

**RECOVERY IMPLEMENTATION PROGRAM
FOR ENDANGERED FISH SPECIES IN
THE UPPER COLORADO RIVER BASIN**

**RECOMMENDATIONS ON THE LEGAL, POLICY, AND
INSTITUTIONAL ISSUES RELATED TO
INSTREAM FLOW PROTECTION IN COLORADO**

March 1, 1993

**Prepared for
The Water Acquisition Committee of the
Recovery Implementation Program**

By

**The Center for Public-Private Sector Cooperation
Graduate School of Public Affairs**

University of Colorado at Denver

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Disclaimer

While this report addresses a number of legal concepts, it is not meant to be a legal document and does not bind any participant in these discussions to any legal position or interpretation. Instead this report is a working document developed by a multi-disciplinary group that expresses general views, organizes issues, and offers a process for the development of cooperative solutions to the problem of the timely acquisition of the water needed to recover the endangered Colorado River fishes.

Definition

Unless a more specific term is used in this report, the terms "water acquisition", "acquisition of water", "acquisition of an instream flow right", "protection of instream flows or flows", "flow protection or instream flow protection", "protecting flows", or "legal protection of flows" refer to one or more of the strategies listed in Table 3.4.2.1 of this report to be pursued in accordance with Colorado water law and the procedures of the Colorado Water Conservation Board, including appropriation, acquisition and conversion of existing rights and modification of federal reservoir operations.

Executive Summary

There are four endangered fish species in the Upper Colorado River: the bonytail chub, the Colorado squawfish, the humpback chub, and the razorback sucker. Habitat management is one of five elements of the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP), which is a cooperative effort by the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, the states of Colorado, Wyoming and Utah, and water development and environmental groups to recover these endangered fishes while water development in the Upper Colorado River Basin proceeds. This element includes the acquisition of water for endangered fish habitat. In the State of Colorado, such acquisition will proceed in accordance with Colorado state water law and the procedures of the Colorado Water Conservation Board (CWCB). While one group under the RIP is concerned with developing agreements on technical/biological issues based upon a "best science" approach, another group was asked to identify and address the legal, institutional, and policy issues associated with the acquisition of water for endangered fish habitat in the State of Colorado. This ad-hoc group came to be known as "GURU II." To facilitate its deliberations, GURU II retained the services of the Center for Public-Private Sector Cooperation (CPPSC), in association with the Graduate School of Public Affairs, at the University of Colorado at Denver.

Process. The process by which GURU II worked can generally be described as a facilitated policy implementation dialogue. Essentially, a given set of stakeholders were charged with identifying and addressing institutional, legal, and policy issues related to the instream flow needs of the endangered fish species.

The process entailed the use of trained facilitators and a knowledgeable expert to keep the group focused and to provide the structure within which disagreement could be contained until agreements were reached. Briefly, the structure provided by the facilitators included moving from underlying premises (fish recovery and water development together) and goals to criteria and,

eventually, evaluation and recommendations. Steps included group design of groundrules, articulation of desired outcomes of the process and each meeting, and the design of timed agendas to achieve those outcomes.

The process was designed to allow all stakeholders to participate fully in the transition from a somewhat adversarial model of interaction to a more problem-defining and solving model using collaborative and consensus-based decision-making. At critical junctures, the facilitation and consulting team also provided skill-building interventions in conflict management and collaborative problem solving. The process promoted success of the endeavor by providing an environment within which both substantive disagreements and communication issues could be addressed and resolved.

Substance. An important early step in the group's progress was to identify and achieve consensus on the priority issues. The group organized substantive issues into four action categories:

Category I - Critical; necessary to work on now, although ultimate resolution may or may not be within the purview of GURU II.

Category II - Work on Next; (although work may already be in progress by some GURU II members or other RIP parties).

Category III - Work on Later; long-term issues not susceptible to immediate resolution

Category IV - Non-issues ; at least at this time.

The group then categorized the issues as follows:

Category I -

- (a) Uncertainties in Flow Recommendations.
- (b) CWCB Discretion When No Direct Flow/Population Causal Linkage Can Be Demonstrated.
- (c) Interim Instream Flow Rights.
- (d) Impact of the Legal Protection of the Flows Needed for Recovery on Colorado's Ability to Develop its Compact Apportionments
- (e) "Sufficient Progress" As Possible Impediment to Protecting Flows.
- (f) Lack of Grassroots Constituency Support Within Agencies and Among Public.

Category II -

- (a) Previous CWCB Decisions.
- (b) "Physically and Legally Available" Requirement.

- (c) No Material Injury Rule.
- (d) Conditional Rights.
- (e) Subordination of USFWS Instream Flow Rights.
- (f) Conditional to Absolute Instream Flow Conversions.
- (g) Leases for Instream Flow.
- (h) Decreases and Instream Flow Releases.
- (i) Salvaged and Saved Water
- (j) Institutional Responses to Uncertainty.

- Category III* -
- (a) "Minimum Requirements/Reasonable Degree".
 - (b) Distinctions Between Instream and Consumptive Use Rights.
 - (c) Condemnation.
 - (d) Variability in Instream Flow Right Definitions.
 - (e) RIP and Other Fishery Needs.

The group then focused its efforts on two of the Category I issues: 1) The Impact of the Legal Protection of Instream Flows on Colorado's Ability to Develop its Apportionment under the 1922 Colorado River Compact and the 1948 Upper Colorado River Compact, and 2) Interim Instream Flow Rights, expanded to include other water acquisition strategies. Regarding the compact issue, GURU II members adopted the following four-step process for addressing possible conflicts between Compact apportionment and endangered fish needs:

- Step 1.* Quantification of Colorado's compact apportionment on a stream-by stream basis.
- Step 2.* Interim Instream Flow Protection Possibilities.
- Step 3.* Determination of Potential Conflicts.
- Step 4.* Juniper-Cross Conversion Determination.

The derivation of strategies for water acquisition and their application to specific water resource allocation situations in Colorado was a two-step process. The first step was to identify various strategies generically, and the second was to determine during what seasons of the year each of these strategies should be applied on what rivers in Colorado. Listed below are the various generic strategies identified by the group:

- (1) Establishment of an Absolute Junior Water Right.
- (2) Establishment of a Interim Instream Water Right.
- (3) Establishment of Combined Absolute and Interim Water Right.
- (4) Acquisition of an Existing Absolute Water Right.
- (5) Acquisition of an Existing Conditional Water Right.
- (6) Non-federal Rights to Reservoir Storage.
- (7) Reservoir Re-operation.
- (8) Salvage Water.

At its last facilitated session in July of 1992, GURU II members determined which of the

strategies enumerated above should be applied to the various rivers in Colorado, when during a given year they may be needed, and over what period of time they should be applied. The results of this collaborative effort appear at pages 3-14 through 3-17 of the full report. These recommendations should be taken to the Water Acquisition Committee of the RIP and back to the participants' respective agencies for comments and agreement. It is crucial that the GURU II participants maintain a sense of cohesion as they present their work. Finally, the GURU II group needs to follow through on its agreement to meet in at the beginning of 1993 to reinforce its internal commitments, develop next steps on Category I issues and determine what, if any, steps need to be taken on Category II and II issues.

“GURU II” DIRECTORY OF DOCUMENTS

<i>Date</i>	<i>Author(s)</i>	<i>Description</i>
10/24/91	Wigington	“Restatement of Issues for Guru II”.
10/29/91	Pitts	“Revised Proposal for Policy Analysis (Guru II)”.
10/29/91	Guru II	“Preliminary List of Potential Impediments to Appropriation, Lease, Acquisition, and/or Protection of Instream Flows for Endangered Species”. Original issues statement by Guru II members.
1/17/92	Evans	“Endangered Fish Recovery”. Memo to Walker, Olson, and Danielson regarding rationale for and organization of Guru II.
2/28/92	Guru II	“Preliminary List of Potential Impediments to Appropriation, Lease, Acquisition, and/or Protection of Instream Flows for Endangered Species (Redraft)”. Issues statement by Guru II members used at outset of 2/28/92 plenary dialogue.
2/28/92	CPPSC	“Group Memory”, Plenary Dialogue #1. Process agreements. Initiation of re-wording of issues.
4/6/92	CPPSC	“Group Memory”, Plenary Dialogue #2. Issue sorting (triage) of 2/28/92 “Preliminary List” into four categories. Reformulation/re-characterization of issue questions from binary “Is” questions to consensual action-oriented “How to/How can” questions.
4/28/92	CPPSC	“Memorandum to Guru II participants”. CPPSC facilitation team statement of suggested next steps in Guru II process.
4/28/92	CPPSC	“Priority List of Impediments by Category”. Sorted list of issues accompanied by action steps to be taken re category I (i.e., top priority) issues.
4/28/92	CPPSC	“Preliminary List of Potential Impediments to Appropriation, Lease, Acquisition, and/or Protection of Instream Flows for Endangered Species (Redraft)”. Issues statement by Guru II members of 2/28/92, sorted by action category.
5/19/92	Jencsok	“Discussion of Interim Flow Concepts”. Memo to Evans, Kuhn, Pitts, Weiss, and Caskey.
5/26/92	Guru II	“Agenda - Interim Flow Concepts Discussion Meeting, June 4, 1992.”

<i>Date</i>	<i>Author(s)</i>	<i>Description</i>
5/26/92	Guru II	"Options for Interim Flow Protection". Discussion of various means of providing interim flow protection; uncertainties; questions.
6/1/92	CPPSC	"Group Memory", Plenary Dialogue #3. Clarification of process rules governing future interaction of Guru II participants. Identification of criteria for evaluating action options on problem categories. Enumeration of next action steps.
6/5/92	CPPSC	"Draft Restatement of Residual Category II Issues".
7/10/92	Wigington	Summary statement of objectives and issues for next plenary dialogue, based on 7/1/92 meeting among Wigington, Evans, Jencsok, Uppendahl, Hamill, Green, and Smith.
7/14/92	Uppendahl/Smith	"Discussion Paper on Value of Junior Instream Flow Water Rights to the Recovery Program".
7/20/92	CPPSC	"Group Memory", Plenary Dialogue #4. Rank-ordering of water rights categories and water acquisition strategies. Matching of rights and strategies to specific rivers in Colorado during specific seasons of the water year.
7/20/92	Guru II	Edited and Approved Version of Uppendahl/Smith memo of 7/14/92.
9/18/92	Pitts	"Proposal for Resolving Uncertainty Issues Associated with Instream Flow Appropriations in Colorado".

1. INTRODUCTION

1.1. Historical Context.

One of the great paradoxes among several notable ones in the history of western water law and policy is that it is characterized both by intense levels of conflict and by remarkable episodes of cooperation. Further, both of these modes of interaction have been played out from the smallest to the grandest of scales -- from disputes among nineteenth century miners on the same mountain stream which gave rise to the prior appropriation system, to interstate disputes involving entire river basins and millions of acre-feet of water that resulted in compacts allocating water among states.

When negotiators from seven western states assembled in Santa Fe in 1922 to craft the Colorado River Compact, they were impelled by a common understanding that the alternative to agreement was grim indeed: water rights litigation of unprecedented scope, complexity, expense, and duration. Upon refusing to ratify the Compact, the state of Arizona did indeed spend much of the next half-century seeking to establish its rights against California and Nevada in court, while the upper Colorado River Basin states divided waters allocated to the upper half of the river peaceably among themselves in 1948.

It was in the spirit of these Colorado River compacts that representatives of the states of Colorado, Utah, and Wyoming, water user groups, environmental organizations, and the U.S. Department of the Interior in 1988 reached agreement on how the Endangered Species Act should be implemented in the Upper Colorado River Basin with respect to the endangered fish species. Their agreement took the form of the *Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin* (U.S. Fish & Wildlife Service, 9/29/87), the purpose of which was to recover the endangered fish species in the Upper Colorado River Basin while water development proceeds in the Upper Basin. The endangered species include the Colorado

squawfish, the bonytail chub, the humpback chub, and the razorback sucker.

1.2. Instream Flow Issues

One aspect of the Recovery Implementation Program (RIP) is the acquisition water in accordance with Colorado state water law and the procedures of the Colorado Water Conservation Board. The Recovery Program's Water Acquisition Committee established a multi-disciplinary subcommittee to identify and address the legal, institutional, and policy issues associated with the acquisition of water and water rights for endangered fish (Evans, 1/17/92)*. The original intent of the subcommittee was to identify any impediments and find an expert or "Guru" to develop strategies to overcome the impediments. The subcommittee soon realized the "expert" was the group sitting around their table. Hence, the subcommittee came to be known as GURU II. (A separate committee was given the charge of addressing technical/biological issues associated with instream flows and came to be known as "GURU I.")

1.3. The Facilitation Team and Its Charge.

Facing this subcommittee was the same historical and contemporary paradox described above: the need to implement a vitally important agreement on how to recover the endangered fishes while water development within the Upper Colorado River Basin proceeds-within the context of existing allocative procedures and institutions. This dilemma, as well as its agreed upon resolution (the RIP), requires a high level of cooperation outside of the judicial process. To aid in establishing a cooperative process and to expedite its implementation, the subcommittee retained the services of a facilitation team based in the Center for Public-Private Sector Cooperation, in association with the Graduate School of Public Affairs at the University of Colorado at Denver

* Throughout this report, citations to supporting documentation, all of which is in the Documents Appendix, are in parentheses by author and date; they also correspond to the Directory of Documents appearing just after the Table of Contents in this report.

(resumes in Documents Appendix).

One of the team's agreed-upon tasks was to prepare a brief report containing a chronology of major activities (Table 1.4. below), GURU II's organizational structure and the rules it adopted governing the process of its deliberations (Chapter 2), the consensus it was able to achieve on selected matters of substance (Chapter 3), and the facilitation team's observations and recommendations regarding processes for maintaining cooperation-based momentum in the future fulfillment of the Recovery Implementation Program. This document represents the facilitation team's discharge of that responsibility.

Table 1.4. Chronology of Events

<i>Date (1992)</i>	<i>Meeting Type</i>	<i>Meeting Purpose</i>
February 21	Subgroup	Orientation of facilitators to GURU II background and purpose
February 28	Plenary	Agree on groundrules Develop issues/impediment list Agree on next steps
April 6	Plenary	Refine issues/impediment list Agree on priority issues Develop and agree on next steps
June 1	Plenary	Understand time frame for compact questions Brainstorm options for instream flow protection Develop next steps for uncertainty issues
July 1	Subgroup	Develop option for instream flow protection
July 20	Plenary	Agree on strategies and priorities for instream flow protection.
September 15	Subgroup	Agree on report outline and objectives

2. The Evolution of Process

The process followed by GURU II in its deliberations can generally be described as a facilitated policy implementation dialogue. At its outset, GURU II, working through the National Fish and Wildlife Foundation in Washington D.C., solicited a proposal from the Center for the Improvement of Public Management of the University of Colorado at Denver's Graduate School of Public Affairs to facilitate initial discussions.

Facilitated meetings of the committee began in February 1992 and concluded in July 1992. A total of four plenary GURU II meetings were held during this period all of which were facilitated by professionals from the Center for the Improvement of Public Management.

2.1. Group Membership

The stakeholder membership of the GURU II committee, which was constituted before facilitators were retained, included the following:

John Hamill
Fish & Wildlife Enhancement
U.S. Fish and Wildlife Service

Bob Green
Water Resources
U.S. Fish and Wildlife Service

Larry Shanks
Endangered Species
U.S. Fish and Wildlife Service

Peter Evans
Legal Counsel
Colorado Department of Natural Resources

Hal Simpson
State Engineer, Division of Water Resources
Colorado Department of Natural Resources

Eddie Kochman, Jay Skinner and Grady McNeil
Division of Wildlife
Colorado Department of Natural Resources

Tom Pitts
Representing Upper Basin Water Users
Tom Pitts & Associates, Consulting Engineers
Loveland, Colorado

Gene Jencsok
Colorado Water Conservation Board
Colorado Department of Natural Resources

Margot Zallen
Attorney
Regional Solicitors Office
U.S. Department of Interior

Robert Wigington
Western Water Attorney
The Nature Conservancy

Eric Kuhn
Assistant Secretary Engineer
Colorado River Water Conservation District

Wendy Weiss
Assistant Attorney General
State of Colorado

2.2. Facilitation Team

In contemplating its role in assisting GURU II, the Center for Public-Private Sector Cooperation committed two experienced facilitators: Kenneth H. Torp and Lisa Carlson. Additionally, the Center retained the services of Professor Lloyd Burton of the Graduate School of Public Affairs. Dr. Burton is a nationally recognized expert in the field of environmental law and dispute resolution. While Mr. Torp and Ms. Carlson provided professional and substantively neutral facilitation services, Dr. Burton helped focus GURU II on the substantive issues, developed process interventions that maintained momentum, and provided neutral re-characterization of particularly contentious issues.

2.3. *Process Development*

In general, the process that GURU II developed and followed during its deliberations approximated a classic problem solving model, with some adaptations designed to meet the specific requirements of the GURU II objectives.

2.3.1. *Initial Steps.* As a first step in the process the GURU II participants developed a set of groundrules or operating procedures that were observed and policed by the group and the facilitators during all meetings. The GURU II groundrules were:

- (1) Principals only (no substitutes)
- (2) Attend all meetings
- (3) Be candid. Be tough on the issues and easy on the people.
- (4) Don't "recycle" conflicts
- (5) One participant speaks at a time. Others listen.
- (6) No recording machines and no telephone interruptions

As GURU II's deliberations unfolded, the group added an additional groundrule under which participants would communicate as early as possible on emerging and important issues to enhance trust and diffuse conflict. Specifically, the group agreed that important issues would be surfaced at GURU II meetings or directly with group members before any reactive steps were initiated.

An initial survey of participant expectations was informally conducted to assure that there was agreement on the desired outcomes and purpose of GURU II. This also permitted the facilitators to design agendas that would achieve the group's desired outcomes.

Another initial process step was to re-acknowledge the premises for the RIP as the recovery of the endangered fishes while water development in the Upper Colorado River Basin proceeds. That ideal vision was predicated upon the GURU II's understanding that an agreement would require a timely balancing of the competing claims of endangered fish species and other users of the Colorado and Yampa river waters. Some GURU II participants ultimately referred in short

hand to these premises as: "Happy fish and happy people."

A formal analysis was also conducted to delineate those factors that would assist in achieving the underlying premises for the RIP and those that would make it difficult. This allowed the group to articulate the challenges and to gain some confidence that there were sufficient forces working in their favor to succeed.

2.3.2. Later Developments. The balance of the process, which to some extent is ~~more richly~~ detailed in the following section of this report, entailed the following steps.

(a) Inventory a "preliminary list of potential impediments to appropriation, lease, acquisition and/or protection of instream flows for endangered species."

(b) Sort and classify the above list into four categories (see section 3.2.1 of Chapter 3):

Category I : Those that are critical and can be addressed.

Category II : Those that are important and should be addressed next (or are already in progress in some other dialogue or venue).

Category III: Those that are long-term problems that will be tackled later.

Category IV: Non-issues that can be disposed of immediately.

The Category I issues were then divided into sub-categories and issues were translated into solvable problems, i.e., conflict statements were re-formulated into "how to" questions. This then allowed the group to make the transition from participants in a conflict into collaborators in a problem solving project.

Once the Category I issues were translated into problem descriptions, the group was able to employ a typical problem solving model that began with the generation of options and the enumeration of evaluation criteria through to application of criteria and agreement on recommended solutions.

Observations on the process employed in this project are contained in Chapter 4 of this report.

3. SUBSTANTIVE ISSUES: ANALYSIS AND ACTION

3.1. Overview.

For simplicity's sake, this report has been organized into chapters on process and substance, with the previous chapter emphasizing primarily the evolution of rules by which the group agreed to govern itself, how it approached analysis of the substantive issues before it, and what guidelines should inform its deliberations in the future. In contrast, this chapter describes the substance of Guru II deliberations. However, process and substance are inextricably intertwined, and the following description of substantive developments will necessarily overlap in a review of process as well.

Among the more significant events in the analysis of and action on issues of substance during the spring and summer of 1992 were Guru II's rank-ordering of issues in terms of their importance and the immediacy with which they should be addressed, the derivation of a process for addressing issues related to the Colorado River compacts, and the identification of river-specific water acquisition strategies for endangered fish habitat. Action taken in each of these three areas is described below, supported as appropriate by reference to items in the Directory of Documents at the beginning of this report.

3.2. Ranking of Substantive Issues.

3.2.1. Category Definitions. An important early step in Guru II's progress and the subject of significant effort at its first plenary meeting in February of 1992 was achieving a threshold level of consensus on the question of which issues were most in need of immediate attention and action. Earlier efforts at doing this had already been made by individual group members (e.g., Wigington, 10/24/91). An expanded version of this early issues statement was prepared immediately thereafter, in keeping with the decision format followed by the Colorado

Water Conservation Board (Guru II, 10/29/91). It was this document that provided the basis for categorical rank-ordering by the group at its first plenary dialogue.

Using this issues list, the group resolved to organize it into four action categories, as follows:

Category I - Critical; necessary to work on now, although ultimate resolution may or may not be within the purview of GURU II.

Category II - Work on Next;, (although work may already be in progress by some GURU II members or other RIP parties).

Category III - Work on Later; long-term issues not susceptible to immediate resolution

Category IV - Non-issues ; at least at this time.

The group performed an initial sorting of substantive issues by these categories at the February plenary meeting. Upon circulation of the group memory record to Guru II members subsequent to the meeting and further refinement/correction of the sorting record, the following categorical issues sort emerged from the group -- re-stated not as impediments to RIP success but as action-oriented questions on problems that may need to be solved in order for that success to occur (CPPSC, 4/28/92).

3.2.2.1. Category I ("Work on First").

Uncertainties in Flow Recommendations. How can the Colorado Water Conservation Board (CWCB) address the uncertainties in the quantity of flow recommendations (e.g., use of professional judgment when cause and effect relationships are imprecise or poorly understood, application of methodologies that yield uncertain results, application of different methodologies for different river reaches, consistency of methodologies)? In so doing, how can the CWCB

address the necessity of simultaneously and successfully interpreting biological and engineering technical data?

CWCB Discretion When Flow/Population Causal Linkage Is

Uncertain. How much latitude does the CWCB have in addressing situations in which it is not feasible to establish relationships between flow, fish population, and habitat? In working with these situations, how should the Board simultaneously and fairly interpret both biological and engineering technical data?

Interim Instream Flow Rights. How should stakeholders explore the possibility of acquiring “interim” instream flow rights subject to future review and refinement based on new data? In so doing, the following issues must be addressed: (A) Would interim flow rights adequately protect habitat until uncertainties are resolved? (B) Can USFWS rely on interim flows in issuing its biological opinions? (This issue is subsumable under the broader questions of CWCB discretion raised above).

