

ASSURANCE ALTERNATIVES FOR THE CASE STUDY

A. Introduction

This paper provides the background and development of four implementation packages or assurance alternatives for the CALFED Bay-Delta Program. These alternatives represent an effort to integrate the work done to date by the Assurances Work Group in the areas of assurance issues, tools, implementation guidelines and management structures.

Discussion papers previously distributed to the Work Group have identified the preliminary list of assurance issues raised by the stakeholders and have described a "case study" outlining a hypothetical Bay-Delta Program. Previous discussion papers have also identified the "tools" which are available for providing assurances that the Program will be implemented as agreed. Additionally, the Work Group has considered a set of guidelines, which can be used as screening criteria for analysis of various assurance alternatives.

Because of the complexity of the case study and the related assurance issues, staff has chosen to develop alternatives to address the assurance issues associated with three key elements of the case study:

- o construction and operation of an isolated facility with a capacity of 5,000 cfs, and in the alternative, construction and operation of an isolated facility with a capacity of 15,000 cfs;
- o implementation of an adaptive management program for the ecosystem restoration component; and
- o construction and operation of a 1-million acre feet storage facility north of the Delta.

Some of the key assurance issues associated with these elements might be characterized as follows:

- o That facilities will be permitted and built;
- o That specified restoration projects will be implemented;
- o That facilities will be operated as promised;
- o That the ecosystem restoration program will achieve high levels of ecosystem restoration; and
- o That the payments called for in the solution will not be superseded by higher, unexpected payments later.

One approach to developing assurances is to develop a set of assurance tools for conveyance, another set for storage, and another set for ecosystem restoration, then combine these various tools in different ways. But, given the linkages among the conveyance, storage, and ecosystem elements, a more efficient approach to developing assurances may be to look at

the kinds of tools that could satisfy the assurance needs of all three elements simultaneously, and to develop a comprehensive implementation package or assurance alternative. That is the approach taken in this paper.

B. Tools

This section describes the tools which could be linked to the management structures to create assurance alternatives. This list of tools is based on a list presented to the Work Group in a previous discussion paper.

1. Legislation

- o Constitutional Amendments - e.g., Article X, Section 2 of the California Constitution requires the reasonable and beneficial use of all waters of the State. Federal or State constitutional amendments are difficult to obtain, and once obtained, difficult to change.
- o Statutes, Federal or State - e.g., endangered species laws; clean water laws; CVPIA. Statutes can also create or modify governmental agencies. Statutes must be enacted and amended by Congress or the State Legislature and receive Executive approval.
- o State voter referenda - e.g., Proposition 204. Voter referenda can be used for a variety of purposes, but the most common are to enact particular legislation or to approve bond measures. Modification of voter referenda is normally more difficult than amending statutes and at a minimum requires legislative action.

Examples of possible legislation

- o Create an environmental trustee agency with: (1) authority to buy and sell water, buy and sell land, sell bonds, exercise the power of eminent domain, enter into contracts; (2) a particular organizational structure; (3) specific powers, duties and responsibilities -- e.g., to meet certain ecosystem goals and objectives; and (4) an income stream based upon water diversion fees (or transfer fees, or some other fee structure).
- o Create a Delta utility agency with specified powers, duties, authorities, responsibilities, organizational structure and revenue sources for the construction and operation of new conveyance and storage facilities.
- o Modify the State and Federal Endangered Species Acts to accommodate a long-term ecosystem restoration program based on adaptive management.
- o Modify CVPIA so the CVPIA and CALFED Program funding and implementation structures are merged.

- o Establish standards, incentives and enforcement mechanisms for urban water conservation and reclamation, agricultural water use efficiency and refuge water use efficiency.
- o Water transfer legislation dealing with what water can be transferred, level of environmental review, the ability of contract holders to sell water, etc.

