Colorado Agricultural Ditch so as to permit their exercise in:

a. The storage of water in facilities from which water may be released directly or by exchange for delivery to the MCA 20 property at rates not exceeding 150 acre feet per year during the period of time while the MCA 20 property is being actively mined for sand and gravel deposits, and

b. Permit diversions on the priorities of those rights at any time during the year for the production of water for storage in the MCA 20 lakes in quantities not to exceed a total amount of water delivered to storage therein of 464 acre feet; and

c. For such other and further relief as may be required to permit the proper implementation of this plan for augmentation and to permit the Applicant to fully enjoy the benefits of this plan and its water rights.

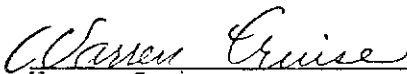
SAUNDERS, SNYDER, ROSS & DICKSON, P.C.

By: 

Jack Koss, Reg. No. 182  
802 Capitol Life Center  
Denver, Colorado 80203  
Telephone: 861-8200

STATE OF COLORADO            )  
  ) ss.  
COUNTY OF ADAMS            )

Warren Cruise being first duly sworn upon oath, deposes and says that he is a newly appointed agent and employee of the Applicant, that he has read the foregoing application, knows the contents thereof and that the same are true to the best of his knowledge and belief.

  
Warren Cruise

Subscribed and sworn to before me this 30<sup>th</sup> day of September, 1976.

My Commission expires Sept. 2, 1979.

  
Notary Public

Name and address of Applicant:  
4800 Brighton Blvd.  
Denver, CO 80216

## XV. VOLUME DECREES V. FLOW DECREES.

### A. Introduction.

It has occasionally been suggested that management of water rights in Colorado would be much easier if the water rights themselves were not decreed simply in terms of instantaneous flows. Although relatively revolutionary in concept, the proposal compels at least a preliminary review of the advantages and disadvantages of flow decrees vs. volume decrees.

In Colorado, the volume of water which may rightfully be diverted under a decreed priority is measured by the decree. Enlarged Southside Irrigation District Co. v. John's Flood Ditch Co., 120 Colo. 423, 428, 210 P.2d 982, 984 (1949). Direct diversion rights are stated in terms of rate of flow (cubic feet per second, or cfs)<sup>1</sup> while storage water and ground water volumes are measured in acre-feet.<sup>2</sup>

The state courts have repeatedly held that a water right is limited to the amount actually needed for the purpose for which the appropriation was made<sup>3</sup> or which can be put to some beneficial use.<sup>4</sup> Thus, the maximum amount of water an appropriator can divert is fairly constant. Otherwise, senior appropriators could seriously impair the rights of junior appropriators by using much more water than that projected for the original use. The courts have protected junior rights by holding that junior appropriators are entitled to a continuation of the conditions existing when they acquired their appropriative right, thus placing a ceiling on the amount of water that any appropriator may divert.<sup>5</sup> Both flow decrees and volume decrees implicitly or explicitly incorporate their ceiling on the yield of a water right.

### B. Methods of Quantification.

Whether a rate of flow or volume decree system is used, it may be necessary at some point to determine the annual yield of a water right in acre-feet since a quantification of yield is required for adjudication of any changes in use or transfers of water rights.<sup>6</sup> The quantity of a given water right may be derived (1) by examining records of amounts historically diverted, or (2) by conducting an operation study to determine (a) the irrigation requirement or that amount of water required for proper irrigation of a given tract of land, and (b) the return flow of a water right.

Some courts have recognized the actual amounts diverted in previous years as indicative of the reasonable amount needed.<sup>7</sup>

State and division engineers' offices and local water commissioners maintain records on the volume of water diverted and the time it was taken.<sup>8</sup> If accurate measuring and recording devices have been used to obtain those records, determination of productivity of a water right may simply be a matter of inspection, compilation, and interpretation of those records.<sup>9</sup> This is the procedure normally followed by the Office of the State Engineer.<sup>10</sup>

Where records are suspect or nonexistent, it is necessary to obtain technical assistance from engineers, geologists, hydrologists, and other experts in the field.<sup>11</sup> In order to discover the characteristics of the "yield" or the productivity of a water right, an operation study may be conducted which determines the amount of water needed for irrigation<sup>12</sup> and compares the available supply with the composite demands of all water appropriators on a given stream.<sup>13</sup>

A determination of the irrigation requirement involves many factors as one court noted:<sup>14</sup>

Land characteristics at the place of use; location; slope, depth of soil; whether it is loose or close; if underlain with gravel or impervious material; its composition and general adaptability for the growing of irrigated crops; all are taken into consideration. Climate is a feature not to be overlooked; as also are the kinds of crops ordinarily grown thereon and the proportion of the area devoted to each type of crop and the rotation thereof. In fact, every element that concerns or affects the consumption of water in the particular case before the court is to be considered.

In calculating the irrigation requirement of the land, it is first necessary to determine the acreage of land to be benefited by the water right; the amount of land to be irrigated is not obvious since most decrees do not specify the amount of land to be irrigated.<sup>15</sup> At present, the state engineer's office, along with the offices of the various division engineers, are involved in an effort to determine the amount of acreage which is irrigated by ground water sources in an effort to ascertain the amount of water that may be pumped out for irrigation. This massive project of plotting out irrigated tracts has not been well received by some landowners who are worried that the county assessor's office will obtain the information and tax the land accordingly.<sup>16</sup>

The next step in calculating the irrigation requirement is determining the consumptive use requirement of the crops likely to be grown; usually, the crop consuming the most water is used in the calculations. The Blaney-Criddle formula and the Jensen-Haise method have been accepted by the courts as accurate methods of

determining consumptive use.<sup>17</sup>

Estimation of probable evaporation from the point of diversion to the place of use and other unavoidable losses such as surface runoff, ditch losses, and low irrigation efficiency also figure into the total irrigation requirement.<sup>18</sup> It should be recognized that the irrigation requirement is just an estimate, not a hard and fast measurement, and is variable according to conditions.<sup>19</sup>

Determination of the return flow is not only the most complex, but one of the most vital aspects of the operation study. Since water uses are so interwoven, it is important to assay the impacts any change in a water right will have on the rights of other users. For example, a water user has historically diverted more than required for irrigation. Most of the excess returns to the stream and is used by another appropriator downstream. Any augmentation or diminution of the upstream water use affects the water available to the downstream user.

It has been suggested that quantification of return flow be determined not only for water rights before change or transfer, but in all water rights proceedings (when perfecting a water right and for uses after change or transfer).<sup>20</sup>

Techniques used to calculate the yield of water rights are dependent on the purpose for which the contemplated change or transfer is sought. If the transfer is between irrigators, it may only be necessary to determine the average annual amount diverted since some agricultural uses may be able to tolerate a greater fluctuation of supply.<sup>21</sup> But, if the right is to be used for municipal purposes, then it becomes necessary to make as accurate a prediction as possible because of the inflexibility of municipal water demands. Such inflexibility of demand requires that the productivity analysis determine the maximum yield available in the minimum supply year to insure an adequate water supply.<sup>22</sup>

### C. Flow Decrees.

Under the present system of basing water right decrees on the rate of flow, it is difficult to determine just how much water an appropriator is entitled to divert. It is of little help to refer solely to the rate of flow. The element of time must also be considered as well as the use to which the water is to be applied.<sup>23</sup>

"A right to the use of water for irrigation is limited in time and volume by the needs of the land, and the law reads this limitation into a decree declaring a right." White v. Nuckolls, 49 Colo. 120, 177, 112 P. 329, 332 (1910).<sup>24</sup>

While the maximum rate of diversion is fixed by decree, flow rates may actually vary downward depending on (1) need of the crops, (2) amount of water available, and (3) the period during which water is diverted. For example, an appropriator who needs 200 acre-feet of water annually to irrigate 100 acres of land may obtain it by diverting 5 cfs for 20 days or 10 cfs for 10 days.<sup>25</sup>

To determine the duration of diversion at a set flow, it is necessary to compare the amount of available water against the cumulative sum of the rates of flow. As the rate of flow varies, a corresponding variation will occur in both the number of appropriators who can divert and the duration and rate of flow of their diversions. So the total annual yield of a particular right depends on the period of time during which the priority of the right permits diversions at the maximum flow. Because of the fluctuation in availability of water, only a rate and very senior water right produces its defined rate of flow at will.<sup>26</sup>

#### 1. Merits and Liabilities of Flow Decrees.

The drawbacks of measuring water rights by rate of flow are fairly obvious. This type of measurement is meaningful only in relation to yield, "insofar as it permits a comparison of the decreed or permitted rate of flow with the available information on the rate of flow in the source at the point of diversion of the water right."<sup>27</sup>

As a limitation on volumetric yield, rate of flow measurements alone are virtually useless. It is still necessary to quantify the yield in acre-feet when proposing a change in use or a transfer of a water right.<sup>28</sup>

In a discussion of quantification of water rights, Carlson traces some of the problems involved in rate of flow decrees:<sup>29</sup>

The courts granting the decrees customarily imposed a "duty of water," that is to say, the maximum amount of water that could pertain to a given number of acres. These early rights were decreed at a time when scientific data as to the amount of water necessary for a particular use was scarce. As a result, many of these rights were granted excessive quantities of water for the uses claimed. To cope with this problem, later courts stressed that the use of any water right is limited to that amount of water necessary to accomplish a particular beneficial purpose.