Impact of Instream Flow Protection on Colorado's Ability to

Develop its Compact Apportionment. How should stakeholders address a variety of potential conflict areas between the protection of instream flows for the endangered fishes and Colorado's ability to develop its compact apportionment, including:

- (A) timely stream-by-stream identification of Colorado's compact apportionments;
- (B) instream flow protection for fish habitat pending quantification of the stream-specific stream-specific compact apportionment;

(C) possible conflict between Colorado's ability to develop its compact apportionment and the preservation of fish habitat in the 15-mile reach of the Colorado River and the Yampa River; and

(D) possible conflict between Colorado's ability to develop its compact apportionment and conversion of Juniper-Cross Mountain rights to instream flow rights?

"Sufficient Progress" As Possible Impediment to Protecting Flows.

Can flows be protected in timely enough manner to allow planning and work on water projects to go forward? Can recovery goals be sufficiently defined to allow for more timely "sufficient progress" decision making?

Lack of Grassroots Constituency Support Within Agencies and

Among Public. How can stakeholders build sufficient support among government agency personnel and among affected publics to ensure that RIP performance is effective, efficient, and expeditious?

3.2.2.2. Category II ("Work on Next").

Previous CWCB Decisions. How should stakeholders resolve situations in which precedent established in previous decisions (e.g., Blue River case or conditional water rights policies) may create a barrier to protecting flows for fish population recovery?

'Physically and Legally Available' Requirement. How should stakeholders and the CWCB address the impact of this requirement or the method of its determination on the protection of instream flows?

'No Material Injury' Requirement. How should stakeholders and the CWCB address this requirement in the protection of instream flows?

Conditional Rights. How should stakeholders and the CWCB address the impact of conditional rights on findings of “physical and legal availability of water”?

Subordination of USFWS Instream Flow Rights. In conversion of absolute rights to instream flow rights for fish recovery, how can the subordination of such instream flow rights to junior be addressed?

Conditional to Absolute Instream Flow Conversions. How should the allowability (or lack thereof) of such conversions of water rights under Colorado law be determined?

Leases for Instream Flow. Under what circumstances will the CWCB be a party to the lease of water (storage or direct flow) for instream flow protection?

Decrees and Instream Flow Releases. When does a water right decree allow for a release of stored water for instream use to be protected from diversion? Must the CWCB hold some interest in the storage release to protect it from diversion?

Salvaged and Saved Water. Can salvaged and saved water from projects in the Grand Valley be used for the RIP? Are there state law or other institutional impediments to this practice; and if so, how should stakeholders address them?

Institutional Responses to Uncertainty. If it does not become technically or biologically feasible to establish a precise or certain relationship between instream flows and protection of habitat for fish recovery, how should stakeholders anticipate and prepare for the response of other agencies (e.g. Bureau of Recreation) and parties to the RIP?

3.2.2.3. Category III (Long-Term --Work on Later -- May Become Non-Issues).

“Minimum Requirements/Reasonable Degree”. Is state statutory language regarding “minimum...stream flows to preserve the natural environment to a reasonable degree” inconsistent with instream flows needed for fish recovery (i.e., is this a less exacting standard than federal law might require); and if so, how should stakeholders respond?

Distinctions Between Instream and Consumptive Use Rights. Do the differences in legal criteria and procedures for acquisition of instream and non-instream water rights give a higher value to the latter; and if so, does this thwart RIP goals?

Condemnation. Does the prohibition on condemnation present an impediment to protecting instream flows; and if so, how should stakeholders address the issue?

Variability in Instream Flow Right Definitions. How can an instream flow right that varies annually and instantaneously be described, quantified, and acquired under state law?

RIP and Other Fishery Needs. How should the CWCB accommodate other fishery needs (e.g., sports fisheries) with RIP requirements?

3.2.2.4. Category IV ("Non-Issues").

Compact Delivery Obligation on the Yampa River . Does this obligation prohibit dedication of the senior Juniper water rights to instream flow protection?

Orchard Mesa Check. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?

3.2.3. Narrowing the Focus for Subsequent Action. Once this important categorization task had been completed, the group recognized that on the one hand it had defined an action agenda that it would obviously take several years to complete; but that on the other, if the forward momentum in collaborative problem solving that had been established by the above process was to be maintained, it would be necessary to begin to take concrete steps toward the resolution of at least some of the high priority issues. Accordingly, the group determined that it would next (1) derive an agreed-upon process for addressing Colorado River Compact issues (as noted above) and (2) recommend water acquisition strategies on a river-specific basis for the provision of interim and long-term instream flows for endangered fish habitat protection.

3.3. Process for Addressing Compact Issues.

One of the great difficulties Guru II knew it was facing was that many of the decisions or recommendations it might make with regard to a specific CWCB decision or federal directive would inevitably have an effect on much broader-scale water rights issues, such as Colorado's ability to develop its compact apportionment; and that conversely, long-term settlement of currently unresolved compact issues will inevitably have some impact on the ultimate success of the RIP. However, the group also recognized the practical impossibility of waiting for long-term resolution of major compact issues before addressing the problems before them. The remaining question for the group was "What do we do in the meantime?"

The group's answer to that question was to adopt the following four-step process for addressing potential conflicts between full compact development and instream flows needed for endangered fish.

3.3.1. Steps for the Resolution of Conflicts Between Compact Development and Instream Flow Protection for Endangered Fish.

Step 1. Quantification. Identify Colorado's compact apportionment on stream-by-stream basis as well as its any stream-specific delivery requirements that may exist.

Step 2. Interim Instream Flow Protection Possibilities. Until Step 1 is completed, identify what instream flow protection is possible. There is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact apportionment flows among tributaries.

Step 3. Determination of Potential Conflicts. When Step 1 is completed, determine whether full development of Colorado's compact apportionments presents a conflict with the protection of instream flows for the benefit of fish in the 15-mile Reach and the Yampa.

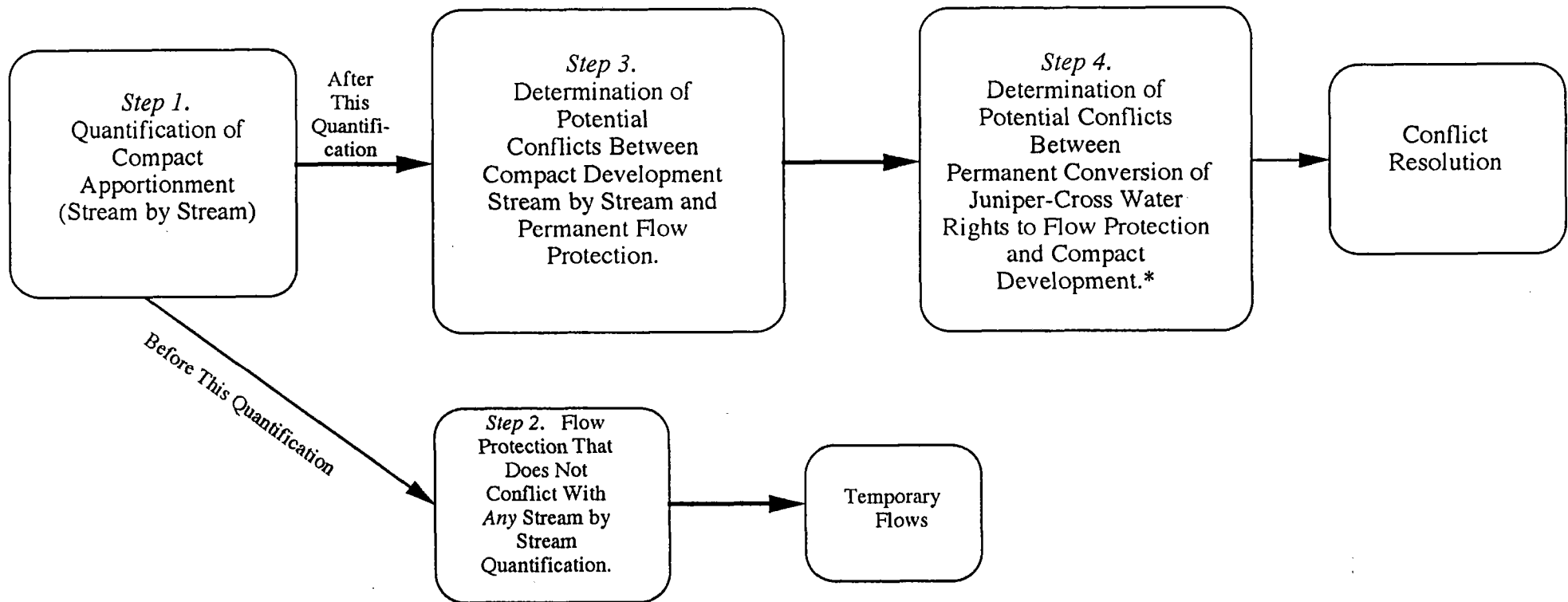
Step 4. Juniper-Cross Conversion Determination. Determine whether or not the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact apportionment.

Upon reflection, the group recognized that these steps intertwined the interim and permanent resolution of the potential conflicts between compact development and flow protection. The group then developed Chart 3.3.2. in an attempt to better distinguish between steps toward interim and long-term resolution of such conflicts. Step 2 is shown on this chart as a step towards an interim resolution and additional steps along this track were suggested; while Steps 3 and 4 were shown on the chart as steps toward a long-term resolution. In subsequent sessions, the group generated a suite of strategies that further elaborate on all of these steps. These steps and their organization between interim and long-term flow protection are discussed in the next section. In addition, the group also identified and agreed upon certain other specific actions to be taken by members within suggested timeframes, to ensure timely action on understandings achieved in plenary dialogue (CPPSC, 4/6/92, p. 1-2).

3.4. Water Acquisition Strategies for Interim and Long-term Instream Flow Protection

The derivation of strategies for water acquisition and their application to specific water resource allocation situations in Colorado was a two-step process, occurring principally at Guru

*Chart 3.3.2.
Resolving Compact Entitlement Conflicts*



3-9a

*Discussions may proceed based on interim compact information.

II's plenary in July, 1992. The first task was to identify various strategies generically, and the second was to determine during what seasons of the year each of these strategies should be applied on what rivers in Colorado. Listed below are the various generic strategies identified by the group; following that is a table compiled by Guru II members in plenary session reflecting their recommendations as to which strategies should be applied where and when (CPPSC,7/20/92).

3.4.1. Generic Descriptions of Water Acquisition Strategies.

Appropriation of an Absolute Junior Water Right. CWCB files for a new junior absolute water right to fulfill the RIP. This strategy would be used when there is no direct conflict with Colorado River compact apportionment and the CWCB accepts the technical and biological basis for the instream flow recommendations made by the FWS.

Appropriation of an Interim Water Right. Filing for an interim instream water right for the full flow recommendations for fish when either the impact on compact apportionment or the technical/biological basis of the flow recommendations is uncertain; periodic review of adequacy of recommendations and impacts on other water users.

Appropriation of Combined Absolute and Interim Water Right. Filing for a two part right: an absolute right for less than the amount that may be needed for fish in the event of compact conflict, combined with an interim right to fulfill the remainder of flow needs that may be in conflict with the compact apportionment or that may be technically/biologically uncertain, to accommodate possibility of change in flow recommendations; periodic review of adequacy of recommendations and impacts on other water users.

Acquisition of Existing Absolute Water Right. Existing absolute non-instream right is acquired and converted for an instream flow.

Acquisition of Existing Conditional Water Right. Existing conditional water rights are acquired and converted for an instream flow, or are retired in combination with the appropriation of a new instream flow water right.

Non-federal Rights to Reservoir Storage. Acquisition of existing non-federal reservoir storage rights for release at times necessary to maintain instream flows for endangered fish recovery.

Federal Reservoir Re-operation. Modification of federal reservoir management practices to accommodate instream flow needs.

Acquisition of Salvage Water. - Acquire salvage water and change instream flow uses for fish.

3.4.2. Application of Water Acquisition Strategies to Colorado Rivers.

Having identified an array of means for acquiring the water necessary for the recovery of endangered fish, the remaining task for the group was to determine which of them should be applied to what rivers in Colorado on a seasonal basis. The group compiled this information into a coded chart, the results of which have been re-configured into Table 3.4.2.1. at the end of this chapter. Subsequent to the July session, the concept of the appropriation of a conditional instream water right evolved into a broader concept, and is no longer strictly limited to a conditional water right. In Table 3.4.2.1, this concept is referred to as a “conditional junior water right.”

3.4.3. Further Development of Instream Flow Issues. Although no “hard and fast” rules for the choice of water acquisition strategies in specific management situations emerged from this process, Table 3.4.2.1. does reflect a general tendency on the part of the group to choose either the establishment of new junior absolute rights or the acquisition and conversion of existing rights in instances when there is more relative certainty in terms of flow needs and conditions for fish recovery; and to rely more on interim rights when there are higher levels of scientific or technical uncertainty regarding instream flow requirements. Several group members pledged action on specified issues by certain proposed dates in order to ensure that the momentum generated by and during the Guru II process would be sustained (CPPSC, 7/20/92, p. 4).

There was significant issue regarding whether a junior instream flow right would provide adequate protection (referencing the Smith/Uppendahl memo of 7/14/92 and its 7/20/92 revision by Guru II members). The subject of how interim and long-term instream flow rights should be used in the overall water acquisition process was addressed in a summary memo prepared by a group member two months after the last plenary dialogue facilitated by CPPSC (Pitts, 9/18/92); and this will undoubtedly be a subject area the group continues to develop. The substantive portion of this report, however, must end with a recounting of the last actions taken by Guru II *as a group* prior to the preparation of this account of Guru II’s deliberations and actions.

Table 3.4.2.1. PRIORITY STRATEGIES FOR WATER ACQUISITION

<i>River</i>	<i>Season</i>	<i>Time Frame</i>	<i>Strategy</i>
YAMPA	Winter	Interim (0-5 yrs.)	<ul style="list-style-type: none"> o Appropriate a new absolute junior water right (3.4.1.1.) o Acquire an existing conditional water right (3.4.1.5.)
		Longterm (5+ yrs.)	<ul style="list-style-type: none"> o Acquire an existing conditional water right (3.4.1.5.) o Appropriate a new absolute junior water right (3.4.1.1.)
	Spring	Interim (0-5 yrs.)	<ul style="list-style-type: none"> * Acquire an existing conditional water right (3.4.1.5.) o Appropriate a new absolute junior water right (3.4.1.1.)
		Longterm (5+ yrs.)	<ul style="list-style-type: none"> * Acquire an existing conditional water right (3.4.1.5.) o Appropriate a new absolute junior water right (3.4.1.1.)
	Summer/Fall	Interim (0-5 yrs.)	<ul style="list-style-type: none"> o Appropriate a new absolute junior water right (3.4.1.1.) * Acquire an existing conditional water right (3.4.1.5.) * Acquire existing non-federal reservoir storage rights (3.4.1.6.)
		Longterm (5+ yrs.)	<ul style="list-style-type: none"> * Acquire an existing conditional water right (3.4.1.5.) * Acquire existing non-federal reservoir storage rights (3.4.1.6.)

(* = Do first. o = Do next.)

<i>River</i>	<i>Season</i>	<i>Time Frame</i>	<i>Strategy</i>
WHITE	Winter	Interim (0-5 yrs.)	o Appropriate a new conditional junior water right (3.4.1.2.)
		Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.)
	Spring	Interim (0-5 yrs.)	o Appropriate a new conditional junior water right (3.4.1.2.)
		Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.)
	Summer/Fall	Interim (0-5 yrs.)	o Appropriate a new conditional junior water right (3.4.1.2.)
		Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.)
COLORADO (15-mile reach and above)	Winter	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.)
	Spring	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.) * Acquire an existing conditional water right (3.4.1.5.) * Modify federal reservoir management practices (3.4.1.7.)
		Longterm (5+ yrs.)	* Appropriate a new absolute and conditional junior water right (3.4.1.3.) o Acquire an existing conditional water right (3.4.1.5.) * Modify federal reservoir management practices (3.4.1.7.)

(* = Do first. o = Do next.)

<i>River</i>	<i>Season</i>	<i>Time Frame</i>	<i>Strategy</i>
COLORADO - 15-mi. reach & above (continued)	Summer/Fall	Interim (0-5 yrs.) and	* Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		Longterm (5+ yrs.)	* Modify federal reservoir management practices (3.4.1.7.) o Acquire salvaged water from consumptive use projects (3.4.1.8.) o Acquire an existing conditional water right (3.4.1.5.) o Acquire an existing absolute water right (3.4.1.4.) o Acquire existing non-federal reservoir storage rights (3.4.1.6.)
COLORADO (below 15-mile reach to state line)	Winter	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.)
	Spring	Interim (0-5 yrs.) and Longterm (5+ yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.) o Acquire an existing conditional water right (3.4.1.5.) o Modify federal reservoir management practices (3.4.1.7.)
	Summer/Fall	Interim (0-5 yrs.) and Longterm (5+ yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.) o Acquire an existing conditional water right (3.4.1.5.) o Modify federal reservoir management practices (3.4.1.7.) o Acquire salvaged water from consumptive use projects. (3.4.1.8.)

(* = Do first. o = Do next.)

<i>River</i>	<i>Season</i>	<i>Time Frame</i>	<i>Strategy</i>
GUNNISON	Winter	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		and Longterm (5+ yrs.)	o Acquire an existing conditional water right (3.4.1.5.) o Acquire an existing absolute water right (3.4.1.4.) * Modify federal reservoir management practices (3.4.1.7.)
	Spring	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		Longterm (5+ yrs.)	* Modify federal reservoir management practices (3.4.1.7.) o Acquire an existing conditional water right (3.4.1.5.) o Acquire an existing absolute water right (3.4.1.4.)
	Summer/Fall	Interim (0-5 yrs.)	o Appropriate a new absolute and conditional junior water right (3.4.1.3.)
		and Longterm (5+ yrs.)	* Modify federal reservoir management practices (3.4.1.7.) o Acquire an existing conditional water right (3.4.1.5.) o Acquire an existing absolute water right (3.4.1.4.)

(* = Do first. o = Do next.)

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions.

In reviewing the deliberations and progress of GURU II, it might be useful to evaluate the process and the outcomes in terms of those factors that seemed to work in favor of a positive outcome and those that militated against.

4.2. Factors That Made Progress Difficult

4.2.1. Technical and Legal Complexity. It was obvious at the outset of this endeavor that many forces were at play that would render progress toward a wise outcome supported by a strong consensus quite difficult. The GURU II issues are technically and legally very complex and time consuming, and may ultimately require resolution by policy makers and managers.

Colorado water law, based upon the doctrine of prior appropriation, and interpreted richly through one hundred years of case law, is highly specialized. The fundamental legal complexity was further compounded by the fact that, as regards the possible appropriation of interim instream flows for endangered fish species, GURU II was blazing new territory and speculating on the establishment of new legal precedent.

4.2.2. Technical Uncertainties/Methodology Problem. In addition to the legal complexities, GURU II had to grapple with highly technical biological and engineering issues. This set up one of the enduring difficulties of the GURU II project and that was what some perceived as a clash between the engineering and the biological disciplines. This clash became most evident, and most contentious, as regards the basis upon which instream flow protection might be granted by the Colorado Water Conservation Board. Some biologists have asserted that empirical biological data and their professional judgements about it may be the "best science",

which should be considered an adequate technical basis for the appropriation of instream flows to recover the endangered fish species, while others have asserted that an instream flow appropriation by the CWCB should be based on a more certain and well-defined correlation between the flows to be appropriated and fish recovery.

4.2.3. Diverse Jurisdictions and Perspectives. The technical complexity and the methodological disagreements were also played out in an arena of multi-jurisdictional and multi-perspective involvement and interplay. Stakeholder jurisdictions brought to the table several federal and state agencies, environmentalists, and water developers/users and a number of disciplines including lawyers, engineers, and biologists. Accommodating the variety of perspectives represented by the GURU II stakeholders was always a challenge.

4.2.4. History of Conflict. The work of GURU II was not made easier because of the long history of conflict and positional warfare that has characterized exchanges among these perspectives in the past. Most of the participants had significant personal and institutional experience with each other in traditional legal and institutional proceedings. All had become quite skilled and experienced at protecting and promoting a particular point of view, making GURU II participants cautious about collaborative problem solving.

4.2.5. Problem Solving Confidence. GURU II's evolution seemed to move from a cautious attitude of "let's see if we can resolve these instream flow issues" to more of a confident attitude of "we can make this work, here are some options." Small successes of achieving consensus (e.g. agreeing on the priority issues) built the group's confidence and trust in solving the more complex and difficult situations.

4.2.6. Lack of Skill-Building Module. In terms of process, the absence of an up-

front investment by the group in some conflict management and consensus-building skills made the longer term effort more difficult. Since the facilitators were called to assist immediately with highly complex and contentious discussions, the skill-building had to occur on an ad hoc and as-needed basis interspersed throughout the project. This "learn as we go" method, however, may have actually helped contribute to a more open attitude toward finding creative solutions.

4.3. Factors That Assisted the Progress.

Some of the factors that enhanced GURU II's chances for success included the following:

4.3.1. The Prior RIP Process. While it is true that most of the participants had been involved in some "adversarial" proceedings, most of the participants had also been involved in developing and implementing the agreements reached in the Recovery Implementation Program. The relationships formed during this process contributed to the ability and willingness of the group to work together.

4.3.2. Commitment to the RIP. There was clear direction from the various policy levels to GURU II to make the Recovery Implementation Program work. There was a clear expectation that it succeed. At the same time, there was a general recognition going into the discussions that some balancing of the needs of endangered fish and development of Colorado's compact apportionment is needed.

4.3.3. Commitment to Avoid Adversarial Conflict Resolution. All of the stakeholders agreed that the transaction cost of pursuing traditional adversarial methods of addressing potential conflicts between the recovery of the endangered fishes and Colorado's ability to develop its compact apportionment could be high both in terms of dollars, time, and other costs.

4.3.4. Full Participation of the Stakeholders. The fact that discussions were facilitated kept the group focused and allowed all stakeholders to participate fully. Without facilitation, one of the stakeholders would have had to play the role of chairperson thus vitiating either that person's contribution as stakeholder or their role as chair. The participants in this project were consistently engaged and working toward an agreement. They were extremely persistent and patient, qualities that not every working group brings to the table. Facilitation also provided the rubric under which some important consulting interventions could be made, especially in the realm of conflict management and consensus-building.

4.3.5. Agreement on Process Issues. Early on, the group recognized the importance of agreeing on procedural issues. The group adopted clear groundrules and enforced them throughout the project. For example, it was agreed that everyone would attend all sessions and that there would be no substitutes for the principals. With few exceptions, this guidance was observed and meant that a stable work team interacted with each other over the six months of the project. In addition, each meeting had a clearly stated set of expected outcomes and an agenda designed to achieve them.

4.4. Recommendations.

The substantive recommendations of GURU II are contained in Chapter 3 of this report. The following additional recommendations are tendered by the Center for Public Private Sector Cooperation to help move those substantive recommendations forward.