Comments on legislation

- o Legislation is the most versatile of assurance tools because it is the infrastructure upon which most other tools are based.
 - o The agencies that write regulations and standards are established by State and Federal law. Their missions, responsibilities and authorities are all created by legislation.
 - o Management agencies such as DWR and USBR are likewise creatures of legislation. Their missions can be altered legislatively and, within limits, their relationships with their contractors can be modified.
 - o The California water rights system is, in part, a creature of State law. Some of the conditions under which water can be used may be modified legislatively (for example, the legislature could place limits on water transfers or impose diversion fees).
- o Legislation that is more difficult to repeal or amend provides a greater level of assurance. However, such legislation may also be more difficult to enact in the first place.
- o The same legislation enacted at State and Federal levels provides a greater assurance than either State or Federal legislation alone. For example, if the operations of a Delta facility were governed by both State and Federal legislation, then the facility could not be operated differently unless the legislation were modified at State and Federal levels.
- o It may be easier to pass initial legislation to enact the CALFED Bay-Delta Program than to modify that legislation later. If the CALFED Program is successful, the agencies and stakeholders will all be supportive of the initial legislative package to implement the Program. However, should attempts be made to modify that package later, potential opposition reduces the chances that the legislation would be changed.
- o Projected changes in State demographics (increasing population growth in Southern California) increases the risk that urban California, and particularly urban southern California, could amend legislation more easily in the future than it can today.
- o One way to reduce the likelihood that legislation will be altered in the future is to link legislation to other tools which have some level of constitutional protection, such as contracts.

2. Regulations and Administrative Orders

State or Federal regulations are adopted by administrative agencies to guide implementation of their duties and obligations. One example is the California Environmental Quality Act (CEQA) Guidelines. Regulations are proposed by Federal or State agencies and are subject to public review and comment prior to adoption. Regulations generally apply to a range of activities or set of interests.

Agency orders are specific applications of statutes or regulations to individuals or groups or to specific circumstances. Generally, they are subject to notice and hearing process requirements. Examples are water right permits or permit amendments.

Examples of Regulations and Administrative Orders

Regulations and administrative agency orders could be used by the CALFED Program management structure to provide assurances. Specific types of potential applications are:

- o Minimum instream flows and instream water quality standards
- o Water rights conditions
- o Discharge requirements
- o Drinking water quality standards
- o Protections for threatened or endangered species
- o Delisting of threatened or endangered species
- o Biological opinions
- o Water use efficiency standards

Comments on Regulations and Administrative Orders

One advantage to the use of regulations and orders is that they provide a well known and relatively straightforward public process for enforcement of the law. If water quality or other environmental standards or regulations are being violated, the SWRCB or other agency has the legal authority to compel an end to the violations. A new set of flow and export standards established by the SWRCB would represent both implementation of some of the ecosystem improvements and an assurance that the improvements would be maintained over time.

In most cases, however, the use of regulations and administrative actions as a form of assurance will be considered risky by many stakeholders. Regulations and administrative orders can be changed by the agency issuing them, provided that the agency goes through the proper administrative process. Thus, a new set of flow and export standards for the Delta could be changed in the future by the SWRCB. Or, the USFWS could elect to list another species of fish as threatened or endangered, provided that the fish met USFWS criteria. Once the fish was listed, flow and export criteria could be altered through the mechanism of the biological opinion.

There is some opinion that the relative instability of regulatory mechanisms as an assurance tool can be improved by use of a Habitat Conservation Plan (HCP). In an HCP, an environmental protection program sufficient to protect one or more endangered species is developed by project proponents, USFWS and/or other wildlife agencies. In return for funding

the habitat conservation plan, the USFWS will provide a degree of protection to the project proponents from further regulatory constraint. An HCP can provide an agreement that project proponents will not be subject to additional regulation for some agreed upon period of time, whether or not the projected level of environmental protection actually materializes. Both the environment and project proponents benefit, provided that plan is properly developed and implemented. The risk, of course, is that the environment will not recover. (For this reason, many environmental groups are skeptical about the HCP approach.) At the least, the environmental risk associated with the HCP implies that the recovery program must be strong enough that environmental recovery is highly likely.

Finally, note that agencies cannot simply modify their regulations or agency orders to be consistent with a CALFED solution, but must go through specified processes. If regulations are desired which lie outside existing responsibilities and authorities, then new legislation would be required.

3. Judicial decrees

Judgments, orders, validations, and consent decrees can be issued by State or Federal courts. They can be reversed or modified by courts of higher authority and sometimes by legislation. Judicial decrees can be used to ratify agreements reached by parties to litigation, rendering the agreements enforceable in court.