Because of the haphazard enforcement of this concept of duty of water, it is commonly acknowledged

that many older water rights have expended their use so as to use their entire decreed direct flow right. This practice has resulted, of course, in reduced stream flow for junior appropriators.

It is quite difficult to limit excess diversions by senior appropriators under a flow decree system. There is no mechanism to prevent a senior user from continuing to divert to capacity after his irrigation requirement has been satisfied. The appropriator can be challenged in court but it is difficult to prove that the water was not being put to a beneficial use except in the most blatant instances.<sup>30</sup>

The rate of flow system has been effective as a tool to insure that the water requirements of senior appropriators are met to the fullest extent possible, particularly during water shortages. In a rate of flow system, it is much easier to monitor the amount of water being diverted by checking water-measuring devices located at the headgates. It is not dependent on predictions of annual runoff which are vulnerable to unexpected climatic factors which deplete water supplies.

#### D. Volume Decrees.

Since flow decrees alone give little indication of the annual yield of a water right, it has been suggested that water right decrees quantify water rights in acre-feet. Like those based on rate of flow, volume decrees would not be an absolute indication of the yield of a water right since climatic conditions may substantially affect the irrigation requirement or the amount of water needed to supplement rainwater or ground water sources.

##### 1. Volumetric Decrees: Advantages and Disadvantages.

The potential to skew priorities, which could allow a junior appropriator to obtain all or much of the water he needs while depriving a senior appropriator of some percentage of his water requirement, is probably the most objectionable feature of the volumetric system. The effectiveness of the volumetric system directly depends on the administering agency's ability to accurately predict the amount of water which will be available throughout the growing season. Such predictions will always be subject to some margin of error. Even if a foolproof method could be devised to accurately forecast the amount of water available throughout the growing season (the present method of determining annual runoff has been honed to a science, yet still has a margin of error of



20-25 percent in some circumstances),<sup>31</sup> there would be other problems involved in implementation of a volumetric system.

There is, of course, the often costly task of quantifying water rights. It would probably be necessary in some cases to conduct expensive in-depth studies to determine the effects on other appropriators of limiting diversion to a certain volume. For example, a senior user's irrigation requirement is determined to be 1,000 acre-feet per year although traditionally he has diverted 1,200 acre-feet. Most of the excess returns to the stream and is used by a junior user several miles downstream. Limiting the senior user to 1,000 acre-feet under a volumetric system could very possibly deprive the junior user of the water to which he may be rightfully entitled. Such a change might alter the time of availability of water to the junior as well.

Any attempts to change to volumetric system would have to overcome resistance of senior appropriators who have no wish to see the amount of water they divert reduced. A volumetric system might be challenged as an unconstitutional limitation on the right to divert, under art. XVI, §6.<sup>32</sup> If it were possible to accurately predict the volume of water an appropriator is entitled to divert, there would be no problem. The constitutional problem crops up when the volume of water allotted to an appropriator, because of climatic factors, is not sufficient to properly irrigate the land.

Volumetric decrees probably would maximize water use by cutting down on unauthorized increases in water use by senior appropriators, thus freeing more water for use by junior appropriators. The volumetric system could also be much more efficient in curbing excess diversions, thus minimizing adverse effects on water quality. It would also simplify water accounting procedures greatly, although the initial change to volumetric decrees would entail expensive and complicated technical analyses.

Volumetric decrees might be best put to use where the water right has been conveyed and is now being applied to a different tract of land or is being used by a municipality. Since climatic variables have been eliminated and the water user is limited to the level of consumptive use in an average year, acre-foot decrees would be a simple, yet effective, method of quantifying such transferred water rights.<sup>33</sup>

#### E. Sample Illustration.

To compare how the two systems would operate, imagine the following hypothetical situation.<sup>34</sup> There are five water users with the following priorities and decreed rights:

1	User A	45 cfs	1,000 acre-feet
2	User B	55 cfs	1,500 acre-feet
3	User C	5 cfs	200 acre-feet
4	User D	15 cfs	500 acre-feet
5	User E	<u>30 cfs</u>	<u>800 acre-feet</u>
	TOTAL	150 cfs	4,000 acre-feet

(The figures in the third column are the flow rates granted by decree. The amounts in the fourth column are volumes based on irrigation requirements.)

This situation has been simplified to a great extent. The actual operation of the system of appropriation is an almost incomprehensible maze of priorities in time and of use, time and duration of diversion, point of diversion relative to the location of other appropriators on the stream, fluctuation of supply over time, etc. Assume that the appropriators are located in order, from upstream to downstream, and that all are diverting at the same time.

In years in which there is an abundance of water, all five appropriators will receive the full amounts needed to irrigate their lands; some senior appropriators may even divert to excess. But suppose that in one out of every five years, there is a water shortage. Under a flow-decree system, User E will not be able to divert any water unless the stream flow is above 120 cfs. For example, if there are 135 cfs available in July, User E may only divert 15 cfs, half of the amount to which he is entitled; if there are only 105 cfs in the stream in August, ditches of both Users D and E will be shut off.

Under a volumetric system, an accurate forecast of water availability for each season is required. Suppose that in May it is estimated that there will be 4,500 acre-feet of water available for irrigation--enough to supply all five appropriators. All five are permitted to divert to capacity. Unfortunately, in late July a hot wind blowing across the river basin for several days (or some other unpredictable climatic variable) reduces the amount of water in the stream. By August it becomes evident that there will not be enough water to go around. At this point, it is too late to shut off User E's ditch; he has already diverted almost 800 acre-feet to irrigate his crops. User A who has a higher priority right, has only diverted 750 acre-feet and could suffer the loss of his entire crop.

In times of severe drought, volumetric or rate of flow decrees would make little difference. It would probably be evident that there would not be a sufficient quantity to supply all appropriators, so only the most senior users would receive water.

But imagine the same hypothetical situation set out previously with one element added--a system of storage reservoirs which are

capable of holding the quantities of water needed to fill the needs of all five users. With a definite supply available, it might be more feasible to institute a volumetric system. Volume decrees would also insure that all appropriators received no more than their "share of the pie."

#### F. Past Attempts to Institute Volume Decrees.

In 1969, The state engineer's office proposed legislation which would have permitted the division engineer to limit the use of water, "on a volumetric or quantitative basis as he may determine, to beneficial use . . . with the objective of deriving an optimum use of the waters within each division within Colorado consistent with established rights."<sup>35</sup>

In conjunction with the change to volumetric decrees, other bills would have established a system of storage reservoirs which would have provided water to junior appropriators during periods of scarcity.<sup>36</sup>

Funding for the storage projects would have been determined by priorities of water user. Senior appropriators would pay a minimal amount since they usually receive an adequate supply, while junior appropriators would pay a higher rate since they are the ones most likely to benefit from stored water in times of shortage.

The purpose of the bills was to maximize utilization of water through volumetric decrees, to effectively measure the maximum needs of appropriators, and to create a system of storage reservoirs to supply those needs during periods of both abundance and scarcity.

The legislature turned down the proposed changes. Probably the major factor in rejection was the tremendous costs of both constructing a reservoir and implementing a system of volume decrees. Another factor which contributed to this defeat was the fear on the part of appropriators that their water rights would be infringed upon.

#### G. Other States.

It is not known if there is an appropriation-doctrine state which issues either permits or decrees measuring the productivity of water rights in acre-feet.<sup>37</sup> As in Colorado, appropriative

rights are generally expressed in cfs and storage water rights are measured in acre-feet.<sup>38</sup> Some states do impose statutory limits on the number of acre-feet per acre of land which may be used in irrigation.<sup>39</sup>

The volumetric system has been successfully imposed on a limited basis on the Laramie River in Colorado. The amount of water which may be diverted is limited to a fixed number of acre-feet and is allotted on a volumetric basis to various tracts of land. As a result of this permanent allocation, augmentation proposals of junior appropriators are usually turned down.<sup>40</sup>

#### H. Conclusion.

Both the research described above and informal conversations with experts in the field reveal that neither flow decrees nor volume decrees are totally satisfactory for the administration of appropriative water rights. Although volume decrees would be a more efficient method for the regulation of water use, and would clearly facilitate the transfer of water rights, volume decrees assume the ability to accurately forecast the total water supply available in a basin in any given irrigation season. Moreover, it appears that the costs of conversion of existing rights to volumetric decrees is replete with technical, financial, and legal problems.

