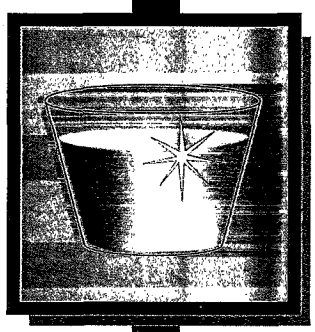

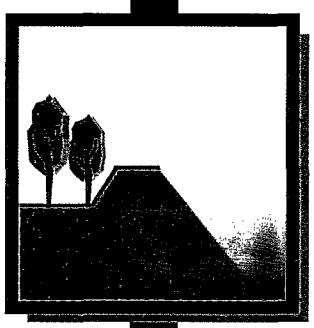

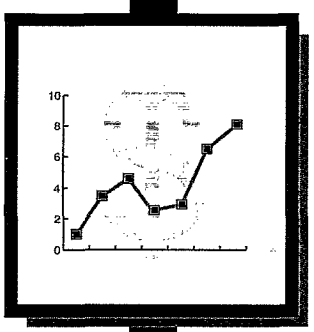

CALFED
BAY-DELTA
PROGRAM

California and Federal Endangered Species Act Compliance

Programmatic EIS/EIR
Technical Appendix
March 1998

C-007759

C-007759

CALIFORNIA AND FEDERAL ENDANGERED SPECIES ACT COMPLIANCE

I. OVERVIEW

CALFED has begun developing a process to comply with the California Endangered Species Act (CESA) and the Federal Endangered Species Act of 1973, as amended (ESA), and will continue to develop that process during Phase II of the Program. As a foundation for implementing the California and Federal ESA compliance process, CALFED is developing a comprehensive Conservation Strategy for the CALFED Program. The Conservation Strategy is intended to integrate CALFED Program enhancement and mitigation actions to provide for improved species and habitat protection, increase assurances of overall Program implementation, and streamline California and Federal ESA take authorization for approved actions.

The regulatory mechanisms that will be used to authorize incidental take under the Federal ESA include formal consultation pursuant to Section 7, permit issuance pursuant to Section 10(a)(1)(B), which includes the development of one or more Habitat Conservation Plans (HCP), and/or a special rule for threatened species under Section 4(d). The regulatory mechanisms that will be used to authorize take under CESA include Section 2835 of the California Fish and Game Code (the Natural Community Conservation Planning Act), which includes the development of a Natural Community Conservation Plan (NCCP), Section 2081 of the California Fish and Game Code, and/or Section 2090 or successor sections of the California Fish and Game Code. The Conservation Strategy will provide the basis for any and all of the above regulatory mechanisms and will remain constant regardless of which mechanism is used to authorize take (i.e., the Strategy will specify the same measures whether take is authorized through Section 7, 10, or 4(d) of the ESA and Section 2835, 2081, or 2090 or successor sections of the CESA).

The Conservation Strategy will address all federally and state listed, proposed, and candidate species that may be affected by the CALFED Program; other species identified by CALFED that may be affected by the Program and for which adequate information is available also will be addressed in the Strategy. The term "covered species" is used to refer to all of the species that will be addressed by the Conservation Strategy. CALFED is currently developing the list of covered species. The Strategy will address the effects of CALFED Program actions (beneficial, adverse, and neutral) on the covered species, and the minimization and mitigation measures needed to offset the anticipated adverse impacts and allow for species recovery. The Conservation Strategy also will address the conservation and protection of habitats affected by the CALFED Program. In addition, the Conservation Strategy will include a monitoring and reporting program, specify a process for adaptive management, and address funding for implementation of the Strategy and to address unforeseen circumstances. The Conservation Strategy, in the context of the CALFED comprehensive long-term plan, will allow for the recovery of listed species and the conservation of currently unlisted species.

Take authorization would be granted, to the appropriate implementing entity or individual, when adequate information is available to assess project effects on listed or other covered species and a determination is made that the appropriate findings or requirements under the California and/or Federal ESA have been made or met. The Conservation Strategy will outline the criteria and process for determining the appropriate regulatory mechanism for implementing the Strategy and authorizing incidental take associated with specific Program actions. As noted above, Federal authorization of incidental take associated with an action may be through formal consultation (Section 7), an incidental take permit and HCP (Section 10), or a special rule for threatened species (Section 4(d)); State authorization of incidental take may occur through an NCCP (Section 2835), an incidental take permit (Section 2081), or formal consultation (Section 2090).

The CALFED Bay-Delta Program is being conducted in a three-phase planning effort. Phase I, completed in September 1996, identified solution alternatives to be further analyzed in the second Phase. During Phase II, CALFED is conducting a comprehensive programmatic environmental review by adding a greater level of detail to each of the program components. Phase II will conclude with the selection of a preferred alternative, the development of an Implementation Strategy and Conservation Strategy, and the completion of a final programmatic environmental impact statement and report. Commitment to implementing the Conservation Strategy will be embodied in an appropriate mechanism, such as an Implementing Agreement.