A final court order would appear to provide a fairly high degree of assurance. The Mono Lake cases provide an example.

4. Executive orders

The President and Governor both may issue executive orders. Executive orders are a simple way to implement various aspects of a possible CALFED solution. For example, the Governor issued an executive order forming the Water Policy Council. However, they are not strong assurance tools since they can easily be amended or withdrawn. For this reason, they are unlikely to comprise an important element of the CALFED implementation/ assurance package.

5. Contracts

A contract can be made between two or more individuals or entities. Generally, one party cannot unilaterally change the terms of a contract.

Examples of Possible Contracts

Examples of how contracts could be used to implement and assure the CALFED solution include the following:

- o An environmental trustee could enter into contracts with water right holders for the release of environmental water under Section 1707 of the State water code. This approach to providing enhanced flows would supplement SWRCB standards and would allow for periodic changes in flow patterns without the need for changes in SWRCB flow standards.

- o A master contract could be created to govern the operation of Delta facilities. It would be signed by a variety of agencies and non-governmental entities and would be enforceable in court.
- o A contract could be written between export agencies and northern California counties, establishing limits on and/or mitigation for north-to-south water transfers.

Comments on Contracts

Contracts are a very important tool, both for implementation of various parts of the CALFED solution and for providing assurances of implementation, for several reasons:

- o Because contracts are enforceable in court, there is usually a clear remedy for breach of contract.
- o If one participant in a contract is a private party, a contract cannot be altered by State or Federal agency action without meeting some specific requirements. This gives contracts a greater stability than regulation or legislation.

Indeed, contracts can be so binding that they would need to be written so as to balance the need to provide assurances for current participants, without foreclosing all opportunities for future generations to alter the arrangements to adapt to changed conditions.

6. Memoranda of Understanding/Agreement (MOU/MOA)

MOU/MOA's are interagency agreements with varying levels of specificity. Many are general agreements to cooperate that may be terminated at will by any party. Other MOU/MOAs are more specific and bind the signatory agencies to a specific financial commitment or course of action.

Examples of Possible MOU/MOAs

The CALFED Agencies' MOU describing the roles and responsibilities of each agency with respect to preparation of the Programmatic EIR/EIS is an example.

Other examples of how MOU's might be used in the CALFED solution include the following:

- o Urban conservation MOU
- o Agricultural efficiency MOU
- o Revised MOU delineating how the CALFED agencies will implement the CALFED program (would correspond to Management Structure 1.A and 1.B above).

Comments on MOU/MOAs

MOU/MOAs may be used to implement the CALFED solution. However, in and of themselves, they provide only weak assurances.

7. Joint powers agreements

State law authorizes public agencies (including Federal, State and local agencies) to enter into agreements in which they "jointly exercise any power common to the contracting parties." The resulting legal entity is called a Joint Powers Authority or JPA.

Examples of JPAs

Management alternative structure 2.A (described in Section C) assumes that a JPA could be formed to manage the Delta which does have extensive powers. Alternatives 1.A, 1.B, 2.B, and 3.A all assume that DWR and USBR will jointly administer new storage and conveyance facilities. A JPA could be the vehicle for this coordination, as could a contract or legislation.

Comments on JPAs

A JPA is a stronger assurance tool than an MOU because it results in more than a commitment to agency cooperation; it results in a structure with its own powers, duties and authorities to carry out specific tasks. While governed by its member agencies, a JPA can have its own budget and take its own actions, without having specific authorization from each member agency. In part for this reason, the willingness of individual agencies to form a JPA (and thus to submerge or delegate existing authorities into a central authority) is open to question. Moreover, if JPAs are limited to agreements in which they jointly exercise any power common to the contracting parties, then the authority of the JPA might be quite limited.

8. Financing mechanisms

Bond Language. Processes for generating capital and operating expenses for all or part of the Program may be viewed as assurance tools. The language in a bond measure, for example, may include program elements, schedules and related commitments.