XV, VOLUME DECREES V. FLOW DECREES

REFERENCES

1. There are certain exceptions to this general rule. Water used for stockwatering or mining may be measured in units of volume. A few decrees have limited diversions to no more than a certain number of acre-feet per year. See *Farmers' Reservoir and Irr. Co. v. Town of Lafayette*, 93 Colo. 173, 24 P.2d 256 (1933). Diversion of water from the North Platte and its tributaries is limited to the quantity necessary to irrigate 135,000 acres of land. *Nebraska v. Wyoming*, 325 U.S. 589 (1945). In *Wyoming v. Colorado*, 353 U.S. 953 (1957), the court placed a maximum limit on the number of acre-feet that can be diverted from the Laramie River, and specified the amount of water that can be used on certain lands.
2. Removal of ground water is limited to an estimated average annual yield of 2-1/2 acre-feet per acre of irrigated land in the northern high plains and 3-1/2 acre-feet in the south high plains. §37-90-107, C.R.S. 1973. Storage water rights may be measured in two ways--by gauging the amount of flow out of the reservoir or by measuring the height of water in the reservoir.
3. *Baker v. City of Pueblo*, 87 Colo. 489, 289 P. 503 (1930); *Fort Collins Milling and Elevator Co. v. Larimer & Weld Irr. Co.*, 61 Colo. 45, 156 P. 240 (1916).
4. *Green v. Chaffee Ditch Co.*, 150 Colo. 91, 371 P.2d 775 (1962); *Enlarged Southside Irr. Ditch Co. v. John's Flood Ditch Co.*, 120 Colo. 423, 210 P.2d 982 (1949).
5. *Colo. Milling and Elevator Co. v. Larimer & Weld Irr. Co.*, 26 Colo. 47, 56 P. 185 (1899); *Farmers' High Line Canal & Reservoir Co. v. City of Golden*, 129 Colo. 575, 272 P.2d 629 (1954).
6. See §§37-92-102, 37-92-303(1), and 37-92-304, C.R.S. 1973.
7. *Hassler v. Fountain Mut. Irr. Co.*, 93 Colo. 246, 26 P.2d 102. 1933); *Bates v. Hall*, 44 Colo. 360, 98 P. 3 (1908).
8. Conversation with Bill Mattern, Office of the State Engineer, Aug. 3, 1977.
9. J. Ross, "Valuation of Water Rights," 18 Rocky Mtn. Min. L. Inst. 563, 569 (1972).

10. Supra note 8.
11. "The pertinent observation is that water right records often reflect a right in excess of beneficial need, sometimes actually accompanied by an excessive use in accordance with the paper right--and thus the true measure of the right can be determined by neither the paper right nor the actual pattern of use." Dewnsup and Meyers, Improvement of State Water Records, N.T.I.S. No. PB 202 618 (1971), at 20-21. According to some courts, such expert opinions constitute "best evidence." See J. Davis, "Water Title Examinations," 34 Rocky Mtn. L. Rev. 509, 525 (1962).
12. Clarification of terms frequently used in this area may be in order here:

"Duty of water" is the amount of water which by careful management and use, is reasonably required to be applied to any given tract of land for such period of time as may be adequate to produce a maximum amount of crops, the maximum amount recognized as "beneficial use."

"Consumptive use" or "evapotranspiration" is the amount of water on a given area of land used in transpiration, building of plant tissue and evaporation in a specified time period.

"Consumptive irrigation requirement" is the amount of irrigation water, exclusive of precipitation, stored soil moisture, or ground water, that is required consumptively for crop production.

"Irrigation requirement" is the quantity of water exclusive of precipitation that is required for crop production; it includes surface evaporation and other economically unavoidable wastes (such as evaporation in transit).

"Irrigation efficiency" is the percentage of irrigation water that is stored in the soil and is made available for consumptive use by crops. See H. Blaney and W. Criddle, "Determining Water Requirements for Settling Water Disputes," 4 Nat. Res. J. 29 (1964).
13. Conversation with Ralph Toren, Wright-McLaughlin Engineering, Aug. 3, 1977.
14. Farmers' High Line Canal, supra note 5, at 634.
15. J. Davis, supra note 11, at 524.
16. Bill Mattern, supra note 8.

17. Telephone conversation with Ralph Toren, Wright-McLaughlin, July 29, 1977. See also H. Blaney and W. Criddle, "Determining Water Requirements for Settling Water Disputes," 28 Nat. Res. J. 28 (1964); I.F. Wymore, Estimated Water Balance of Piceance Creek and Yellow Creek Watersheds, Fort Collins, Colo.: Colorado State University, Environmental Resources Center, Aug., 1974.
18. Ralph Toren, supra note 17.
19. Farmers' High Line Canal, supra note 5, at 634.
20. Downs and Meyers, supra note 11, at 36.
21. J. Ross, supra note 9, at 572.
22. Id.; see also Downs and Meyers, supra note 11, at 17.
23. J. Davis, supra note 11, at 522. See also Cache la Poudre Reservoir Co. v. Water Supply & Storage Co., 25 Colo. 161, 53 P. 331 (1898).
24. See also Mountain Meadow Ditch & Irr. Co. v. Park Ditch & Reservoir Co., 130 Colo. 537, 227 P.2d 527 (1954).
25. One cubic foot per second running for a period of 24 hours equals approximately two acre-feet.
26. J. Ross, supra note 9.
27. J. Ross, "Acquisition of Existing Water Rights," 13 Rocky Mtn. Min. L. Inst. 477, 494 (1967).
28. Different courts have used different formulas in determining the number of second-feet necessary for proper irrigation of an acre of land. The general rule adhered to by many judges issuing water right decrees was 1 cfs per 40 acres of land per irrigation season. Conversation with Bill Mattern, supra note 8.
29. J. U. Carlson, "Has the Doctrine of Appropriation Outlived Its Usefulness?" 19 Rocky Mtn. Min. L. Inst. 529, 546 (1974).
30. According to Bill Mattern of the state engineer's office, some senior appropriators may be diverting four to five acre-feet per year per acre of land, although it may only be necessary to divert two and a half to three acre-feet for proper irrigation.
31. Conversation with Bill Smith, deputy state engineer, July 27, 1977.

32. Bill Mattern, supra note 8. See also City of Colorado Springs v. Bender, 366 P.2d 552, 555 (1961) in which the court stated, "The appropriator becomes entitled to take water, and at the rate of flow to which he has become entitled. 'Acre foot' limitations, or awards so measured, are not applicable to appropriations for direct and immediate use."
33. J. Davis, supra note 11, at 526.
34. Bill Smith, supra note 31.
35. Sens. Gill and Denny, "A Bill for an Act Concerning Water and Providing for the Efficient Utilization Thereof," S.B. 75, 47th Colorado General Assembly (1969).
36. Bill Smith, supra note 31.
37. According to Bill Mattern, Bill Smith, and Larry Morrill of the Colorado Water Conservation Board.
38. W. Hutchins, Water Rights Laws in the Nineteen Western States, Vol. I, U.S. Dep't of Agriculture, Washington, 1971.
39. See S.D. Code §61.0126 (1939); Neb. Rev. Stat. §46-231 (1943); also see R. E. Clark and C. O. Marty, "Classes of Water and Characteristics of Water Rights and Uses," 1 Clark, Water and Water Rights 296 (1967).
40. Bill Mattern, supra note 8. See also Wyoming v. Colorado, 353 U.S. 953 (1957).



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XVI. NONTRIBUTARY, NONDESIGNATED GROUND WATER AND SENATE BILL 213.

A. Introduction.

Water can be a moving or a stationary element, both on the land surface and underground. Underground water may be found in alluvial aquifers that fluctuate with the level of the streams to which they are tributary, or it may be found in closed aquifers. These closed aquifers consist of water that, for all intents and purposes, is not tributary to any natural streams. Such water is a nonrenewable resource similar to natural gas or oil. Unlike gas and oil, however, surface water supplies may be substituted for nontributary well water. Legislation adopted to deal with this water must address certain policy questions involved therewith, including whether it should be mined at all and if mined, for what uses, at what rates, and under what legal doctrines.

