

WATER AND THE CITIES  
OF THE SOUTHWEST

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## PREFACE

In 1988 the Natural Resources Law Center initiated the Western Water Policy Project with the support of a grant by the Ford Foundation. This project includes a broad-ranging review of the laws, policies, and institutions governing the allocation and use of water resources in the western United States. It is aimed at addressing the adequacy of western water policy to respond to the needs of the contemporary West.

A major objective of the Western Water Policy Project is to encourage discussion of water policy issues. To further this objective we are initiating this Discussion Paper series. The papers in this series are written in conjunction with periodic workshops primarily involving a water policy working group. The members of this group are F. Lee Brown, James E. Butcher, Michael Clinton, Harrison C. Dunning, John Echohawk, Kenneth Frederick, David H. Getches, Helen Ingram, Edwin H. Marston, Steven J. Shupe, John E. Thorson, Gilbert White, Charles F. Wilkinson, and Zach Willey.

We welcome comments and responses to these papers.

Larry MacDonnell

## Water and the Cities of the Southwest

John A. Folk-Williams\*

Since the demise of the energy development plans of the 1970s, cities have held center stage in the southwestern quadrant of the country as the chief source of demand for water. While agriculture has been struggling to hold its own, urban areas have continued steady growth, though at slower rates in the late 1980s than in earlier decades. Reflecting their growing political and economic power, cities have been developing new policies and institutions that not only control water but also plan for its future use. In fact, cities have taken a leadership role in water planning, looking 40 to 100 years ahead. They have taken prominent roles in conservation and recycling, new project construction, water marketing and changes in state water policy and law.<sup>1</sup> Because of their growth and long planning horizons, cities are one of the dynamic forces for change throughout the region, but they are also perceived as hostile or indifferent to the values of other constituencies. As builders of water projects, they have been accused of causing major environmental disruptions. As sponsors of legislation to change water law, they have been accused of undermining long established property rights. Rural Indian and Hispanic communities have charged them with discrimination, and many rural counties to which cities have come for new water supplies have accused them of stealing local resources. As a major agent of change regarding access to water, they are bound to be controversial. This paper examines several specific cases in which urban water interests have clashed with rural communities or with state and national public interests and will try to sketch the context in which new policy approaches might be developed.

### THE VARIETIES OF URBAN WATER CONDITIONS IN THE ARID WEST

The cities of the West share a common purpose in their attitude toward water, but there are many elements which differentiate urban regions from one another. Their common purpose may be exemplified in a quotation from a strategy document prepared by the City of Albuquerque, which succinctly expresses the basic orientation of urban water departments:

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<sup>1</sup> J. FOLK-WILLIAMS, S. FRY & L. HILGENDORF, WESTERN WATER FLOWS TO THE CITIES (1985).

The City of Albuquerque has accepted the responsibility for supplying—in perpetuity—clean, potable water to its citizens, as well as to some people in nearby areas.

Therefore, the Public Works Department, as the City's agent, must insure that:

1. An adequate supply of water exists and will exist FOREVER (sic) to satisfy this obligation, and
2. The City has the legal right to use that water.

The City has a corollary responsibility: It must insure that neither pollution nor competitive users will diminish the Department's capacity to deliver adequate amounts of clean, potable water.<sup>2</sup>

Every urban water manager would probably agree with this statement of the weighty responsibility he or she bears. The assumption here is that, whatever the level of growth, water must be provided permanently. This means that water managers are constantly looking at the limits of their supply and searching for ways to expand it and protect it.

Most observers of the water situation of the arid West have said that water is the single most important factor limiting the growth of the region. One could argue that the fundamental purpose of urban water management is to ensure that water is never a limit on growth. For the most part, still benefiting from a national trend toward migration to the sun and from immigration from Latin American and Asian countries, the growing cities of the Southwest compete fiercely for larger shares of the jobs and industries the national economy continues to produce. The Los Angeles area, beset with pollution and quality of life problems, may have reached certain limits (stories are multiplying about escape routes from southern California to less crowded and less expensive regions—Los Angeles itself is growing now only because of immigration from foreign countries), but the economies of these urban regions as a whole continue to attract substantial new business investments and will do so for some time to come.<sup>3</sup>

The urban areas of the arid West that have experienced rapid growth in the past decade (we will not deal here with the smaller cities tied closely to the ups and downs of a single industry), present three aspects for examination. First, they vary in the complexity of political subdivisions into which they are divided. Tucson and Albuquerque are the sole large municipal entities within their regions while the Denver, Phoenix and Los Angeles areas have many municipal entities with well developed water resource capabilities. This political waterscape does not alter the fundamental task of urban water policy makers, but it does determine the institutional framework responding to water needs.