Incentives. "Incentives" represent a class of tools in which financial signals are changed in order to encourage desirable behavior. Water markets may incidentally provide incentives for more efficient water use by increasing the perceived value of water. Programs in which money is offered in exchange for particular actions (e.g., conservation, pollution abatement, changed farming practices) provide direct financial signals.

Examples of Financing Mechanisms

The bonds used by the Contra Costa Water District to construct Los Vaqueros Reservoir contain a requirement that the reservoir not be used to increase exports out of the Delta.

Proposition 204 is an example of a voter referendum on a particular bond measure.

An environmental trustee might offer money to water right holders or water users if they will provide: (1) additional releases into a river; (2) changed diversion timing; (3) reduced diversions; (4) reduced discharges into a river; (5) certain conservation practices; (6) improved habitat (e.g., change farming practices to leave more food for forage); (7) title to land (i.e., purchase land for conversion into habitat).

Comments on Financing Mechanisms

Bond language is a form of agreement between the issuer of bonds and the purchaser of bonds. Conditions placed into the bond language which constrain how the money will be used or how the facilities built with the bonds will be operated, can provide a type of assurance.

Incentives may change behavior if the incentives are sufficiently attractive to induce participation. Market incentives are generally better received by the public than regulations. Moreover, market incentives will generally be more efficient in that they do not require a bureaucracy for monitoring and enforcement. Finally, market incentive programs are highly flexible and can be modified as needs change.

A number of criteria need to be satisfied if market incentives are to be effective assurance tools:

- o A market must exist for what is to be purchased.
- o Funding must be adequate to purchase the desired changes in the market.
- o The purchaser must be able to utilize the benefits purchased.

As an example, assume that the CALFED Program call for enhanced Delta outflows above current standards through purchases of water. If such a purchase program is to be effective, a market for water must exist or be created. There must be enough water for sale that can be purchased for the amount of money available. The purchasing agency must be able to protect its water from rediversion by other water users. If these conditions are violated, then the water purchase program will not be able to provide the promised flows with a high degree of certainty.

9. Physical constraints

Physical assurances represent an alternative to the general area of legal, regulatory or contractual assurance. Physical constraints can fall into two related classes:

- o Configurations in which it is physically impossible for a scenario to take place. For example, if export intakes remain in the south Delta, it is physically impossible for export water to be diverted from above the Delta.
- o Configurations in which the interests of multiple stakeholders are aligned such that operations which are to the advantage of one stakeholder are simultaneously to the advantage of the other stakeholders.

Examples of Physical Constraints

A conveyance facility designed with limited capacity is an example of how a physical constraint may provide assurance to certain stakeholders. If the facility's capacity is limited, it cannot possibly be operated at any higher capacity.

This concept can be applied to the CALFED Program in several ways. For example, a through-Delta export configuration (i.e., the existing mode of export) aligns the interests of exporters with the interests of Delta farmers. Both need a strong levee system with low salinity water. A small isolated facility might retain this identity of interest at some reduced level, while a totally isolated system would substantially eliminate this common interest.

Another illustration is to suppose a new intake to the export system constructed at Antioch. The salinity at the intake would be too saline for export except under high flow conditions. This might align export interests with environmental interests since, in their own interest, exporters would limit peak exports to times of high flows.

Still another possibility is that capacity limits could be placed on off stream storage to minimize the ability of project operators to clip mid-sized flow spikes.

Comments on Physical Constraints

Physical constraints will generally produce high levels of assurance. They reduce system flexibility and thereby limit ways in which the system could be mis-operated. And while physical constraints could be removed in the future, the procedural difficulties in implementing additional physical actions would be great. Since intentional physical constraints in the CALFED Program facilities are likely to be accompanied by some type of assurance against elimination of those constraints (e.g., a contract), project proponents would presumably have the tools to block or obstruct additional physical changes to the conveyance/storage system. On the other hand, physical constraints will generally also reduce certain potential benefits of the CALFED Program.

C. Management Structures

The starting point for development of an assurance alternative is the management structure. Management structure was chosen as the starting point for analysis because it is very difficult to think of assurances without knowing who or what is in charge of implementation. For example, a particular management structure may provide so much confidence to some stakeholders that additional assurances are unnecessary. Similarly, if a contract is to be used as an assurance, it may help to know which entities will be involved in the contract.

