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YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT

WASHINGTON

PHASE 2 STATUS REPORT

to

REGIONAL DIRECTOR
PACIFIC NORTHWEST REGION
BUREAU OF RECLAMATION

and

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

APRIL 1985



United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 049-550 WEST FORT STREET
BOISE, IDAHO 83724

IN REPLY
REFER TO:

PN 700

APR 30 1985

123.-

Memorandum

To: Commissioner
Attention: 700

From: Regional Director, Boise, Idaho

Subject: Yakima River Basin Water Enhancement Project (YRBWEP) Feasibility Study

The YRBWEP study team completed a Phase 2 Status Report, which has been sent to Andrea Beatty-Riniker, Director, State of Washington Department of Ecology and to me. The report documents the study team's findings to date and asks for guidance in resolving some of the issues necessary to define and implement an acceptable plan. A newsletter summarizing the report has been distributed to some 1,300 people who have shown an interest in the study; copies of the report are available upon request. We have advised the public that comments on the status report will be received by the study team through June 3, 1985.

A meeting is being held to brief Mr. Joe Mentor of Senator Daniel Evans' staff and Mr. Terry Seeley of Congressman Sid Morrison's staff on the YRBWEP study and the Phase 2 Status Report. The Boise, Idaho, meeting will be held on May 3.

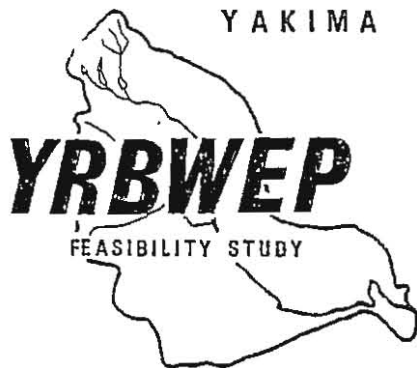
We will keep you advised as we receive comments and proceed with the Department of Ecology in defining and formulating a preferred plan. A copy of the report, newsletter, and press release are enclosed for your information.

L.W. Rye

Enclosures (Report, newsletter, and press release)

cc: Director, Planning Policy Staff, Attention: 700, 735, Washington, D.C.
(w/enclosures)
Chief, Division of Planning Technical Services, Attention: 700, 720
E&R Center (w/enclosures to each)

bc: Project Superintendent, Yakima, Washington
RO 100, 105, 140, 150, 200, 320, 400, 700, 720, 730, 740, 750, 760, 770,
780, (w/enclosures to each)



PN 780

123.-

April 30, 1985

Memorandum

To: Regional Director, Bureau of Reclamation, Boise, Idaho
 Director, Department of Ecology, Olympia, Washington

From: Yakima River Basin Water Enhancement Project Study Team, Boise,
 Idaho

Subject: Study Teams's Phase 2 Status Report, Yakima River Basin Water
 Enhancement Project (YRBWEP)

Enclosed is the study team's Phase 2 Status Report on the YRBWEP feasibility study.