Second, these urban areas differ with respect to their present water supply picture. Some, like Los Angeles and Albuquerque, have surpluses of water because

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<sup>2</sup> Public Works Department, City of Albuquerque, *Water Resource Management Strategy* 4 (1987).

<sup>3</sup> G. NASH, *THE AMERICAN WEST IN THE TWENTIETH CENTURY* 5 and 90-93 (1973).

of early plans to secure both local and remote supplies. Others, like Reno and El Paso, are pushing the limits of the locally available supplies right now and have no foreseeable hope of large scale water importation projects to solve their problems. In between are the Phoenix area municipalities, the Salt Lake City area and Denver where a combination of local acquisitions and importation have created an adequate supply but where the search continues to meet needs over long term planning horizons.

Third, these areas differ as to the state legal regimes under which water planning and acquisition take place. Arizona laws requiring demonstration of a 100 year assured supply, coupled with progressive conservation requirements aimed at achieving safe yield in groundwater pumping, have spurred cities and developers into a water market in rural areas remote from the Phoenix valley. New Mexico has limited future water planning to a 40 year horizon, and the State Engineer has denied, on at least two occasions, water permit applications based on projections beyond this planning period. On the other hand, a county ordinance in Colorado requires a 300 year assured supply. The procedures under which states review decisions about the transfer of water to urban use differ markedly, and laws regulating groundwater range from the absolute ownership concept in Texas to the rigorous state supervision of the Arizona Groundwater Management Act. San Antonio is struggling to achieve agreement on groundwater use with rural interests in the absence of a state regulatory power over the resource. Albuquerque, on the other hand, is required regularly under state law to retire surface rights to compensate for groundwater pumping.

### URBAN DECISIONS AND RURAL IMPACTS: THE ISSUE OF ACCOUNTABILITY

Despite the very real differences in the situations facing these cities, all of them have a similar problem. They are the major water users projecting significant growth in supply in the region. Each of them is displacing local agriculture to some extent as water moves into municipal uses. Despite the fact that a few have plenty of water now, the length of their planning horizons means that they are constantly considering the limits of supply and must plan to meet high rates of growth still projected for them through the next century.

These urban areas draw resources to themselves. Creating markets for jobs and services, physically expanding and redefining their boundaries and service areas, the cities are a dynamic force throughout the region. They tend to concentrate population, resources and economic opportunity in a way that has overshadowed other sectors in the southwestern states. The Council of State Governments has pointed out that the urbanized proportion of the population in the West (approximately 84 percent) is exceeded only by the industrial Northeast. As the major urban regions gain control over larger and larger shares of the water sup-

plies to meet their needs, they pose critical policy questions of fundamental equity.

How will the rural interests, whether close to the urban areas or hundreds of miles distant, affected by the search for water participate in decision making that so closely affects them? Most of the urban water institutions are either utilities or management entities accountable only to a city council or to an electorate of sharply limited geographical extent. Yet their policies and roles are transforming them into regional entities of significant power. Los Angeles is still dealing with the impacts of its Owens Valley water system, long after the original battles of the early part of this century.<sup>4</sup> Phoenix and its neighboring municipalities have encountered similar if less dramatic antagonism from rural counties from which they want to draw groundwater. Scottsdale is at the center of a water allocation controversy about the Bill Williams River. Aurora has developed land reclamation policies for the Arkansas Valley. Reno is seen as a threat to rural California counties as well as to a downstream Indian tribe.