One way to think about management structures is the degree to which they differ from existing structures. Thus, at one end of the spectrum, we might consider that existing entities would implement the long-term CALFED Bay-Delta Program. At the other end, one or more new entities would implement some or all of the CALFED Program. Somewhere in between these extremes, we might consider expanding the responsibilities of existing entities or changing the relationships between existing entities (e.g., by formation of a joint powers authority or JPA.)

For the discussion below, we have broken this continuum into three discrete categories: (1) existing institutions; (2) existing institutions with new authorities or relationships; and (3) new entity or entities to implement at least part of the CALFED solution. Note that the descriptions of the management structures are intentionally very spare. They must still be linked to a set of tools to be considered complete.

1. Existing Institutions

Alternative 1.A: Existing Agencies

Features -

- o Existing agencies carry out their existing responsibilities with informal coordination of activities and decision making.
- o Department of Water Resources (DWR) and US Bureau of Reclamation (USBR) jointly construct the new storage and conveyance facilities and operate them according to agreed rules.
- o US Fish and Wildlife Service (USFWS) and Department of Fish and Game (DFG) are each assigned specific ecosystem restoration projects for implementation.
- o Interagency Ecological Program (IEP) is responsible for monitoring and analysis.
- o Decisions to modify the ecosystem program must be made jointly by the Secretary of Resources (California) and the Secretary of the Interior.
- o Regulatory agencies retain existing authorities.
- o Funding is directed at individual agencies on a project specific basis.

Notes -

In this alternative, existing institutional relationships do not change. Agencies generally coordinate with each other in a structured forum, but there is no formal mechanism for collective action. CALFED as currently configured is an example of how this might be done.

Alternative 1.B: Existing Agencies with oversight committee

Features -

- o Same as Alternative 1.A, but with the addition of a formal advisory committee chartered under Federal Advisory Committees Act (FACA) to give policy advice to the State and Federal agencies. Bay Delta Advisory Commission (BDAC) and the Ecosystem Roundtable are examples.

2. Expansion of Institutional Responsibilities and/or Changes in Agency Relationships

2.A: Ecosystem Restoration joint powers authority (JPA)

Features -

- o Implementation by existing agencies, as in Alternative 1.A, except that ecosystem restoration would be accomplished through a JPA consisting of USFWS, DFG, Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS).
- o Funding for ecosystem restoration projects would be appropriated to and managed by the JPA.

Notes -

The JPA would jointly control restoration funds and would make decisions on how to spend the funds. If agreement could not be reached, then implementation would be based upon a default program. The JPA would coordinate with DWR/USBR over water projects and new facilities operations, but would not have direct operational authority over facilities.

2.B: Ecosystem Restoration and Operations JPA

Features -

- o Implementation by existing agencies as in Alternative 1.A., except that CALFED would be formalized as a JPA with authority over both ecosystem restoration and new facilities operations.
- o JPA would control funding for ecosystem restoration and would market water (additional yield) created by new facilities.

Notes -

- o This approach would consolidate ecosystem restoration activities with operations of new facilities constructed as part of the CALFED Program.

3. New Institutions

3.A. Environmental Trustee

Features -

- o Similar to 2.B., except that ecosystem restoration program would be carried out by a new institution or agency, independent of existing agencies, with its own management and governance, created by State or Federal law.

Notes -

The new institution would be governed by a Board of Directors, controlled by resource agency and environmental interests.

3.B. Environmental Trustee and Delta Operating Utility

Features -

Same as 3.A., except that new conveyance and storage facilities would be built, owned and operated by a new independent utility, created by State and/or Federal legislation.

Notes -

The utility would be governed by a Board of Directors, representing a balance of interests.

3.C. New Institution for both Restoration and Operations

Features -

Combines 3.A and 3.B. One new institution, with balanced governance, controls both operations and ecosystem restoration.

D. Guidelines

The Guidelines should be viewed as rule-of-thumb criteria to help in the development and evaluation of individual assurances and implementation packages. Their purpose is to speed the development of assurances, by focussing staff and the Work Group onto approaches that are likely to be effective and implementable. Note that there is considerable overlap between some of the guidelines. These guidelines were previously presented to the Work Group.