While implementation of some of the Program actions may begin during Phase II, implementation of many of the Program actions will take place during Phase III of the Program. This period will include any additional site-specific environmental review and necessary permitting. Implementation is anticipated to occur over a period of years primarily because of the size and complexity of the alternatives in solving the problems. Much of the challenge will be to develop an effective Implementation Strategy that acknowledges this long implementation period and finds a way to keep participants committed to the successful completion of all phases of implementation and all components of the Program.

Based on what CALFED expects to complete during Phase II, actions that are likely to have completed California and Federal ESA regulatory compliance and be permitted or conditionally permitted by the end of Phase II include: some Ecosystem Restoration Program Plan (ERPP) actions, some levee integrity actions, some water quality actions, some conveyance actions within the Delta, and "interim" operating procedures (i.e., covering the transition from existing conditions through completion of the CALFED Program) for water storage and conveyance, including the State Water Project and Central Valley Project.

II. BACKGROUND

A. Overview of Federal ESA

The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (ESA), provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend, both through Federal action and by encouraging the establishment of State programs. The ESA is implemented by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Generally, the ESA:

- authorizes the determination and listing of species as endangered and threatened;
- prohibits unauthorized taking, possession, sale, and transport of endangered species;
- authorizes take of listed species for scientific or conservation purposes, or while undertaking otherwise lawful activities under specific conditions;
- provides authority to the Secretaries of the Interior and Commerce to acquire land for the conservation of listed species, using land and water conservation funds;
- authorizes establishment of cooperative agreements and grants-in-aid to States that establish and maintain active and adequate programs for endangered and threatened wildlife and plants;
- authorizes the assessment of civil and criminal penalties for violating the ESA or regulations; and
- authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the ESA of any regulation issued thereunder.

1. Take Definition

Section 3(18) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The terms "harass" and "harm" have been further defined by regulations (Title 50 of the Code of Federal Regulations Section 17.3). Harass means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm means an act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation when it actually kills or injures wildlife by significantly impairing essential behavior patterns including breeding, feeding or sheltering. Incidental take is take that results from, but is not the purpose of, an otherwise lawful activity.

Section 9 of the ESA prohibits the taking of listed species. However, under certain circumstances, exceptions to the Section 9 take prohibition may be authorized through specific sections of the ESA, as described below.

2. Section 7 Consultation (Federal Actions)

a. General Description

Section 7 of the ESA requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Action agencies are required to consult with the USFWS and/or NMFS when there is discretionary Federal involvement or control over the action. Regulations guiding Section 7 consultation are found in Title 50 of the Code of Federal Regulations, Part 402.

The USFWS and NMFS conduct several types of consultations on Federal agency activities, including informal, formal, early and emergency consultations for listed species or designated critical habitat(s), and informal and formal conferences for proposed species or proposed critical habitats.

Informal consultations precede formal consultation and may be requested by the Federal agency, an applicant, or a designated non-Federal representative. Discussions during this phase may include whether and which species may occur in the proposed action area, and what effect the action may have on listed species or critical habitats.

Informal consultation often concludes with written concurrence by the USFWS or NMFS with the Federal agency's determination that its action is not likely to adversely affect listed species or their critical habitat.

Formal consultation is conducted when the Federal agency determines its action may adversely affect a listed species or its critical habitat and submits a written request to initiate formal consultation. Formal consultations are discussed in greater detail below.

Early consultations are conducted between a Federal agency and the USFWS or NMFS before an application is actually filed by a prospective applicant with that Federal agency. The purpose of early consultations is to determine at an early planning stage what effect a proposed action may have on a species or critical habitat and what modifications may be needed to remove or minimize those effects. Time frames are the same as for formal consultation and formal conferences.

Emergency consultations are held when an agency must respond quickly to a natural disaster or other calamity. These are followed up with a written formal consultation.

Conferences are conducted when the Federal agency determines that a Federal action is likely to jeopardize the continued existence of the proposed species or result in the destruction or adverse modification of the proposed critical habitat. During conference, the USFWS or NMFS makes advisory recommendations to the Federal agency on ways to minimize or avoid adverse impacts. If the proposed species or proposed critical habitat becomes listed or designated, respectively, during the life of a project that retains Federal involvement, the Federal agency must then determine whether consultation is required.

b. Formal Consultation Responsibilities

Formal consultation is initiated when a written request from the action agency is received by the USFWS or NMFS. The action agency is required to also provide: (1) a description of the action to be considered; (2) a description of the area that may be affected, including areas that may be affected indirectly; (3) a description of any listed species or critical habitats that may be affected and the manner in which they may be affected, including cumulative impacts; and (4) any other relevant information on the action, affected species, or critical habitat, including any National Environmental Policy Act (NEPA) documents or biological assessment(s).