Only the legislature can make the determination whether depletion is the most desirable alternative for dealing with nontributary ground water. Since water is generally a renewable resource and since nontributary aquifers are primarily nonrenewable, it may be desirable to restrict withdrawals of water from these aquifers to times of drought or periods of peak demands. The problems are particularly compelling when the water is to be used for municipal supplies or urban expansion because the implications of total aquifer depletion are severe. A conservative philosophy concerning the use of such ground water could assure future generations of an emergency supply of water and yet still provide for reasonable current use of nontributary water.

Colorado has adopted legislation designed to regulate the withdrawal of this nontributary ground water, and this report was prepared to discuss the problems associated with this legislation and to review some of its proposed amendments and changes. It should be noted, however, that this legislation and all the proposals connected therewith contemplate depletion of these aquifers. This report does not analyze the proposal to prohibit mining of these aquifers.

B. Prior Appropriation and Nontributary Wells.

The touchstone of water law in Colorado is the doctrine of prior appropriation. This doctrine has been applied to the surface waters of Colorado for over 100 years and has been incorporated into the Colorado Constitution, which declares the unappropriated water of a natural stream to be the property of the people of the state and grants the people the constitutional right to divert this water for beneficial uses.<sup>1</sup> Through a series of statutory and case law developments, "waters of a natural stream" has been interpreted to include both surface water and

tributary ground water.

In 1861 the legislative assembly of the Territory of Colorado, 1st session, granted riparian water rights to riparian landowners. It was later thought that this provision was inconsistent with the constitutional right to appropriate, and in 1969 the legislature repealed the riparian provision (§148-2-1, C.R.S. 1963) and replaced it with §37-82-101, C.R.S. 1973. This statute declares that all the water originating in or flowing into this state, whether found on the surface or underground, is and has been the property of the public and is subject to appropriation. The statute makes no "natural streams" or tributary distinctions.

Prior to the enactment of §37-82-101, the Colorado Supreme Court and the Ground Water Management Act of 1965<sup>2</sup> developed and recognized a class of water that is not subject to the appropriation doctrine: nontributary ground water. Whitten v. Coit,<sup>3</sup> decided in 1963, was the first judicial recognition of nontributary ground water and held that such water is not subject to appropriation, but rather belongs to the overlying landowner. The Ground Water Management Act acknowledged the existence of nontributary ground water and provided a method for designating certain ground water basins as subject to a modified system of appropriation, under authority of the Colorado Ground Water Commission.<sup>4</sup>

Thus, after 1965 but prior to 1969, there appeared to be three classes of water in Colorado: (1) "waters of a natural stream" subject to appropriation, including surface and tributary ground water; (2) designated, nontributary ground water subject to the provisions of the Ground Water Management Act of 1965; and (3) nontributary, nondesignated ground water subject to the private ownership doctrine of Whitten v. Coit. The enactment of §37-82-101, in 1969, further confused the issue by declaring all the waters of the state to be subject to the doctrine of appropriation, leaving the status of nontributary, nondesignated water unclear at best.

In its latest attempt to disentangle this snarled and confused history of ground water law development in Colorado, the state legislature in 1973 enacted S.B. 213, codified in §37-90-137(4), C.R.S. 1973:

In the issuance of a permit to construct a well in those aquifers which do not meet the definitions of section 37-90-103(6) or section 37-90-103(11), and do not meet the exemptions set forth in sections 37-90-105 and 37-92-602, the provisions of subsections (1) and (2) of this section shall apply; except that, in considering whether the permit shall be issued, only that quantity of water underlying the land owned by the applicant or by the owners of the area,

by their consent, to be served is considered to be unappropriated; the minimum useful life of the aquifer is one hundred years, assuming that there is no substantial artificial recharge within said period; and no material injury to vested water rights would result from the issuance of said permit. The state engineer may adopt rules and regulations to assist in, but not as a prerequisite to, the granting of or denial of permits to construct wells and for the administration of this underground water.

Section 37-90-103(6) defines designated ground water, and §37-92-103(11) defines underground water. The former must be designated, and the latter is tributary ground water, so S.B. 213 applies to nontributary, nondesignated ground water. It would therefore appear that the nontributary, nondesignated ground water recognized in Whitten v. Coit achieved statutory recognition as well. At least part of the remaining problem is whether the intent of the legislature in S.B. 213 and the intent of the court in Whitten were the same.

It is presumed that S.B. 213 was passed to protect existing wells in nontributary, nondesignated ground water basins and to conserve these waters to insure an "adequate supply" as used in S.B. 35.<sup>5</sup> However, S.B. 213 fails to resolve all the problems associated with the administration and withdrawal of nontributary, nondesignated ground water and, combined with other statutes, has created problems of its own.

### C. Interpretations of S.B. 213.

The language of S.B. 213 is not clear as to the rights of an overlying landowner in such water nor as to the limitations on those rights. At least three substantially different interpretations are possible, and each is described briefly below. A discussion of other troublesome portions of S.B. 213 follows the three major interpretations.

#### 1. A Limited Proprietary Interest in the Overlying Landowner.

The statute may be read to incorporate a portion of the Whitten v. Coit<sup>6</sup> doctrine, recognizing the landowner's proprietary interest in the S.B. 213 water underlying his property, but subjecting the owner to certain restrictions. Under this interpretation, such a landowner may withdraw the S.B. 213 water from under his land if unappropriated water exists there and if the withdrawal will not cause material injury to other vested water rights. In addition, he may only withdraw up to

1 percent of the unappropriated water available under his land in any given year.

This reading apparently gives the state engineer the discretion to deny permits for S.B. 213 wells if he determines that construction and use of such wells would injure other water rights and/or that there is no unappropriated water under the land in question. In this context, "unappropriated water" would seem to refer to the water remaining in the aquifer after allowance for the water taken by pre-S.B. 213 wells in the area. Under this reading, "injury" can accrue only to pre-S.B. 213 wells, since other S.B. 213 wells are limited by the 1 percent rule and cannot, by the 1 percent definition, interfere with other wells operating under the same criteria. The statute does not, however, include a definition of injury, and it also fails to make it clear upon whom the burden of proof of injury lies in such permit applications; that is, does the applicant have the burden of showing no injury, or must the state engineer show injury in cases of denial of a permit application? Subsection 2 of §37-90-137, C.R.S. 1973, which is incorporated in S.B. 213, provides simply that the state engineer shall make a determination as to whether the permit will materially injure the vested water rights of others. In practice, the state engineer places the burden on the applicant.

2. A Greater Proprietary Interest in the Overlying Landowner.

Senate bill 213 may also be read as incorporating the proprietary rights doctrine of Whitten v. Coit, but with fewer restrictions. This view recognized S.B. 213 as a water mining statute, only limiting the quantity of water which may be withdrawn. The material injury clause is read as a legislative finding that if nontributary, nondesignated water under the applicant's land is involved, and only 1 percent of that water underlying the landowner is withdrawn each year, then no material injury can result. To buttress this argument, its proponents refer to §37-90-137(2), C.R.S. 1973, which provides that the state engineer must determine whether vested water rights will be materially injured and must deny permits if he so finds. Senate bill 213 expressly incorporates §(2) and then uses the language, ". . . except that, in considering whether the permit shall be issued, . . . and no material injury to vested water rights would result from the issuance of said permit." Thus, say the proponents, unless the legislature is needlessly repeating itself, it incorporated §(2) to prevent injury and then stated as a legislative finding that no injury results when the other provisions of S.B. 213 are met.

### 3. No Proprietary Interest in the Overlying Landowner.

Finally, it has been argued that S.B. 213 contemplates application of the appropriation doctrine to nontributary, nondesignated ground water because of its reference to "unappropriated" water in the aquifer. More of a policy argument than one of statutory interpretation, it is contended that since the Ground Water Management Act of 1965<sup>7</sup> makes a modified version of the appropriation doctrine applicable to designated, nontributary ground water, and since subsequent court decisions have upheld the application of this doctrine to designated ground water, the rule of Whitten v. Coit has been emasculated. In addition, this argument interprets §37-82-101, C.R.S. 1973, as releasing all the water in the state from the nontributary, Whitten v. Coit doctrine, thereby making it all subject to appropriation.

Proponents also interpret S.B. 213 as restricting withdrawal and/or use of the underlying nontributary, nondesignated ground water to the overlying land. This, they say, is inconsistent with the concept of maximizing the use of water since it may be economically unfeasible to use such water on some overlying land. Therefore, S.B. 213, with this undesirable result, should not be applied. The above interpretation is derived from the words "to be served" in the following sentence of S.B. 213:

. . . water underlying the land owned by the applicant or by the owner of the area, by their consent, to be served is considered to be unappropriated. . . .  
[Emphasis added.]

The theory is that since the clause limits the quantity of unappropriated water to that which underlies the "area to be served," it follows that the water must be used only on that land.