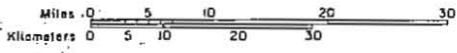
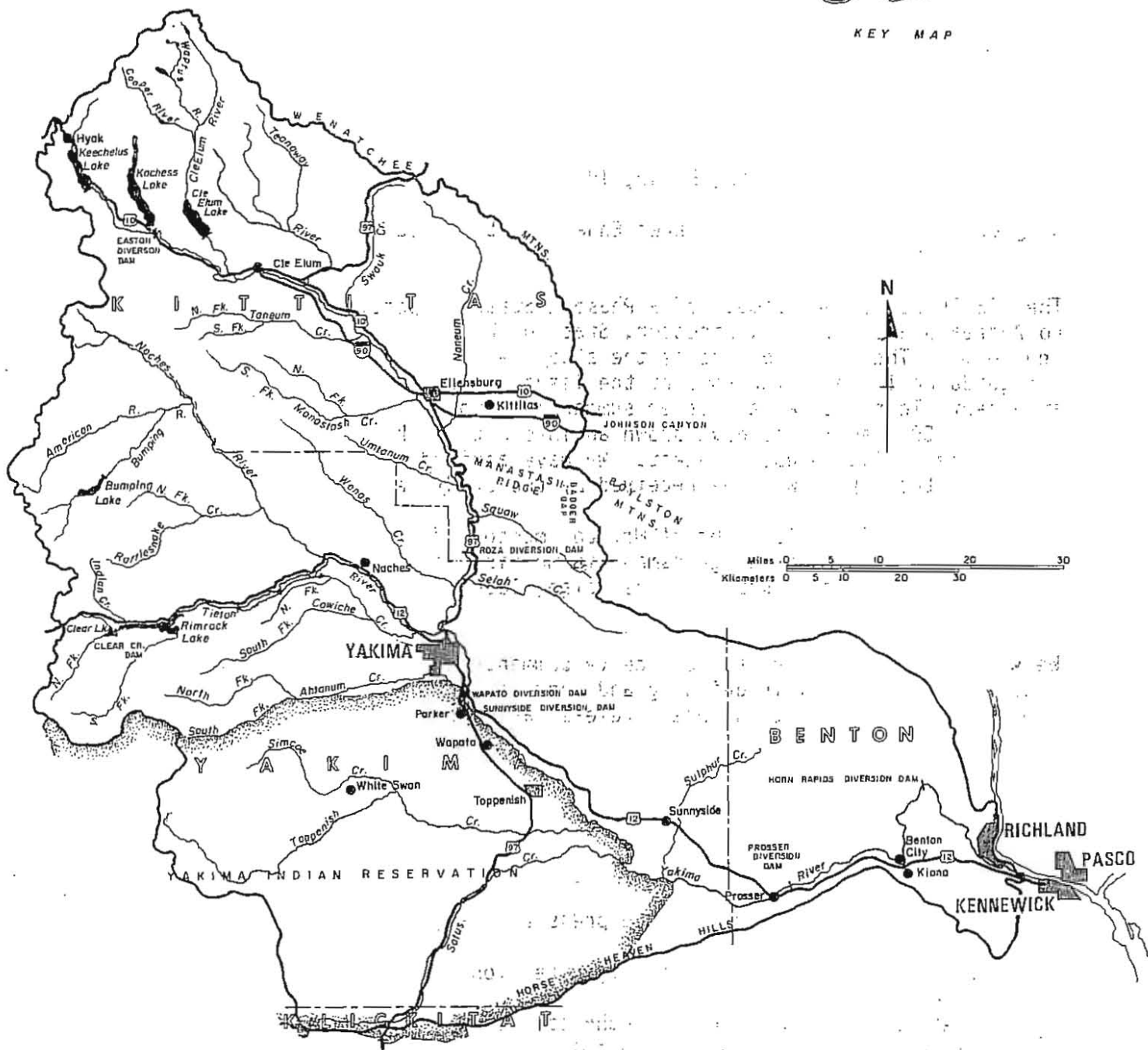
The report (1) provides information on the status of work activities to date, (2) provides information on what we perceive as the possible "scenarios" if an acceptable plan is not pursued, (3) sets forth the basin's water resource needs as we can best define them, (4) provides reference point studies for further guidance in defining an acceptable plan, (5) sets forth the issues we believe must be addressed if an acceptable plan is to be defined and implemented, and (6) provides a timetable for further study activities following successful resolution of the issues. The report also summarizes the type of guidance the study team seeks and feels is necessary for successfully defining and implementing a basin plan.

The report is being distributed to individuals and representatives of various interest groups in the basin. Also, a newsletter summarizing the report is being sent to about 1,300 addresses on the study team's distribution list (a list of those individuals that have previously expressed interest in receiving information on the YRBWEP). We have requested that comments on the report be returned to the study team by June 3, 1985.

Enclosure



KEY MAP



YAKIMA RIVER BASIN
 WATER ENHANCEMENT PROJECT
 Washington
 LOCATION

SUMMARY

Purpose of the Report

The Yakima River Basin Water Enhancement Project (YRBWEP) study is at a point where the study results obtained thus far need to be presented for consideration and direction. Future options and courses of action need to be explained so that the public has a full opportunity to provide input on the direction of the study. This is essential if the study is to progress and culminate in an acceptable plan that has the local, State, and Federal support necessary to secure authorization and funding for implementation.