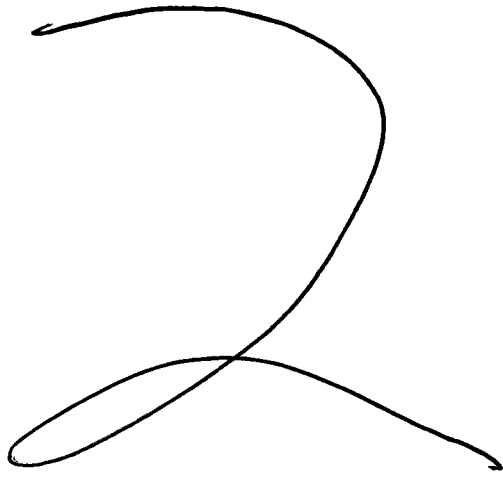
4.4.1. Prompt Action. First, and most importantly, the recommendations of GURU II as embodied in this report should be taken promptly to the Water Acquisition Committee of the RIP. There is a sense of momentum about this project that should not be lost if practical solutions are to be put in place in a timely fashion that will balance the needs of endangered fish with other

uses of Colorado's river resources. Concurrently, GURU II participants need to take the recommendations back to their respective agencies for comments and agreement.

4.4.2. Continuity of Future Process. Second, it is crucial that the GURU II participants maintain a sense of cohesion as they present their work to the Water Acquisition Committee and agencies. It will be essential for GURU II to demonstrate their commitment to the procedural consensus and issue organization achieved during the project.

Specific commitments to support the procedural agreements of GURU II in the RIP and other forums and to work for their implementation will need to be carried out by each GURU II participant.

4.4.3. Reinforcement of Internal Commitments. Finally, as GURU II moves forward with its recommendations, it will be useful for the group to find some way of reinforcing its internal commitments and enforcing its specific groundrules. The group has agreed to meet at the beginning of 1993 to review the progress and develop next steps on the recommendations of Category I Issues. In addition, the group made a commitment to review and determine the next steps for Category II and Category III issues .



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Center for Public-Private Sector Cooperation
Center for the Improvement of Public Management

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

February 25, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of
Colorado at Denver, Center for Public-Private Sector
Cooperation

Subject : Meeting to Discuss Issues Related to Water Acquisition
for Endangered Fishes

This letter is to confirm the logistics for the meeting on February 28, 1992 from 8:00 a.m. to 5:00 p.m.. The meeting location is in our offices at the Greater Denver Chamber Building at 1445 Market Street, Suite 350. A continental breakfast and lunch will be provided.

The purpose of this working group is to develop ideas and/or recommendations for cooperative resolution of impediments and identification of opportunities regarding water acquisition and instream flow protection for the Recovery Implementation Program. The desired outcomes for the meeting on February 28 are to:

- * Agree on groundrules for the working group
- * Agree on issues which the working group wishes to resolve
- * Agree on the next steps

If you have any questions or concerns, please call us at 820-5663. We look forward to working with you on this important endeavor.

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

March 12, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : Revised draft of impediments and preparation for April 6, 1992 meeting to discuss issues related to water acquisition for endangered fishes

Enclosed is the group memory and the revised list of impediments discussed at the working group meeting on February 28, 1992. Also enclosed is a tally sheet of the impediments with the four categories agreed to at the last meeting. If you have any questions or corrections, please do not hesitate to call.

For each of the impediments listed on the tally sheet, please check the single response or category which best represents your sense of priorities and fax (534-8774) or send your tally sheet to Lisa Carlson by March 24. If you need more detailed information about the impediments, refer to the redraft of "Guru II." The compilation of these tally sheets will be sent back to you by March 30 in preparation for the next meeting on April 6. This compilation is intended to assist the group in disclosing the areas of agreement and disagreement and to assist us in designing an agenda that will more fully meet your needs.

As an earlier memo sent by Tom Pitts indicated, the next meeting has been changed from March 23 to **April 6**; please make sure you have marked your calendars!

Once again, if you have any questions or concerns, please call us.

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

March 30, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : April 6, 1992 meeting to discuss issues related to water acquisition for endangered fishes

As we agreed, enclosed are the results of the tally sheet of the impediments with the four categories agreed to at the last meeting. Please review these results and be prepared to put the issues in priority order in terms of how this working group ought to spend its time. Not everyone put all issues into categories so the cumulative totals by issue will vary. As you may recall, this "straw poll" is intended to assist the group in disclosing the areas of agreement and disagreement and to assist us in designing an agenda that will more fully meet your needs. If you have any questions or corrections, please do not hesitate to call.

The next meeting will be from 8:00 a.m. to 5:00 p.m. on April 6, 1992 at 1445 Market Street, suite 504. This is the same building we were in last meeting but in a room of the Denver Chamber. If you found the chairs uncomfortable at the last meeting, bring a pillow to sit on as we were unable to find affordable space with padded chairs!

If you will be unable to attend the meeting on April 6, please call Lisa Carlson at 820-5663 and leave a message. Once again, if you have any questions or concerns, please call us.

TALLY SHEET

Instructions. For each of the impediments listed below, please check the single response which best represents your sense of priorities. The categories are as follows:

- * Critical, must resolve/deal breaker
- * In progress, being resolved
- * Not urgent, can't affect, bin
- * Middle of the road

1. Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery?
2. Are there impediments in prior CWCB decisions to protecting flows for fish recovery?
3. How should the Board address the uncertainties in the quantity of the flow recommendations? (e.g. A. Use of professional judgement, B. Methodology, and C. Consistency of methodology)
- What latitude does the Board have to address situations in which it is not feasible to establish relationships between flow and population and/or habitat?
5. Is the potential for conflicts between full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved?
 - a. Can Colorado identify, in a timely manner, its compact apportionment delivery and/or requirements on a stream-by stream basis?
 - b. If timely identification of compact allocations is not possible, what instream flow protection is possible? Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?
 - c. Do compact delivery requirements present an impediment to protection of instream flows in the Yampa, or 15 mile reach for the benefit of the endangered fish?
 - d. Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment?

	Critical	In Progress	Middle of Road	Not Urgent
1.	3	3	3	5
2.	5	2	2	4
3.	9	3	1	1
What latitude does the Board have to address situations in which it is not feasible to establish relationships between flow and population and/or habitat?	9	3	3	
5.	12	1		
a.	6	8	1	
b.	6	1	7	1
c.	7	3	2	3
d.	2	0	6	4

1. Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights?
13. Under what circumstances will CWCB be a party to the lease of water (storage or direct flow) for instream flow purposes?
14. When does a water right decree allow a release of stored water for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted? Issues include decreed beneficial uses and "Judge Brown" rights.
15. What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows?
16. Assuming that the Salinity Control Program or other actions produce salvage or saved water in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish? (e.g. (1) with state law; (2) other institutional impediments?)
17. Do the authorizing laws for federal reservoirs impede the use of water stored in these reservoirs for endangered fish?
18. Is "sufficient progress" issue an impediment to protecting flows? Or, is protection of flows in timely enough manner to allow new federal actions to go forward?
19. What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB?
20. Is the perceived lack of progress and emphasis in other aspects of R.I.P. an impediment?
21. Is the perceived inadequacy of recovery goals an impediment?
22. How will other R.I.P. parties (including the Bur. Rec.) deal with situations in which it is not feasible to establish a relationship between flow and population and/or habitat?
23. CWCB criteria for acquisition of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent.
24. Is the lack of grassroots constituency support within agencies and among public an impediment?
25. Complexity of interpreting biological data vs. engineering data (technical, cultural clash.)

	Critical	In Progress	Middle of Road	Not Urgent
1.	2	8	2	2
13.	4	3	4	3
14.	3	5	5	1
15.	7	3	3	1
16.	4	2	8	
17.	5	2	6	1
18.	5	8		1
19.	1	3	4	6
20.	7	4	1	2
21.	5	8		2
22.	6	1	5	2
23.	5	5	3	1
24.	6	1	4	3
25.	9	2	2	1

- e. Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?
 - f. Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?
 - g. Does the future full development of Colorado's compact entitlement of water from the Colorado River system present an impediment to near term provision and the protection of instream flows for the benefit of the fish in the 15 mile reach and Yampa River?
 - h. Would the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement?
6. Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to protection of instream flows for endangered fish species? c) How often must water be available in order to make an appropriation?
7. Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter? Is this an impediment?
- Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data?
- A. Until the uncertainties regarding the flow needs of endangered fish are resolved, would protection of "interim" flows satisfy the goals of the Recovery Program?
 - B. Can FWS rely on the interim flow in its biological opinion?
9. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?
- A. Does the prohibition of condemnation present an impediment?
10. How can an instream flow right under state law be described, quantified, and appropriated that varies annually and instantaneously?
11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish? (e.g., Protection from subordination of rights or diminishment of quantity.)

	Critical	In Progress	Middle of Road	Not Urgent*
e.	5	2	5	1
f.	3	1	3	7
g.	8	3	2	
h.	3	4	3	4
6.	5	3	6	
7.	1	1	9	2
Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data?	7	4	3	
A.	7	3	3	
B.	6	2	2	2
9.	1	8		4
A.	1	3	3	5
10.		5	6	2
11.	6	6	2	



University of Colorado at Denver

Center for Public-Private Sector Cooperation
Center for the Improvement of Public Management

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

April 16, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of
Colorado at Denver, Center for Public-Private Sector
Cooperation

Subject : Group memory from April 6, 1992 meeting to discuss issues
related to water acquisition for endangered fishes

Enclosed is the group memory from the last meeting of the "Guru II" group. The revised list of impediments and our final report will be mailed to you next week. If you have any questions or corrections regarding the group memory, please do not hesitate to call.

The next two meetings have been scheduled for June 1 and July 20, 1992. Please make sure you have noted these full-day meetings on your calendars.

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

May 28, 1992

To : "Guru II" participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : June 1, 1992 Meeting To Discuss Issues Related To Water Acquisition For Endangered Fishes

The next meeting of the "Guru II" group will be from 9:30 a.m. to 5:30 p.m. on Monday, June 1 1992 at 1445 Market Street, suite 503. The intended outcomes for this meeting include:

- * Agree on time frame for dealing with the Compact entitlement issue (IB, Step 1)
- * Develop options for instream flow protection (IB, Step 2, pending completion of Step 1)
- * Develop options/processes for IA (uncertainty issues) & IC (interim instream flow protection)
- * Develop and agree on criteria to evaluate options

Please be prepared to discuss your options regarding instream flow protection (see above). You may also wish to review the options contained in the fax you received from Robert Wigington and consider possible criteria for evaluating options. **If you will be unable to attend the meeting, please call Lisa Carlson at 820-5663 and leave a message.** Once again, if you have any questions or concerns, please call us.

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

June 18, 1992

To : "Guru II" participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : July 1, 1992 Meeting To Discuss Issues Related To Water Acquisition For Endangered Fishes

The next meeting of the "Guru II" group will be from 9:00 a.m. to noon on Wednesday, June 1 1992 at 1313 Sherman Street, in the offices of the Colorado Water Conservation Board. The intended outcomes for this meeting include:

- * Develop/clarify options for instream flow protection (IB, Step 2, pending completion of Step 1)
- * Evaluate options against criteria developed at the last Guru II meeting (see attached group memory)
- * Develop and agree on next steps

Please be prepared to discuss your options regarding instream flow protection. You should review the options contained in the correspondence you received from Robert Wigington and Gene Jenoscek. Also, please review the "next steps" list on the last page of the group memory as a reminder of what you committed to do. **If you will be unable to attend the meeting, please call Lisa Carlson at 820-5663 and leave a message.** Once again, if you have any questions or concerns, please call us.

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

July 14, 1992

To : "Guru II" participants

From : Lloyd Burton, Lisa Carlson, University of Colorado at
Denver, Center for Public-Private Sector Cooperation

Subject : July 20, 1992 Meeting To Discuss Issues Related To Water
Acquisition For Endangered Fishes

The next meeting of the "Guru II" group will be from 9:00 a.m. to 5:00 p.m. on Monday July 20 1992 at 1445 Market Street, suite 503. The intended outcomes for this meeting include those postponed from the last meeting:

- * Develop/clarify options for instream flow protection (IB, Step 2, pending completion of Step 1)
- * Evaluate options against criteria developed at the last Guru II meeting (see attached group memory)
- * Develop and agree on next steps

In addition, enclosed is a revised statement of impediments from Category II from Lloyd Burton. Barring time constraints, we will review, revise and agree on the the restatement of these impediments and develop next steps.

Please be prepared to discuss your options regarding instream flow protection. You should review the options contained in the correspondence you received from Robert Wigington and Gene Jenoscek.

Please RSVP to Lisa Carlson at 820-5663 and leave a message. Once again, if you have any questions or concerns, please call us.

3

Colorado River Recovery Implementation Program--
Water acquisition for the endangered fishes
Group Memory, February 28, 1992

Purpose of working group: To develop ideas and/or recommendations for cooperative resolution of impediments and identification of opportunities regarding water acquisition and instream flow protection for the Recovery Implementation Program.

Desired Outcomes (2/28/92):

- * Agree on groundrules for the working group
- * Agree on issues the working group wishes to resolve
- * Agree on next steps

Agreed upon Groundrules

- * Principals only (no subs).
- * Attend both meetings.
- * List, but not evaluate, opportunities.
- * Be frank - tough on issues - easy on people.
- * No recycling.
- * One person talking at a time.
- * No cellular phone/recorders.
- * No telephone interruptions.

Expectations about the two meeting process:

Rob't W. Affirm a statement on issues. Record opinions in reference to issues. A good record.

Tom P. - ditto - In addition, resolve or have a process for issues at end meeting #2.

Margot Z. State issues objectively and clearly; not starting necessarily with current statement. Then process for/ or resolve or agree to disagree on issues. Go faster!

- Peter E. - ditto - I.D. "impediments" not "issues". Find way around or thru.
- Bob G. - ditto- Peter - + get water in streams.
- Eric K. Be realistic in reference to people on Western slope and it's way of life.
- Gene J. Begin to resolve problem issues within context law and compact.
- Eddie K. Fast and efficient plan for species recovery. Look at it in "balanced way".
- Larry S. Refine issues/impediments and resolve, but some may be too big.
- John H. Frame issues and road map on how to proceed from here. Go faster! Build trust among parties, more Esprit de corps.
- Hal S. Develop "roadmap" - be open around this table.
- Wendy W. Will be legal resource.
- Grady M. - ditto Tom P. - "Cut to the chase."
- Jay S. - ditto Margot, Larry and John, build trust.

Assumptions about process:

- * Focus on "impediments"
- * Biologists will produce best basic for flow recommendations. (Guru I).
- * Use list of impediments as basic for inventory.

IDEAL VISION:

A timely process. To protect sufficient instrument flows to supplement self-sustaining populations of the endangered fish consistent with the Recovery Implementation Program.

"Happy fish and happy people."

(Understanding that R.I.P. includes reference to Colorado and Federal laws.)

Positive Forces helping us work toward this vision:

- * Synergy of combined resources-- power.
- * R.I.P. = reasonably funded resources.
- * Hard for any party to quit.
- * Agenda and issues well-defined.
- * Federal mandate lends urgency and necessity.
- * Goals reference fish have broad public support.
- * All feel positive about goal.
- * Group cohesion.
- * Desire to resolve to meet mutual goals.
- * Have best people.
- * Colorado instream flow law is flexible.
- * Both sides can say "no" -- balanced power.
- * Have a framework for resolving disputes - the R.I.P.
- * Alternative to resolution is unacceptable/undesirable.

Negative Forces working against the Vision:

- * Perceived federal cohesion.
- * Issues have no clear answers.
- * Expectations/agendas unresolved.
- * Perceived lack of due process at state/location level.

- * Too much process.
- * Uncertainty - suspicion/distrust.
- * Lack of agreement on recovery goals for fish.
- * Inconsistent federal and state interpretation to policies and laws.
- * Complexity of interpreting biological data vs. engineering data (technical, cultural clash.)
- * Lack of understanding of R.I.P. process.
- * All fear being too specific and getting locked in.
- * Positional negotiations.
- * Complexity of Colorado water system.
- * Too many water lawyers!
- * Adversarial process in Colorado law is cost cumbersome.
- * State and federal governments have diffuse internal interests - inconsistent, laws.
- * CWCB criteria for ACQ of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity.
- * Lack of grassroots constituency support within agencies and among public.
- * Lack agreement. Reference "How" to ensure happy fish.
- * Need to go thru state system.
- * Perceived and real conflicting interests.
- * Need to break new ground in reference to state water law and policy. No precedent.
- * Frustration/impatience - time pressure.
- * Lack of local support.

- * Perceptions in reference to uncertainty future water rights - community expectations.
- * Federal "intrusion" in state/local issues. Power sharing.
- * Lack of information regarding future development/fishes needs.

Potential Impediments

I. Substantive Finding

Element #1

Definition of terms also an issue. How operationalize for biologist (criteria)?

All agree CWCB can appropriate instrument flows for protection of endangered species, not an impediment.

Add: Questions reference "type" of use

Question reference quantity - re-draft.

Page #11- Question #3

- * Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery?

The above replaces Questions 1-3 on Page 11.

Replacement for Question #4 - Page 11:

Are there impediments in prior CWCB decisions to protecting flows for fish recovery?

Reference Question 5: Replace with:

Last sentence (only) as rewritten: How should the Board address the uncertainties in the quantity of flow recommendations. (e.g. A. use of professional judgement and B. methodology, and C. consistency of methodology.)

Reference Question #6:

"What latitude does board have to address....."

Eliminate Question #7 and 8 - with understanding that #8 is subsumed in #5 above.

Element #2

Question #6--(RE: compact issues) Page 12 - Put this question first and re-draft. "Is the potential.... fish an impediment? "How can.... "C" through F"

List questions #1 - 4 as under the above question and add "A" and "B".

- A. Can Colorado Identify, in timely manner, its compact apportionment delivery and/or requirements on a stream-by-stream basis?
- B. If timely I.D. of compact allocations not possible, what instream flow protection is possible?

List question #5 as part of B - (B) (1).

Page 12 questions reference competing beneficial uses.

Question #1: Next to last line: Delate "Appropriation", substitute "protection".

Question #2: Re-Draft to:

Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter and is this an impediment?

These Differences Include CWCB Policy RE:

- * Conditional rights
- * Inundation
- * De Minimis injury settlement
- * 60-day notice requirement for instream rights

Statutory Differences:

- * Prohibition on condemnation
- * Non-Reliance on imported water (?)
- * Present undecreed uses.

Page #13

Question #1 = covered,
question #2 - add to question #1 - page 12. as (C) (bottom),
question #3 = covered.
question #4 = covered,
question #5 = paraphrase and add to question #1, Page #12 as (D) "water availability without material injury."
question #6 = add to question #1 page 12 as (E)
question #7 = retain
question #8 = retain, but add "operation of" before "orch. mesa", question #9 = covered
question #10 = all agree that this is not an issue.

Add Question:

How can "we" describe, quantify, and appropriate an instream flow right under state law that varies annually and instantaneously? (Seasonal variation is not a problem.)

Bottom Page 13

Absolute Rights

Add: word "protected" at end of the 1st line and delete "represented" line 2 - end of sentence add "E.G., protection from subordination diminishment of quantity".

Add: Question #4 to page 13 under appropriation (B): "How should interest of FWS and RIP be protected in process of obtaining new instream flow rights for endangered fish?"

Page #14 - Conditional Rights

Question #1: Retain
Question #2: delete
question #3 covered.

II Protection of Water Rights

question #1: All agreed that not an issue - delete

question #2: not an issue - delete

question #3: not an issue, covered on question #5

question #4: re-word: "under what circumstances will CWCB be a party to lease of water (storage or direct flow) for instream flow purposes."

Question #5: Re-word - 1st line - after "allow" - "A release of stored water for.... Add: "Issues include: Decreed beneficial uses and "Judge Brown Rights"

question #6: retain.

Page 14-15 - III Process

Pg 15 - * Reference water available. Add: "can be done concurrent with flow recommendations."

Pg. 15 - 1st bullet: add after "needs" "pursuant to the R.I.P."

* 2nd bullet: - ditto -

* 3rd bullet: add "and other interested agencies."

Pg. 15 - Questions: covered

IV MISCELLANEOUS

Question #1: Add words "or saved" after "salvaged".

Question #1: Add other words: "or other actions" after "salin. cntrl. wtr." add words at end of sentence - "E.G. (1) state law; (2)Other institutional impediments".

Question #2 Move to page #13 as new question #1, as an add-on. Add "Can FWS rely on the interim flow in its biological opinion?"

Question #3: Strike "Ruedi---Rifle gap" and substitute federal reservoirs."

Question #4: Not issue: Can return to CWCB for adjustments (2nd bite) based on refined data.

Question #5: Covered.

Add new question: Is "sufficient progress issue an impediment to protecting flows? Or, is protection of flows in timely enough manner to allow new federal actions to go forward?"

Impediment Bin: Add to miscellaneous questions

- * What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB?
- * Perceived lack of progress and emphasis in other aspects of R.I.P. is an impediment.
- * Perceived inadequacy of recovery goals is an impediment.
- * How will other R.I.P. parties (including Bur. Rec.) deal with situations in which it's not feasible to establish relationship b/t flow and population and/or habitat?
- * CWCB criteria for ACQ of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent.
- * Lack of grassroots constituency support within agencies and among public.
- * Complexity of interpreting biological data vs. engineering data (technical, cultural clash.)

Next Steps

- (1) T.P. sends floppy to UCD by 3/2. Re-write out by mail by 3/6.
- (2) Individuals try to sort/prioritize list of impediments by:
 - * Must resolve/deal breakers--critical
 - * Being resolved, in progress.
 - * BIN - Can't affect, not urgent.
 - * Middle of road.
- (3) Send your sorted list to UCD by 3/16.
- (4) UCD fax back by 3/19.

MEETING EVALUATION

WHAT WORKED? WHAT WOULD YOU CHANGE?

Process

More sugar

Facilitators kept order

Get to the impediments faster

Room is stuffy

Colorado River Recovery Implementation Program--
Water acquisition for the endangered fishes
Group Memory, April 6, 1992

DESIRED OUTCOMES:

- Refine and agree on list of impediments "GURU II" will work to resolve.
- Develop next steps for moving toward resolution.

Agenda

8:00 - 8:30	Continental Breakfast
8:30 - 8:45	Outcomes & Agenda Review and agreement Review and agree on roles and groundrules
8:45 - 9:00	Review and understand "consensus"
9:00 - 9:30	Review "tally sheet" data re: impediments Agree on a process for setting priorities (Categories for impediments)
9:30 - 10:30	Sort impediments by categories
10:30 - 10:45	Break
10:45 - noon	Sort impediments by categories
Noon - 12:45	Lunch
12:45 - 2:30	Refine impediment questions into addressessable problems (not "yes"/"no" answers)
2:30 - 2:45	Break
2:45 - 3:30	Refine impediment questions continued
3:30 - 4:30	Develop next steps
4:30	Adjourn

PROPOSED "TRIAGE" CATEGORIES

CATEGORY I:

Critical - Work on NOW (may or may not be this group)

CATEGORY II:

Important - Work on next (may already be in progress).

CATEGORY III:

Long term - Work later.