Urban water management institutions are various in their organization and the nature of their accountability. The Metropolitan Water District of Southern California is a water wholesaler which provides water to 27 member agencies, each of which is itself a water provider to an urban population in the region. The entitlement to MWD water is dependent on the cumulative taxes paid, rather than population, resulting in inadequate entitlements for younger and smaller agencies in rapidly growing areas. The organizational accountability of MWD is principally to its member agencies, though many of its water acquisition programs are constrained by state laws and the politics of other constituencies concerned about the potential impacts of MWD activities on their access to water and other benefits.

At the opposite extreme, organizationally, from MWD are the private water companies that supply the cities of Reno and Santa Fe. In these two cases, the companies have a primary responsibility to their stockholders which is conditioned by the terms of franchise agreements with the cities. City and regional planning entities have attempted, with varying success, to control water acquisition and distribution policy. The state agencies that represent the broadest public interest in these cases are the public service commissions, which set rates and other major policies for the private urban water providers. Their traditional purpose is to balance the needs of stockholders and those of ratepayers.

The most common organizational form of the urban water providers is the city water department, which is accountable to a city council. Some, like the

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<sup>4</sup> W. KAHRL, WATER AND POWER 446-51 (1982).

Denver Water Board, have independent powers and considerable authority to act outside the consideration of the council but their governing directors are still appointed by an elected official.

Perhaps the most broadly representative of existing urban water provider organizations is one that actually has a much broader mission, the Central Arizona Water Conservancy District. Its board is elected from the three counties in which Central Arizona Project (CAP) waters are delivered, but the two urban counties have the majority of the elected seats. Much of the purpose of the CAP has shifted from agriculture to urban needs in the past twenty years.

The common theme of these organizational forms is their accountability, in varying degrees, to a primarily or exclusively urban population, i.e. the consumers of water delivered by these agencies. So long as these providers have no other direct institutional accountability, or none other with so strong an ability to determine the basic mission and policies of the organization, then these providers will carry out the job assigned them, to ensure uninterrupted urban water supplies as far into the future as possible. The willingness of these agencies and their constituents to define policies taking broad state interests into account or the specific interests of non-urban constituencies affected by their decisions will only exist to the extent that there is a coincidence of self-interest.

If the cities fail in their basic mission, the economic and political consequences for their urban constituents can be severe indeed. The City of Phoenix estimated in its water plan that a 50 percent cutback in water supplies would cost the industrial sector of the local economy more than \$5.5 million per week and would cost the non-manufacturing sector about \$21 million per week.<sup>5</sup> Consumers would be forced to cut back on consumption as well, and elected officials, as well as water managers, would be quickly condemned for having failed in their basic job. Their accountability is found within their service area.

State policies, of course, are established principally by legislatures, and the trend in legislative representation follows the concentration of population in the arid Southwest into urban areas. The cities, then, are increasing their ability to define state policies in ways that will further their interests. But legislatures still represent rural and other constituencies as well so that cities do not have a free hand. They must respond politically to the needs of other communities as well as to a larger public interest. At present, legislatures offer the principal forum in which urban needs can be balanced by others in the definition of policies. They are the principal check on the considerable economic and political power of the urbanizing regions, but with each new reapportionment that balance shifts a bit more to the advantage of the cities.

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<sup>5</sup> Water and Wastewater Department, City of Phoenix, *Must the Ruses Die? A Summary of the Phoenix Water Resources Plan - 1987*, at 20 (1987).

The question becomes: Is it desirable and/or feasible to attempt to create more broadly representative institutional structures to which urban water agencies would have some degree of accountability. To illustrate the issues involved in this question, we will briefly examine a few efforts underway in Colorado, Arizona, Nevada and California to deal with the consequences of urban decision making about water that conflicts with rural and public interests.

## SCENES FROM THE URBAN-RURAL CONFRONTATION

These cases arise in situations where very different tools exist for rural constituencies to have an impact on urban decisions. These include: 1) Arizona—where rural counties have been seeking the creation of a regulatory system that would give them a voice in water purchases within their boundaries for exportation to the greater Phoenix metropolitan area; 2) Colorado—where rural counties, possessing a limited permitting system that can control the impacts of urban water projects, must now fight a court battle in which Denver is contesting the applicability of that system to its plans; 3) California—where the state environmental statutes have provided a basis for litigation that has enabled a rural county to negotiate a settlement with Los Angeles; and 4) Nevada—where federal law has provided an elaborate set of tools enabling an Indian government to reach a negotiated settlement involving Reno.