However, two other plausible interpretations of this clause are possible, both supporting the Whitten v. Coit view. If S.B. 213 grants a proprietary interest in the underlying water to the landowner, this provision may allow such landowner to "consent to be served" by a water district (supplier) in exchange for his rights to the underlying water. The water supplier would then have the right to that water, either for the landowner's use or for exportation elsewhere. The least restrictive interpretation is that the phrase provides that the landowner may consent to off-site use and/or withdrawal of the water to which he has a proprietary interest. This clause is poorly worded and should be rewritten to clearly express the legislature's intent, whatever that may be.

#### 4. The 1 Percent Rule.

With respect to quantity limitations, the statute simply provides that the useful life of the aquifer must be at least 100 years. Although this has been interpreted to allow only 1 percent of the water in the aquifer under the applicant's land to be withdrawn in any given year, the law itself does not specify 1 percent. It is possible to argue that an S.B. 213 water user may withdraw more than 1 percent in any given year if he draws less than 1 percent in another of those 100 years. Thus, he could withdraw 60 percent of the water in the aquifer in the first 10 years of withdrawal if he only takes 40 percent in the remaining 90 years. A related issue is whether a user who withdraws only 1/2 of 1 percent in one year loses all rights to the other 1/2 percent, or whether he may use 1-1/2 percent in any subsequent year.

#### 5. The Material Injury Clause.

The reference in S.B. 213 to "material injury to vested water rights" fails to make clear whether the injury is a legislative finding or is within the discretion of the state engineer in considering permit applications. The act also fails to define injury. Thus, if a strict interpretation of the above-mentioned 1 percent per year limitation is not controlling, and a well owner may pump large quantities of water in a short period of time resulting in a lowered water table, it is uncertain whether this is injury within the meaning of the statute. If it is injury, the principles of Bender<sup>8</sup> could be applied to require the injured well owner to extend his well to his "economic reach" and/or to require the injuring well owner to pay for additional depth in the injured well. Otherwise, the act does not appear to offer any recourse for the injured well owner, unless the statute is read as giving the state engineer the discretion to deny permits on the basis of injury. If this were the case, then the permit would be conditioned on the continuing lack of injury to others.

#### D. Administration of S.B. 213 Wells.

Regardless of the interpretation, it appears that S.B. 213 applies only to applications for permits. The statute does not appear to have any applicability where wells are already diverting nontributary water, except perhaps to monitor the quantity removed by S.B. 213 wells.<sup>9</sup> A lingering but fundamental question is what are the rights and limitations on competing wells in a nontributary, nondesignated aquifer, and what are the rights of well owners with wells which pre-date S.B. 213? Some of the possible conflicts include: (1) S.B. 213 well v. pre-S.B. 213 well, (2) pre-S.B. 213 well v. pre-S.B. 213 well, and (3) S.B. 213 well v. S.B. 213 well. Each of these is discussed briefly below.



1. S.B. 213 Well v. Pre-S.B. 213 Well.

When an S.B. 213 well has been constructed pursuant to a permit and is pumping water in accordance with the permit, but is nevertheless interfering with the right of a pre-S.B. 213 well in the aquifer, what is the result? If S.B. 213 is read as giving the state engineer discretion to deny a permit if injury will occur, can he be required to revoke a permit if injury is discovered after pumping has begun? In other words, if the material injury clause is read as a legislative finding, is the pre-S.B. 213 well left with an enforceable priority right against the later well, or does the Whitten v. Coit doctrine apply once a permit is granted, leaving the competing wells without an administrative remedy? Finally, if the pre-S.B. 213 well is over 18 years old, does §37-92-401(1)(b)(VI), C.R.S. 1973, apply to give the prior well an enforceable priority as against the S.B. 213 well?

2. Pre-S.B. 213 Well v. Pre-S.B. 213 Well.

In the case of pre-S.B. 213 wells competing for the same nontributary, nondesignated ground water, S.B. 213 has no applicability. Conceivably Whitten would apply, and each well owner would have a proprietary interest in the water under his land and could protest the taking of more water than the amount underlying another's land. Again, if a well is over 18 years old, the question arises as to whether §37-92-401(1)(b)(VI), C.R.S. 1973, gives the older well an enforceable priority right.

3. S.B. 213 Well. v. S.B. 213 Well.

The question of whether S.B. 213 has any applicability to existing wells also arises in the case of two competing S.B. 213 wells. Although one would expect that there would be no conflict between such wells, since lack of injury is a prerequisite to an S.B. 213 permit, it is possible to conceive of situations where injury may occur.<sup>10</sup> In such a case it is not clear whether S.B. 213 is applicable to the administration of these wells, that is, whether the injury criteria may require the shutting down of one or both of the wells. It can be argued that the permit requirements under S.B. 213, including lack of injury, must be followed throughout the life of the well. It is, however, equally plausible to argue that this section, embodying the doctrine of Whitten v. Coit, forecloses administration of wells once permits have been issued.

### E. Constitutional Issues.

Senate bill 213 raises a number of constitutional and statutory issues, each of which stems from questions about the physical or the legal status of the water in S.B. 213 aquifers.

The first question is whether such water is subject to appropriation. The constitution provides that the waters of any natural stream not heretofore appropriated are subject to appropriation.<sup>11</sup> On the other hand, §§37-82-101 and 37-92-102, C.R.S. 1973, both say, in identical language, that ". . . all waters originating in or flowing into this state, whether found on the surface or underground, are . . . subject to appropriation and use in accordance with law." The constitution, then, says that the waters of all natural streams, and by implication all waters tributary thereto, are subject to appropriation; the two statutes say all water. Obviously, under either authority both surface streams and tributary ground water are subject to appropriation. However, nontributary ground water (i.e., S.B. 213 water) may or may not be subject to appropriation, depending upon how one reconciles the constitution with these statutes and upon how S.B. 213 fits this scheme.

There are some engineers and hydrologists who claim that all waters are tributary over time, that nontributary water simply does not exist. Under this interpretation, all waters are part of a natural stream; all water is subject to appropriation, including S.B. 213 water; and there is no inconsistency between the constitution and the two statutes cited above. Accordingly, the basis for denying an S.B. 213 permit application is the same as that for a surface water right--that is, there is no diversion, or there is no application to a beneficial use, or there is no unappropriated water available. If all water is subject to appropriation under the constitution, any person may appropriate water from an aquifer. The problem with this view is that it is contrary to the decision in Whitten v. Coit,<sup>12</sup> and is therefore in opposition to the apparent intent in S.B. 213, which declared such water to be the property of the overlying landowner. In addition, as pointed out in Whitten, and as discussed above, the practical problems of administering such wells on a priority basis are overwhelming. This interpretation would also seem contrary to §§37-92-103(11) (definition of underground water) and 37-92-103(13) (definition of "waters of the state") in that both definitions provide for a distinction between tributary and nontributary waters.

On the other hand, if nontributary ground water exists and is not subject to appropriation, but is instead the property of the overlying landowner, the question is whether and to what extent the use and withdrawal of that water may be regulated by the state. Any unreasonable restriction on the use or rate of withdrawal could be deemed to be a taking of the property right in the water. Constitutional issues aside, the proprietary concept also includes certain philosophical precepts that

oppose governmental regulatory actions with respect to private property. Consequently, the argument that such water is private property is inconsistent with the assumption that the state engineer may deny permits, regulate rates of withdrawal, and determine injury for such water.

There are practical problems with this interpretation as well. For example, if the appropriation doctrine does not apply, it is probable that the priority system does not apply either. If this is so, what is the basis, if any, for administration and management of these water resources? Can such wells be administered on other than a priority basis? It has been suggested that a correlative rights doctrine similar to the one applied to the conservation and regulation of oil and natural gas<sup>13</sup> could provide an alternative for administering S.B. 213 wells.

An intriguing resolution of the above problems is an interpretation that for constitutional purposes there is no such thing as nontributary water; therefore, proprietary rights for ground water do not exist. However, for statutory purposes, some water is so far removed from natural streams that it is considered to be nontributary, so that the right to appropriate ceases to exist as to this water. This interpretation, if valid, says that the overlying landowner owns the water under his land; and, therefore, the water is not subject to the constitutional right to appropriate. However, since all water is tributary in a worldly sense, the rights thereto are not absolute, so that restrictions on the use of this privately-owned, nontributary ground water do not constitute a taking of a property interest in that water.

Also, it should be recognized that if nontributary ground water is determined to not be subject to the state constitutional provisions which specify public ownership of, and guarantee a right to appropriate, the "waters of a natural stream," then the legislature is not restricted by these provisions of the constitution in determining the appropriate policies for the regulation and administration of nontributary ground water.