The purposes of this report are to: (1) provide information on the status of work activities to date, (2) provide information on what we perceive as possible "scenarios" if an acceptable plan is not pursued, (3) set forth the basin's water resource needs as we can best define them, (4) provide reference point studies for guidance, (5) set forth issues that we believe must be mutually addressed if these efforts are to result in implementation, and (6) provide a timetable for further study activities following successful resolution of the issues. The studies presented in this paper are intended as reference points for possible development and are not meant to indicate a preference for the direction of the study.

This summary is included as an orientation of what the studies for this report show and of the major issues that need to be resolved. Readers that are familiar with the Yakima River basin and YRBWEP study, but want additional detail on the studies and findings, may wish to skip the introductory chapters and read chapter 5 (description of identified plan elements), chapter 6 (the studies), and chapter 10 (the study schedule). Readers less familiar with the YRBWEP study and the Yakima River basin may want to read the introductory chapters. Those readers interested only in the development potential on the Yakima Indian Reservation may wish to read only chapters 7 through 9.

What the Studies Tell Us

--With the present level of irrigation development and diversions, the desired level of instream flows, and existing system storage and regulation, it is not possible to meet the Yakima River basin's water demands.

--The "status quo" condition is not desirable since there will continue to be conflict among competing water demands, primarily irrigation and instream flows.

--It is most desirable to conjunctively address the water resource needs both outside the Yakima Indian Nation (offreservation) and within the Yakima Indian Nation (onreservation). However, from a physical and operational perspective, it is possible to proceed with a plan(s) that addresses only offreservation needs or only onreservation needs.

--On the basis of present irrigation diversions, there is a need for an assured or firm irrigation water supply to meet the needs of "proratable" (junior) water users.

--Fishery propagation is dependent to a large extent upon the available habitat for spawning and rearing. The available habitat in any particular reach of the river system is directly related to the configuration of the river channel and the instream flows. Maintenance of optimum instream flows would "maximize" the available habitat. This requires generally the reduction of high flows and the increase of low flows. However, the need to meet irrigation water demands and the physical and operational constraints of the river system make it impossible to consistently maintain instream flows at the desired optimum levels. Consequently, any plan will not be able to provide optimum instream flows at all times.

--A water resource management plan composed of storage elements only would increase the basin's total regulated water supply, reduce proratable water user shortages during water deficient years, and improve the fishery habitat. However, Maximum Storage (one of the reference point studies in this report) development could require a total capital investment of \$635 million, is not economically justified, would have significant environmental and cultural impacts, and by itself is likely to be unacceptable to some publics. Storage does provide a reliable water supply.

--A water resource management plan composed of nonstorage elements only would result in more water being retained in the existing storage capacity, reduce the amount of total irrigation water diversions, reduce proratable water user shortages during water deficient years, and improve the fishery habitat. Maximum Nonstorage (another of the reference point studies in this report) implementation, while requiring a total capital investment of about one-third the Maximum Storage investment (about \$205 million), would require annual operating costs of about \$5 million, two and a half times as much as Maximum Storage costs. Nonstorage development, while appearing to be economically justified, does have some environmental and operational impacts and by itself is unacceptable to some publics. Nonstorage development requires major institutional and legal changes and financial incentives.

There is limited assurance that nonstorage measures will be implemented since implementation, to a large part, depends upon the individual. Further, operational problems, constraints, and methods of implementation of nonstorage measures may not provide a reliable water supply.

--A water resource management plan composed of storage and nonstorage measures would increase the reliability of the basin's water supply both from the perspective of additional system regulation and reduction in irrigation water demands. Storage and nonstorage measures implemented together would reduce proratable water user shortages during water deficient years and increase the fishery habitat by additional system regulation and reductions in high instream flows during the peak irrigation period. A combination of storage and nonstorage can be economically justified and could, depending upon the mix of plan elements, have a total capital investment of \$305 to \$465 million and annual operating costs of \$2 to \$3 million. Some environmental impact mitigation and some institutional and legal changes would be required. A combination storage and nonstorage water resource management plan would generally be more acceptable than plans that include only storage or only nonstorage elements. There would also be some assurance of a fairly reliable water supply.