### ARIZONA

In recent years, the cities of Phoenix, Scottsdale, Glendale and Mesa have actively pursued a strategy of meeting projected future shortfalls in water supply by buying water "farms" at remote locations.<sup>6</sup> These "farms", that is, ranch and farm lands whose value to the cities consists of their associated water rights, are located in rural counties where the full impact of the Arizona Groundwater Management Act of 1980 is not felt. Under that act, the cities of the Phoenix Active Management Area must meet goals for reducing per capita water use in order to help achieve the statutory goal of groundwater withdrawals equalling recharge by 2025, and they must demonstrate the availability of a 100 year assured water supply. All these cities will rely on Central Arizona Project surface water to supplant local groundwater pumping, but the act does not prevent them from pumping groundwater outside the AMA either for direct importation for future use or for exchange for additional CAP water. Thus, the cities have spent millions of dollars for water farms but have also provoked the rural counties where these purchases have been made.

In particular, La Paz County in western Arizona, where only ten percent of the land within its boundaries is in private ownership, has protested that the sale of a

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<sup>6</sup> Woodard, Cheechio, Thacker & Colby, *The Water Transfer Process in Arizona: Analysis of Impacts and Legislative Options*, University of Arizona, Division of Economic and Business Research, Department of Public Administration 29 (April 1988).



significant fraction of that private land to municipalities will dangerously erode its already small tax base. Further, the county argues that exporting groundwater from this desert region will jeopardize the future economic growth of the area. La Paz has been joined in articulating this point of view by Yuma and Mohave counties, its neighbors on the south and north, respectively, where urban purchases of ground and surface water have also been considered.

Over the past two years, the urban and rural interests have attempted to negotiate a bill that would provide a comprehensive solution to this problem. Under present law, the rural counties have no voice whatsoever. Groundwater law outside the management areas prescribed by the Groundwater Management Act allows the surface owner to extract as much water as he or she pleases so long as it is put to beneficial use. There is neither a state nor a local permitting process that deals directly with the transfer of water farms or the exportation of water. The legislature did authorize a voluntary payment in lieu of taxes program which creates the possibility that cities can compensate rural counties for the loss of tax revenues deriving from municipal ownership of private land, but this is all that current law offers the counties.

Rural advocates proposed a number of water transport permitting systems, ranging from county approval to a state system, but the cities rejected direct regulation of this sort. The negotiations came to focus on a complex bill<sup>7</sup> that would have closed all but a few groundwater basins to water export and would have permitted pumping only to certain depths in order to conserve a minimal supply for the future. It also would have kept the voluntary in lieu tax payment system but would have made such payments a prerequisite to transporting water out of the county. The bill became encumbered with special interest elements, including special treatment for private speculators who had already invested in water farms and creation of a new commission to look into instream flow protection for the entire state. The bill passed the Arizona House but died in the Senate.

Importantly, the final bill was rejected by the rural counties, and it was their opposition that managed to tie it up in the Senate. While this demonstrates that the state legislature is a forum where interests still must be balanced, the failure of any bill to pass means that the rural counties are left without any further protection. In the last days of the legislative session a new idea surfaced which might yet provide the solution that both sides can live with. This is the concept of turning over the whole problem of meeting urban water supply needs to either a state or regional water acquisition agency. Such an agency would eliminate the need for cities to enter the market place themselves, often in competition with each other, but might also provide a level of public accountability beyond the boundaries of the urban area for the purchasing process itself. This concept will likely provide the framework for debate over the next year or two as rural and urban interests search for some way to meet their basic needs.<sup>8</sup>

<sup>7</sup> House Bill 2666, 39th Leg., 1st Reg. Sess., Arizona (1989) (known as the Groundwater Transportation Act of 1989).

<sup>8</sup> Southern Arizona Water Resources Association, *Comparison of Augmentation Agency Proposals* (1990).