The USFWS or NMFS is responsible for reviewing any relevant information on the action, evaluating the current status of the listed species or critical habitat, and evaluating the effects of the action upon listed species or critical habitat. Based upon this evaluation, the USFWS or NMFS prepares its biological opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat (a "jeopardy" biological opinion; or, that the action is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat (a "no jeopardy" biological opinion). If a jeopardy biological opinion is issued, the USFWS or NMFS will include any reasonable and prudent alternatives to the action which would avoid the likelihood of jeopardizing the continued existence of the listed species. A no jeopardy opinion will include, if applicable, an incidental take statement, which is described below.

c. Take Authorization Under Section 7

Through the analysis of the effects of the action on listed species and critical habitat, the USFWS or NMFS may recognize that some individuals or a certain amount of habitat may be taken. An incidental take statement is provided with the biological opinion, and includes: 1) the amount (number) or extent (habitat) of anticipated take, if any; 2) reasonable and prudent measures to minimize the take; and 3) nondiscretionary terms and conditions to implement the reasonable and

prudent measures, including the procedures used to handle or dispose of any individuals of the species actually taken.

3. Habitat Conservation Planning and Section 10(a)(1)(B) Permit (Non-Federal Actions)

a. General Description

In 1982, Congress passed amendments to Section 10 of the ESA to provide a means for non-Federal projects resulting in take of listed animals to be permitted subject to carefully prescribed conditions. These "incidental take" permits also provide a means to integrate development with endangered species conservation, and for the public and private sector to develop creative partnerships to accomplish these goals.

Application for an incidental take permit under Section 10(a)(1)(B) of the ESA is subject to a number of requirements, including preparation by the permit applicant of a conservation plan -- generally known as a Habitat Conservation Plan or HCP. Development of an HCP and application for an incidental take permit are voluntary; however, in the absence of appropriate authorization, no take can lawfully occur.

b. Required Components of a Habitat Conservation Plan

Section 10(a)(2)(A) of the ESA and regulations that implement the ESA require that an HCP provide or specify the following:

i. A complete description of the activity or activities sought to be authorized.

ii. The common and scientific names of the species sought to be covered by the permit, as well as the number, age, and sex of such species, if known.

iii. The impacts which will likely result from the proposed taking.

iv. What steps the applicant will take to monitor, minimize, and mitigate such impacts, the funding that will be made available to implement such steps, and the procedures to be used to deal with unforeseen circumstances.

v. What alternative actions to such taking the applicant considered and the

reasons why such alternatives are not proposed to be utilized.

vi. Such other measures that the USFWS or NMFS may require as necessary or appropriate for purposes of the conservation plan, such as an Implementing Agreement that spells out the roles and responsibilities of all parties.

c. Incidental Take Permit Issuance Criteria

The USFWS and NMFS are required to issue an incidental take permit if, after opportunity for public comment (see below), one or both agencies, as appropriate, finds that the following incidental take permit issuance criteria have been satisfied:

i. The taking will be incidental to otherwise lawful activities.

ii. The applicant will minimize and mitigate the impacts of such taking to the maximum extent practicable.

iii. The applicant will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided.

iv. The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild.

v. Other measures that the USFWS or NMFS may require as being necessary or appropriate will be provided.

vi. The USFWS or NMFS has received such other assurances as may be required that the HCP will be implemented (e.g., an Implementing Agreement has been prepared and signed).

d. HCP Contents

To satisfy the statutory requirements and meet the issuance criteria, an HCP will generally need to provide the following information:

i. Identify the permit holder or holders and specify the term of the permit being requested (i.e., for what time period does the applicant need incidental take coverage).

ii. Identify the boundaries of the area covered by the plan.

iii. Identify the species, which can include both federally listed and unlisted species, to be addressed by the HCP and to be covered by the incidental take permit. Which species to address in an HCP is the decision of the permit applicant. However, applicants are advised to address all federally listed fish, wildlife, and plant species likely to be taken during activities proposed in the HCP. The USFWS and NMFS also encourage applicants to address unlisted fish, wildlife, and plant species where such species are likely to be listed within the life of the permit *and* the proposed activities may result in "take" of those species. Addressing unlisted species in an HCP provides an opportunity for a broader, more encompassing conservation plan to be developed and may protect unlisted species, precluding the need to list them in the future. Addressing unlisted species may also protect the permittee against additional procedural requirements and additional mitigation requirements for such species should they later be listed.

iv. Collect and synthesize biological information for those species which are to be covered by the permit (including information on life history, habitat requirements, distribution, and population trends -- both range-wide and within the plan area, as necessary to assess the impact of the proposed take).

v. Identify all activities in the plan area, both short-term and long-term, likely to result in take that would be covered by the permit.

vi. Quantify the level of take of each species anticipated to occur as a result of covered activities (this is typically expressed either as a number of individual animals or as acres of habitat).

vii. Assess the impact to the species which will likely result from anticipated levels of take for each species addressed by the plan.

viii. Describe the measures that will be implemented to minimize and mitigate the impacts of the proposed taking.

ix. Describe the measures that will be implemented to monitor the impact of the take on each of the covered species.

x. Where appropriate (e.g., where current species information is lacking, or where the results of ongoing research or future recovery plans may provide important new information), describe adaptive management provisions in the HCP that will allow for revision or modification of the plan based on new information and/or monitoring programs. The HCP

should also describe a process to be used for making amendments to the permit or HCP to incorporate new information, if appropriate.