--There is the opportunity to develop an acceptable water resource management plan which could mutually benefit all parties.

Guidance Needed Now

--A general commitment from the public that resolution of the basin's water conflicts should proceed; that tradeoffs are necessary to arrive at an acceptable plan; and that unified local, Yakima Indian Nation, and State support is required for the successful implementation of a water resource management plan.

--Guidance from irrigation entities, State water resource regulatory agencies, elected representatives, and other State and Federal officials as to a course of action for the successful implementation of nonstorage measures.

--Guidance from irrigation entities, environmental groups, the Yakima Indian Nation, State and Federal fish and wildlife agencies, elected representatives, and other State and Federal officials as to preferred offreservation storage measures. Additional evaluation of various storage combinations may be necessary to secure such guidance.

--An acceptance by the irrigation entities and the Yakima Indian Nation that resolution needs and implementation of a plan will require some form of commitment limiting future offreservation irrigation expansion and defining goals and objectives of the Yakima Indian Nation with respect to the 1855 Treaty and water resources.

--State and Federal guidance as to what can be funded and implemented.

--Guidance on the means of securing overall acceptability of a preferred plan.

Issues

During the course of this study, certain issues have been developing which have a direct bearing on the outcome of the enhancement project. The study team believes that now is the opportune time, and this report is the proper vehicle to bring these issues to the fore. Some of the issues need to be addressed now, while others may influence the course of the study in the near future. In any case, guidance and direction are needed to handle aspects of these issues which appear to be beyond the role of the study team. A discussion follows.

ISSUE 1: Providing optimum water supplies for instream flows and supplemental irrigation

Two of the four primary objectives of the YRBWEP are to provide adequate water supplies for lands in need of supplemental irrigation water and to provide water supplies for instream flows for fishery resources. As a measure of meeting these objectives, the YRBWEP study attempted to provide optimum conditions as target goals in the studies. Optimum conditions could not

always be met in any of the studies. It appears that it is physically impossible to meet optimum conditions at all times. Comparison of accomplishments of the studies leads to the belief that it is not realistic to expect to develop a plan to provide optimum water conditions.

Action Needed: Agreement

ISSUE 2: Future expansion of irrigated lands (offreservation)

One objective of the YRBWEP is to provide a supplemental water supply to presently irrigated offreservation lands. With implementation of a YRBWEP plan, all presently irrigated lands will most likely have a sufficient water supply in all years. Continued expansion of offreservation irrigation after implementation of a YRBWEP plan would result in an inadequate water supply, and there could also be adverse impacts upon instream flows. Means and measures to constrain future expansion should be defined and included as a part of any project plan.

Action Needed: Agreement and direction

ISSUE 3: Implementing instream flows

If a YRBWEP plan is authorized, it is important that instream flow water created by the project be clearly allocated to and encumbered for that purpose.

If the Yakima basin was not as fully developed as it is, the Washington Department of Ecology (WDOE) could simply adopt instream flows by regulations and condition all subsequent consumptive water rights to cease diversion when flows fell below that specified. The WDOE is prohibited by State law from requiring existing water rights to meet new instream flow requirements.

A major objective of the YRBWEP is to provide a new water supply from various sources to meet instream flow needs. Several options exist for legally encumbering water for instream flows in the Yakima basin and incorporating instream flows into basin water management practices. Some of these options include incorporation of instream flow provisions within the congressional and State authorizations for the enhancement project, allocation of a "block of water" provided by a YRBWEP plan for instream flow management, adoption of State regulations, and inclusion of instream flow provisions as a condition of any water rights required for an enhancement plan.

Action Needed: Direction

ISSUE 4: Yakima Indian Nation water supply development

Alternatives assembled for the three Yakima Indian Reservation projects included water supply augmentation through storage and ground-water development and included options on the extent of land to be irrigated.