## COLORADO

In Colorado there are two ways in which cities have been planning to meet future water needs by importation from rural counties. One is by constructing new water storage facilities in those rural locations. Denver, Aurora and Colorado Springs have projects planned for locations on both sides of the Continental Divide. A state land use planning law passed in the 1970s and known as the 1041 regulations allows counties to adopt permitting processes for new water facilities within their boundaries. Thus the counties have a direct method for influencing project construction. Denver, however, challenged the applicability of such regulations to its activities and argued its case before the Colorado Supreme Court, having lost earlier decisions at the district and appellate levels. One county advocate has described the value of the 1041 regulatory system as follows:

Transmountain diversions cannot and should not be stopped through local regulations, but many of the concerns of the basin of origin can be addressed through the 1041 process. The 1041 regulations accomplish this goal by initially requiring impacts to resources and activities be identified in the permit application process. The locally affected jurisdiction and the project proponent can then negotiate exchanges, releases, compensatory storage, or other mitigation plans rather than deferring to legislative mandates or court imposed solutions. A reasonable exercise of local land use authority over the method and manner of diversion can actually result in far better communication between East and West Slope water users and a greater understanding that development of the Front Range and protection of headwater resources represents a symbiotic relationship.<sup>9</sup>

The 1041 approach represents only a limited tool for participation in urban water decisions because it does not allow for a rural voice in the city planning process and simply positions the county of origin to react to plans for transbasin diversions. Its greater value is precisely that identified in this quotation, that it empowers the county to an extent that will make it possible for an agreement to be reached meeting its concerns while also allowing transbasin diversions to occur. A somewhat similar situation exists through a very different process with respect to transfers of water rights, which is the second method cities are using to meet future needs.

The purchase of agricultural water rights and subsequent transfer of use and point of diversion to enable the water to be used, either through direct transportation or exchange, in a different basin for urban purposes is a process that is under state rather than county jurisdiction. The water courts provide standing to affected rights holders to protest such transfers, and negotiated agreements have been worked out to provide some relief for the third party impacts in certain areas. Colorado law, however, does not have transfer criteria relating to the public interest, and it is up to individual water user entities to bear the brunt of filing

<sup>9</sup> Green, *1041: The Local Perspective*, presented at the 1986 Colorado Bar Association Convention, Joint Program of the Environmental Law and Water Law Sections, at 12-13 (1986).

protests. In the Arkansas Valley, Aurora has negotiated mitigation agreements to compensate local water users for the impact of transferring substantial water rights outside of the basin.<sup>10</sup> In a case involving the Rocky Ford ditch, Aurora agreed to meet costs of operation and environmental impact mitigation to protect the interests of downstream water users and also agreed to storage provisions that met the needs of upstream water users. But the costs of the litigation that prompted a negotiated settlement were high, and only those issues were raised that were asserted. Local municipal and county governments, for example, did not assert objections relating to impact on the tax base or governmental operations.

## CALIFORNIA

The California case presents the most recent episode in the decades-long struggle between Los Angeles and the Owens Valley and Mono Lake regions. The defense of Mono Lake in California courts has, of course, resulted in the application of the public trust doctrine as a means of limiting the impact of Los Angeles water rights on a major public resource, Mono Lake. Of equal interest, however, has been a series of negotiations over the last decade between Inyo County, in which the greater part of the Owens Valley lies, and the Los Angeles Department of Water and Power.

Inyo County took the lead as the public entity protesting the impacts of groundwater pumping by LADWP on environmental and water supply conditions in the valley. Using the California Environmental Quality Act (CEQA) as its key tool, Inyo County launched a series of lawsuits in the 1970s and 80s to block Los Angeles' pumping activities. It was primarily concerned about destruction of vegetation, as pumping removed groundwater on which plant communities depended, and the resulting increase in soil erosion and airborne dust as erodible desert soils were exposed to the wind after removal of vegetative cover. Springs, seeps and artesian wells were also dried up by the city's pumping, it was alleged. An interim agreement in 1984 regulated the pumping rates the city could use, and this was superseded by a more comprehensive agreement in 1989.<sup>11</sup> The latter agreement creates a management system for the permanent monitoring of vegetative conditions and regulation of pumping rates to prevent changes in plant communities. It creates a series of vegetative management zones, defined according to their sensitivity to the impacts of groundwater pumping, and also provides funding for numerous environmental control and mitigation measures.