xi. Describe how and at what interval reporting of the progress of plan implementation, including the results of monitoring and adaptive management, will be provided to the USFWS and/or NMFS.

xii. Describe the mechanism or mechanisms that will be used to fund the plan. Note that it is essential for the applicant to provide assurances that adequate funding to implement the plan will be provided. Failure to demonstrate the requisite level of funding prior to permit approval or to meet funding obligations after the permit is issued are grounds for denying a permit application or revoking or suspending an existing permit, respectively.

xiii. Describe the process for dealing with unforeseen circumstances. Unforeseen circumstances refer to changes in the circumstances affecting a species or geographic area covered by an HCP that could not reasonably have been anticipated at the time the plan was developed, and that result in a substantial and adverse change in the status of a covered species. An HCP should discuss how such changes will be dealt with in the future.

xiv. Describe alternative actions that the applicant considered that would avoid or reduce the proposed level of take, and the reasons why those alternatives are not acceptable or are not being utilized. Typically, this includes a no-action alternative and one or more alternative project designs with lower levels of take.

e. HCP Assurances

On February 23, 1998, the USFWS and NMFS published a final rule in the *Federal Register* (Vol. 63, No. 35) that codified in Part 17 (USFWS) and Part 222 (NMFS) of Title 50 of the Code of Federal Regulations, the HCP assurances (i.e., "No Surprises" assurances) that can be provided through Section 10(a)(1)(B) permits issued under the Federal ESA. The final rule addresses, among other things:

- The concept of assurances for non-Federal landowners in the context of an HCP;
- The contents of an HCP as it relates to assurances (e.g., how the HCP might address adaptive management and unforeseen circumstances);

- The process for demonstrating unforeseen circumstances;
- How assurances would provide that no additional conservation or mitigation measures will be required of non-Federal landowners should there be changed, or unforeseen circumstances.

Generally, HCP assurances can apply only to incidental take permits issued where the HCP is being properly implemented by the permittee, and to species that are adequately covered in an HCP. A listed species is considered to be "adequately covered" in an HCP if the permit issuance criteria under Section 10(a)(2)(B) of the ESA have been satisfied for that species. For unlisted species, "adequately covered" means any species which is addressed in an HCP as if it were listed.

f. NEPA Requirements

Issuance of an incidental take permit is a Federal action that must be in compliance with the NEPA. Depending on the scope and impact of the HCP, NEPA requirements can be satisfied by one of the three following mechanisms: (1) a categorical exclusion (for "low-effect" HCPs only); (2) an Environmental Assessment; or (3) and Environmental Impact Statement.

g. Internal Section 7 Consultation

Issuance of an incidental take permit by the USFWS or NMFS is a Federal action subject to Section 7 compliance. This means that the USFWS or NMFS must conduct an internal formal Section 7 consultation on permit issuance. Internal consultation on a Section 10 action ensures that issuance of the permit meets ESA standards *under Section 7*. Section 7 and its regulations introduce several considerations into the HCP process that are not explicitly required by Section 10 -- specifically, indirect effects, effects on federally listed plants, and effects on critical habitat. Although the permit applicant is not responsible for Section 7 consultation, the applicant, USFWS, and NMFS should work together to develop an HCP that meets the Section 10 issuance criteria as well as the Section 7 standards that USFWS and NMFS are required to apply.

h. Public Review and Comment

Upon receipt of a complete permit application, the USFWS or NMFS must publish a notice in the *Federal Register* announcing receipt of the permit application, and provide a minimum of 30 days for the public to comment on the complete application. The public review and comment period for NEPA is typically combined with the permit application comment period.

4. Section 10(a)(1)(A) Permits

Section 10(a)(1)(A) of the ESA allows for a recovery permit to be issued for acts otherwise prohibited by Section 9 if the activity to be permitted is for scientific purposes or to enhance the propagation or survival of the affected species. Actions permitted under this section must be consistent with the recovery needs of the species that is the subject of the proposed activity. Recovery permits issued for enhancement may be issued for the purpose of enhancement of propagation or survival of the species in the natural ecosystem, in captivity if the ultimate effect is enhancement in the native ecosystem, or in captivity if enhancement in the native ecosystem is not feasible.

5. Section 4(d)

Section 4(d) of the ESA provides that whenever a species is listed as threatened, the USFWS and/or NMFS shall issue regulations deemed necessary and advisable to provide for the conservation of the species. Conservation means the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to the ESA are no longer necessary. Examples of such methods and procedures are provided in Section 3(3) of the ESA. Utilizing the authority contained in Section 4(d), the USFWS and/or NMFS can promulgate special regulations for threatened species to, among other things, define conditions under which take of the species would not be a violation of Section 9 of the ESA. Generally, the implementing regulations for threatened wildlife (Title 50 of the Code of Federal Regulations Section 17.31) incorporate, for the most part, the prohibitions for endangered wildlife (Title 50 of the Code of Federal Regulations Section 17.21).