The alternatives were assembled to give the tribe a broad range of alternatives for development of their water and land resources which they could consider along with tribal goals. It was intended that the alternatives would allow the tribe to provide direction on preference for detailed studies of the three project areas.

Storage development is included as an option for each project area. Information generated to date indicates that it will be difficult to show that storage development is economically justified under the criteria used to plan Federal water resource projects.

However, it is possible to seek exception from the Secretary of the Interior for the strict application of "national economic development" (NED) criteria in the case of development on Indian reservations or related to treaty commitments; social, cultural, and other considerations may then be applicable. If the tribe prefers to proceed with storage considerations, Secretarial exception will have to be pursued.

Action Needed: Direction from the Yakima Indian Nation
If necessary, Secretarial exception

ISSUE 5: Relationship of YRBWEP to Yakima Indian treaty reserved rights

Through the Treaty of 1855, the Yakima Indian Nation ceded lands to the United States and agreed to move to a reduced land base on a reservation. Recognizing this cession, the treaty included provisions to protect Indian fishing and hunting within the reservation and at "usual and accustomed" places outside the reservation and to assist in development of a viable economy on the reservation.

In the years following the treaty, fishery resources on the reservation and at other Indian fisheries throughout the Columbia River basin have been greatly diminished. Likewise, development of land and water resources which would contribute to development of a viable economy on the reservation has been limited.

Water supply conditions in the Yakima River basin are such that present and future Indian and non-Indian objectives cannot be met without disruptive and costly conflict. YRBWEP has the potential to help satisfy the water resource needs of the Yakima Indian Nation through enhancement of the fishery resource and additional agricultural development within the reservation while concurrently permitting non-Indian water uses to continue at a desirable level.

Yakima Indian Nation leaders have expressed the desire to work cooperatively in solving the basin's water problems. However, they have clearly stated that treaty reserved rights will not be compromised to avoid controversy. On the other hand, it will undoubtedly be necessary as a part of the project authorization process to mutually reach accord on the relationship of the YRBWEP to the treaty rights. It may be possible to define this relationship in terms of the Yakima Indian Nation's treaty related goals and objectives for the Yakima River basin fishery and for onreservation water resource development. This expression of goals and objectives would provide a yardstick for measuring a YRBWEP plan's effectiveness and help assure that implementation would fulfill some identifiable level of treaty commitment.

Action Needed: Guidance

ISSUE 6: YRBWEP and the Yakima basin adjudication

The study team has received many inquiries concerning the State general adjudication of water rights in the Yakima basin and its relationship to YRBWEP.

The general adjudication of surface-water rights in the basin was filed by the WDOE in 1977 in the State Superior Court of Yakima County. The adjudication is a proceeding to determine the validity and extent of claims to water within the basin, determine the relative priorities among the valid claims, fix those rights by court decrees, and issue certificates of adjudicated rights.

Up to the present time, all statements of claim have been filed, an adjudication referee has been appointed by the court, and various motions have been filed and ruled upon. The next steps in the process are the field investigations, the evidentiary phase where the referee hears testimony on proof of claims, preparation and submittal to the court of the referee's report, and the court's decree. The adjudication process is expected to take many years.

An adjudication will not produce additional water to meet the needs and satisfy claims that exceed the existing supply. Adjudications merely determine the legal extent and relative priority of claims within the basin. YRBWEP provides the opportunity for a solution to the water supply problems by providing the water supply necessary to meet the basin's water needs.

It has been well understood throughout the discussions and legislation leading to the State and Federal funding of the YRBWEP feasibility study that no Federal or State approval and appropriation for construction of a comprehensive project would be forthcoming until an agreement was reached among water users that would satisfy claims. Further, it has been proposed by some that the State adjudication could be streamlined and shortened to be the vehicle to provide a State court decree based on mutual agreement and setting the water allocation formula that would encompass both existing water supplies and the additional supplies to be provided by an enhancement project. If deemed necessary, a companion Federal court decree could be entered also.