As in the Rocky Ford case, the litigation effort which created an incentive for negotiations was costly and prolonged, but was necessary since California law provides little opportunity for input by affected third parties in groundwater

<sup>10</sup> Pratt, *A Water Transfer Case Study of Third Party Impacts and Strategies*, presented at the Water Marketing Conference, University of Denver College of Law (1987).

<sup>11</sup> County of Inyo and City of Los Angeles, Memorandum of Understanding, March 31, 1989 (regarding groundwater pumping).

cases. The public trust doctrine of the Mono Lake case has a forum for application in the California Water Resources Control Board, authorized to condition the use of surface water rights in accordance with numerous constraints, including that of protecting the public trust. But there is no comparable forum to condition the pumping of groundwater, the principal means by which Los Angeles withdraws water from the Owens Valley.

#### NEVADA

In the Pyramid Lake case, years of litigation have recently resulted in movement toward a comprehensive negotiated solution. Here, I would like to isolate in this complex situation the impact of Reno's water use and policies on the Indian reservation lake. Through its recent growth, Reno has had to expand water treatment facilities and obtain EPA approval. This process created an opening for the Pyramid Lake Paiute Tribe to deal with water quality impacts on fisheries and the lake. Through recourse to this aspect of federal law, and in a context of multi-party litigation based on federal water and reclamation law, the tribe has been able to pressure Reno into an agreement that will alter internal city water policies.<sup>12</sup> Most notably, the agreement commits Reno to water conservation measures, including metering, designed to assure minimal flows to the lake and to protect water quality.

The agreement, with Reno's private water purveyor, would allow city water supplies to be concentrated in Stampede Reservoir and would make storage space available for tribal waters to protect fish spawning runs. It also would require Reno to install water meters and formulate a water conservation plan. Additionally, the agreement hinges on acquisition of agricultural water rights by the federal government to protect Stillwater Wildlife Refuge and on a number of other allocation decisions. But the greatest threat to this proposed agreement is public opposition to water metering, something which has been banned by the state legislature since 1919. In this case, the pressure created by an Indian community, protected under federal law, is causing a state to consider changing certain urban water policies. The long term interest of the City of Reno is to stabilize the legal situation in which it can acquire water rights. It thus has a powerful motive to resolve the Indian-related disputes.

A common thread through these cases is the use of either federal or state laws to create leverage for rural areas and for larger public interests (such as the protection of Indian rights, of basins of origin, and of environmentally sensitive resources, water conservation and the role of local government in asserting state interests). They indicate the continuing confrontation between cities attempting to acquire water supplies and the communities that are affected by their activities. Many more could be cited.

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<sup>12</sup> Bureau of Indian Affairs, Tribal Newsletter, Vol. 15, No. 5, May, 1989, at 2.

Albuquerque merits special mention because of the creative use it has made of its present and temporary condition of surplus supply. In certain instances, rather than waiting for litigation, it has helped achieve public interest goals even when not required to do so. To accommodate the needs of recreational interests, for example, the city worked out an agreement with the State Engineer and the Bureau of Reclamation to release waters from a reservoir on the Rio Chama, technically for storage in a downstream reservoir, but actually to provide instream flows for rafting purposes on a thirty mile stretch of the river. In another recent decision affecting local residents of this same area, the city provided a seasonal lease of water to traditional acequia irrigators whose crops were imperiled because of low natural flows in the Rio Chama downstream of the major storage reservoirs on that river. These incidents suggest that cities can use their power to benefit rural and public interests as well as to threaten them.

### REDEFINING THE URBAN/RURAL/PUBLIC RELATIONSHIP REGARDING WATER

Cities find themselves in a position of power with respect to rural communities and to the protection of public interest values in major water bodies. The large urban regions, whether represented by unitary water providers or by a multiplicity of separate jurisdictions, have, by and large, responded, however reluctantly, to the needs and demands of the constituencies they impact but only under the threat or actuality of legal action. State and federal law have given these constituencies enough recognition at least to enable them to litigate the cities into positions where negotiated settlements are possible. Legislatures, increasingly oriented toward urban interests, have refused to pass measures that would give sweeping powers to rural counties and others, but they have not given *carte blanche* to the cities either.