If a regulation were to be promulgated pursuant to Section 4(d), a proposed rule would be published in the *Federal Register*, and interested parties would be provided the opportunity to review and comment on the proposal. Comments, if any were received, would be addressed in the final determinations made on the rule. In addition to complying with all laws and regulations (e.g., NEPA), the USFWS and/or NMFS, as appropriate, would also conduct an internal Section 7 consultation on the proposed rule so that effects of the proposed rule on species listed or proposed for listing could be assessed.

B. Overview of CESA and NCCP Act

The CESA provides for the protection and conservation of threatened and endangered species and their habitats. It is very similar to the Federal ESA. In general, CESA:

- authorizes determination and listing of species as endangered or threatened;

- prohibits the take, possession, purchase, or sale of endangered, threatened or candidate species;
- provides authority for state agencies to purchase habitat for endangered and threatened species; and
- directs the California Department of Fish and Game (CDFG) to work closely with the USFWS and NMFS, to participate to the greatest extent practicable in Federal consultations, and to adopt the Federal biological opinion whenever possible.

The Natural Community Conservation Planning Act, California Fish and Game Code Section 2800, et seq., provides for the preparation and implementation of large-scale natural resource conservation plans. A natural community conservation plan (NCCP), must identify and provide for "the regional or area wide protection and perpetuation of natural wildlife diversity, while allowing compatible and appropriate development and growth." NCCPs are intended "to provide comprehensive management and conservation of multiple wildlife species" including, but not limited to, species listed pursuant to the CESA, Section 2050, et seq.

1. Take Definition

Section 86 of the California Fish and Game Code defines take as to, or attempt to, "hunt, pursue, catch, capture, or kill."

2. Take Authorization

The Natural Community Conservation Planning Act authorizes CDFG to permit the taking of any identified species whose conservation and management is provided for in a CDFG approved NCCP. Under CESA, CDFG may also permit the take of species incidental to an otherwise lawful activity provided the impacts of the take are minimized and fully mitigated, or by a state agency following consultation which finds that the take will not jeopardize the species or destroy habitat essential to its existence.

3. Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act promotes cooperation and coordination among public agencies, economic interests, conservation organizations, and other private parties in developing NCCPs. CDFG is authorized to prepare and implement NCCPs with a wide variety of private and public interests, including individuals, organizations, companies, special districts, and state and local government agencies. Natural community conservation planning may be undertaken by local, State, and Federal agencies independently or in cooperation with other individuals and entities.

An NCCP must be approved by CDFG before it is implemented. To be approved, an NCCP must meet standards established by CDFG. CDFG is authorized to prepare non-regulatory guidelines to establish NCCP standards and to guide the development and

implementation of NCCPs. NCCPs are also subject to review under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, et seq.

CDFG may authorize the "taking" of any identified species whose conservation and management is provided for in a CDFG approved NCCP.

a. Implementing Agreement

Each NCCP will be implemented according to an agreement between the entities or agencies responsible for implementing the plan, CDFG and the USFWS. The purpose of the implementing agreement(s) is to ensure the implementation of the NCCP, to bind each party to the terms of the NCCP, and to provide remedies and recourse for failure to adhere to the terms of the NCCP.

b. Guidelines

All NCCPs must contain certain substantive elements identified in the Natural Community Conservation Planning Act. In addition, the NCCP must comply with guidelines adopted by CDFG for natural community conservation planning. CDFG has adopted the *Natural Community Conservation Planning General Process Guidelines* (January 22, 1998) (Guidelines).

In addressing the scope and purpose of NCCPs, the Natural Community Conservation Planning Act identifies the following essential NCCP elements:

- An NCCP must be regional or area-wide in scope (Section 2805(a)).
- An NCCP must protect and perpetuate natural wildlife diversity (Section 2805(a)).
- An NCCP must allow compatible and appropriate development and growth (Section 2805(a)).
- An NCCP must be consistent with NCCP planning agreement (Section 2820).
- An NCCP must provide for the conservation and management of species subject to take (Section 2835).

The Guidelines provide guidance for natural community conservation planning within the Planning Area and do not represent specific criteria for CDFG

approval. However, they address certain key natural community conservation planning elements identified in Section 2825(a) of the NCCP Act:

- Defining the scope of a conservation planning area (Section 2825(a)(1)) .
- Determining conservation standards, guidelines and objectives for the planning area (Section 2825(a)(2)).
- Appointing one or more advisory committees to review and make recommendations regarding the preparation and implementation of NCCPs (Section 2825(a)(3)); coordinating with local, State, and Federal agencies (Section 2825(a)(4)); and incorporating public input (Section 2825(a)(5)).
- Ensuring compatibility with the Federal Endangered Species Act (Section 2825 (a)(6)).
- Obtaining approval of the NCCP by CDFG (Section 2825(7)).
- Provisions for implementation of the plan (Section 2825(a)(8)).
- Provide direction for monitoring and reporting on plan implementation (Section 2825(a)(9)).
- Amending the NCCP consistent with the initial intent of the NCCP (Section 2825(a)(10)).