Action Needed: Direction and guidance to place in the context of possible future merging of (1) a mutual agreement on a preferred plan with (2) the legal establishment of that agreement

ISSUE 7: Storage site selection (offreservation)

Federal water resource planning guidelines require that, unless an exception is made as discussed below, a preferred project plan should meet national economic development criteria in which net monetary benefits (benefits in excess of costs) are reasonably maximized. A preferred project must also be evaluated from regional economic development, environmental quality, and social impacts. While not a specific requirement, public acceptability is also a primary consideration since a project must have strong local support before Congress is likely to authorize or fund the project.

Sometimes the public may prefer an alternative plan which (because of environmental, social, or regional development factors) does not meet national economic development criteria. In such cases, an exception must be sought from the Secretary of the Interior, and, if granted, the plan can then be further considered and may ultimately be submitted to Congress for authorization. An exception must have strong public support, substantially serve the purposes for which the project was initiated, and should not be significantly more costly than the plan which meets the national economic development criteria.

Every potential storage site remaining in the YRBWEP study has opposition based primarily on environmental factors. The storage site with the least opposition, Wymer, is the most costly and does not appear to meet national economic development criteria. If Wymer proves to be the only acceptable storage site and if storage appears required to resolve water needs in the Yakima River basin, it would be necessary to seek Secretarial exception.

Action Needed: Preferred (offreservation) storage measures
If necessary, Secretarial exception

ISSUE 8: Cost considerations

1. To resolve basin water needs offreservation, YRBWEP will require a significant amount of capital--\$300 million or more. At this time, it appears that up to 80 percent could be allocated to fishery enhancement.

Action Needed: Federal direction on the likelihood of funding a project of this magnitude having significant fishery enhancement

2. Federal participation will require cooperative non-Federal funding.

Action Needed: Direction from the State and Northwest Power Planning Council on their willingness to assist in project funding and Federal direction on the level of non-Federal funding that may be necessary

3. Project water users will be asked to repay their portion of the reimbursable costs, which could be up to 20 percent of YRBWEP costs.

Action Needed: A willingness by project water users to repay reimbursable costs

4. YRBWEP may include expenditures to implement nonstorage elements. These types of elements, particularly onfarm system improvements, have infrequently been funded as a part of Reclamation projects.

Action Needed: Confirmation that cooperative funding of nonstorage measures can be included as part of a YRBWEP plan

ISSUE 9: Future without project

A description of the future without a project is essential in project planning for use as a base against which to measure water needs and anticipated accomplishments of alternative plans. Various futures appear possible because of legal suits that have been filed with respect to the basin's water resources. For purposes of our studies, however, continuation of the present operation has been used to describe the future without a project.

Action Needed: Agreement

ISSUE 10: Selecting a preferred plan

For any plan to be successfully implemented, the preferred plan must have broad public acceptance and support.

The next step in the YRBWEP study is to complete the process of evaluating and comparing alternative plans to allow selection of a preferred plan. The preferred plan should meet the tests of completeness, efficiency, effectiveness, and acceptability. The first three are basically technical tests involving meeting the study objectives and cost-benefit criteria. The fourth, acceptability, requires evidence that the plan is workable and viable and is supported by local and State interests.

Action Needed: Assistance and direction on the method of selecting a preferred plan

ISSUE 11: Incorporation of storage and nonstorage elements is required for an acceptable plan

Some segments of the public advised the study team that a plan should include only storage elements, while others advised that only nonstorage elements should be included in a plan. Studies to date appear to indicate that a combination plan can, to a great extent, meet the basin's water needs, provide operational flexibility, and generally be more publicly acceptable.

Action Needed: Assistance in overcoming apparent polarization

ISSUE 12: Major legal and institutional constraints

There are legal and institutional constraints that must be addressed and resolved with respect to any plan. These constraints are discussed in detail in "Plan Elements" and itemized here.

Storage Elements

Water claims
Funding
Existing Reclamation contracts
1945 Consent Decree

Nonstorage Elements

Water claims
Funding
Existing Reclamation contracts
State water code
1945 Consent Decree
Interstate
Economic/social
Certainty of supply

Action Needed: Agreement and direction