- o *Satisfy the solution principles (implementable, durable, equitable, no significant redirected impacts).* The solution principles have enormous implications for assurances. The guidelines that follow are, in many ways, statements of the solution principles, rephrased to be more directly applicable to the construction and evaluation of assurance packages.
- o *Provide high confidence that identified actions will be taken and that identified programs will operate as promised.* The Program cannot guarantee performance. Ecosystem function and population targets cannot be assured within a finite budget. Water supply reliability levels cannot be guaranteed given the possibility of future climate change. Also, the assurance package should not be used to compensate for perceived problems in the solution itself.
- o *Ensure that the solution contains clearly articulated performance criteria and proposed schedules for attaining program goals.*
- o *Specify that the written description of the solutions constitutes the entire agreement.* Parties' unstated assumptions about the implementation of particular components should not be binding.

- o *Structure the solution to be self-executing.* The CALFED solution, once implemented, should be minimally dependant upon discretionary actions by actors outside the solution framework.
- o *Provide for implementation of the entire Program, even if that implementation occurs in stages or phases.*
- o *Allow for adaptive management, wherever the current state of knowledge is inadequate to made definitive choices now.*
- o *Allow for variations in the need for certainty on discrete Program components.* Some parts of the Program may need to be "set in stone," whereas in other areas the parties may be willing to agree to a more open-ended or flexible process.
- o *Work within existing statutes, regulations and institutions where feasible if the goals of the long-term Bay-Delta Program can be met efficiently and effectively.*
- o *Involve the public in decisionmaking.* Public support of the long-term solution is necessary throughout implementation. The solution should contain mechanisms for informing the public, providing opportunities for comment, and responding to public opinion.
- o *Craft an integrated package of assurances that work well together.*
- o *Minimize costs.* The proposed assurance package should be structured so as the provide the necessary assurances at the lowest possible cost.

E. Assurance Alternatives

In this section, four of the management alternatives from Section C are considered with an array of tools selected from Section B, to form an integrated assurance alternative. Each of the four alternatives could then be tested or analyzed against the guidelines identified in Section D. Conceptually, the process can be iterated until a satisfactory assurance alternative is identified and developed.

1. Alternative 1.A - Existing Agencies; Informal Coordination

Features -

- o Existing agencies carry out their existing responsibilities with informal coordination of activities and decision making.
- o Department of Water Resources (DWR) and US Bureau of Reclamation (USBR) jointly construct the new storage and conveyance facilities, and operate them according to agreed rules.
- o US Fish and Wildlife Service (USFWS) and Department of Fish and Game (DFG) are each assigned specific ecosystem restoration projects for implementation.

- o Interagency Ecological Program (IEP) is responsible for monitoring and analysis.
- o Decisions to modify the ecosystem program must be made jointly by the Secretary of Resources (California) and the Secretary of the Interior.
- o Regulatory agencies retain existing authorities.

Discussion -

In this alternative, all CALFED Bay-Delta Program implementation is carried out by existing agencies. No new agencies or entities are created. No agency is required to cede or delegate any existing authority. Program coordination continues to be handled on an ad hoc basis or through informal arrangements such as the CALFED Operations Group, the Ecosystem Roundtable, and the CALFED Management/Policy Groups. This type of arrangement might be documented by an MOU among the agencies.

DWR and USBR will construct, own and operate new and/or modified Delta conveyance facilities and any new storage facilities. Assurances are provided to some extent by the physical limits of the facilities and by the permitting and operating conditions for the project facilities.

Capital funding for new facilities is provided by federal appropriations and/or state G.O. or revenue bonds. Reimbursable costs are recovered through water service contracts or water delivery charges. Costs related to environmental benefits of new facilities are charged to the general fund or are non-reimbursable.

DWR and USBR are jointly responsible for meeting Delta water quality standards. Assurance is provided by revisions to the Water Quality Control Plan (WQCP) and the Coordinated Operations Agreement (COA).

Ecosystem restoration actions are carried out by DFG and/or USFWS and possibly NMFS. Specific project implementation is decentralized but coordinated through CALFED. Funding is provided to each agency on a project specific basis.