#### F. Proposed Legislative Amendments to S.B. 213.

##### 1. S.B. 82 (1978 Legislative Session).

Senate bill 82 was proposed in order to grant a municipality access to nontributary, nondesignated ground water within its boundaries. Without altering the language of S.B. 213 as it now stands, this proposal added the clause:

. . . in the case of a municipality, that quantity of water underlying the land to be served by the municipality within the boundaries of the municipality, less that quantity of water developed at any

time by persons in the municipality pursuant to the terms of this subsection (4). . . .

This clause was inserted immediately in front of the "is considered to be unappropriated" language of S.B. 213, thereby attempting to provide a municipality with the same rights to nontributary, nondesignated ground water as the overlying landowner with respect to S.B. 213. It did not, however, address any of the questions raised in S.B. 213 itself, since that language remained unchanged.

2. S.B. 108 (1978 Legislative Session).

Senate bill 108 was designed to give a board of county commissioners the authority to request that certain nontributary, nondesignated ground water aquifers, or portions thereof, be designated by the state engineer as critical areas. If so designated, the state engineer would be required to deny well permit applications in such areas. A critical area is defined as a nontributary ground water aquifer, or portion thereof, that is being depleted to the extent that further development might materially injure existing water rights.

Thus, without addressing or defining "material injury" as used in S.B. 213, S.B. 108 would give the state engineer increased authority to deny permit applications. This proposal also did not address any of the problems associated with S.B. 213 because it did not purport to alter any of the language therein.

3. Colorado Bar Association-Water Law Section, Ad Hoc Committee on Legislation.

In conjunction with the Colorado water bar legislative committee's concern over S.B. 213, Robert F. Welborn has drafted two alternative bills to amend or replace S.B. 213. They have been presented to the 1978 interim legislative committee on water and coal slurry, and are discussed below.

a. Proposal #1: 8-4-78.

This first proposal is intended to alleviate the lack of recourse for an injured S.B. 213 well owner once a permit has been granted. These amendments presume that S.B. 213 does not give the state engineer the discretion to find injury in his considerations of S.B. 213 permit applications, or at least does not allow the state engineer to administer such wells after the permits have been issued. These amendments make two definition changes in §§37-82-101 and 37-92-102(1), C.R.S. 1973, to make it explicit that nontributary ground water is not subject to appropriation

under applicable constitutional and statutory provisions, in conformity with Whitten v. Coit. Changes in the language of S.B. 213 are also proposed to delete the word "unappropriated" and insert "available to the applicant for use." The purpose of this change is presumably to make it expressly clear that the doctrine of prior appropriation is not applicable to S.B. 213 water. It also appears to indicate that only the overlying landowner, or someone by his consent, has the right to use this water, although this is not clear. This language does not indicate whether the water may be used off the overlying property.

The other proposed change in the language of S.B. 213 is found in the material injury clause, where "vested water rights" is replaced by "the rights of other owners of land overlying the aquifers." The apparent purpose of this change is to protect the proprietary interest of an overlying landowner in the underlying water whether or not that owner already has a well. The clause does not address the question of how this protection is to be achieved. The amendments also provide that an S.B. 213 permit holder may then apply for a ground water right for the well through the generally applicable administrative procedures for water rights.

Included in these procedures is the right of third parties to file statements of opposition or protest to such well, based upon injury. In such cases, the water judge and referee would determine whether the application should be approved. If the water in question were determined to be tributary, an S.B. 213 permit would not issue, and the water right would have to be pursued by the same process as all tributary water rights. If the water were determined to be non-tributary and the permit approved, the water right would be administered and controlled by the state engineer to protect other wells and property rights in the water.

The critical areas provision noted in S.B. 108 is also included after the rules and regulations language of S.B. 213. It gives the state engineer authority to designate, by issuing rules and regulations, certain aquifers or portions thereof as critical areas, and permits only certain types of wells to be drilled therein. Thus, the state engineer could designate certain areas as critical and then deny permit applications on that basis.

Finally, the amendments add a section entitled "Draft of Legislation" that charges the director of the Department of Natural Resources to study the physical characteristics of nontributary, nondesignated ground water aquifers, to review existing laws concerning the rights and interests in and to such water and the use and administration thereof, and then to report such findings to the second regular session of the 52nd General Assembly, along with a draft of comprehensive legislation.

In general, this first proposal applies the proprietary concept of Whitten v. Coit to nondesignated, nontributary ground water, subject to the S.B. 213 limitations, whatever they may be, and then applies the priority doctrine to the statute for the purpose of administering these wells, thereby granting recourse to injured well owners. The proposal does not clarify the other issues involved with S.B. 213. The proposal assumes that the material injury clause constitutes a legislative finding with respect to obtaining a permit and ignores other questions such as who has the burden of proving that there is "unappropriated" water under the permit applicant's land. This proposal is designed to repair S.B. 213 until a study is completed and comprehensive legislation is proposed by the Department of Natural Resources.

b. Proposal #2: 8-4-78.

This proposal attempts to address several of the problems in S.B. 213. Initially, it makes the same definition changes in §§37-82-101 and 37-92-102(1), C.R.S. 1973, as the previous proposal. However, it would repeal S.B. 213 and replace it with more comprehensive revisions to S.B. 213, which eliminate some of the ambiguities and uncertainties in the current law.

Subsection (1) of this proposal specifies that it shall only apply to nondesignated, nontributary ground water and that it is not applicable to low-capacity wells, as defined in §§37-90-105 and 37-92-602, C.R.S. 1973, just as S.B. 213 specifies. It then adds the clause, however, that if the source of the proposed well is tributary to a natural stream, a permit therefor shall not be granted under this proposal. Thus, it makes it clear that this provision applies solely to non-tributary ground water.

Subsection (2)(a) specifies that only the overlying landowner has any rights to nontributary, nondesignated ground water, thereby enshrining the Whitten v. Coit doctrine. The right to use this water is limited, however, to a reasonable use and by the other provisions of this proposal. Included in the subsection is a clause giving the landowner the ability to assign his rights in the underlying ground water to third parties, under terms and conditions that must be established by the state engineer. The provision does not state whether such third party may use the water (or withdraw it) off the overlying land, but arguably the state engineer is given the discretion to make such determinations when he prescribes the terms and conditions of an assignment.

Subsection (2)(b) incorporates the 100-year minimum useful life of the aquifer concept of S.B. 213, and §(4)(d) determines the actual

acre-feet/year allowance for applications thereunder. This provision restricts the annual rate of development and use of this water to a strict percentage of the total water in the aquifer, based upon the minimum useful life of the aquifer, which would be determined by the state engineer but could not be over 100 years. Therefore, if the minimum useful life of the aquifer is determined to be 1,000 years, only .1 percent may be withdrawn in any given year.

These two subsections, then, eliminate the ambiguities in S.B. 213 that might allow one to withdraw a large percentage of water in a short period of time. They would lock a user into only taking a certain percentage per year, no more and no less. They do not, however, address the issue of carryover, for those cases where such a user takes less than that percentage in any given year. Finally, it places this 100-year minimum life requirement on all S.B. 213 aquifers, regardless of size or uses to which the water is put. It is conceivable that very small aquifers might not produce a useable amount of water if only a 1 percent per year withdrawal is allowed, and a 100-year minimum life requirement may be impractical.

Subsection (3) of the proposal describes a set of procedures to be followed in filing applications for well permits. Included are provisions requiring notice of well applications and giving persons whose wells or property interests might be affected by the proposed well the right to file a protest to such well with the state engineer. The state engineer would then make his determination, with or without the benefit of a discretionary hearing on the application. His final decision would be subject to judicial review at the request of a protestant, or the applicant, in the district court in and for the water division where the well is located.

Subsection (4) sets out the criteria which the state engineer must follow when he determines whether to grant an application for a permit.

Subsection (4)(b) of the proposal establishes a priority to wells existing at the time of the act, protecting these wells to the extent of their use as specified in their registration, permit, court decree, or historic use. Thus, pre-act wells would have a priority over post-act wells.

Then, §(4)(c) defines injury as a decrease in the water table and hydrostatic pressure that is greater than the drop which would be consistent with the useful life of the aquifer. Thus, in a 100-year useful life aquifer, the water and pressure may drop at a rate consistent with the use of 1 percent per year without causing injury; any greater rate of drop in the water table or pressure would constitute injury. It then incorporates the rule of Bender,<sup>14</sup> providing that

if such injury will occur, the applicant must compensate existing wells for the required modifications.

The problems of administration of injured or injuring wells, mentioned in §D, supra, is not addressed. Where §(4)(c) would protect owners of existing wells, §(4)(e) is designed to protect overlying landowners as potential water users since they own the water under their land. These future water rights may be limited, however, to the types of wells defined in §37-92-602, C.R.S. 1973, if such were necessary to prevent noncompensable injury to existing wells. The wells defined in §37-92-602, C.R.S. 1973, are generally low-capacity, domestic, and specific-use wells.