CATEGORY IV:

NON-ISSUES

CATEGORY I:

#3, #4---Assume Board has latitude
#25
#8 (A&B)
#5 "Compact-Related Issues"
#18, #20, #21, #24, #24.

CATEGORY II:

#2, #6, #5 (D) & (E)
#11 #15 #12, #13, #14
#16, #23 is a problem if #5 not resolved
#22

CATEGORY III:

#1, #7 (administration of instream water flows)
#9A, #10, #7, #19

NON-ISSUES:

#5 (f) = Answer = "No", #9

CATEGORY I

- A. Uncertainty Issues (includes #3,4,& 25)
- B. Compact Issues (Development vs. Instream flows for fish) #5 (A), (B), (C), (G), (H).
- C. Interim Flows (8 A & B)
- D. "Sufficient Progress" Issues (#18, 20, & 21).
- E. Support: Grassroots/Agency (#24).

Refine the Category I problems into addressable problems:

IA. (3,4,& 25) "Uncertainty Issues"

How can CWCB address uncertainty in the relationship between flow and population and/or habitat?

How can better communication be achieved on instream flow needs and the criteria for evaluating those needs?

IB. "Compact issues" - Development vs. in-stream flows.
(#5, (A), (B), (C), (G), (H))

How can potential conflicts be resolved between full compact development and instream flows needed for endangered fish?

Step (1): Identify Colorado's compact entitlement and/or requirements on a stream-by-stream basis.

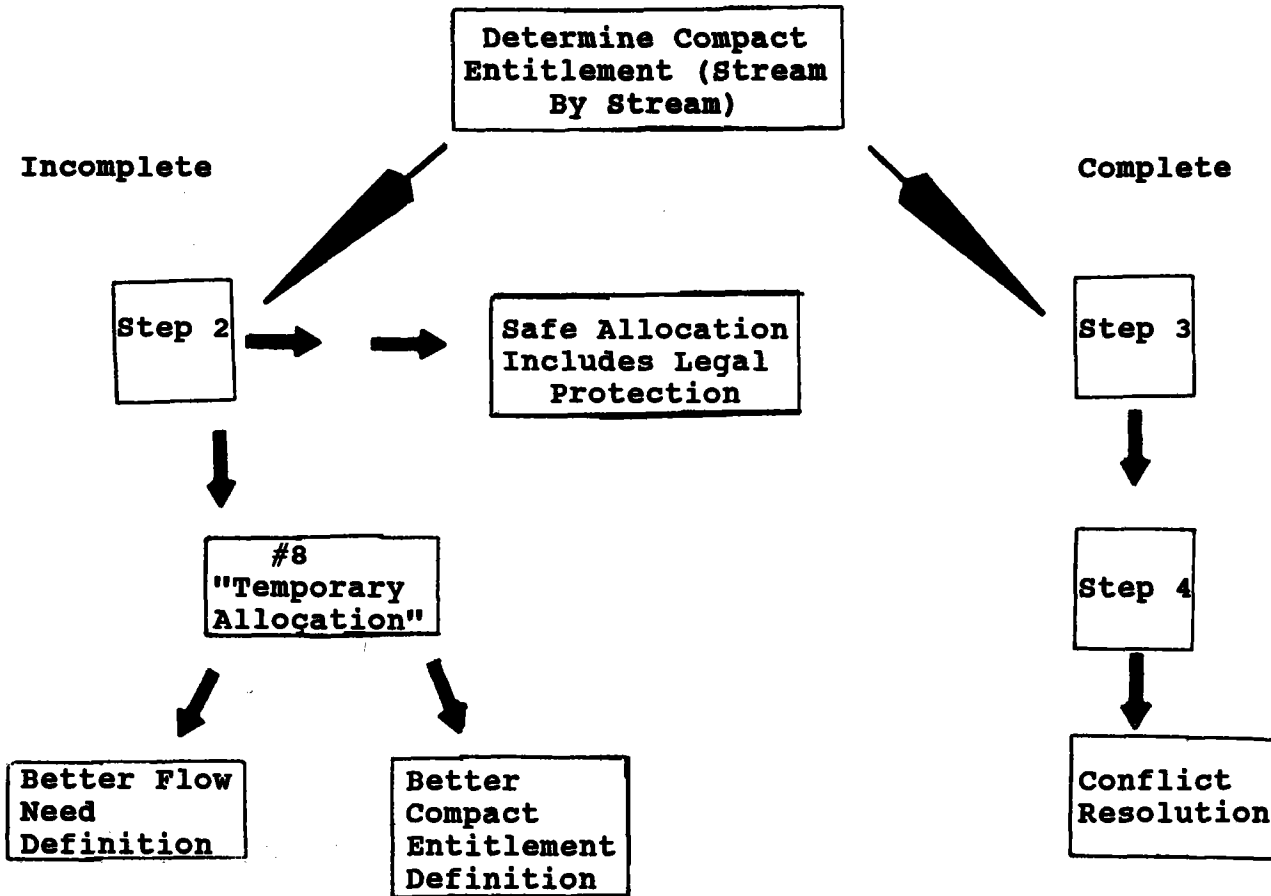
Step (2): Until step (1) is complete, identify what instream flow protection is possible. Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?

Step (3): When step #1 is complete, determine whether full development of Colorado's compact entitlement presents an impediment to provision and protection of instream flows for benefit of fish in 15 Mile Reach and Yampa.

Step (4): Determine whether or not the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement.

- IC. How can interim instream flow protection be used to address uncertainties about flow needs and compact entitlement? Determine the extent to which the USFWS can rely on interim flows in its biological opinion?
- ID. Ok ---but begin with "determine whether.....
(per #18, #20, #21)
- IE. How can more grassroots support be generated among and within agencies, concerned interest groups, and the public for instream flow protection and recovery of fish?

COMPACT ISSUES FLOW CHART (IB)



Next Steps

1. Keep "Guru II" group in place with facilitators in place.
2. Consult/check category I issues with constituents.
 - a. Check with management committee (4/28/92)
 - b. Check with CWCB - Gene at May meeting.
3. Identify options on category I.
4. Refine category II into addressable problems.
5. Identify options for category II (include monitoring work in progress).
6. Address category III.

Miscellaneous

CPPSC get group memory to GURU II by April 15.

Meeting #1: June 1 at 9:30 - 5:30.

- What is the time frame for the compact issue (should we move to step #2?)
- If step #2 - what are the options? (Bring suggestions as a starting point)

Circulate in advance (the options) May 15th and individuals send to others.

- Develop Options/processes for A & C.

Circulate options in advance May 15.

- Develop and Agree on criteria to evaluate options.

Circulate criteria possibilities in advance May 15.

- Gather and disseminate relevant information on compact before meeting-- Peter

Meeting #2: July 20th

Meeting #3: TBA

**Colorado River Recovery Implementation Program--
Water acquisition for the endangered fishes
Group Memory, June 1, 1992**

Colorado Water Conservation Board Process:

A. Compact Entitlement Process; per Gene J's Briefing.

1. Refine staff report, including tables. Get public comment.
2. Develop computer ("CRSS") scenarios for distribution of Colorado's compact apportionment. Driven By:
 - Compact Development Decisions.
 - Flows needed for fish.
 - Combinations (If possible using "CRSS") and reality check.
 - C.W.C.B. projecting that staff report will be done by 11/92 +/-; depends on staffing.

ROLE OF GURU II:

Gene will solicit interest/comment from GURU II as C.W.C.B. staff develops scenarios for distribution of Colorado's compact apportionment.

(August - October Timeframe).

3. C.W.C.B. decision regarding which scenarios will be studied/run on model.
4. Run model under various scenarios and have data ready for about 1994

Note: Process/schedule could change and Gene J. will keep GURU II informed.

B. Development of C.W.C.B. policies for interim in-stream flow protection.

Will consider legal, policy, and administration issues, including USFWS recovery goals for endangered fishes. Schedule is unclear at this point.

Note: USFWS reserves its position on sole reliance on interim flows for fish protection (because senior conditional rights pose threat).

Schedule:

- Thursday 6/4: CWCB meets with water users re options for interim in-stream flow protection.
- July 1 meeting: CWCB to meet with other (non-consumptive) water users (GURU II) re options at 1313 Sherman Street (CWCB Officers) at 9:00 a.m. - noon.

CRITERIA FOR EVALUATING INTERIM FLOW PROTECTION SCENARIOS
(Category I(B), Step 2)

- Relationship with existing Colorado water law.
- Relationship to need to protect fish ("sufficient progress" consistent with E.S.A. and the recovery program).
- Relation to need to be technically feasible and administratively operable.

Use criteria as an initial screening device. Ask that each proposed scenario address the above criteria.

CATEGORY I(A): "Uncertainty Issues"

Interim flows allow time to address both compact and biological uncertainties.

Note: GURU I is addressing technical uncertainties.

Interim flows may reduce the need to address scientific uncertainty.

RE: Communication:

- Need more informal meetings with CWCB, perhaps infield, e.g., work sessions with staff.
- Need more "Peer Review" of analysis and data.
- Need better communication at technical level among USFWS, CWCB, and CDOW.
- Need better packaging of data so that it's intelligible to lay audiences.
- All need to understand/accept sensitivities and differences of philosophy/perspective engendered by technical culture clash and fundamental competition for limited resources (water!) here in Colorado.

Note: Guru I will try to develop "Best Science" to link flow to fish survival.

- Need better education of biologists re complexity of CWCB water system.
- Ultimate communications challenge is to translate biological data into an application to CWCB for water rights.

I (C): See process set up under I (B) above, including criteria for evaluating interim flows.

CATEGORY I (E):

Grassroots support for fish recovery and in-stream flow protection.

Building Support for Fish Recovery

- USFWS has an extensive public information program in place.
- Link recovery to self-interest and practical need to meet E.S.A.
- Need perception of equity and due process in recovery program. "Fair" distribution of cost of recovery.

STAKEHOLDER ANALYSIS

- Water user community, e.g., S.W./DWB/northern/River District.
- Environmental Groups - pragmatists (like Nature Conservancy) and others (purists). Get support from former and avoid litigation/legislation from latter.
- U.S. Congress - especially delegations. (UT, CO, WY).
- States of CO, UT, WY.
- Bureau of Reclamation, USFWS, E.P.A., and N.P.S.
- CDOW.
- Sportspeople (anglers, rafters, kayakers, etc.).
- Power generators/users. e.g., W.A.P.A.
- San Juan Basin users.

How to address stakeholders who are not already being touched? (with priority on USFWS, CWCB, water users, "environmental purists.")

RE Users:

Key issues are equity and due process. So keep process open. Emphasize cooperation in R.I.P.

When there is perception of "sabotage," discuss in R.I.P. before going outside.

Check in periodically with other R.I.P. committees to assure on-going commitment to process.

Avoid "bombshells;" try to keep each other informed about relevant developments, actions, plans at early date. If you think you got one, talk to sender before going ballistic.

Next Steps

- Send out options regarding temporary allocation from June 4th meeting. Other options from all others.
- Gene to update Sara and Eric on meeting.
- Centers to restate category II impediments into solveable problems - send out before July 20th for feedback.
- John invite Ron (Bureau of Reclamation) to July 20th meeting.
- Wendy write memo on #2 , #12 and #14 in category II justifying "non-issue" designation.
- Robert and Jay rewrite #2 and send/give to Wendy for response.
- Gene send Centers copy of Board's "conditional water rights." Centers send to GURU II.

±

Changes

- | | |
|---|--|
| <ul style="list-style-type: none">● Lunch.● Changed agenda right away.● Facil. of dialogue. | <ul style="list-style-type: none">● More <u>color!</u>● Don't forget "hydrologic" breaks. |
|---|--|

U. S. FISH AND WILDLIFE SERVICE
GROUP MEMORY, 7-20-92

INTENDED OUTCOMES:

1. Develop/clarify options for instream flow protection
2. Evaluate options against criteria
3. Agree on restatement of category II impediments
4. Agree on future Guru II role and next steps

AGENDA:

9:00-9:20	Start-ups/agenda/check-in
9:20-10:30	Interim flow
10:30-10:45	Break
10:45-Noon	Interim flow
12:00-12:45	Lunch
12:45-2:15	Next steps - interim flow
2:15-2:30	Break
2:30-3:30	Next steps
4:00	Adjourn

GROUND RULES:

- *One person speaks at a time
- *No personal attacks
- *No shaggy dog stories
- *No in-and-out
- *Air "trust" issues

JUNIOR WATER RIGHTS: (Uppendahl, Smith memo 7-14-92)

Advantages:

Add: (would help protect pattern of water) - #3 in +1- white paper.

Delete: second half of #3, #4, and #5.

Replace with: "Appropriating a junior in-stream flow right is a vehicle for:

- a. establishing flow needs
- b. achieving those needs to the degree possible with a junior water right.
- c. identifying needs from additional water sources including return flow.

Delete #6.

LIMITS:

Delete #1 and #2, and replace with: "There is uncertainty regarding the amount and frequency of water that would be available under a junior water right under the limitation of Colorado's compact apportionment or if senior conditional rights are developed."

Move paragraph.."An important factor..." to second paragraph of document.

Add #5: It may be more effective in the near term to meet flow needs through reservoir re-operation (and/or??) water rights acquisitions.

FLOW OPTIONS:

I. Absolute Right: Fish needs are known and do not conflict with compact.

INTERIM FLOW OPTIONS:

II. Absolute and Conditional:

Absolute: Less than flow recommendation needed for fish with compact, e.g., 581.

Conditional: A flow recommendation; periodic review for fish needs, and compact (due diligence; remainder of the water flow needs).

III. Conditional: Full flow recommendations with periodic review.

CONCERNS/COMMENTS:

1. Enforcement of a "conditional" water right.
2. Objection to changes.
3. Provides a place in time.

CHOICES/OPTIONS:

I. Junior Water Rights

- A. Absolute and Conditional
- B. Conditional
- C. Absolute

II. Acquisition of Water Rights

- A. Conditional
- B. Absolute
- C. Stored - (non-Federal)

III. Reservoir Re-Operation - anything to do with Federal reservoirs.

IV. Salvage Water. Assumption: State law reconciled.

Table

RIVER	WINTER	SPRING	SUMMER/FALL
Yampa	IC, IIA	IA, <u>IIA</u>	IC, <u>IIA</u> , <u>IIC</u>
-Longterm-	IC, IIA	<u>IIA</u>	<u>IIA</u> , <u>IIC</u>
White	IB	IB	IB
-Longterm-	IIA	IIA	IIA
A) Colo. 15-mile & above	IA	IA, <u>IIA</u> , <u>III</u>	<u>IA</u> , <u>III</u> , IV, II A, <u>B</u> , C
-Longterm-	IIA	IA, IIA, III	IA, III, IV, II A, B, C
B) Below to State Line	IA	IA, IIA, III	IA, III, IV, IIA
-Longterm-	IIA	IA, IIA, III	IA, IIA, III, IV
Gunnison	IA, <u>III</u> IIA, IIB	IA, <u>III</u> IIIA, IIB	IA, <u>III</u> , IIA, IIB
-Longterm-	IA, <u>III</u> , IIA, IIB	IA, <u>III</u> , IIA, IIB	IA, <u>III</u> , IIA, IIB

CRITERIA FOR PRIORITIES:

1. Short-term: 0-5 years.
2. Feasibility.
3. Benefits the fish.
4. Avoid Section 7 - consultation/conflicts.

NEXT STEPS:

1. Flesh out options - W.A.C. - Tom (by September 15).
2. Meet with Gene, Wendy, and Hal regarding specific ways of implementation (by October 1).
3. Present information to Board (November meeting).
4. Give state report to Implementation Committee.
5. Develop compact entitlement scenarios and present them to the Board, (Gene, by November?).
6. Guru II needs to meet in January 1993 concerning Category I progress, and to review CAT II and III.
7. Brief Tom, John, Peter, Gene, Wendy, Hal (week of August 1).

POSITIVE OBSERVATIONS:

1. Time to discuss things in depth.
2. Consideration of all points of view.
3. Facilitation to sort through information.

NEGATIVE OBSERVATIONS/CHANGES NEEDED:

1. Declining attendance.
2. Restatement of issues over and over!
3. slow!

BIN:

Is it worthwhile to pursue Junior Instream Flow Rights?

4

FROM ROBERT
WIGGINGTON
10/24/91

A. RESTATEMENT OF ISSUES FOR GURU II

1. Compact Entitlement.

a. Working Compact Scenarios. What monthly instream flows would remain at the Colorado state line on each major tributary of the Colorado River after the compact development assumed in the salinity reports or other existing basin-wide water budgets, has occurred? How much more development is possible under these existing budgets before realizing the full compact entitlement, what are the alternatives for such development, and what monthly instream flows would remain at the Colorado state line after such full compact development?

b. Potential Conflicts. Are there conflicts on the Yampa River and above the 15-Mile Reach on the Colorado River between the alternatives for full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved?

c. Tributary Allocations. To what extent can Colorado's compact entitlement be implicitly allocated among major Colorado River tributaries by instream water rights appropriated or acquired for the endangered fish?

d. Interstate Negotiations. To what extent might interstate negotiations over the compact entitlement limit the instream water rights that need to be secured for the endangered fish?

2. Juniper-Cross Mountain Transaction.

a. Development Allowance. How much of Colorado's compact entitlement would remain for future development on the Yampa River above Maybell if the Juniper-Cross Mountain water rights were dedicated to instream use? How should existing water uses be protected from curtailment by the instream use of these water rights? How should the allowance for future development be reserved and administered? (These issues will be addressed in the Yampa River technical study on alternative reservoir projects.)

b. Compact Consistency. Will the dedication of the Juniper-Cross Mountain water rights to instream use, subject to the development allowances identified in the Yampa River technical study on alternative reservoir projects, impair the development of Colorado's compact entitlement, or deprive the people of Colorado of the beneficial use of water in violation of Colorado's instream statute? Is such use of these water rights prohibited by the Maybell delivery required by the 1948 Upper Colorado River Compact?

c. Transaction Structure. Should the Juniper-Cross Mountain water rights be purchased or otherwise acquired before they are changed to instream use? If not, how should the change of water rights proceeding be structured? What contractual remedies may be appropriate in the change of water rights proceeding for the FWS to have under Colorado's instream flow statute? In any subsequent management and enforcement of these water rights?

d. Conversion of Conditional Water Rights to Instream Use. Is the CWCB authorized to convert conditional water rights to instream use? If so, what criteria will be applied by the CWCB in making such conversions, and will the conversion of the Juniper-Cross Mountain water rights to instream use meet such criteria?

3. Instream Water Rights for the 15-Mile Reach.

a. Initial Water Availability Analysis for July, August, September. What percentage of time must flows be available for the CWCB to make a new instream flow appropriation? What contractual remedies in the water court proceedings for the new appropriation may be appropriate for the FWS to have under Colorado's instream flow statute? In any subsequent management and enforcement of the new instream appropriation?

b. Subsequent Water Availability Analysis. How does the amount of water initially found available in the 15-Mile Reach compare with that which is available under the working compact scenarios? What alternative assumptions about development above Cameo under conditional decrees, or about depletions under existing absolute decrees, may be appropriate? What alternative assumptions about the operation of the so-called Cameo water rights may be appropriate, other than any assumptions about the disposition of water that might be salvaged under these rights?

c. Water salvage. What are the implications of the CWCB study on water salvage for securing instream flows to meet endangered fish needs in the 15-Mile Reach?

4. Storage Releases.

a. Steamboat Lake. Can releases from Steamboat Lake be protected from rcdiversion under the water rights currently held by the Colorado Division of Parks and Recreation for the Lake? Must the CWCB be a party to any contract for release of storage water from Steamboat Lake for instream use even if the Lake's water rights are changed to include instream use?

b. Aspinall Unit. What are the answers to these same questions for water released out of the Aspinall Unit? How might

any agreement between the National Park Service and the Bureau of Reclamation over the use of Aspinall storage water to maintain instream flows in the Black Canyon, affect the use of Aspinall water to meet endangered fish needs? Does the present authorizing legislation for the Aspinall Unit permit the use of Aspinall water to meet endangered fish needs? Does the Endangered Species Act authorize such use of Aspinall water?

5. Quantification of Flow Needs.

a. Legal Standards. What is the standard under the Endangered Species Act for determining how much water to dedicate to the endangered fish? The amount needed for full recovery? The amount needed for survival, but not recovery? It is possible to acquire instream water rights under the standards set by Colorado's statute, that also meet the standards set by the Endangered Species Act. To what extent may the CWCB consider the standards set by the Endangered Species Act in balancing instream flow protection and water development?

b. Technical Uncertainty About Instream Flow Needs. How does the CWCB proceed in light of technical uncertainty about instream flow needs? Is the CWCB precluded from acquiring an instream water rights if it is not feasible to establish a precise fish population response for every increment of flow need? Can the CWCB rely on professional judgement in quantifying instream flow needs? To what extent has the CWCB already relied on professional judgement to quantify flow needs? Can the CWCB rely on the professional judgement of FWS biological experts? Must the CWCB rely on any one method of flow quantification, or may the CWCB apply one method that is suited to a particular river reach and an entirely different one that is suited to another, or may the CWCB even draw on conflicting methods and data for the same reach? Is it possible for the CWCB to acquire an "interim" instream flow right subject to future review and refinement based on new data? Would such interim protection satisfy the mandates of the Endangered Species Act?

c. Uncertainty About Future Water Development. In balancing instream flow protection and water development, how does the CWCB weigh future water development that is highly or moderately uncertain, or is not clearly necessary for full compact development?

B. PROPOSAL FOR PHASING GURU II ISSUES.

1. Can be addressed now, and should be done first.
 - a. Compact Entitlement.
 - b. Initial Water Availability for 15-Mile Reach.
 - c. Standards for Quantifying Flow Needs.
2. Need to be preceded by other work, but should be done as soon as that work is done.
 - a. Juniper-Cross Mountain Transaction: After development of model for study on alternative reservoirs.
 - b. Water Salvage for 15-Mile: After completion of CWCB study on water salvage.
3. Can be addressed now, but should be deferred to second phase.
 - a. Storage Releases.
 - b. Subsequent Water Availability Analysis for 15-Mile Reach.

Offered by Robert Wigington
10-24-91

(Guru II)
Draft
10/29/91

Appendix A
Preliminary List of Potential Impediments to Appropriation,
Lease, Acquisition and/or Protection of Instream Flows for
Endangered Species

This preliminary list of potential impediments is provided in a format that reflects the decision processes followed by the Colorado Water Conservation Board. Some potential impediments do not fit into this format and are included in a miscellaneous section. The following outline is in four major parts: Substantive Findings, Protection of Water Rights, Process and Miscellaneous.

I. **SUBSTANTIVE FINDINGS** By the Board Regarding Appropriation, Lease, or Acquisition of Instream Flows

A) Elements Common to All Instream Flow Appropriations, Leases, or Acquisitions

Element 1. The Board must make a determination that the flows are the minimum required to preserve the natural environment to a reasonable degree.