Agencies are expected to implement specific projects in accordance with CALFED adaptive management guidelines described in the Ecosystem Restoration Program. The basic assurance to stakeholders regarding ecosystem restoration would be in the guarantee of funding for future actions provided by state and federal appropriations.

Advantages

- o Minimizes changes to current agency operations and jurisdictions.
- o Reduces likelihood of agency turf struggle.
- o Continues and builds upon known relationships established through existing CALFED structure and Operations Group.

Disadvantages

- o Decentralized authority reduces efficiency of decision making and effectiveness of implementation.

- o Limited regulatory certainty.
- o Lacks assured revenue stream for ecosystem restoration.
- o Weak assurances on long-term continuation of programs. Informal agreement allows any agency to withdraw at any time.

Possible Improvements

- o State and Federal legislation to provide backup assurances.
- o Enforceable contracts to link together various elements of the Program.
- o Assured income stream for ecosystem restoration.

2. Alternative 2.A - Ecosystem Restoration JPA

Features -

- o Implementation by existing agencies, as in Alternative 1.A, except that ecosystem restoration would be accomplished through a JPA consisting of USFWS, DFG, Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS).

Discussion -

In this scenario, DWR and USBR will construct, own and operate new conveyance and storage facilities. The ecosystem restoration program is carried out by a formal interagency agreement, perhaps a joint powers authority (JPA) formed by DFG, USFWS, NMFS and EPA or perhaps by all current CALFED agencies.

Reimbursable costs of new facilities are recovered through water service contracts or water delivery charges. Costs related to environmental benefits of new facilities are paid for by the public at large through general fund or bond revenues.

The Ecosystem Restoration JPA would be governed by a Board of Directors consisting of CALFED agency managers. The Board would appoint an Executive Director.

CALFED agencies would be required to conform their resource management programs to the CALFED Program, but would not cede any regulatory authority. The JPA could not take action without unanimous support from its member agencies. In the absence of unanimity, management agencies would operate according to a set of default rules.

The JPA would have delegated authority from its parent agencies to implement the ecosystem restoration program and to implement CVPIA actions. It would be "endowed" with CVPIA restoration funds, Prop. 204 and Category III money; it would also control the 800,000 acre feet of fish and wildlife water and have the power to acquire land and water rights by purchase and/or condemnation.

Acquisition of additional land and water, if needed, would be done by market transaction, not regulatory action.

Formation of the JPA would be authorized by Federal and State legislation. The legislation could also incorporate CVPIA into the CALFED Program (i.e, implementation of the CALFED Program is defined by law as meeting the CVPIA legislative purpose and intent.)

The JPA would assume ESA responsibilities through an HCP or some similar type of interagency agreement. This agreement would provide that if additional money or water were needed to respond to a problem with a listed species (or to avoid a new listing), the money or water would come out of the endowment of the ecosystem restoration program (i.e, no additional cost or net loss of additional water by water projects).

Advantages

- o Maintains same type of working relationship as now exists among CALFED agencies, but with specific legal authority and direction for ecosystem restoration.
- o Reduces likelihood of agency turf struggle.
- o Continues and builds upon known relationships established through existing CALFED structure and Operations Group.
- o Provides regulatory certainty.
- o Use of markets increase efficiency of implementation.

Disadvantages

- o Weaknesses of decentralized authorities less of a problem. Nevertheless, decentralized authority reduces efficiency of decision making and effectiveness of implementation.
- o Lacks assured revenue stream for ecosystem restoration.
- o Assurances on long-term continuation of programs still relatively weak.
- o Environment bears risk of failure of ecosystem program to deal with ESA problems or to meet goals.

Possible Improvements

- o State and Federal legislation to provide backup assurances.
- o Enforceable contracts to link together various elements of the Program.
- o Assured income stream for ecosystem restoration.
- o Rebalance risk of failure to meet environmental goals or increase environmental funding.

3. Alternative 3.A - Environmental Trustee

Features -

- o Similar to Alternative 2.A., except that the new institution is independent of existing agencies and has its own management and governance.
- o Primary responsibility for implementing ecosystem restoration.