Consistent with §(4)(e) and the proprietary interest doctrine of Whitten v. Coit, §(4)(f) appears to quantify the "consent to be served" language of S.B. 213 (see §C.3. supra). This provision establishes a mechanism through which an overlying landowner may "dedicate" his land and, consequently, the rights to his underlying water to another owner of land over the aquifer, such as a municipality. This section can be read to allow withdrawal and use of the water off the overlying land, but whether this is intended is not clear.

To insure compliance with all the conditions the state engineer imposes, §(4)(g) provides that a permit shall be deemed revoked and the right to use discontinued if any condition is violated. This section appears to contemplate a continuing regulation of these wells and presumably would permit an order to discontinue pumping several years after the well was drilled.

One unanswered question is raised by §(4)(g) when read with §(6), which says, ". . . no wells of the type subject hereto shall be adjudicated under the provisions of Art. 92, Tit. 37, C.R.S. 1973." This section appears to say that there is no priority right in any wells created under this permit system. The question presented is which wells are discontinued when injury occurs after permits have been granted? Since a condition of every well granted under this provision is that no injury result, pumping from a well may be discontinued if injury to another well occurs. The problem, however, is identifying the injuring well. Since §(6) grants no priority rights in these wells, it is not feasible to simply discontinue the latest well to begin pumping from the aquifer. In other words, if two wells affect one another and priorities do not apply, which well is to be curtailed? There may be various regulatory methods one could devise to handle this problem, but the solution is not in the proposed statute.

The proposal also requires that the water withdrawn be put to beneficial use, as evidenced by the language of §(5). This section requires that the applicant furnish evidence to the state engineer



within two years of operation that the water is being put to beneficial use, or else the permit shall expire at the end of that time.

Finally, §(7) of the proposed legislation requires the state engineer to propose plans for the use of water from aquifers that are subject to this act. Included in this section is a provision granting authority to the state engineer to designate critical areas, as discussed previously, and to restrict well construction in those areas. The remaining provisions under §(7) establish a method of notice of and protest to the plan, including judicial review of the state engineer's final product.

Neither §(7) nor §(4) of this proposal makes it clear, however, whether compliance with the plan adopted by the state engineer is to be considered as one of the criteria for granting or denying a permit. Presumably, the purpose of the plan would be to establish criteria for considering applications for permits, but the proposal does not make this clear. Finally, it is not clear whether such a plan is necessary if its sole purpose is to prevent injury. The reason for this is that, under §(4), the criteria for granting a permit include: (1) quantity restrictions, that is, 1 percent per year; (2) a lack of injury to potential wells as well as existing wells; and (3) limiting withdrawals to overlying landowners or others with their consent. It seems unlikely that a plan could do more than this to prevent injury. The real benefit of a plan would be to help define injury, but this could be accomplished in §(4)(c) as well.

In light of the above, an alternate to §(7) is also proposed, which appears to recognize that a clear definition of injury would obviate the need for a water plan. It gives the state engineer authority to adopt rules and regulations to implement the provisions of the act, to be adopted pursuant to the Administrative Procedures Act. This provision presumably gives the state engineer authority to prescribe specific criteria for determining injury in lieu of a strict standard in the legislation.

(1) Proposal #2 Summarized.

This proposed repeal of S.B. 213 and substitution of the language discussed above does away with several of the problems created by S.B. 213. It makes it clear that the doctrine of Whitten v. Coit, giving the overlying landowner a proprietary interest in the water under his land, applies to nontributary, nondesignated ground water. It also incorporates both injury and quantity restrictions as criteria to be used in considering applications for permits.

The proposal makes injury a criterion with respect to such applications, attempts to define injury, and appears to make it clear that the injury standard is a continuing one, so that if a well injures another after a permit has been granted, that permit may be revoked. Also, applying the principles found in Bender, it provides a method for the injuring well to remain in operation by compensating the injured well.

The proposal also adopts and codifies a percentage rule, eliminating those ambiguities in S.B. 213. The continuing regulation provision would presumably apply to these restrictions as well, so that withdrawals of more than the allowed percentage per year could result in revocation of the permit and discontinuance of the well.

However, some problems still remain as follows.

--The percentage rule, although clarified by this proposal to prevent rapid depletions of the aquifer (see p. XVI-13, supra), represents a certain inflexibility that may not be desirable. The proposal does not elucidate what the result would be if a user pumps less than his percentage in any given year; that is, whether he loses all rights to that unpumped amount, or if he can withdraw it in the future. A carryover provision with an upper limit on the amount withdrawn in any given year may be a possible solution. Finally, whatever the limit on withdrawals is deemed to be, 1 percent or something different, it must be "reasonable" to avoid constitutional taking problems, since the underlying water is determined to be private property.

--The proposal does not fully resolve the meaning of injury. The definition in §(4)(c), supra, may be unable to deal with the problems associated with uneven bedrock contours. Preferably, a definition of injury would specify clear guidelines for use in considering applications for permits. In addition, such a definition, combined with the protest procedure and the percentage rule contained in this proposal, would seem to eliminate the need for a plan as set forth in §(7). However, developing a clear definition of injury involves certain difficult policy considerations, such as determining the limits of one's right to nontributary, nondesignated ground water and whether the right includes the pressure in the aquifer.

--Finally, although the proposal makes it clear that it is not applicable to tributary water, no definition of tributary is given. Whether a workable definition is possible is not certain; but, as the law now stands, there is a wide latitude for interpretation. At least two types of definitions are possible, the first being a strict standard based on time. For example, if ground water takes X number of years or more to reach a stream, it is nontributary. The second type of definition could use a flexible standard similar to that now used by the state engineer's office--ground water that does not affect the flow of a surface stream or waterway is nontributary.

#### 4. Proposal to Establish New Administering Authority.

Certain problems are inherent in the Whitten v. Coit interpretation of S.B. 213 due to the physical characteristics of these nontributary ground water aquifers. Consequently, it has been suggested that an entirely different regulatory approach to these aquifers be taken and that the concept of Whitten and S.B. 213 be scrapped.

Nontributary ground water aquifers may have uneven contours so that the overall depth of the aquifer will vary with each parcel of overlying land. Therefore, as the water table declines, the landowner in an area where the aquifer is not very deep will lose access to this water sooner than a landowner over a deeper portion of the aquifer. In addition, there is a difference between the water level and the "head" (pressure) in a nontributary aquifer. The latter is more susceptible to declines caused by other wells and is the most often tapped part of the aquifer. As a result, withdrawals consistent with a 1 percent per year depletion of the aquifer will result in a faster drop in the level of the "head" and thus cause injury to those wells extracting from it. Finally, soil permeability varies within these aquifers so that otherwise identical wells will have different production rates and/or useful lives.

To deal with these physical characteristics of nontributary ground water aquifers, the proposal would establish agencies to administer these aquifers, preferably one agency per aquifer to accommodate local variations in aquifers and the variations that exist in the political, hydrological, and water demands of different localities. The primary responsibility of these agencies would be to administer the water in the aquifer for the benefit of the overlying landowners, based

primarily on need. This authority would include the responsibility of handling permit applications, distributing and allocating the water to insure that all users have an adequate supply, and construction of facilities for obtaining this and other water. This system would protect overlying landowners on a shallow part of an aquifer because all the water in the aquifer would, in essence, be commonly owned and distributed by the agency.

This agency would need a financial base and it should be self-supporting. It would need some sort of taxing authority, either on the overlying land or on the use of the underlying water, or both. Also, since these aquifers represent a finite source of water, these agencies should apply a portion of their revenue to the task of locating, developing, or buying other sources of water to assure a permanent supply of water for the overlying landowners.

This proposal addresses the question ignored by S.B. 213 and related legislative proposals as to what should be done when the water runs out by suggesting the use of a depletable resource to establish an economic base to provide a permanent supply.<sup>16</sup>

#### G. Treatment of Nontributary Ground Water by Other Western States.

A limited series of telephone interviews and a brief review of the literature has revealed that the ground water laws of most of the states west of Colorado have not specifically dealt with nontributary ground water. In general, they do not distinguish between tributary and nontributary ground water; they consider all ground water to be public property; and they usually apply some sort of permit system to the withdrawal of ground water, coupled with a priority classification. Most of these states, however, have yet to administer<sup>17</sup> any of these wells under this priority classification system.

In addition, several of these states have set aside certain areas in which new permits are generally denied and in which regulation may be more stringent. These areas may include nontributary aquifers, but they do not appear to be designed specifically for them. A brief sketch of the ground water laws of these states follows.