With regard to this element, the Board must make determinations regarding 1) use, and 2) quantity. The determination of use is embodied in the words "that the flows are... required to preserve the natural environment." The quantity determination is embodied in the words "minimum required." It appears that "to a reasonable degree" could apply to either use or quantity. Questions regarding potential impediments to providing flows for endangered fish have been raised in terms of both the use and quantity determinations, as described below.

Questions regarding use include:

Is the appropriation of instream flows based solely on the need to provide and/or protect habitat needed for recovery of endangered fish within the definition of "flows...required to protect the natural environment...?"

Do the findings that a) "to preserve", or b) a "natural environment" exists, or c) "to a reasonable degree" present an impediment?

Questions regarding quantity include:

Do either the "minimum required" or "to a reasonable degree" determinations present impediments?

How have the statutory tests ("minimum required" and "to a reasonable degree") been applied in the past? Is this an impediment to protecting flows for endangered fish?

What is a reasonable standard for determining the "minimum" amount of water to dedicate to the endangered fish? The amount needed for full recovery? The amount needed for survival, but not recovery?

How does this standard compare to the basis for establishing "minimum" flows on Gold Medal trout fisheries?

Can estimates (professional judgement) of the flow needs of the fish that do not provide specific relationships among changes in flow and changes in habitat or population provide an adequate legal basis for an instream flow appropriation? If so, how should the Board address the uncertainties in the quantity of the flow recommendations that are based on professional biological judgement?

How will the Board address situations in which it is not feasible to establish relationships between flow and population and/or habitat?

Is consistency needed among methods used for flow recommendations?

In the absence of a perfect and demonstrable understanding of the flow preferences/needs of the fish, does reliance upon professional judgement in the quantification of recommended flows present an impediment to the protection of instream flows for the benefit of the fish?

Element 2. The appropriation, acquisition, or lease of water for instream uses shall not deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

This element raises impediment issues related to 1) interstate compact administration, and 2) the relationship among flows dedicated to endangered fish and other uses of water within the state. Questions regarding impediments related to these two categories are listed below.

Questions regarding compact issues include:

Do compact delivery requirements present an impediment to protection of instream flows in the Yampa, or 15 mile reach for the benefit of the endangered fish?

Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?

Does the future full development of Colorado's compact entitlement of water from the Colorado River system present an impediment to near term provision and the protection of instream flows for the benefit of the fish in the 15 mile reach and Yampa River?

Would the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement?

Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?

What is the potential for conflicts between full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved?

Questions regarding competing beneficial uses include:

Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to appropriation of instream flows for endangered fish species?

Are there preferences among the various "beneficial uses" recognized under Colorado law which present an impediment to the protection instream flows for the benefit of the endangered fish? If so, what are the consequences of considering flows for endangered fish as less important than other traditional uses? Can the water acquisition portion of the Recovery Program be expected to succeed if flows for endangered fish are considered a lower priority than other traditional uses?

B) Elements Specific to Appropriation, or Acquisition (Purchase or Lease)

Certain elements of the Board's decision processes apply to either appropriation or acquisition. Questions regarding potential impediments related to each are presented below.

Questions regarding appropriation include:

Is the manner in which the Board determines the physical and legal availability of water an impediment to appropriation of instream flows for endangered fish species?

How often must water be available in order to make an appropriation?

Is the fact that the Board cannot rely upon imported water for an appropriation an impediment?

Is the fact that present uses/exchanges must be protected an impediment?

Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment?

Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?

Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data?

Does the Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?

Does the prohibition of condemnation present an impediment?

Does the requirement that all flow recommendations must be made with specificity and in writing present an impediment?

Questions regarding impediments related to acquisition of water are applicable to absolute rights and conditional rights, as indicated below:

Absolute Water Rights

How should the interests of FWS and the Recovery Program be represented in the process of converting absolute rights to instream flow rights for the endangered fish?

Conditional Water Rights:

Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights?

Would instream use of the Juniper-Cross Mountain water rights deprive the people of the State of Colorado of beneficial use of water? How should existing water uses be protected from curtailment? How should an allowance for future water development be reserved and administered?

Do the proposed criteria for converting conditional water rights to instream flows pose an impediment to acquisition of water for instream flows for endangered fish?

II. PROTECTION OF WATER RIGHTS

Questions raised regarding impediments to protection of instream flows are listed below:

Does the CWCB have authority to protect instream flow rights for endangered fish secured by appropriation, acquisition, and/or lease?

Do the current procedures for protection and enforcement of instream flow water rights apply to water rights appropriated for endangered species?

Are the procedures for protecting reservoir releases an impediment for instream flows for endangered fish purposes?

Must the Board be a party to every lease of water for instream flow purposes?

When does a water right decree allow a storage release for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted?

What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows?

III. PROCESS

The process for establishing instream flows by appropriation, acquisition, or lease is listed below:

- Study of instream flow needs must be made
- Flow recommendation formulated
- Review by CWCB
- Decision: CWCB accepts/Accepts with modification/Rejects flow recommendation
- Water Availability Study (type of study dependent upon whether an appropriation, acquisition or lease is contemplated)
- Decision: CWCB determines physical/legal availability of water
- Preliminary Public Notice (does not apply to leases)
- Final Public Notice (does not apply to leases)
- Water court action (does not apply to leases)
- Agreement to convey (may be concurrent with other steps)
- Agreement to protect (may be concurrent with other steps)

Questions regarding the process impediments include:

Are the procedures for dealing with objectors to instream flow filings an impediment to obtaining instream flow rights for endangered fish?

IV. MISCELLANEOUS

Assuming that the Salinity Control Program produces "salvage water" in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish?

Until the uncertainties regarding the flow needs of endangered fish are resolved, would protection of "interim" flows satisfy the goals of the Recovery Program?

Do the authorizing laws for Ruedi, Green Mountain, and Rifle Gap reservoirs impede the use of water stored in these reservoirs for endangered fish?

Do past determinations of "minimum required" apply to flows for endangered species?

What are the criteria that the Board will use in determining the appropriate quantity of instream flow for endangered fish?

(Guru II)
Redraft
2/28/92

Preliminary List of Potential Impediments to Appropriation,
Lease, Acquisition and/or Protection of Instream Flows for
Endangered Species

This preliminary list of potential impediments is provided in a format that reflects the decision processes followed by the Colorado Water Conservation Board. Some potential impediments do not fit into this format and are included in a miscellaneous section. The following outline is in four major parts: Substantive Findings, Protection of Water Rights, Process and Miscellaneous.

- I. **SUBSTANTIVE FINDINGS** By the Board Regarding Appropriation, Lease, or Acquisition of Instream Flows
- A) Elements Common to All Instream Flow Appropriations, Leases, or Acquisitions

Element 1. The Board must make a determination that the flows are the minimum required to preserve the natural environment to a reasonable degree.

With regard to this element, the Board must make determinations regarding 1) use, and 2) quantity. The determination of use is embodied in the words "that the flows are... required to preserve the natural environment." The quantity determination is embodied in the words "minimum required." It appears that "to a reasonable degree" could apply to either use or quantity. Questions regarding potential impediments to providing flows for endangered fish have been raised in terms of both the use and quantity determinations, as described below.

Questions regarding type of use include:

Questions regarding quantity include:

1. Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery?
2. Are there impediments in prior CWCB decisions to protecting flows for fish recovery?

3. How should the Board address the uncertainties in the quantity of the flow recommendations? (e.g. A. Use of professional judgement, B. Methodology, and C. Consistency of methodology)
4. What latitude does the Board have to address situations in which it is not feasible to establish relationships between flow and population and/or habitat?

Element 2. The appropriation, acquisition, or lease of water for instream uses shall not deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

This element raises impediment issues related to 1) interstate compact administration, and 2) the relationship among flows dedicated to endangered fish and other uses of water within the state. Questions regarding impediments related to these two categories are listed below.

Questions regarding compact issues include:

5. Is the potential for conflicts between full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved?
 - a. Can Colorado identify, in a timely manner, its compact apportionment delivery and/or requirements on a stream-by stream basis?
 - b. If timely identification of compact allocations is not possible, what instream flow protection is possible? Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?
 - c. Do compact delivery requirements present an impediment to protection of instream flows in the Yampa, or 15 mile reach for the benefit of the endangered fish?
 - d. Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment?
 - e. Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?

- f. Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?
- g. Does the future full development of Colorado's compact entitlement of water from the Colorado River system present an impediment to near term provision and the protection of instream flows for the benefit of the fish in the 15 mile reach and Yampa River?
- h. Would the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement?

Questions regarding competing beneficial uses include:

- 6. Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to protection of instream flows for endangered fish species? c) How often must water be available in order to make an appropriation?
- 7. Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter? Is this an impediment?

Include CWCB Policies of:

- * Conditional rights
- * Inundation
- * De minimis injury settlement
- * 60-day notice requirement for instream rights

Statutory differences include:

- * Prohibition on condemnation
- * Non-reliance on imported water
- * Present undecreed uses

B) Elements Specific to Appropriation, or Acquisition (Purchase or Lease)

Certain elements of the Board's decision processes apply to either appropriation or acquisition. Questions regarding potential impediments related to each are presented below.

Questions regarding appropriation include:

8. Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data?
 - A. Until the uncertainties regarding the flow needs of endangered fish are resolved, would protection of "interim" flows satisfy the goals of the Recovery Program?
 - B. Can FWS rely on the interim flow in its biological opinion?
9. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?
 - A. Does the prohibition of condemnation present an impediment?
10. How can an instream flow right under state law be described, quantified, and appropriated that varies annually and instantaneously?

Absolute Water Rights

11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish? (e.g., Protection from subordination of rights or diminishment of quantity.)

Conditional Water Rights:

12. Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights?

II. PROTECTION OF WATER RIGHTS

Questions raised regarding impediments to protection of instream flows are listed below:

13. Under what circumstances will CWCB be a party to the lease of water (storage or direct flow) for instream flow purposes?

14. When does a water right decree allow a release of stored water for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted? Issues include decreed beneficial uses and "Judge Brown" rights.
15. What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows?

III. PROCESS

The current process for establishing instream flows by appropriation, acquisition, or lease is listed below:

- Study of instream flow needs pursuant to the R.I.P.
- Flow recommendation formulated pursuant to the R.I.P.
- Review by CWCB and other interested agencies
- Decision: CWCB accepts/Accepts with modification/Rejects flow recommendation
- Water Availability Study (type of study dependent upon whether an appropriation, acquisition or lease is contemplated--can be done concurrent with flow recommendations.)
- Decision: CWCB determines physical/legal availability of water
- Preliminary Public Notice (does not apply to leases)
- Final Public Notice (does not apply to leases)
- Water court action (does not apply to leases)
- Agreement to convey (may be concurrent with other steps)
- Agreement to protect (may be concurrent with other steps)

Questions regarding the process impediments include:

IV. MISCELLANEOUS

16. Assuming that the Salinity Control Program or other actions produce salvage or saved water in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish? (e.g. (1) with state law; (2) other institutional impediments?
17. Do the authorizing laws for federal reservoirs impede the use of water stored in these reservoirs for endangered fish?
18. Is "sufficient progress" issue an impediment to protecting flows? Or, is protection of flows in timely enough manner to allow new federal actions to go forward?
19. What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB?
20. Is the perceived lack of progress and emphasis in other aspects of R.I.P. an impediment?
21. Is the perceived inadequacy of recovery goals an impediment?
22. How will other R.I.P. parties (including the Bur. Rec.) deal with situations in which it is not feasible to establish relationship between flow and population and/or habitat?
23. CWCB criteria for acquisition of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent.
24. Is the lack of grassroots constituency support within agencies and among public an impediment?
25. Complexity of interpreting biological data vs. engineering data (technical, cultural clash.)

Center for Public-Private Sector Cooperation
Center for the Improvement of Public Management

1445 Market Street, Suite 380
Denver, Colorado 80202
Phone: (303) 820-5650
Fax: (303) 534-8774

Memorandum

March 30, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : April 6, 1992 meeting to discuss issues related to water acquisition for endangered fishes

As we agreed, enclosed are the results of the tally sheet of the impediments with the four categories agreed to at the last meeting. Please review these results and be prepared to put the issues in priority order in terms of how this working group ought to spend its time. Not everyone put all issues into categories so the cumulative totals by issue will vary. As you may recall, this "straw poll" is intended to assist the group in disclosing the areas of agreement and disagreement and to assist us in designing an agenda that will more fully meet your needs. If you have any questions or corrections, please do not hesitate to call.

The next meeting will be from 8:00 a.m. to 5:00 p.m. on April 6, 1992 at 1445 Market Street, suite 504. This is the same building we were in last meeting but in a room of the Denver Chamber. If you found the chairs uncomfortable at the last meeting, bring a pillow to sit on as we were unable to find affordable space with padded chairs!

If you will be unable to attend the meeting on April 6, please call Lisa Carlson at 820-5663 and leave a message. Once again, if you have any questions or concerns, please call us.

TALLY SHEET

Instructions. For each of the impediments listed below, please check the single response which best represents your sense of priorities. The categories are as follows:

- * **Critical, must resolve/deal breaker**
- * **In progress, being resolved**
- * **Not urgent, can't affect, bin**
- * **Middle of the road**

1. Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery?
2. Are there impediments in prior CWCB decisions to protecting flows for fish recovery?
3. How should the Board address the uncertainties in the quantity of the flow recommendations? (e.g. A. Use of professional judgement, B. Methodology, and C. Consistency of methodology)
4. What latitude does the Board have to address situations in which it is not feasible to establish relationships between flow and population and/or habitat?
5. Is the potential for conflicts between full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved?
 - a. Can Colorado identify, in a timely manner, its compact apportionment delivery and/or requirements on a stream-by stream basis?
 - b. If timely identification of compact allocations is not possible, what instream flow protection is possible? Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?
 - c. Do compact delivery requirements present an impediment to protection of instream flows in the Yampa, or 15 mile reach for the benefit of the endangered fish?
 - d. Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment?

	Critical	In Progress	Middle of Road	Not Urgent
1.	3	3	3	5
2.	5	2	2	4
3.	9	3	1	1
4.	9	3	3	
5.	12	1		
a.	6	8	1	
b.	6	1	7	1
c.	7	3	2	3
d.	2	0	6	4

Critical *In Progress* *Middle of Road* *Not Urgent*

- e. Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?
 - f. Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?
 - g. Does the future full development of Colorado's compact entitlement of water from the Colorado River system present an impediment to near term provision and the protection of instream flows for the benefit of the fish in the 15 mile reach and Yampa River?
 - h. Would the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement?
6. Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to protection of instream flows for endangered fish species? c) How often must water be available in order to make an appropriation?
7. Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter? Is this an impediment?
- Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data?
- A. Until the uncertainties regarding the flow needs of endangered fish are resolved, would protection of "interim" flows satisfy the goals of the Recovery Program?
 - B. Can FWS rely on the interim flow in its biological opinion?
9. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?
- A. Does the prohibition of condemnation present an impediment?
10. How can an instream flow right under state law be described, quantified, and appropriated that varies annually and instantaneously?
11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish? (e.g., Protection from subordination of rights or diminishment of quantity.)

5	2	5	1
3	1	3	7
8	3	2	
3	4	3	4
5	3	6	
1	1	9	2
7	4	3	
7	3	3	
6	2	2	2
1	8		4
1	3	3	5
	5	6	2
6	6	2	

2. Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights?
13. Under what circumstances will CWCB be a party to the lease of water (storage or direct flow) for instream flow purposes?
14. When does a water right decree allow a release of stored water for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted? Issues include decreed beneficial uses and "Judge Brown" rights.
15. What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows?
16. Assuming that the Salinity Control Program or other actions produce salvage or saved water in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish? (e.g. (1) with state law; (2) other institutional impediments?)
17. Do the authorizing laws for federal reservoirs impede the use of water stored in these reservoirs for endangered fish?
18. Is "sufficient progress" issue an impediment to protecting flows? Or, is protection of flows in timely enough manner to allow new federal actions to go forward?
19. What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB?
20. Is the perceived lack of progress and emphasis in other aspects of R.I.P. an impediment?
21. Is the perceived inadequacy of recovery goals an impediment?
22. How will other R.I.P. parties (including the Bur. Rec.) deal with situations in which it is not feasible to establish a relationship between flow and population and/or habitat?
23. CWCB criteria for acquisition of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent.
24. Is the lack of grassroots constituency support within agencies and among public an impediment?
25. Complexity of interpreting biological data vs. engineering data (technical, cultural clash.)

	<i>Critical</i>	<i>In Progress</i>	<i>Middle of Road</i>	<i>Not Urgent</i>
2	2	8	2	2
4	4	3	4	3
3	3	5	5	1
7	7	3	3	1
4	4	2	8	
5	5	2	6	1
5	5	8		1
1	1	3	4	6
7	7	4	1	2
5	5	8		2
6	6	1	5	2
5	5	5	3	1
6	6	1	4	3
9	9	2	2	1

Memorandum

April 28, 1992

To : Meeting participants

From : Lloyd Burton, Lisa Carlson, Ken Torp, University of Colorado at Denver, Center for Public-Private Sector Cooperation

Subject : Revised list of potential impediments to appropriation, lease, acquisition and/or protection of instream flows for endangered species.

Encl : (1) Priority List of Impediments by Category
(2) Preliminary List of Potential Impediments to Appropriation, Lease, Acquisition and/or Protection of Instream Flows for Endangered Species (Redraft, 4/28/92)

Enclosed is the revised list of impediments by categories and the revision of the "Guru II" document. For tracking purposes, the Guru II document lists the impediments in their original question form along with the priority category and the intended action/edits agreed to at the last meeting. If you choose to put a final "report" into a format that reflects the decision processes followed by the Colorado Water Conseration Board this document will have to be reworked. If you have any questions or corrections regarding these documents please call Lisa Carlson before the next meeting on June 1 at 820-5663.

We are pleased to have the opportunity to work with you for the next two meetings in June and July. Since the Guru II group apparently sees itself principally in the role of fashioning and making recommendations to decision making authorities external to this process, it may be advisable to think in terms of multiple alternative means of achieving the group members' respective policy objectives. From the perspective of the collaborative problem-solving process, we suggest performing the following tasks, which must be done in sequence:

- a. Make sure all the issues have been translated into the form of solvable problems (i.e., "how to" questions).

- b. Without attribution or evaluation, generate as many alternative solutions to each problem as possible (at least 4 from each participant; on the first round they can be written anonymously and passed to the recorder for drafting and tallying).
- c. After the generation of alternative solutions, define multiple criteria to be used to evaluate alternative solutions. (Example: to resolve "technical culture clash", proposed solutions must have rational basis in both hydrologic analysis and biological science).
- d. Apply criteria to alternative solutions (e.g., multi-dimensional scoring matrix) to achieve rank-ordering of proposed solutions. Depending on how they cluster, this may result in one strongly recommended solution or in an array of alternatives which may score high on some criteria, low on others, resulting in similar average scores.

The next two meetings have been scheduled for June 1 and July 20 at 1445 Market Street, Suite 503. Please make sure you have noted these full-day meetings on your calendars. If you are unable to attend these meetings please call Lisa Carlson at 820-5663 as soon as possible. As always, if you have any questions or have suggestions for the next meeting, please do not hesitate to call.

PRIORITY LIST OF IMPEDIMENTS BY CATEGORY

CATEGORY I: Critical - Work on NOW (may or may not be this group)

- A. "Uncertainty Issues" (Impediments 3,4,25 from "Guru II redraft, 2/28/92)

How can CWCB address uncertainty in the relationship between flow and population and/or habitat?

How can better communication be achieved on instream flow needs and the criteria for evaluating those needs?

- B. "Compact issues" - Development vs. in-stream flows. (#5, (A), (B), (C), (6), (H))

How can potential conflicts be resolved between full compact development and instream flows needed for endangered fish?

Step (1): Identify Colorado's compact entitlement and/or requirements on a stream-by-stream basis.

Step (2): Until step (1) is complete, identify what instream flow protection is possible. Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish?

Step (3): When step #1 is complete, determine whether full development of Colorado's compact entitlement presents an impediment to provision and protection of instream flows for benefit of fish in 15 Mile Reach and Yampa.

Step (4): Determine whether or not the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement.

- C. How can interim instream flow protection be used to address uncertainties about flow needs and compact entitlement?

Determine the extent to which the USFWS can rely on interim flows in its biological opinion (#8 A & B).

- D. Determine whether "sufficient progress" issue is an impediment

to protecting flows and whether the protection of flows is in a timely enough manner to allow new federal actions to go forward (#18).

Determine whether the perceived lack of progress and emphasis in other aspects of R.I.P. is an impediment (#20).

Determine whether the perceived inadequacy of recovery goals is an impediment (21).

- E. How can more grassroots support be generated among and within agencies, concerned interest groups, and the public for instream flow protection and recovery of fish? (#24)

CATEGORY II: Important - Work on next (may already be in progress).

2. Are there impediments in prior CWCB decisions to protecting flows for fish recovery? (e.g. The Blue River case, policies on conditional water rights).
6. Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to protection of instream flows for endangered fish species? c) How often must water be available in order to make an appropriation? d) [previously #5 (d)] Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment? e) [previously #5 (e)] Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?
11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish? (e.g., Protection from subordination of rights or diminishment of quantity.) a) [previously #15] What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows?
12. Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights?
13. Under what circumstances will CWCB be a party to the lease of water (storage or direct flow) for instream flow purposes?
14. When does a water right decree allow a release of stored water

for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted? Issues include decreed beneficial uses and "Judge Brown" rights.

16. Assuming that the Salinity Control Program or other actions produce salvage or saved water in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish? (e.g. (1) with state law; (2) other institutional impediments?
22. How will other R.I.P. parties (including the Bur. Rec.) deal with situations in which it is not feasible to establish relationship between flow and population and/or habitat?
23. CWCB criteria for acquisition of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent.

CATEGORY III: Long term - Work later.

1. Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery?
7. Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter? Is this an impediment?

Include CWCB Policies of:

- * Conditional rights
- * Inundation
- * De minimis injury settlement
- * 60-day notice requirement for instream rights

Statutory differences include:

- * Prohibition on condemnation
- * Non-reliance on imported water
- * Present undecreed uses

9. A. Does the prohibition of condemnation present an impediment?
10. How can an instream flow right under state law be described, quantified, and appropriated that varies annually and

instantaneously?

17. Do the authorizing laws for federal reservoirs impede the use of water stored in these reservoirs for endangered fish?
19. What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB?

CATEGORY IV: NON-ISSUES

- 5 f. Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?
9. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish?

May 14, 1992

INTERIM FLOW OPTIONS

BACKGROUND:

At the last GURU-II meeting the concept of INTERIM FLOWS surfaced. Participants in GURU-II recognized that the issues surrounding the interpretation of Colorado River and Upper Colorado River compacts are complex. To adequately evaluate the impact of large instream flows (i.e., the Service's recommendations for the Colorado River from the 15-mile reach to the state line and the Lower Yampa Rivers) on Colorado's ability to utilize its compact apportionment will take years. The concept of interim instream flows surfaced as a method of providing legal protection for fish flows until we have a better understanding of when and where the State of Colorado is going to consume Colorado River water. The interim flow concept also provides the Service with time to further refine their flow recommendations and demonstrate a biological response to the interim flow regime.