4. CESA Section 2081

The CDFG may authorize, by permit, the take of endangered species, threatened species, and candidate species, if all of the following criteria are met:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated. The measures must be roughly proportional to the impact of the taking on the species and maintain the applicant's objectives to the greatest extent possible. All required measures must be capable of successful implementation.
- The permit must be consistent with regulations adopted pursuant to CESA Sections 2112 and 2114 (regarding recovery strategies).
- The applicant shall ensure adequate funding to implement the minimization and

mitigation measures and for compliance monitoring.

5. CESA Section 2090 (State Agency Consultation)

CESA requires state agencies to consult with CDFG to ensure that any action authorized, funded, or carried out by that agency is not likely to jeopardize the continued existence of any endangered or threatened species. CDFG is required to issue written findings (i.e., a biological opinion) of whether the action is likely to jeopardize the continued existence of a listed species and whether any taking of listed species will occur. The biological opinion will identify reasonable and prudent alternatives which would prevent jeopardy and reasonable and prudent measures to minimize the effects of any taking. Any incidental take which is consistent with the CDFG's biological opinion is not prohibited. Whenever possible, consistent with CESA, the CDFG adopts a Federal biological opinion as its written findings.

6. CEQA

The CDFG will be issuing incidental take permits under Fish and Game Code Sections 2835 and 2081(b). The taking of a listed species constitutes a mandatory finding of significance under CEQA and requires the preparation of an environmental impact report. Because the Resources Agency of California is the CEQA lead agency for the CALFED Program, CDFG is a responsible agency.

C. Integration of California and Federal ESA Compliance Processes

The Conservation Strategy is intended to provide for the conservation of the natural communities, species and associated habitats that will be affected by actions of the CALFED Program. It will provide an integrated State-Federal compliance framework for defining the various mechanisms available to meet the requirements of the California and Federal ESAs and the Natural Community Conservation Planning Act. The CDFG, USFWS and NMFS will closely coordinate their responsibilities in analyzing and reviewing CALFED activities to ensure that they will comply with both California and Federal ESAs.

III. CONSERVATION STRATEGY

A. Overview of Conservation Strategy

CALFED is developing a Conservation Strategy that will address the effects of the CALFED Program on and the conservation of all federally and state listed, proposed, and candidate species

that may be affected by the Program; in addition, other species identified by CALFED that may be affected by the Program and for which adequate information is available also will be addressed in the Strategy. The term "covered species" is used to refer to all of the species that will be addressed by the Conservation Strategy. CALFED is currently developing the list of covered species. The Conservation Strategy also will address the conservation and protection of habitats affected by the entire CALFED Program. The Strategy will specify, where possible and appropriate, the conservation actions necessary to allow for the recovery of listed species and conserve other sensitive species. CALFED anticipates that the Strategy will provide the foundation and much of the information needed for subsequent compliance with the California and Federal ESAs through one of the regulatory mechanisms discussed below.

Actions from all CALFED programs which may affect covered species will be addressed in the Conservation Strategy; beneficial, adverse, and neutral effects will all be analyzed. This includes, among other programs, the ERPP, which will be evaluated in the Conservation Strategy. Refinements or adjustments to ERPP actions may be specified in the Strategy as a result of specific conservation needs identified for a species. Minimization and mitigation strategies that may be needed to offset adverse impacts to covered species resulting from Program actions will also be specified to the extent possible.

B. General Structure and Purpose

The Conservation Strategy will provide a "road map" describing how CALFED Program actions can be implemented and receive incidental take authorization based on implementation of identified conservation, minimization, and mitigation actions. The Conservation Strategy will address the effects of the common program actions, construction of storage and conveyance facilities, and any operations of the storage and conveyance system resulting from the CALFED Program. The Strategy will identify and analyze, to the extent possible, both beneficial and adverse impacts to covered species and their habitats resulting from Program actions. General conservation measures, as well as specific avoidance, minimization, and mitigation measures necessary to offset adverse impacts, also will be identified to the extent possible. The Strategy will include a discussion of Program-wide effects on species and their habitats and a process for dealing with unforeseen circumstances.

The relationship between the Conservation Strategy and the ERPP is of particular importance. CALFED anticipates that all ERPP actions potentially affecting any of the covered species will be addressed in the Strategy. Further, the ERPP includes most of the measures identified in existing California and Federal Recovery Plans for Delta dependent species. The ERPP aims to achieve recovery for those species dependent on the Delta, and to contribute to species' recovery in ecological zones other than the Delta. The Conservation Strategy will undertake a comprehensive analysis of Program effects on the covered species and the conservation needs of those species. This may result in identification of refinements or adjustments to ERPP actions needed to contribute to and be consistent with the goals of Recovery Plans. In addition, the

Conservation Strategy will identify mitigation measures needed to offset the effects of other Program actions. Such measures should complement the ERPP. In sum, the Conservation Strategy will provide a species- and natural community-based comprehensive review of the entire CALFED Program, including the ERPP.