Discussion -

In this alternative, state law creates a new Delta ecosystem management agency to operate as an "environmental trustee." This agency has all the powers and duties attributed to the JPA described in Alternative 2 above.

New water supply facilities are constructed, owned and operated by DWR. Costs are recovered in the same manner as in Alternative 2 above.

No Federal legislation is required except appropriations, such as Prop. 204 matching funds.

The new environmental trustee agency does a Section 10 (?) consultation with USFWS and NMFS and/or enters into some kind of HCP agreement with the Federal agencies on the implementation of the ecosystem restoration program. This agreement would have to be linked to a similar agreement on the operation of the new facilities. The essence of these agreements is that if the water supply projects and the ecosystem program are operated as described, there is deemed to be no jeopardy to listed species. If a new species is listed, protective actions must be accomplished within the scope of trustee agency resources (i.e., water users are indemnified from additional costs).

Project operations would be controlled by revisions to the Water Quality Control Plan and possibly water rights revisions.

COA would have to be renegotiated to account for new facilities.

Advantages

- o Single institution with clear mission. May reduce complexity in implementation.
- o Provides regulatory certainty.
- o Use of markets increase efficiency of implementation.

Disadvantages

- o Requires significant institutional change; would require shift of authority and money from existing agencies, particularly USFWS.
- o Lacks assured revenue stream for ecosystem restoration.
- o Assurances on long-term continuation of programs still relatively weak.
- o Environment bears risk of failure of ecosystem program to deal with ESA problems or to meet goals.
- o Mechanism for maintaining independence of trustee governance structure is unclear.

Possible Improvements

- o State and Federal legislation to provide backup assurances.
- o Enforceable contracts to link together various elements of the Program.
- o Assured income stream for ecosystem restoration.
- o Rebalance risk of failure to meet environmental goals, or increase environmental funding.

4. Alternative 3.C - Ecosystem Restoration and Operations Entity

Features -

- o Combines 3.A and 3.B. One new institution, with balanced governance, controls both operations and ecosystem restoration.
- o If not a public agency, the new entity would be governed by Board of Directors drawn from CALFED agencies and stakeholders.
- o Board of Directors would appoint an Executive Director.

Discussion -

In this alternative, a new entity is created with some or all of the powers described in Alternative 3 above, but also with operational control over new conveyance and storage facilities constructed as part of the CALFED Program. The new entity could be a public agency or it could be structured as a public-private partnership, or maybe some kind of legislatively chartered non-profit corporation.

This would require State and probably Federal legislation and a contract among all participating agencies and interests, regarding the mission and authority of the new entity.

The new entity would have responsibility for ecosystem restoration, which would incorporate CVPIA programs. Pursuant to an HCP or some type of interagency agreement, it would provide regulatory shelter to CVP and SWP for Project exports (no net loss).

It would also operate new storage and conveyance facilities for ecosystem and water supply benefits. The new facilities would be subject to a revised Water Quality Control Plan, which would incorporate a complete set of operational requirements.

Advantages

- o Single institution with clear mission. May reduce complexity in implementation. Opportunity for tight coordination between restoration and operations.
- o Provides regulatory certainty.
- o Use of markets increase efficiency of implementation.

Disadvantages

- o Requires significant institutional change; would require shift of authority and money from existing agencies.
- o Lacks assured revenue stream for ecosystem restoration.
- o Assurances on long-term continuation of programs still relatively weak.
- o Environment bears risk of failure of ecosystem program to deal with ESA problems or to meet goals.
- o Concerns over possible agency bias toward one interest or another.

Possible Improvements

- o State and Federal legislation to provide backup assurances.
- o Enforceable contracts to link together various elements of the Program.
- o Assured income stream for ecosystem restoration.
- o Rebalance risk of failure to meet environmental goals, or increase environmental funding.
- o Internal controls on agency to reduce risk of biases decisionmaking.

F. Next Steps

Each alternative can be tested or analyzed against the guidelines in Section D. One or more of the alternatives or parts thereof may not satisfy the guidelines. As the faults or defects are identified, other alternatives can be developed or specific elements can be replaced or modified. Ultimately, the result of this process should be an assurance alternative which is generally acceptable to the Work Group.