INTERIM FLOW OPTIONS:

1. REDUCE THE SERVICE RECOMMENDATIONS AND ADJUDICATE SMALLER FLOWS:

Under this option the CFCB could permanently adjudicate the lower base flows recommended by the Service, for example, the October through March flows in the 15-mile

reach. However, for the higher spring flows, for example the April, May and June flows in the 15-mile reach, the CWCB could choose to adjudicate, say, 50% of the Service recommendation, leaving the remaining 50% for development. In the future, once we have more hydrologic and biological information, the CWCB could then seek a junior appropriation for the remaining amount.

COMMENTS AND QUESTIONS:

- A. This kind of strategy would allow us to proceed immediately with the less controversial recommendations. For example, the Service has recommended a winter flow in the 15-mile reach of "between about 1000 cfs and 2000 cfs." Since the United States has a power right in the 15-mile reach for 800 cfs, with a very senior date, the CWCB could probably conduct a study similar to what they did for the July through September recommendations and conclude that at least 800 cfs is legally available for the 15-mile reach, perhaps more. NOTE: With the large amount of oil shale rights just upstream of Cameo, showing that more than 800 cfs is legally available for the long-term may be very difficult.
- B. It could be argued that this kind of strategy diminishes the flows most important to the recovery of the fish -

the high spring flows, thus there remains a question in the long-term ability of the program to recover the fish.

C. This kind of strategy leaves open the question of how the Service will evaluate upstream projects, especially those that store during the spring run-off. If the Service takes the position that proposed projects will be evaluated by how they impact the flow recommendations, rather than the actual instream flow rights, then we may not be making any progress.

D. The spring flow recommendations, even if substantially reduced, may create a considerable problem to the CWCB staff in determining the question of legal water availability. How do they handle upstream conditional rights? Could it be successfully argued that there are so many upstream conditional rights that there is legally no water for a junior instream flow?

2. **ADJUDICATE INSTREAM FLOWS BASED ON THE FULL AMOUNTS RECOMMENDED BY THE SERVICE, BUT MAKE THE FLOWS ONLY VALID FOR A TIME CERTAIN WITHOUT FURTHER CWCB ACTION:**

Under this option, the CWCB would seek to appropriate the full amount of the Service recommendations, but in the application, they would provide for a limited life span

of the right (i.e., 10-15 years). At the end of the specified life, the CWCB would then have to go back to court to justify continuing the decree for another 10 or 15 years. At the end of the specified time, the CWCB could reduce the flows, if it determined that the water was needed for development of Colorado's compact entitlement. This kind of approach would also provide time for the Service to determine a biological response.

COMMENTS AND QUESTIONS:

- A. The concept of providing sunset provisions for instream flows is alien to Colorado. The courts may not accept it without a change in CWCB's statute, opposers may not accept it. At the end of the sunset period, the court or opposers may push for abandonment and suggest a junior date for each new period.

- B. From water availability and compact standpoints, the proposal provides considerable flexibility. The CWCB staff could look at the question of water availability on a 10-15 year window. For this short period, assumptions are easier to make and justify. However, under this concept, the CWCB would have to prepare water availability studies for each renewal period.

C. The sunset provisions may not give the Service sufficient comfort to justify non-jeopardy opinions without knowing what will happen in the out years. This kind of approach allows us to make the argument that depletions by upstream seniors (even conditionals) are not legal impacts. However, the Service may still want to evaluate projects based on impacts to their flow recommendations. If this happens have we gained anything?

3. ANY NUMBER OF COMBINATIONS OF THE TWO:

For the less controversial recommendations, there may be no need to consider the appropriation of instream flows with sunset provisions. This opens the possibility of adjudicating the base flow recommendations (i.e., the winter flows in the 15-mile reach, under the present system, but providing sunset provisions on the larger controversial flows; i.e., the Colorado River below Grand Junction). Other options are conceivable such as reducing the flows on certain streams, such as the Lower Colorado, but adjudicating the full amount on other streams, such as the Yampa or Little Snake. Another alternative would be to appropriate the full recommendations on certain streams and use a sunset provision on others.

5-26-92

Agenda
Interim Flow Concepts Discussion
Meeting - June 4, 1992

I. INTRODUCTION/PURPOSE

II. LEGAL ISSUES

1. What are constraints (if any) to implement the interim flow concept?
 - a) Is it possible to appropriate flows less than required to preserve the natural environment to a reasonable degree?
 - b) Can "conditional" instream flows be appropriated?
 - c) Can instream flow appropriation be reduced because of:
 - the impacts on the ability to develop Colorado's compact apportionment
 - further refinement through additional scientific data which may indicate that the original appropriation was too large
 - d) How will scientific uncertainty be dealt with, i.e., would a different level of scientific data be acceptable for interim flows?
 - e) How would the Board and the Court interpret the phrase "Nothing in this article shall be construed as authorizing any state agency -- to deprive the people of Colorado of the beneficial use of those waters available by law and interstate compact"?

III. POLICY ISSUES

1. What will be the impact (real or perceived) of a large instream flow appropriation on the Yampa and Colorado rivers on development of conditional water rights, changes of upstream rights, etc.?
2. Does a 1992/1993 instream flow right have any significant impact on water resource development considering the following provision in CRS 37-92-102(3) "Nothing in this article shall be construed as authorizing any state agency -- to deprive the people of Colorado of the beneficial use of those waters available by law and interstate compact"?
3. What is the value of a 1992/1993 instream flow water right in providing real water and protection of flows to endangered fish, or is it just a paper water right with no real value?

IV. U.S. FISH AND WILDLIFE SERVICE/RECOVERY PROGRAM ISSUES

V. ALTERNATIVE INTERIM FLOW CONCEPTS

- 1) Appropriating flows less than those recommended by the Service
- 2) Appropriating "conditional" flows that would need to be reaffirmed at certain time intervals by the Board
- 3) Appropriating flows subject to reduction if it is determined that those flows would adversely affect Colorado's ability to develop its compact apportionment or if further studies by the Service indicate that they are too large
- 4) Appropriating the flows recommended by the Service, but including in the application, the statement from CRS 37-92-102(3) that the appropriation will not "deprive the people of the State of Colorado of the beneficial use of those waters available by law and interstate compact."
- 5) Others

VI. DISCUSSION

There are at least three issues that must be addressed at this meeting, and they include the following:

- 1) Can it be done legally under CRS 37-92-102(3)?
- 2) How does it affect (real and perceived impact) water resource development in Colorado, and development of Colorado's compact apportioned waters?
- 3) Does it really benefit endangered fish recovery or is it just a paper exercise?

(Guru II)
Redraft
4/28/92

Preliminary List of Potential Impediments to Appropriation,
Lease, Acquisition and/or Protection of Instream Flows for
Endangered Species

This preliminary list of potential impediments is provided in a format that reflects the decision processes followed by the Colorado Water Conservation Board. Some potential impediments do not fit into this format and are included in a miscellaneous section. The following outline is in four major parts: Substantive Findings, Protection of Water Rights, Process and Miscellaneous.

I. **SUBSTANTIVE FINDINGS** By the Board Regarding Appropriation, Lease, or Acquisition of Instream Flows

A) Elements Common to All Instream Flow Appropriations, Leases, or Acquisitions

Element 1. The Board must make a determination that the flows are the minimum required to preserve the natural environment to a reasonable degree.

With regard to this element, the Board must make determinations regarding 1) use, and 2) quantity. The determination of use is embodied in the words "that the flows are... required to preserve the natural environment." The quantity determination is embodied in the words "minimum required." It appears that "to a reasonable degree" could apply to either use or quantity. Questions regarding potential impediments to providing flows for endangered fish have been raised in terms of both the use and quantity determinations, as described below.

Questions regarding type of use include:

Questions regarding quantity include:

1. Is the state law in reference to "Minimum requirements to protect the environment to a reasonable degree" inconsistent with flows needed for fish recovery? (Category III)
2. Are there impediments in prior CWCB decisions to protecting flows for fish recovery? (e.g. The Blue River case, policies on conditional water rights) (Category II)

3. How should the Board address the uncertainties in the quantity of the flow recommendations? (e.g. A. Use of professional judgement, B. Methodology, and C. Consistency of methodology) (Category I)
 4. What latitude does the Board have to address situations in which it is not feasible to establish relationships between flow and population and/or habitat? (Category I)
- * Add # 25 - combine #s three and four

Element 2. The appropriation, acquisition, or lease of water for instream uses shall not deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

This element raises impediment issues related to 1) interstate compact administration, and 2) the relationship among flows dedicated to endangered fish and other uses of water within the state. Questions regarding impediments related to these two categories are listed below.

Questions regarding compact issues include:

5. Is the potential for conflicts between full compact development and the instream flows needed for the endangered fish? How can such conflicts be avoided or resolved? (Category I)
 - a. Can Colorado identify, in a timely manner, its compact apportionment delivery and/or requirements on a stream-by stream basis? (Category I)
 - b. If timely identification of compact allocations is not possible, what instream flow protection is possible? Is a concern that instream water rights secured under the Recovery Program will implicitly allocate compact flows among tributaries an impediment to securing instream flow rights for endangered fish? (Category I)
 - c. Do compact delivery requirements present an impediment to protection of instream flows in the Yampa, or 15 mile reach for the benefit of the endangered fish? (Category I)
 - d. Is the fact that water must be available to preserve the natural environment without material injury to water rights an impediment?

* Move to # 6 as 6 (d)

e. Is consideration of conditional water rights in making the determination of physical and legal availability an impediment?

* Move to #6 as 6 (e)

f. Does the Maybell Compact delivery prohibit dedication of the senior Juniper water rights to instream flow protection?

* (Answer is "no"--Category IV)

g. Does the future full development of Colorado's compact entitlement of water from the Colorado River system present an impediment to near term provision and the protection of instream flows for the benefit of the fish in the 15 mile reach and Yampa River? (Category I)

h. Would the conversion of the Juniper-Cross Mountain water rights to instream flow rights for the fish present an unavoidable impediment to full development of Colorado's compact entitlement? (Category I)

Questions regarding competing beneficial uses include:

6. Is either a) the statutory requirement that water be physically and legally available, or b) the method of determination of the physical and legal availability of water, an impediment to protection of instream flows for endangered fish species? c) How often must water be available in order to make an appropriation? (Category II)

7. Do the differences in the legal criteria and process between instream and non-instream water rights give a higher value to the latter? Is this an impediment? (Category III)

Include CWCB Policies of:

- * Conditional rights
- * Inundation
- * De minimis injury settlement
- * 60-day notice requirement for instream rights

Statutory differences include:

- * Prohibition on condemnation
- * Non-reliance on imported water
- * Present undecreed uses

B) Elements Specific to Appropriation, or Acquisition (Purchase or Lease)

Certain elements of the Board's decision processes apply to either appropriation or acquisition. Questions regarding potential impediments related to each are presented below.

Questions regarding appropriation include:

8. Is it possible to acquire an "interim" instream flow right subject to future review and refinement based on new data? (Category I)
 - A. Until the uncertainties regarding the flow needs of endangered fish are resolved, would protection of "interim" flows satisfy the goals of the Recovery Program? (Category I)
 - B. Can FWS rely on the interim flow in its biological opinion? (Category I)
- * Combine 8, 8(a) and 8 (b) with #3 and #4
9. Does the operation of Orchard Mesa check present an impediment to the protection of instream flows for the benefit of the fish? (Category IV)
 - A. Does the prohibition of condemnation present an impediment? (Category III)
10. How can an instream flow right under state law be described, quantified, and appropriated that varies annually and instantaneously? (Category III)

Absolute Water Rights

11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish? (e.g., Protection from subordination of rights or diminishment of quantity.--Category II)

Conditional Water Rights:

12. Does Colorado law allow the conversion of conditional water rights to absolute instream flow rights? (Category II)

II. PROTECTION OF WATER RIGHTS

Questions raised regarding impediments to protection of instream flows are listed below:

13. Under what circumstances will CWCB be a party to the lease of water (storage or direct flow) for instream flow purposes? (Category II)

14. When does a water right decree allow a release of stored water for instream use to be protected from diversion? (Both federal and non-federal reservoirs should be considered.) Must the Board hold some interest in the storage release to protect it from being diverted? Issues include decreed beneficial uses and "Judge Brown" rights. (Category II)

III. PROCESS

The current process for establishing instream flows by appropriation, acquisition, or lease is listed below:

- Study of instream flow needs pursuant to the R.I.P.
- Flow recommendation formulated pursuant to the R.I.P.
- Review by CWCB and other interested agencies
- Decision: CWCB accepts/Accepts with modification/Rejects flow recommendation
- Water Availability Study (type of study dependent upon whether an appropriation, acquisition or lease is contemplated--can be done concurrent with flow recommendations.)
- Decision: CWCB determines physical/legal availability of water
- Preliminary Public Notice (does not apply to leases)
- Final Public Notice (does not apply to leases)
- Water court action (does not apply to leases)
- Agreement to convey (may be concurrent with other steps)
- Agreement to protect (may be concurrent with other steps)

Questions regarding the process impediments include:

IV. MISCELLANEOUS

15. What assurances do the FWS and Recovery Program need that instream flow rights will be protected under State law? Are these assurances an impediment to obtaining rights for instream flows? (Category II)

* Combine with # 11

16. Assuming that the Salinity Control Program or other actions produce salvage or saved water in the Grand Valley, are there impediments to use of that water for the benefit of endangered fish? (e.g. (1) with state law; (2) other institutional impediments? (Category II)

17. Do the authorizing laws for federal reservoirs impede the use of water stored in these reservoirs for endangered fish? (Category III)

18. Is "sufficient progress" issue an impediment to protecting flows? Or, is protection of flows in timely enough manner to allow new federal actions to go forward? (Category I)

19. What happens when competing fishery instrument flow rights (sport vs. endangered fish) comes before CWCB? (Category III)

20. Is the perceived lack of progress and emphasis in other aspects of R.I.P. an impediment? (Category I)

* Combine with #18 as 18(a)

21. Is the perceived inadequacy of recovery goals an impediment? (Category I)

* Combine with #18 as 18(b)

22. How will other R.I.P. parties (including the Bur. Rec.) deal with situations in which it is not feasible to establish relationship between flow and population and/or habitat? (Category II)

23. CWCB criteria for acquisition of rights unclear. No recipe. Lack of planning standards. Lack of substantive/process clarity. Need to break new ground in reference to state water law and policy. No precedent. (Category II)

24. Is the lack of grassroots constituency support within agencies and among public an impediment? (Category I)

25. Complexity of interpreting biological data vs. engineering data (technical, cultural clash.) (Category I)

* combine with # 3 and #4

STATE OF COLORADO

COLORADO WATER CONSERVATION BOARD
Department of Natural Resources

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Roy Romer
Governor

Sara Duncan
Deputy Director

MEMORANDUM

TO: Peter Evans
Eric Kuhn
Tom Pitts
Wendy Weiss
Bob Caskey

FROM: Gene Jencsok *E. J. J.*

DATE: May 19, 1992

SUBJECT: Discussion of Interim Flow Concept

The concept of providing interim protection of instream flows for endangered fish recovery has been discussed at recent GURU II meetings as well as the May 7-8, 1992 Board meeting. Under this concept, a certain level of instream flows would be protected by the CWCB for endangered fish in the Colorado River basin while not foreclosing the ability to develop Colorado's compact apportionment.

Several concepts have been suggested such as:

- a. Appropriating flows less than those recommended by the FWS.
- b. Appropriating "conditional" flows that would need to be reaffirmed at certain time intervals by the Board.
- c. Appropriating flows subject to reduction if it is determined that those flows would adversely affect Colorado's ability to develop its compact apportionment or if further studies by the FWS indicate that they are too large.
- d. appropriating the flows recommended by the FWS but including in the application the statement from CRS 37-92-102(3) that the appropriation will not "deprive the people of the State of Colorado of the beneficial use of those waters available by law and interstate compact."

a. Appropriate a base flow right, with a conditional
Attached is a discussion paper by Eric Kuhn of some of the above concepts.

absolute

water right on top.

Memorandum
Interim Flow Concept
May 19, 1992

The interim flow concept would allow the State and water users to refine Colorado's compact issues (how much water is Colorado entitled to and where will it be developed), while allowing the FWS to refine its present flow recommendation and also allow the GURU I study to be completed. If successful, interim protection of instream flows may help resolve the impasse that we are facing on this issue.

As you are aware, the interim flow concept poses many legal and policy challenges not only for Colorado and its water users, but also for the FWS (i.e., to what extent can the FWS rely on interim protection of flows in its biological opinions when those flows may be reduced). Before meeting with the FWS to discuss the interim flow concept, I would like the State and the water users community to meet and discuss the pros and cons of any and all interim flow concepts that we may come up with. Sue Uppendahl or I will call to arrange for a meeting in the near future. I will put together an outline of interim flow concepts for discussion purposes. Please come prepared with any additional ideas that you may have on this issue. Following our meeting I would like to meet with the FWS to discuss what we have come up with.

EJ/bj
Attachment

bj606-memo

May 26, 1992

OPTIONS FOR INTERIM FLOW PROTECTION

BACKGROUND:

At the last GURU-II meeting the concept of interim flow protection was broached. Participants in GURU-II recognized that the issues surrounding the interpretation of Colorado River and Upper Colorado River compacts are complex. To adequately evaluate the impact of protecting large instream flows (i.e., the FWS's spring flow recommendations for the 15-Mile Reach of the Colorado River and the lower Yampa River) on Colorado's ability to utilize its compact apportionment will take years. The concept of interim or reviewable instream flow water rights surfaced as a method of providing legal protection for fish flows until we have a better understanding of when and where Colorado's compact entitlements will be consumed. A reviewable approach to instream water rights would also provide the FWS with time to further refine their flow recommendations and to justify them biologically.

The assumption is that any water that would flow out of the State of Colorado under all possible interpretations of the compacts, might be permanently protected with instream water rights from the outset. To the extent that there was any resolution of the various compact interpretations, permanent flow protection could be based on that resolution rather than on those lowest common denominator among the interpretations. The following options address those flows that could be allocated to one tributary or another under the compacts, or that may only be depleted in Colorado if the compacts are interpreted one way or the other (the three boxes in the lower left-hand corner of the "Compact Issues Chart"). These options also address just those flows that the FWS believes are necessary to recover the fish.

INTERIM FLOW OPTIONS:

1. Appropriate Smaller Flows Than Recommended by the FWS For Now:

Under this option the CWCB could permanently appropriate the lower base flows recommended by the FWS, for example, the October through March flows in the 15-Mile Reach. However, for the higher spring flow recommendations, for example the April, May and June flows in the 15-Mile Reach, the CWCB could choose to permanently appropriate, say, 50% of the FWS recommendation, leaving the remaining 50% for development. In the future, once we have more hydrologic and biological information, the CWCB could then seek a junior, but permanent, appropriation for the remaining amount.

COMMENTS AND QUESTIONS:

A. This kind of strategy would allow us to proceed immediately on permanent appropriations for the less controversial flow

recommendations. For example, the FWS has recommended a winter flow in the 15-Mile Reach of "between about 1000 cfs and 2000 cfs". Since the United States owns a power right at the top of the 15-Mile Reach for 800 cfs, with a very senior date, the CWCB could probably conduct a study similar to what they did for the July through September recommendations and conclude that at least 800 cfs is legally available for appropriation during the winter in the 15-Mile Reach, perhaps more. Given the large amount of conditional oil shale rights just upstream of Cameo, however, showing that more than 800 cfs is legally available for the long-term may be difficult.

B. This kind of strategy does not provide up-front protection of flows that may be important to the recovery of the fish -- the high spring flows, which might leave a question about the ability of the program to recover the fish. It also leaves open the question of how the FWS will evaluate upstream water projects in Section 7 consultations, especially those that would store during the spring runoff. If the FWS takes the position that proposed projects must be evaluated by how they impact the flow recommendations, rather than the smaller instream flow rights, then the recovery program may not provide a reasonable and prudent alternative to the depletion of recommended flows that are not yet protected by instream water rights.

D. The spring flow recommendations, even if they are sought to be only partly protected by permanent instream water rights from the outset, may create a considerable problem for the CWCB in determining the question of legal water availability. How do they handle upstream conditional rights? Could it be successfully argued, as it recently was in the Gunnison River basin concerning claims for new transcontinental appropriations, that there are so many upstream conditional rights that there is legally little or no water for a new instream flow water right?

2. Appropriate Instream Flow Water Rights Based on the Full Amounts Recommended by the FWS, but Make the Instream Rights Only Valid for a Time Certain Without Further CWCB Action:

Under this option, the CWCB would seek to appropriate the full amount of the FWS flow recommendations, but the application would provide for a limited life span of the water right (i.e., 10-15 years). At the end of the specified life, the CWCB would then have to go back to water court to either 1) justify continuing the full amount of a FWS flow recommendation as an instream water right for another 10 or 15 years; 2) make permanent only part of the FWS flow recommendation and continue the balance for another limited time period; 3) make permanent only a part of the FWS flow recommendation, and not continue the balance; or 4) make permanent the full amount of the FWS recommendation. The criteria for making these decisions after the expiration of a specified life span, could be whether flows that had been given interim protection were now clearly needed for compact development, or whether permanent instream flow protection was now clearly biologically justified.

COMMENTS AND QUESTIONS:

A. The concept of providing sunset provisions for instream flow water rights is new to Colorado, but could be based on the CWCB's statutory authority to determine what is "reasonable" for instream appropriation, and how such instream appropriations should be "correlated with the activities of mankind", which are determinations that may be appropriate to review over time. This is the practice in Idaho, which has a statute on instream flow water rights similar to Colorado's. In Idaho, reopeners are included in all instream permits and licenses, because the public interest in protecting instream flows may change over time, even though such a reopener is not expressly authorized by the Idaho statute. But the courts in Colorado may not accept sunset provisions without a change in the CWCB's statute, or opposers may not accept it. If the CWCB seeks to extend the interim protection rather than make it permanent, opposers may argue for abandonment and insist on a junior priority date for each new period, or a kind of due diligence may apply to guard against unjustified or speculative extensions.

B. From water availability and compact standpoints, this option provides considerable flexibility. The CWCB staff could look at the question of water availability in terms of a 10-15 year window. For this short period, assumptions will be easier to make and justify about conditional water rights and compact apportionments. However, under this option, the CWCB would still have to review water availability for each renewal period, or if it sought to make the flow protection permanent.

C. While the interim water right protection was in place, the FWS flow recommendations would enjoy the fullest protection possible under a newly appropriated water right. New depletions could occur under more junior water rights only to the extent that water was available over and above the FWS flow recommendations. Any new depletions that occurred under a change of a senior right would have to be offset by retiring the historic, or contemplated, depletions that occurred or would have occurred under that senior right as originally appropriated. The interim rights might even give the FWS standing to question the diligent development of senior conditional water rights that would result in the depletion of the FWS flow recommendations.