1. States That Incorporate a Doctrine of Private Ownership of Underlying Ground Water.

a. Arizona.

Arizona law declares that all ground water (tributary or not) belongs to the owner of the overlying land. Consequently, a landowner may drill a well on his property and withdraw the underlying water without any permit or the imposition of any restrictions by the state. The only limitations on these withdrawals are (1) that the amount be "reasonable" for the use to which the water is put, and (2) that the use itself be "reasonable." If a well's extraction is unreasonable, an injured well owner may initiate a proceeding to regulate withdrawals from that well.

The state enacted legislation 25 years ago which provides that, upon request, an area may be designated as "critical" by the state. A critical area is one in which the discharge is greater than the recharge. In these areas, the state has the authority to prevent the drilling of any large-capacity irrigation wells. However, this legislation is not applicable to the regulation of existing wells in the area, nor to any large-capacity wells drilled for other purposes, such as industry.

The doctrine of private ownership of ground water has resulted in significant depletions of Arizona ground water aquifers, and, consequently, the state is in the process of trying to revamp its ground water law.

b. California.

California's ground water law is a correlative rights, reasonable use doctrine that is an intermittent step between Arizona's ownership doctrine and the permit systems of the other western states. This doctrine gives the owner of the overlying land the right to a "reasonable use" of the water underlying his land. Generally speaking, reasonable use means a reasonable amount of water for a beneficial purpose. If there is not a sufficient amount of water in the aquifer for a reasonable use by all the owners of overlying land in the area, each is entitled to withdraw his "reasonable share" of the total amount of water available. Thus, it is a doctrine of ownership and equitable apportionment.

Under the correlative rights doctrine, an overlying landowner may withdraw the water underlying his land for use elsewhere if there is sufficient ground water in the area to supply the needs for all the

overlying landowners. In those cases where there is not a sufficient amount for the reasonable use of all the overlying landowners, the off-land use has a lesser right and must be curtailed. Such periods of insufficient water may occur during times of shortage due to climatic conditions, or to overdrafts, defined in California as those cases where the withdrawal rate is greater than the amount considered to be a "safe yield." A safe yield is the maximum quantity of water which can be withdrawn annually from a ground water supply without an "undesirable result," the latter usually defined as depletion of the ground water source.

There is no equivalent in California's ground water law to the tributary, nontributary ground water distinction made in Colorado's law. However, withdrawals from any nontributary aquifer would exceed a "safe yield," so that the apportionment aspect of the correlative rights doctrine would appear to apply, limiting use to the overlying lands and to a reasonable share. Thus, the life of the aquifer would be dependent upon the types of water use that exist on the overlying land. Although perhaps adaptable to the management of nontributary ground water aquifers, this doctrine provides little insight to resolving the problems associated with S.B. 213.

2. States Purporting to Incorporate a Priority System Without a Permit Requirement.

Montana and New Mexico, much like Arizona and California, do not require a landowner to acquire a permit prior to drilling a well for the extraction of ground water underlying his property. However, Montana purports to have a priority system based upon adjudication, so, after a well has been drilled in Montana, the well owner must file with the state to establish a priority date for adjudication. No adjudications have occurred yet, so none of the existing wells in Montana have been administered under its priority system.

A New Mexico landowner also need not apply for a permit to drill a well unless his well would be in a designated basin, where a permit is required. The state engineer has authority to designate a basin using criteria such as the amount of development in the area and/or the rate of decline in the water table. When an area is designated, the state engineer determines what the life of the aquifer should be, generally between 20 and 40 years, and then issues permits accordingly. These basins are not designated on the basis of whether the ground water thereunder is tributary or nontributary, although the mechanism is adaptable to nontributary ground water management. It

does not appear to offer anything new to resolving the problems encountered by Colorado in managing nontributary ground water.

Finally, it should be noted that New Mexico applies a priority system to all its wells, whether in a designated basin or not, but no administration on that basis has taken place yet.

### 3. States That Require a Permit for Ground Water Withdrawals.

The remainder of the western states surveyed consider ground water to be the property of the public and, consequently, require prospective well owners to apply for and obtain a permit prior to drilling a well. These permit systems are based primarily on standards of injury and on the amount of water available for withdrawal in the area under consideration. Not one of these states makes a distinction between tributary and nontributary ground water, but most of them do have some sort of critical or control area in which new permits are generally denied.

Priority dates are also applied to these wells, and, theoretically, the wells are continually regulated and/or administered on the basis of the priority doctrine. However, few of these states have applied this doctrine in their administration of wells due to the difficulties involved therein. For example, Nevada law allows a "reasonable decline" in the water table; so, in cases where injury is alleged because of a decline in the water table, the state has found that no such injury occurs within the meaning of the law. As a result, Nevada has yet to regulate wells by priority date.

Idaho does not have the authority to administer privately-owned wells. Consequently, an injured well owner must go to court to seek relief from injury, or the state can go to court to seek adjudications. No wells have been shut down in Idaho on the basis of priority, although some regulations have resulted from adjudication proceedings.

In Utah, a senior priority well owner may obtain a court decree to restrict the withdrawal of ground water by a lower priority well if he can prove the well in question is causing the injury. However, this is a difficult burden of proof. Utah also imposes a regulatory scheme of sorts on ground water within its boundaries by monitoring the levels of the various water tables in the state. If a water table appears to be decreasing too rapidly, the state will impose restrictions on the wells in the basin, restricting the most junior wells first. These restrictions may be removed if and when the level of the water table rises.

As mentioned previously, most of the critical areas designated by these states are determined as such according to the amount of water use in the area and the amount of decline in the water table. They generally provide only that no new permits will be issued therein, but do not actually regulate existing uses on wells. One exception is Washington, which imposes restrictions on new wells in these areas, without prohibiting them, by issuing permits with limitations based on what is found to be an acceptable drop in the water table. This system is similar to New Mexico's treatment of designated basins.

Despite similarities, the ground water laws of the western states vary considerably. Furthermore, none of these states has specifically addressed the issues involved in mining nontributary ground water aquifers. Although some states have mechanisms for dealing with such water, it does not appear that any of these mechanisms would be particularly useful to Colorado in an attempt to solve the problems associated with S.B. 213 and nontributary ground water.



XVI. NONTRIBUTARY, NONDESIGNATED GROUND WATER  
AND SENATE BILL 213

REFERENCES

1. Colo. Const. art. XVI, §§5 and 6.
2. §37-90-101 et seq., C.R.S. 1973.
3. 153 Colo. 157, 385 P.2d 131 (1963).
4. §37-90-104, C.R.S. 1973.
5. §30-28-136, C.R.S. 1973 (1976 Supp.).
6. Supra note 3.
7. §37-90-101 et seq., C.R.S. 1973.
8. City of Colorado Springs v. Bender, 148 Colo. 458, 366 P.2d 552 (1961).
9. It should be reiterated here that S.B. 213 does not apply to domestic and small-capacity wells, as defined in §37-92-602, C.R.S 1973. These wells, however, comprise a majority of the water users in S.B. 213 aquifers so that the effectiveness of any administrative scheme is limited unless the exemptions are removed.
10. Such injury may occur if the cone of depression of one well interferes with that of another. Designated ground water basins use the 3-mile radius rule to avoid injury among these wells, but the rule has not been applied to S.B. 213 wells. Thus, even with a quantity limitation on the withdrawal of S.B. 213 water, interfering cones of depression may reduce the quantity available for use. For a description of the 3-mile radius rule, see C.J. Kuiper, "Integration of Underground and Surface Water Management," reprinted from the Proceedings of Water Management for Irrigation and Drainage, ASCE/Reno, Nevada/July 20-22, 1977.
11. Colo. Const. art. XVI, §6.
12. Supra note 3.

13. §§34-60-102, 34-60-116, and 34-60-117, C.R.S. 1973.
14. Colorado Springs v. Bender, note 8, supra.
15. For example, all existing wells could be subjected to a decrease in the maximum allowable quantity to be withdrawn based on a new estimate of the quantity of water in the aquifer or a new aquifer life. The new estimate of the quantity of water in the aquifer would presumably be lower than that used for the initial permit applications or else the water table lowering should not have resulted in injury.
16. One remaining issue not raised or discussed by any of these proposals and not clear in the minds of the Colorado legislators is that of who has jurisdiction over nontributary ground water in designated ground water basins--the Ground Water Commission or the state engineer? This becomes especially important with respect to the proposal establishing ground water agencies since this scheme would regulate the aquifer independent of the overlying land.
17. As used in this report, the administration of wells refers to the method of continuing regulation of ground water wells practiced by the states, if any, including remedies involved when injury results from the withdrawal of any given well.