The Strategy is intended to function as a "blueprint" or framework for assessing the effects of Program actions and identifying conservation, minimization, and mitigation measures. CALFED intends to include detail where possible in the Conservation Strategy during Phase II. For those actions where sufficient detail is not available, however, the Strategy will provide the general process for evaluating the action within the context of the Strategy.

The Strategy will identify the appropriate regulatory mechanism to authorize incidental take, if such authorization is needed, for a particular action or set of actions. Although the mechanisms for authorizing incidental take may differ, CALFED anticipates that the level of assurances will be similar as long as the Conservation Strategy is followed and implemented appropriately. The Conservation Strategy itself will not serve as take authorization under the California or Federal ESAs; however, it is expected to provide the basis for ESA and CESA compliance.

The Conservation Strategy will address activities and the associated impacts in the geographic area covered by the ERPP, the projected footprint areas of the potential storage facilities, plus any other areas that may be identified as being directly or indirectly affected by CALFED actions. The Strategy will address the time period beginning with implementation of the CALFED Program and continuing through completion of the Program actions (CALFED anticipates the Program will be implemented over approximately 30 years). Mechanisms and requirements to extend the time period for assuring implementation of the Program conservation, minimization, and mitigation measures and Program take coverage will be addressed.

CALFED recognizes that some actions may require incidental take authorization and may be ready to be implemented at the conclusion of CALFED's planning process (Phase II), while others will not be ready to receive incidental take authorization at that time. Based on what CALFED expects to accomplish during Phase II, CALFED anticipates that the Program actions that may be ready to be implemented at the conclusion of Phase II include some actions from each of the Common Programs, and possibly some conveyance actions within the Delta and interim changes to operating procedures for water storage and conveyance. Other Program actions will require additional site-specific planning and review before they can be implemented. The Conservation Strategy will provide a mechanism for authorizing incidental take and implementing appropriate conservation, minimization, and mitigation requirements for both those actions ready to be implemented at the end of Phase II as well as those to be implemented in the future.

C. Specific Structure and Contents

The Conservation Strategy will address the actions of all CALFED Programs that may affect covered species and their habitats. For each species and habitat the Conservation Strategy will:

1. Identify each of the CALFED Program actions that may affect that species or habitat. An appendix or other supporting document will provide a description of all of the actions.

2. Analyze the effects of each of the actions (beneficial, adverse, and neutral) on the species and on any critical habitat that has been designated for a species. Where and when appropriate, this analysis also will specify the level of incidental take anticipated from an action; this information will be important in evaluating the authorization of such take through one or more of the regulatory mechanisms described below in section IV.

3. Identify the appropriate conservation, minimization, and/or mitigation measures necessary to provide for the conservation of the species or habitat. Examples of the types of measures that may be applied include:

a. "No additional measures needed" in the case of some actions which provide only benefits to the species/habitat.

b. Recommended refinements to an action; for example, for the California clapper rail, tidal marsh habitat should be restored in a particular area of the Bay adjacent to existing habitat.

c. General conservation or recovery goals for a species or habitat if they are known; for example, a particular sensitive plant may require a minimum number of populations over its range with a minimum number of individual plants in each population.

d. Restrictions or limitations on a particular action; for example, a timing restriction on levee maintenance work to avoid impacts to Swainson's hawks.

e. Minimization measures designed to reduce adverse effects to a species or habitat; for example, specific suggestions for operating the storage and conveyance system in a manner which reduces impacts to sensitive fish species.

f. Specific mitigation measures to offset those adverse impacts to a species or habitat which cannot be avoided. Such measures may include the establishment and management of permanent preserves, restoration of degraded habitat, breeding or propagation programs, among others.

g. In some cases, specific research or monitoring needs may be identified for a species or habitat.

h. Analyze the Program-wide, cumulative effects of all CALFED actions on the species or habitat.

In addition to the information described above, the Conservation Strategy will include a monitoring and adaptive management program. The monitoring program will describe the specific goals of monitoring and identify appropriate methodologies for achieving those goals. The monitoring and adaptive management program developed for the ERPP will fulfill most of the monitoring and adaptive management needs for the Conservation Strategy; however, additional measures will likely be needed to ensure full implementation of the Conservation Strategy. In general, the goals of monitoring will be to assess the effects of CALFED actions on covered species and habitats (i.e., how do the actual effects compare with those anticipated), assess the impact of those effects on particular species (i.e., what does it mean for a particular species to lose or gain "x" number of acres of habitat or "x" number of individuals), and assess the success of the conservation and mitigation measures (i.e., do these measures actually benefit species in the ways and to the extent anticipated). The monitoring and adaptive management program will be closely linked to the phased implementation of the entire CALFED program. As restoration progresses and threats to listed and other covered species are reduced, resolution of conflicts between beneficial uses in the system will be facilitated.

The Strategy will identify a process for dealing with unforeseen circumstances. Unforeseen circumstances are those changes in the circumstances surrounding the Conservation Strategy that were not or could not be anticipated by CALFED and that result in a substantial and adverse change in the status of a covered species.