D. The only threat that such interim water rights would not protect against are depletions under senior conditional water rights whose diligent development was unquestionable. Those senior conditional water rights whose diligence was unquestionable could be targeted for purchase. If they were not for sale and their development was clear and fairly imminent, then the recovery program may not be provide a reasonable and prudent alternative to depletions of the FWS flow recommendation under such senior conditional water rights.

E. If the interim water rights were not extended, the FWS would be in the same position as it is now: its initial flow recommendations

would not be legally protected with instream water rights, but it might also be unable to consider a recovery program which no longer included water rights protection of its flow recommendations as a reasonable and prudent alternative to any new or historic depletions which occurred after the expiration of the interim flow protection.

3. Appropriate Instream Flow Water Rights Based on the Full Amounts Recommended by the FWS, Without Any Sunset Provisions:

Under this option there would be no automatic review or sunset of new and junior instream flow appropriations for the full amounts recommended by the FWS. But if it was later determined that the flow amounts needed to recover the fish were less than those initially recommended by the FWS, the unneeded amounts would be abandoned. Like the previous option, this option may not provide a reasonable and prudent alternative to the development of senior conditional water rights that would result in the depletion of the initial FWS flow recommendations.

4. Any Number of Combinations:

Combinations of these options are conceivable such as appropriating less than the full FWS flow recommendations on certain streams, such as the lower Colorado, but appropriating the full amount on other streams, such as the Yampa or Little Snake, or vice versa, which could provide for more flexibility in developing compact apportionments. Another combination would be to permanently appropriate the FWS's full flow recommendations on certain streams and use sunset provisions on others. Another would be permanent and interim appropriations on the same stream, which together covered all or less than the full flow recommendations.

Graduate School of Public Affairs

1445 Market Street, Suite 350
Denver, Colorado 80202
Phone: (303) 820-5600
Fax: (303) 534-8774

June 5, 1992

To: Guru II
From: CU facilitation team

Re: Draft re-statement of residual Category II issues (for purposes of discussion, revision, addition, deletion, etc.)

Note: Most of the Category II issues were originally stated in the form of "Is _____ an impediment?" For the purposes of this re-characterization, we have assumed that the answer to each of these questions is affirmative, and the remaining problem is how that impediment should be overcome. However, this does not preclude the possibility that at the next meeting some of these issues will, upon discussion and reflection, no longer be viewed as problems requiring Guru II membership attention; or that changed circumstances require that the issue be reformulated once again.

6. (a) How can the statutory requirement that water be physically and legally available be interpreted to accommodate the protection of instream flows for endangered fish species?

(b) How can the method of determination of the physical and legal availability be used to accommodate the protection of instream flows for endangered fish species?

(c) How should it be determined how often must water be available in order to make an appropriation?

(d) How should water be made available to preserve the natural environment without materially injuring water rights?

(e) How should the status of conditional water rights be considered in making a determination on the physical and legal availability of water?

11. How should the interests of FWS and the Recovery Program be protected in the process of converting absolute rights to instream flow rights for the endangered fish (e.g., protection from subordination of rights of diminution in quantity)?

(a) How can RIP instream flow rights be assured under state law?

(b) How can these assurances be made in a way that does not impede obtaining such rights?

13. How should the CWCB define the circumstances under which it will be a party to the lease of water (storage or direct flow) for instream flow purposes (e.g., what factors should it take into account)?

16. How can state law and other institutional considerations be accommodated in order to allow the use of salvage or saved water from the Grand Valley to be used for the benefit of endangered fish?

22. How should other RIP parties (including BuRec) respond to situations in which it is not feasible to establish a relationship between flow, fish population, and/or habitat?

23. How should the CWCB proceed with the acquisition of RIP instream flow rights, with specific reference to (a) the formulation of planning standards, (b) the substance of a RIP instream flow policy, and (c) the process by which it should be put into effect?

bc. L. Carlson

MEMORANDUM

TO: Guru II Participants
FROM: Robert Wigington
SUBJECT: Proposed Objectives/Issues for July 20 Meeting
DATE: July 10, 1992

The enclosed write-up of objectives/issues grew out of an ad-hoc meeting on July 1 attended by Peter Evans, Gene Jencsok, Sue Uppendahl, John Hamill, Bob Green, George Smith, and myself and is offered for re-statement and discussion at the Guru II meeting still scheduled for July 20.

PROPOSED OBJECTIVE/ISSUES FOR NEXT GURU II MEETING

The proposed objective of the July 20 Guru II meeting is to address the following issues on interim flow protection, and to decide what to do about the remaining issues on the sorted list and what role, if any, Guru II should continue to play or whether this work should be assigned to a standing committee.

The issues on interim flow protection grew out of the ad-hoc discussion on July 1 about the idea of appropriating permanent, absolute water rights to protect the base flow needs of the endangered fish, coupled with the appropriation of conditional water rights to cover higher peak flows whose compatibility with the compact entitlements and whose biological basis may be less certain. Both the absolute and conditional instream water rights would have junior priority dates. The idea was that the FWS would rely on such junior instream water rights, the re-operation of federal reservoirs, and the purchase of senior water rights to recover the fish, and would not seek depletion offsets or other water supply commitments from private project proponents in Section 7 consultations.

Junior Water Rights. What are the advantages and disadvantages of a junior water right and what level of protection does it provide?¹ Even if a junior water right did not in itself offer an acceptable level of protection, does it provide an important context for other kinds of flow protection such as the acquisition of senior water rights or reservoir re-operations? What are the risks of a junior water right to water development, and to fish recovery, and how can the risks to both be minimized? How can the risk of depletions under senior water rights be addressed? Should Section 7 consultations which rely on junior water rights be re-opened if depletions occur under senior rights? What flexibility in the re-operation of reservoirs to benefit the endangered fish may be forgone if depletions occur under senior water rights, even if Section 7 consultations will be re-opened?² How can the reopening of Section 7 consultations be avoided? How do junior instream water rights fit into the overall priorities for the Recovery Program, given the limited budget?

Interim Flow Protection. What are the advantages and disadvantages of appropriating a conditional water right to provide interim flow protection? What are the risks to water development and to fish recovery, and how can the risks to both

¹This issue will be addressed in a separate white paper by George Smith and Sue Uppendahl.

²These issues will be fleshed out by Bob Green and Peter Evans.

be minimized? Should Section 7 consultations which rely on conditional instream water rights be re-opened if depletions occur before the conditional water rights are made absolute or perfected? What flexibility may be foregone in the re-operation of reservoirs to benefit the endangered fish if depletions occur before the conditional instream water rights are perfected, even if Section 7 consultations will be re-opened?² How will it be determined whether perfection of conditional instream water rights will be in conflict with compact entitlements? How can the re-opening of Section 7 consultations based on conditional instream water rights be avoided? Should interim flow protection be based on an interim Section 7 policy that leaves enough room for the amount of compact development expected to occur over the interim period?

Reconciliation of Interim Flow Protection and Compact Entitlements. Is the process outlined in section 6.D. of the June 8 draft of the RIP Milestones an acceptable process for determining what instream flows should be given interim protection? What timeframes, interagency cooperation, instream reaches, and seasons (e.g., run-off months, late summer, winter) are appropriate for the process suggested in RIP Milestones? Upon completion of such a process, what mechanisms, including junior water rights (absolute and conditional) and alternative policies on Section 7 consultations (with and without re-openers), should be considered for putting interim flow protection in place? What risks would these mechanisms pose to water development and to fish recovery, and how can the risks to both be minimized? What flexibility for reservoir re-operation may be achieved or forgone while such interim flow protection was in place?²

Draft: 7-14-92

**DISCUSSION PAPER ON VALUE OF JUNIOR INSTREAM FLOW
WATER RIGHTS TO THE RECOVERY PROGRAM**

by: Sue Uppendahl, Colorado Water Conservation Board
George Smith, U. S. Fish & Wildlife Service

In efforts towards appropriating and acquiring instream flows for the Recovery Program of the Endangered Fishes of the Upper Colorado River Basin, it is apparent that there are a number of complex issues dealing with Colorado water law, the Colorado River and Upper Colorado River Basin compacts. At previous GURU II meetings, the concept of interim flows was discussed as a temporary solution to the current impasse in instream flow appropriation. The Colorado Water Conservation Board has met with staff from the Executive Director's Office, Colorado Division of Wildlife and U. S. Fish and Wildlife Service (Service).

As a result of a recent meeting with the Service, the value of junior instream water rights to the Recovery Program were considered. The purpose of this discussion paper is to outline the advantages and disadvantages of pursuing an appropriation for junior instream flow water rights for the fish. There are several reasons why a junior right would be of value to the Recovery Program:

- 1) The Recovery Program was premised on the appropriation and acquisition of instream flow water rights through the State's instream flow statutes, as stated in the Blue Book, Section 4.13;
- 2) A junior instream flow water right would reserve a place in the State's priority system, and could become more important as other senior conditional water rights are abandoned, changed or fail to meet due diligence requirements, therefore improving its priority;
- 3) A junior instream flow right is the first step in establishing and protecting a "natural hydrograph, and it would also be able to determine where the Recovery Program needs to acquire water or water rights;
- 4) By appropriating an instream flow water right for the endangered fish, a place would be provided for water obtained through the re-operation of reservoirs. It would also provide a place to put acquired or purchased water rights;
- 5) The knowledge gained by going through the appropriation/acquisition process would be useful to the Recovery Program in determining and adjudicating amounts which could serve as the basis for future acquisitions; and,
- 6) If a junior right is not considered useful, it may be helpful to identify the concerns and issues brought up by various potential opposers associated with senior rights that are useful, allowing the Recovery Program to address and resolve these issues in efforts to provide water for the fish.

In contrast, there are some reasons why a junior instream flow right could be considered as having only a limited value to the Recovery Program. These are as follows:

- 1) The Recovery Program will need to determine if a junior water right is a "paper water right" or has some value, which may be that it would only be available during very wet years;
- 2) Because a junior instream flow water right could be satisfied only during high flow periods, it is possible that it would only benefit the fish during high flow periods, and that the funds could be better spent elsewhere (i.e., habitat improvements);
- 3) Cost and effort necessary to quantify the instream flow required, move applications through water court and obtain a decree may be high, and the value of such junior rights should be weighed prior to any appropriation; and,
- 4) A junior instream flow right would not be able to protect existing conditions or prevent development of existing senior conditional rights, however a junior right may be able to protect existing conditions in the context of a change of water right proceeding.

An important factor that needs to be recognized by the Recovery Program is that the Cooperative Agreement and the Program are based on the premise that Colorado and other Upper Basin States can ultimately develop their full compact apportionment under the Colorado River and Upper Colorado River Basin compacts, as discussed in the Recovery Program Blue Book under Section 12. Long term recovery of the fish must therefore be accomplished with the water that cannot be developed by Colorado under its apportionment.

All of these issues are planned for discussion at the next GURU II meeting, and a decision as to how the Colorado Water Conservation Board should pursue the appropriation of junior instream flow water rights needs to be determined.

/su

2147isp

DISCUSSION PAPER ON VALUE OF JUNIOR INSTREAM FLOW WATER RIGHTS TO THE RECOVERY PROGRAM

Original draft by: Sue Uppendahl, Colorado Water Conservation Board,
George Smith, U.S. Fish & Wildlife Service

Edited and approved by "Guru II" group on July 20, 1992

In efforts towards appropriating and acquiring instream flow for the Recovery Program of the Endangered Fishes of the Upper Colorado River Basin, it is apparent that there are a number of complex issues dealing with Colorado water law, the Colorado River and Upper Colorado River Basin compacts. At previous GURU II meetings, the concept of interim flows was discussed as a temporary solution to the current impasse in stream flow appropriation. The Colorado Water Conservation Board has met with staff from the Executive Director's Office, Colorado Division of Wildlife and U.S. Fish and Wildlife Service (Service).

An important factor that needs to be recognized by the Recovery Program is that the Cooperative Agreement and the Program are based on the premise that Colorado and other Upper Basin States can ultimately develop their full compact apportionment under the Colorado River and Upper Colorado River Basin compacts, as discussed in the Recovery Program Blue Book under Section 1.2. Long term recovery of the fish must therefore, be accomplished with the water that cannot be developed by Colorado under its apportionment.

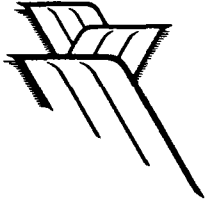
As a result of a recent meeting with the Service, the value of junior instream water rights to the Recovery Program were considered. The purpose of this discussion paper is to outline the advantages and disadvantages of pursuing an appropriation for junior instream flow water rights for the fish. There are several reasons why a junior right would be of value to the Recovery Program:

- 1) The Recovery Program was premised on the appropriation and acquisition of instream flow water rights through the State's instream flow statutes, as stated in the Book, Section 4.13;
- 2) A junior instream flow water right would reserve a place in the State's priority system, and could become more important as other senior conditional water rights are abandoned, changed or fail to meet due diligence requirements, therefore improving its priority;
- 3) A junior instream flow right is the first step in establishing and protecting a "natural hydrograph" (would help protect the pattern of water).

- 4) Appropriating a junior in-stream flow right is a vehicle for:
 - a. establishing flow needs
 - b. achieving those needs to the degree possible with a junior water right
 - c. identifying needs from additional water sources including return flow.

In contrast, there are some reasons why a junior instream flow right could be considered as having only a limited value to the Recovery Program. These are as follows:

- 1) There is uncertainty regarding the amount and frequency of water that would be available under a junior water right under the limitation of Colorado's compact apportionment or if senior conditional rights are developed.
- 2) Cost and effort necessary to quantify the instream flow required, move applications through water court and obtain a decree may be high, and the value of such junior rights should be weighed prior to any appropriation; and,
- 3) A junior instream flow right would not be able to protect existing conditions or prevent development of existing senior conditional rights, however a junior right may be able to protect existing conditions in the context of a change of water right proceeding.
- 4) It may be more effective in the near term to meet flow needs through reservoir re-operation and/or water right acquisitions.



Tom Pitts & Associates
CONSULTING ENGINEERS

September 18, 1992

MEMO TO: Water Acquisition Committee, Recovery Implementation
Program

FROM: Tom Pitts

SUBJECT: Concept Paper on Conditional/Absolute Instream Flows

Pursuant to the request of the "Guru II group," I have prepared a concept paper on the absolute and conditional instream flow water rights (attached). This is a draft that reflects my understanding of the concept as developed by the group. If time permits, it will be discussed at the October 22 Water Acquisition Committee meeting. Please be advised, however, that the highest priorities for that meeting are 1) discussing milestones for sufficient progress, and 2) to develop a recommendation regarding the proposed capital projects budget for the Recovery Program (see my memo of August 26, 1992).

cc: Guru II Group
Lisa Carlson, UCD Center

(1802-50-D; 1802-50-06)

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9/18/92

PROPOSAL FOR RESOLVING UNCERTAIN ISSUES ASSOCIATED WITH
INSTREAM FLOW APPROPRIATIONS IN COLORADO

Under the auspices of the Recovery Program's Water Acquisition Committee, a group of Recovery Program representatives has been meeting in facilitated sessions to attempt to identify legal, institutional, and policy impediments to water acquisition. Most of the identified impediments had to do with 1) uncertainty regarding the magnitude and location of development of Colorado's compact allocation, and 2) uncertainty regarding the technical adequacy of the Service's flow recommendations to legally support appropriation of instream flows.

The group recognized that Colorado's ability to develop its compact allocation must not be precluded by protection of instream flows for endangered fish. However, given the uncertainty regarding the level of development in each river basin, the Water Conservation Board may be stifled in its attempt to appropriate instream flows because of potential unknown conflicts between the future level of compact development and instream flow protection. On the other hand, Colorado has committed to use its instream flow law to protect flows for endangered fish as an integral part of the recovery of those species.

In order to resolve these conflicts the group discussed how existing Colorado instream flow law and water law might be used to protect flows on an "interim" basis. The discussion evolved into using the concepts of absolute and conditional water rights from existing water law and applying those concepts to Colorado's instream flow law. The concept developed by the group calls for filing for absolute instream flow rights in some cases, conditional instream flow rights in other cases, and a combination of absolute and conditional instream flow rights in a third case. The criteria for each type of filing are listed below:

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722-8346

1. Conditional instream flow rights will be applied for if:
 - a. there is uncertainty regarding the technical merits of the flow recommendation, or
 - b. there is significant uncertainty regarding the impact of the flow recommendation on Colorado's ability to develop its future compact allotment.

2. Absolute rights for instream flows would be applied for if:
 - a. issues regarding the technical adequacy of the flow recommendation have been resolved, and
 - b. it is certain that appropriation of the instream flow would not interfere with Colorado's ability to develop its compact allotment in the future.

3. A combination of absolute and conditional rights could be applied for if:
 - a. the absolute portion of the right would not interfere with Colorado's ability to develop its compact allotment,
 - b. issues regarding the technical adequacy of the flow recommendation have been resolved to the point of supporting appropriation of a part of the recommended flow, and
 - c. the conditional portion of the right reflects the uncertainty regarding the proposed flow recommendation with respect to either technical adequacy or impeding Colorado's ability to meet its compact requirements.

The characteristics of such an approach are:

1. Absolute rights could be appropriated by the Board at levels less than the flow recommendations. This would contribute to accomplishing progress under the Recovery Program, and would be considered by the Service in making "sufficient progress" determinations.

2. If the Board decided that the flow recommendations were inadequate, any uncertainty could be resolved by appropriating a conditional instream flow right. If it appeared that a flow recommendation might impede Colorado's ability to develop its compact allotment, then the Board would appropriate a conditional instream flow until such uncertainty was resolved.

3. As a conditional water right holder, the Board would be subject to diligence requirements under Colorado water law. The conditional rights would be subject to diligence proceedings in the water Court every six years. The Recovery Program would have to proceed with studies to demonstrate that the conditional right was adequate, or reduce it to the point where it was acceptable to the Board for making an absolute filing.

The Attorney General's office is conducting a review of this proposal to determine if it is legal under existing state instream flow law. Such an analysis should be available within a few months.

The concept has not yet gone to the Water Conservation Board for discussion, as it needs additional discussion with the Recovery Program. It will be probably several months before it emerges as a specific proposal to the Board for their consideration.

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Notes



RECEIVED

JUN 27 1991

DEPARTMENT OF
NATURAL RESOURCES

DRAFT

Issue Paper

Acquisition and Appropriation of
Water Rights to Protect Instream flows
for the
Colorado River Endangered Fishes

May 20, 1991

Purpose

Acquisition of water rights to protect the instream flow needs of the endangered fishes is a major element of the "Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin" (Recovery Program). To illustrate the importance of this recovery element, over 50 percent of the Recovery Program's \$60 million budget is directed towards water acquisition and instream flow protection. In addition, under the Recovery Program, acquisition and appropriation of water rights and protection of instream flows is regarded by the Service as a prerequisite to the issuance of favorable biological opinions on water depletion projects in the Upper Basin.

The purpose of this paper is to discuss the major technical, legal, and institutional issues that are frustrating the timely and effective acquisition and/or appropriation of water rights for the endangered Colorado River Fishes under the Recovery Program. Recommendations are provided to address identified issues whenever possible.

Background and Status

Sections 4.1.1 - 4.1.4 of the Recovery Program outlines a four-step process for the acquisition and protection of water rights in the Upper Colorado River Basin:

1. priority areas for acquisition of water rights are defined;
2. the instream flows necessary for recovery of the four endangered fishes are defined by the Service;
3. alternative sources of water to meet the instream flow requirements of endangered fishes are evaluated; and
4. the best alternatives are implemented in a manner that is consistent with State water law and interstate compacts.

Following is a discussion of the progress in each of these areas since the Recovery Program was implemented in January 1988.

1. Priority areas for acquisition of water rights. In March 1988, priority areas were identified for investigating acquisition of water rights in the Upper Colorado River Basin. Three areas were identified and prioritized in

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the following manner: (1) the lower 140 miles of the Yampa River; (2) a 15-mile reach of the Colorado River immediately above the confluence of the Gunnison River (referred to as "the 15-mile reach"); and (3) the lower 109 miles of the White River. The principal focus of water rights acquisition activities has been on the top two priority areas: the Yampa River and the 15-mile reach. Work on the White River has been deferred until studies are completed to determine the instream flow requirements of the endangered fishes in the White River.

The Green River and the Colorado River immediately downstream of the 15-mile reach have also been identified as critical habitat for the fishes. It is anticipated that the flow needs of the fish in these areas can be provided through refinement in the Bureau of Reclamation's (reclamation) operation of Flaming Gorge Reservoir and Blue Mesa Reservoir. Consequently, acquisition of water rights in these areas is considered to be a lower priority at this time.

2. Instream flow determinations. Service efforts to define the instream flow needs of the fishes have focused on the Yampa River and the 15-mile reach. A report prepared for the 15-mile reach provides instream flow recommendations for the months of July, August, and September, a critical low flow period in the 15-mile reach. These recommendations have been accepted by the Colorado Water Conservation Board (CWCB) as technically sufficient for the acquisition and/or appropriation of water rights. Flow recommendations for the remainder of the year (October-June) have recently been finalized by the Service but CWCB staff have indicated these recommendations are not technically sufficient for acquisition or appropriation of water rights due to the fact that the flow recommendations are based on empirical data and professional judgement. The Board has not taken a firm position on these flow recommendations, but has indicated that they may need to move forward on them with the understanding that the Service continues to refine their methodologies for developing recommendations of this type.

The habitat requirements and stream flow needs of the endangered fishes in the Yampa River were finalized by the Service in two reports issued in July, 1989 and November, 1989. These reports recommended maintenance of the Yampa River's existing natural flow regime, which is characterized by high peak spring runoff and low stable flows for the remainder of the year. The CWCB has determined that these recommendations are technically sufficient to acquire but not appropriate water rights. In addition, the Service's work plan for refining these recommendations has been determined to be inadequate by the CWCB and other water interests involved in the Recovery Program. Consequently, studies to refine the Yampa River flow recommendations have been put on hold indefinitely.

As stated above, the Service's instream flow recommendations and methodologies have been a major point of controversy within the program, primarily with the CWCB staff and water development interests. There is general agreement that a senior scientist should be hired to conduct an independent review of the Service's flow recommendations and methodologies. This review is scheduled to be completed in March 1992.