The number and frequency of clashes between cities and the communities they impact points to a struggle to define a new political relationship, one in which the wide reach of urban water decisions goes hand in hand with a new level of accountability. Increasingly, the question of whether Denver or Reno or Phoenix residents reduce their per capita consumption has an impact on the ability of farmers, ranchers, recreationists, environmentalists, Indian and Chicano communities to continue to meet their water needs into the future. And cities must take into account the rural and public interests in water if they are to be assured of security of supply. There is thus an interdependence but at the same time an imbalance of power which is shifting more and more toward the cities as population and the economic base of the Southwestern states continue to concentrate in urban areas.

Whether or not new institutions can be created to help balance these interests and provide a permanent forum in which water decisions reflecting the broadest possible consideration of the complex public good can be made is a question that

turns on the ability of diverse interests to work together. Unless there is a coalition of political force behind this concept, it will not come into existence. Thus far, such a coalition has not emerged.

Recently, a number of agreements have been negotiated involving cities and Indian tribes. The upshot of many of these is that the Indian water right is sharply limited in exchange for other types of benefits. One might think that this could provide a model for dealing with the urban need for water resources in other contexts, that is, the cities will buy what they need. But a recent California proposal suggests just the opposite, that a compelling public interest can buy out the city. The California legislature has adopted a bill to protect Mono Lake by creating a large fund to help Los Angeles replace water it may ultimately lose through court action limiting its right to divert water from the streams feeding into Mono Lake. The concept of the Cliff Dam replacement in Arizona has a similar logic to it. A water project deemed undesirable for numerous reasons is to be replaced with a fund to purchase water rights already being put to beneficial use. These proposals go beyond opposition to the impacts of urban demand. They recognize that the cities need water and must get it somewhere. If the public interest dictates that one source cannot be sacrificed to meet that demand, then ways must be found to provide compensatory supplies. That is the trade-off that proposals for institutional change must address.

In a larger context, the urbanizing areas can be seen as the major centers of economic and technological change. As Lewis Mumford described them they present two different faces: the destructive one of the tentacular presence that reaches out to control and seize for its own use resources of all types, and the positive one of the invisible city that links diverse cultures and places and provides facilities and resources that remote areas alone cannot support.<sup>13</sup> When the huge groundwater pumps or the massive dams and reservoirs of a city water provider appear in a remote rural area—or the impact of those distant facilities lowers water tables or lake and river levels, those outward signs of urban influence suggest a degree of resource need, of political and organizational power, of technology and economic might that dwarf what has existed in most rural regions heretofore. Their impact is similar to that of interstate highways. Roads, water facilities, ski areas are all ways in which the urban-based economy draws rural areas—both its traditional communities and its untouched lands—into its orbit, taking resources, but also providing opportunities.

As the cases mentioned here demonstrate, the rural communities and the national communities defending the natural environment are not without tools to change and improve the policies of the urban areas. What is needed to ensure a productive outcome to the clashes between these constituencies is both a sense of the real interdependence that draws them together and the definition of policy goals that transcend the narrow self-interest of any one constituency. The con-

<sup>13</sup> L. MUMFORD, *THE CITY IN HISTORY: ITS ORIGINS, ITS TRANSFORMATIONS, AND ITS PROSPECTS* 533 and 563 (1961).

frontation of interests can proceed as one between predator and victim or it can be restructured through new forums for decision making and policy development into something approaching an alliance, in which cities invest in diverse ways in rural areas in exchange for the withdrawal of water and other resources. To achieve this, some type of regionalization of decision making seems inevitable. At present we see mostly the ad hoc efforts to inject rural and environmental values into decisions still controlled primarily by the powerful urban water institutions. Perhaps a regional approach will emerge in Arizona in the near future as that state grapples with the impact of urban water farming. But such a change in decision making will come only with considerable struggle as the rural and environmental communities devise strategies to keep themselves in the political and legal arena where their rights and interests must be asserted. No concept for regional decision making will survive the political test unless there is a powerful coalition pushing for its adoption. Creating such a coalition will have to be a major goal of all those communities faced with the water-related impacts of urban growth.