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Identification of Alternative Sources of Water. Some 31 different water rights and sources of water have been evaluated over the last three years (APPENDIX I). To date, only one of these alternatives (Ruedi Reservoir) has been implemented; 21 are inactive or dead; and 9 are currently active and being evaluated. A number of technical studies are being conducted to support several of the water rights acquisition activities in the Yampa River and the 15-mile reach, including:

- a. a study by the Bureau of Reclamation to evaluate a variety of alternatives for providing instream flows in the 15-mile reach (final report due May 1991);
 - b. a study by the Wyoming Water Development Commission to evaluate the yield and value of several conditional water rights on the Little Snake River, a tributary to the Yampa River (study completed in October 1990); and
 - c. a two year study to evaluate the feasibility of transferring a portion of the Colorado River Water Conservation District's (the River District) conditional water rights for the Juniper-Cross Mountain Project to a small reservoir that would be located outside the occupied endangered fish habitat. The development of this reservoir could clear the way for acquisition of the remainder of the River District's water right(s) on the lower Yampa River.
 - d. a study by the CWCB to determine how much water is legally and physically available for appropriation in the 15-mile reach during July, August and September (scheduled completion date Dec. 1991).
 - e. a study by the CWCB to determine how much water is legally and physically available for appropriation in the Yampa River (scheduled completion date August 1991).
4. Implementation of Flow Needs. The Recovery Program relies upon the State instream flow program (administered by the CWCB) and Colorado water law to provide for the legal protection of instream flows. Water rights would be either acquired by the Service and transferred to the State for administration pursuant to State water law, or new junior water rights would be appropriated by the CWCB in a manner consistent with their procedures and State law. To date, the only instream flows implemented under the Recovery Program has been the delivery and protection of 10,000 acre-feet of water stored in Ruedi Reservoir and released to the 15-mile reach of the Colorado River.

Issues and Concerns

The acquisition of water rights for the endangered fishes has been frustrated by a variety of technical, institutional, and legal issues. These issues have put a damper on the enthusiasm for water acquisition and threatens to undermine the Recovery Program. The problems facing the fish and the conflict between water development and Section 7 of the Endangered Species Act will only intensify if water can not be acquired and appropriated in an efficient and timely manner.

Failure to resolve these issues will result ultimately in the collapse of the Recovery Program.

A discussion of the major issues frustrating water acquisition activities and some recommended solutions follows.

Technical Issues, Concerns and Recommendations

The technical issues that have slowed the process of acquiring and appropriating instream flow water rights fall into four general categories: issues dealing with water resource planning with respect to the State's compact entitlement, biological needs and instream flow methodology issues, hydrologic issues, and technical issues relating to the acquisition of water rights and the subsequent legal processes (the change of use of acquired water rights to instream flow uses). The solutions to most of these problems are to simply let the experts do their jobs; let water resource planners solve the planning problems, have biologists and instream flow experts solve the biological problems, and have hydrologists provide the hydrological solutions. The fourth category of technical issue is truly an interdisciplinary problem; a successful water court experience requires an integrated and coordinated team of experts. Specifically, the more apparent technical issues are as follows:

1. The State of Colorado Does Not Have a Plan for Compact Deliveries. One of the fundamental pretexts to the recovery of the endangered fish is that it be accomplished "in a manner that does not disrupt State water rights systems, interstate compacts and court decrees that allocate rights to use Colorado River water among the States." This, coupled with the fact that instream flow appropriations are prohibited from "depriving the people of the State of Colorado from water available pursuant to interstate compact," puts sideboards on how much water will be available for instream flows to the recover the fish. The question then becomes, "How much water from each major tributary of the Colorado River needs to be delivered for compact purposes?" With the exception of the Yampa River, from which Colorado must deliver an average of 500,000 acre-feet annually, the amount of water to be delivered from each basin is undetermined.

Doesn't it seem a little odd that the water development interests keep insisting that the biologists tell them exactly what the fish need when they have not asked the same of their constituency?

Example: (See institutional issue number 1 below)

Recommendations:

This particular issue creeps into many of the other problems currently facing the Recovery Program. The most obvious is the whole issue of water availability studies (more completely discussed below); the State of Colorado needs to do some basic water resource planning (i.e. a basin-by-basin allocation of the deliveries required by the compact). The water availability question then becomes moot. Currently, the water availability issue and how it relates to the compact is a moving target.

2. Biological and Instream Flow Methodologies Don't Meet the Minimum Standards Set by the (CWCB). The biological/instream flow issues are: (1) the CWCB

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does not currently have definitive criteria for what constitutes a defensible flow recommendation, (2) the CWCB's objections are based on the fact that they do not like the recommendations (the answer) so they cast doubt on our methods and science, (3) the CWCB's standards need to be interpreted more broadly as the amount necessary to recover the fishes and maintain self sustaining populations rather than the minimum amount needed for survival, (4) the service needs a more consistent basin-wide approach for developing flow recommendations (there is a perceived inconsistency among the approaches used in the Colorado River and the Yampa River), and (5) the CWCB staff has repeatedly asked the Service to be able to tell them how the population might respond if they do not appropriate the full amount recommended.

Example: The CWCB's approach has been inconsistent. When reviewing the May, 1989 15-mile reach report the CWCB staff expressed their concerns over the use of models for flow recommendations. In direct response to that concern (see letter from CWCB dated _____ - copy attached) as well as the technical problems outlined in Appendix I of the April, 1991 15-mile reach report, the Service took a more analytical, empirical approach on flow recommendations for the 15-mile reach. Now the CWCB staff has expressed their concern over the use of such methods (i.e. the use of professional biologic judgement, empirical data, and various analytical methods).

Example: After being asked repeatedly to do so, the CWCB has failed to provide the researchers with concrete criteria for adequate instream flow recommendations. The presentations to the Board have been deficient in that the Board does not understand the rationale for the Service's approach and that every instream flow water right that the CWCB currently holds (approximately 1100 decrees) has in its core a measure of professional judgement; this goes for the flow recommendations as well as the criteria upon which each flow recommendation is based. The CWCB staff is speculating on what they perceive to be adequate for the CWCB to make their statutory findings and for the water court to award a decree. The fact of the matter is that neither the CWCB's current methodology nor the criteria used to develop flow recommendations have ever been tested in water court. The CWCB staff therefore does not have an experiential basis for their speculation.

Example: The focus of the instream flow appropriations for endangered fishes must be on the reasonableness standard, not the minimum standard. In routine instream flow cases we have the luxury to focus on the minimum flow; if we make a mistake, we can call the hatchery and re-stock the stream. In the case of endangered species, reasonableness MUST equate to nothing short of full and complete recovery. The concept of the reasonableness standard being a moving target is not a new one for the CWCB's Instream Flow Program. There are several recent examples to illustrate this point. (1) Based on physical habitat modeling AND the professional judgement of the CDOW's Instream Flow Coordinator the flow recommendation for the Blue River below Dillon Reservoir was for optimum flows. This was a resource decision based on the quality of the fishery, professional judgement, and the special designation (by the Colorado Wildlife Commission) of the Blue River as a "Gold Medal Water". Where the CWCB's water availability studies supported these flow recommendations,

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filings were made at the optimum level (although these filings were quite controversial they were not opposed in water court). (2) A similar line of logic was followed on Colorado River cutthroat streams in Grand County (Colorado River cutthroat have been designated a "Species of Special Concern" by the CDOW); the CDOW's Instream Flow Coordinator recommended flows that approached optimum based on his professional judgement that a higher standard of reasonableness applied to these situations.

Example: The CWCB staff and the water users' representative to the Recovery Program have repeatedly expressed their desire for a single, basin-wide methodology for recommending instream flows. The Service's researchers need to do a better job in addressing this concern. Many of the instream flow experts involved in the process have stated that there is not currently one single perfect methodology. Perhaps we need to put pen to paper and answer this recurring issue.

Example: As in the above example, both the CWCB and the water users' representative have requested that the Service be able to tell them definitively what would happen in terms of population response if the CWCB appropriates an amount of water less than that recommended by the Service. The Service and the CDOW has repeatedly told them that the state-of-the-art is quite simply not there yet. We have tried to impress upon them that links from IFIM or PHABSIM to population dynamics (spawning success, recruitment, juvenile mortality, predation, adult mortality, etc.) have not been established for fish species for which a substantial knowledge base exists (i.e. trout) let alone endangered species. Given the complexity of this problem, chances are slim that we will ever have a predictive model of this type for any species. Perhaps a literature review and report illustrating the difficulty of this problem might put an end to it once and for all.

Recommendations:

3. The CWCB has not developed criteria for water availability studies. This point keeps coming up as being an obstacle, however, in practice it is not a problem. Since 1981 the CWCB staff has been required by statute to determine that water is available for appropriation before an instream flow water right may be filed. It seems that it would be legally "risky" to establish a different standard for water availability for the purposes of the Recovery Program than that which the CWCB has operated on since 1981. The specific issue is, "How should conditional water rights be viewed in water availability studies on the mainstem Colorado River?"

Example: The CWCB staff has essentially ignored conditional water rights in their water availability analyses. Unless a specific water right is

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identified by its owner, the CWCB takes the risk that some portion of the conditional water rights will in time be perfected. In some cases a specific subordination to a senior water right is sought by a water user; the CWCB has often times included such a term in their decree even though the water user is protected by the priority system.

Recommendations:

The CWCB staff does not need criteria for water availability studies. They have already been adopted by practice (standard engineering and hydrologic practices as well as the procedures for the CWCB's program).

Legal Issues, Concerns, and Recommendations

The legal issues facing the process are: (1) Is the conversion of conditional water rights to instream flow legal in Colorado?; (2) Colorado water law does not encourage water conservation; (3) Delivering water to the state line is opposed by many in the water development community, and (4) Some interpretations of reservoir decrees (Green Mountain Reservoir and Blue Mesa Reservoir) do not lend themselves to releases for instream uses.

1. The conversion of conditional water rights to instream flows has become a very controversial subject. Over the last 18 months there has been considerable discussion of this issue. The CWCB has adopted an interim policy upon which they are operating until such time that formal rules and regulations are approved. The policy is basically a case-by-case analysis of each water right taking into account the impact on present and future water development alternatives. The practice of converting conditional water rights to a different use is not new to Colorado water law; it operates under a legally tested theory referred to as "contemplated draft".

Example: The CWCB is currently involved in a process with The Nature Conservancy (TNC) where a donation of a 300 cfs conditional water right for the Black Canyon of the Gunnison. A very involved process was built into the contract between the Board and TNC regarding the terms of acceptance, protection, water rights subordinations, and water availability. This process will undoubtedly be the model by which future water right donations will proceed.

Recommendations:

Watch this process very closely.

2. Current Colorado water law does not encourage water conservation - in fact it may be a disincentive. The efficiency of many types of water use is poor at best. Modern technologies for irrigation offer an opportunity for water use in Colorado to be more efficient. The problem is that the system does not encourage efficiency in that a water right's value lies in its consumptive use. There is a perception that an increased efficiency will subtract from a water right's dollar value. Even though Colorado has statutes which prohibit the waste of water, these statutes are controversial and very difficult to prove or enforce.

Examples: None needed.

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Recommendations.

Colorado needs a water conservation law similar to that in Oregon where if efficiency is improved then 25% of the water saved goes to instream flow. A less controversial approach is perhaps the "salvaged water right" concept that has been introduced in recent sessions of the Colorado legislature.

- 3. The notion of delivering water to the state line has historically been viewed as undesirable. This issue relates to the issues brought up in the discussion of the Colorado River Compact, basic water resource planning needs (both discussed above), and the Colorado Water Export Law. The water export law is administered by the State Engineer and may come into play in the unlikely event that an instream flow to the state line exceeds the delivery requirements of the compact.

Example: None needed.

Recommendations:
None.

Institutional Issues, Concerns and Recommendations

Many of the issues frustrating the acquisition of water rights for the endangered fishes go beyond technical and involve a variety of institutional issues such as lack of trust between parties, the way that laws and policies are interpreted, and personal biases and philosophies. In fact, many of the supposed legal and technical issues described above are institutional issues in disguise (i.e., if people do not want to acquire water rights for endangered fishes, it is easy to manufacture legal, technical or procedural roadblocks). The major institutional issues include:

- 1. There is a lack of commitment to provide flows for the endangered fishes. There seems to be a prevailing attitude in the water community that providing flows for endangered fish does not constitute a "beneficial use" of water, or at least a use that is of a lower priority than traditional beneficial uses. There is also a fear that since the endangered fishes occur near the State line that water that is acquired or appropriated for the endangered fishes is "wasted," not available to meet other "higher priority" beneficial uses, and many interfere with the development of the State's full compact entitlement. This fear is compounded by the fact that Service's flow recommendations call for the protection of large quantities of water that approach historic conditions.

Example: Bill McDonald has indicated that the State would be reluctant to appropriate any water rights for the endangered fish until the Service quantifies the flow requirements of he fish in all the upper basin rivers and the State evaluates how meeting those flow recommendations relates development of the State's Compact entitlement. This process could take decades. In the meantime, the water development community resists basic basin-by-basin water resource for compact deliveries.

Example: ~~The State has been very reluctant to file for an instream flow right on the mainstem Colorado River that would interfere with upstream water rights.~~ Specific examples include the new appropriation for the 15-mile reach which will only file on return flows from the Grand Valley

system, the delivery of water from Ruedi Reservoir to the 15-mile reach, and the Board's position that the Service's Yampa River flow recommendations are not acceptable for appropriation of water.

2. The CWCB is reactive rather than proactive, accountability is lacking, and deadlines are frequently missed. Even though the CWCB has the statutory responsibility to protect instream flows in Colorado, they have shown little initiative in leading the effort to protect the instream flows for the endangered fishes. Rather, they have typically relied on others to develop solutions and innovative approaches and generally react to suggestions from various participants in Water Acquisition Committee. Deadlines on assignments are frequently missed, review times are protracted and often extended to accommodate the CWCB, and clear decisions are seldom reached in a timely manner.

Example: In August 1989 the Service (Galen Buterbaugh) formally requested the CWCB to conduct a water availability study for the 15-mile reach. (The State is required to conduct a water availability study before filing for an instream water right). The Service proposed that the Reclamation conduct the study, but the CWCB indicated they wanted to do the study themselves. After year-and-a-half of continuous encouragement from the Service and the Water Acquisition Committee, the CWCB has yet to produce a work plan for conducting the water availability study.

Example: The water availability study referenced above is very limited in scope in that it only addresses the months of July, August, and September. The CWCB staff has resisted expanding the scope of this study to address the entire hydrologic year. Most hydrologists agree that most of the information needed to conduct such a study has already been produced by other entities and it is just a matter of pulling it all together.

3. The CWCB does not utilize the best available technical experts to assess the biological merits of the Service's flow recommendations. Rather than rely on experts in the Division of Wildlife, the Fish and Wildlife Service or other competent native fish biologists, the CWCB generally conducts their own technical review of the Service's instream flow reports. The CWCB simply does not have the technical expertise available to independently assess the biological merits of the Service's flow recommendations.

Example:

4. As referenced above, the Yampa River efforts have been put on hold indefinitely by the CWCB and the water users' representatives in the Recovery Program. Valuable time is being lost by letting this issue remain dormant. The issues involving methodologies, flow recommendations, and the Service's work plan deficiencies need to be addressed at some level.

Example: None needed

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Recommendations: Recommendations in this area are particularly problematic. Political and institutional problems, by their nature, are difficult to solve particularly when the problems are complex and the groups involved are diverse in their interests and agendas. This is certainly the case here.

MEMORANDUM

TO: Members, CWCB

FROM: E. I. Jencsok

DATE: February 21, 1992

SUBJECT: Agenda Item ____, March 5-6, 1992, Board Meeting -- Ongoing Recovery Implementation Program Activities Associated with the 15 Mile Reach of the Colorado River.

BACKGROUND

There have been a number of Board Agenda Items associated with flow recommendations and the 15 Mile Reach over the past two years. The purpose of this memorandum is to update the Board of the ongoing activities, in addition to seek approval on some action items on the 15 Mile Reach. As you are aware from previous Board Memoranda, a Cooperative Agreement was signed in January, 1988 which established the "Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin" (Recovery Program).

The purpose of the Recovery Program is to recover the Colorado squawfish, humpback chub, bonytail chub and razorback sucker while allowing the States to develop water under their compact allocations. The five main elements aimed at recovery of these fish, include habitat management through the provision of instream flows, which would provide long term protection of habitat. The Recovery Program provides that the acquisition and appropriation of water rights will be consistent with all state laws. In Colorado, instream flow water rights must be acquired or appropriated pursuant to the State instream flow statutes [CRS 37-92-102(3)].

The following process for determining habitat flow needs and implementation of such measures in Colorado was identified in the Recovery Program "Blue Book":

- (1) The U.S. Fish and Wildlife Service (Service) will identify sensitive reaches requiring instream flows.
- (2) The Service will conduct flow quantification studies and provide instream flow recommendation to the Colorado Water Conservation Board (Board) for review, approval and implementation.

- (3) If the flow recommendations are approved, the Board will implement measures to acquire or appropriate instream flows.

SUMMARY OF EXISTING FLOW RECOMMENDATIONS

Under this process, three different sets of flow recommendations have been developed by the Service, two on the Colorado River and one on the Yampa River. Board staff reviewed each of these to determine whether or not they met the requirements of the State's instream flow statutes. All of these recommendations have previously been presented to the Board either for approval or as informational items. Currently the status of each of these flow recommendations is as follows:

The 15 Mile Reach: July-August-September. The Service's flow recommendations of 700-1200 cfs for July through September on the 15 Mile Reach of the Colorado River (approximately from Palisade to Grand Junction), were finalized in April, 1989, and presented at the January 18-19, 1990 Board Meeting. The methodologies used in making this determination were use of an analytical model PHABSIM, empirical data and professional judgement. Following review of these recommendations, the Board concluded that the methodologies were adequate in making an instream flow appropriation in some amount, and directed the staff to conduct a water availability study for the 15 Mile Reach, as the hydrologic analysis was not sufficiently detailed to meet the Board's statutory requirements for determination of water availability.

A water availability study was conducted by the Board staff in 1991 to determine the amount of water physically and legally available for appropriation by the Board. Results from this study suggested that 581 cfs was available for appropriation during these months. A Preliminary Notice was sent out publicly for review, and to date, no comments have been received. The Final Notice was presented earlier today.

On a related issue, the Service has recently requested that the Board staff recommend an additional appropriation of an estimated 150-300 cfs from irrigation return flows in the Grand Valley as instream flows. These flows were not included in the original 581 cfs appropriation, as supporting data was not available. The Service has provided these data as Attachment 1.

The 15 Mile Reach: October through June. Flow recommendations for the period October through June were finalized by the Service in April, 1991, and a preliminary staff review was presented to the Board at its November 14-15, 1991 meeting. The Service believes that flow regimes in the Upper Colorado River Basin are important in shaping the channel morphology and substrate type, which in turn determine the quantity and quality of various endangered fish habitat types. They recognize that the 15 Mile Reach will continue to be a highly regulated portion of the Colorado River and believe that planned manipulations of flows could be used to benefit the four species.

The Service derived the limitations in using PHABSIM for development of flow recommendations during these months was too great, and that estimation of optimal flows for the winter and spring would be better derived using available ΔT relationships rather than model

simulation. Resultant average monthly flow recommendations are presented in Table 1. The main objective of these flows is to provide peak spring flows of 23,500 cfs or greater for channel maintenance and habitat preservation.

The Board staff continues to evaluate these flow recommendations as discussed below. It is anticipated that the staff will provide recommendations to the Board on the October through June flow recommendations at its May, 1992 meeting.

Yampa River Flow Recommendations. The Service presented interim flow recommendations for the Yampa River in November, 1989. They concluded that because the Yampa River exhibits the most abundant and healthy endangered fish populations, the maintenance of the historical flow regime is critical to their survival and recovery. Service biologists therefore recommended that no additional water should be depleted from the Yampa River during April through July, and that flow recommendations be set at the 50% exceedance level of environmental baseline flows, which would allow only a modest amount of water development. The Service developed these flow recommendations using empirical data, as they believed PHABSIM had significant limitations in providing adequate scenarios for habitat maintenance.

Following staff review of this study, the Board concluded at its January 18-19, 1990 meeting that the flow recommendations for the Yampa River were not sufficiently detailed and that further studies should be conducted for further refinement. The Board agreed to use the interim recommendations on a case by case basis for water rights acquisition if the proposed acquisitions were less than the interim flows.

ISSUES/CONCERNS BY BOARD STAFF

Following evaluation of the above flow recommendations for the October through June period on the 15 Mile Reach, the Board staff is concerned about the flow recommendations being based on the following assumptions by the Service:

- Dependency on high spring flows for maintenance of channel morphology/sediments (complex channel configurations);
- benefits to native fishes from high spring flows; and,
- reduction of non-native populations from high spring flows.

In the final report, there is a lack of data to support the Service's professional judgement in developing these recommendations. In addition, the statistical analyses and methods used to support high flows benefiting native species (by providing important habitat and controlling non-native species) are not sufficient to establish and cause and effect relationship. As a result, additional studies are being pursued by the Board staff and the Colorado River Water Conservation District (River District) to better understand these concerns, and identify solutions to make the flow recommendations acceptable to the Board. These studies are discussed below in more detail.

ONGOING STUDIES

Sediment-related Studies. Because of the lack of quantitative data on velocities, magnitudes of flow and length of high flows recommended by the Service, the River District retained Resource Consultants and Engineers, Inc. (RCE) to review the sediment-related portions of the Service's report. Results from RCE's evaluation will be incorporated into the Board staff's Board Memorandum in May, 1992. Additionally, the Service and the River District are also planning an Interdisciplinary Habitat Evaluation Study for the 15 and 18 Mile Reaches to study habitats and sediment-related issues.

Statistical Analysis. As the Board staff believes the statistical data in the Service's report is not sufficient to establish a cause and effect relationship to support the need for high flows, the Board in conjunction with the River District has recently contracted a statistician, Dr. Hari Iyer of Colorado State University to review the Service's report with respect to the statistical methods and analyses used. Results from Dr. Iyer's final review will be incorporated into the May, 1992 Board Memorandum regarding the 15 Mile Reach.

Evaluation of Flow Methodologies by "Guru I". Following direction from the Board at the March 21-22, 1991 meeting, staff has participated in the Recovery Program's Instream Flow Subcommittee, which is currently in the process of selecting a senior scientist to review the Service's methodologies used in developing the various flow recommendations for the Colorado and Yampa rivers. It is anticipated that this study will be completed in May, 1993. Conclusions and recommendations developed by the senior scientist will be used in further refinement of the Service's existing flow recommendations and methodologies.

Verification Studies by the Service. The Service is currently conducting verification studies on the 15 Mile Reach to help substantiate its flow recommendations for the October through June period. Additional data collected by this study will be added to the final report as an addendum, and incorporated in the May Board presentation if available.

Gene - Pls. add any info. regarding schedules, etc. you have on this.

Water Availability Study for the 15 Mile Reach. A Water Availability Study was conducted by the Board staff, and presented to the Board at its September 19-20, 1992 meeting. Results were that there was 581 cfs available for appropriation during the July through September period. A Preliminary Notice has been sent out, and the Final Notice is being presented today for Board approval.

Gene - Pls. add any info. you feel should be included.

Review of Compact Allocations.

Gene - Needs input from you.

CONCLUSIONS

The Board staff is continuing to review the Service's flow recommendations for the 15 Mile Reach during the October through June period, and plans to make a presentation before the Board at the May, 1992 meeting. Pertinent information will be compiled from the above studies and incorporated into the Memorandum, as well as decisions made at anticipated meetings with the Division and Service prior to that time. The staff will likely recommend that some action be taken regarding the Service's flow recommendations for October through June at the May, 1992 meeting.

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