A process for funding implementation of the Conservation Strategy, as well as actions that may be required in the event of unforeseen circumstances will be identified. An example of when funding may be needed to deal with unforeseen circumstances would be an extreme weather situation, not anticipated by the CALFED Program, which has a significant adverse impact on a species or habitat that is not offset by implementation of the Conservation Strategy; in such a situation funds may be needed to undertake restorative measures, such as the purchase of land or water. While it is the intention of the CALFED Program to address a reasonable range of circumstances that could be expected to occur over the life of the Program (i.e., approximately 30 years), such as drought conditions, funding, as well as other mechanisms, could provide a "buffer" for those events that could not reasonably have been anticipated.

IV. CALIFORNIA AND FEDERAL ESA REGULATORY MECHANISMS

A. Overview

As noted above and discussed in detail below, there are several regulatory mechanisms available for authorizing incidental take of state and/or federally listed species. The mechanisms for

complying with the Federal ESA include formal consultation through Section 7, preparation of an HCP and issuance of an incidental take permit pursuant to Section 10(a)(1)(B), and development of a special rule authorizing take of threatened species pursuant to Section 4(d). Mechanisms for complying with the CESA include development of a Natural Community Conservation Plan pursuant to Section 2800 et seq. of the California Fish and Game Code, and take authorization pursuant to Section 2081 or Section 2090 of the CESA. All of the mechanisms for complying with the California and Federal ESAs will rely in part on implementing the Conservation Strategy.

The USFWS, NMFS, and CDFG, in consultation with CALFED, will determine which actions and which species will be covered by which regulatory mechanisms as the CALFED Program is further defined. The types of additional information or documentation needed to fulfill the requirements of each regulatory mechanism are described below.

B. Federal Endangered Species Act Section 7 Consultation

The ESA requires Federal action agencies to consult with the USFWS and/or NMFS when there is discretionary Federal involvement or control over the action, whether obvious (e.g., a federally funded or permitted water resource development project), or less direct (e.g., State operation of a program that retains Federal oversight). Incidental take resulting from Federal actions under the CALFED Program will be addressed through Section 7.

1. Programmatic Consultation

The USFWS and NMFS will conduct a programmatic formal Section 7 consultation with the appropriate Federal action agencies on the CALFED Bay-Delta Program, including: storage, conveyance, and system operations; the ecosystem restoration plan program; the water quality program; the levee integrity program; the water use efficiency program; the overall implementation, adaptive management, and assurances strategies for the CALFED Program; the Conservation Strategy; and any HCP/NCCP that are developed during Phase II of the CALFED process. The Conservation Strategy, in combination with this Programmatic EIS/EIR, will serve as the biological assessment prepared under Section 7(c) by the action agencies, because they will assess the effects of the programmatic project on covered species and any critical habitat in the project area.

The programmatic consultation will be completed prior to the end of the CALFED Program Phase II. Because many Program actions may not be specifically formulated at the end of Phase II, it is expected that the programmatic biological opinion will identify levels of incidental take anticipated for certain CALFED activities and that, as projects are further defined, the USFWS and/or NMFS will determine if those projects are consistent with the programmatic biological opinion before actual take can occur. However, take may be authorized in the programmatic consultation for those actions

where sufficient information exists to determine effects on listed and proposed species and specific minimization and mitigation requirements. Subsequent section 7 consultations would be necessary for some site specific actions, such as storage facilities, due to a need for more specific project information.

2. Subsequent Review for Specific Actions

The Conservation Strategy will provide the analysis of the effects of Program actions on listed species and other covered species, and will provide conservation and minimization/ mitigation measures necessary to conserve such species. Hence, the Strategy will provide the basic framework for both the programmatic consultation and any site-specific Section 7 consultations.

When specific Federal actions are proposed, site-specific assessments will be conducted using the Conservation Strategy as the basic framework for guiding any minimization/ mitigation measures included in the consultation. These measures and the adaptive management program included in the Conservation Strategy may be refined if necessary to correspond with site-specific project information. The site-specific assessments will be reviewed by the USFWS and/or NMFS to determine if they are consistent with the programmatic biological opinion. Hence, reinitiation of the programmatic consultation would likely not be needed for site-specific actions addressed in the programmatic biological opinion. For actions that could not be evaluated within the scope of this Programmatic EIS/EIR, a separate consultation process will be required.

3. Potential Assurances Associated with Section 7

The Section 7 process allows for assurances to be included in the CALFED program. Assurances can be provided in a number of ways, such as: (a) addressing certain actions or activities (such as the Conservation Strategy and a comprehensive adaptive management program) in project descriptions provided for the consultation, (b) defining the terms of reinitiation, consistent with the ESA and regulations, (c) allowing incidental take for specific actions, (d) addressing unlisted covered species in the Conservation Strategy and providing a mechanism to incorporate them into the biological opinion if they are ultimately listed, and (e) building into the CALFED Program significant funding and other mechanisms for addressing unforeseen circumstances. For the CALFED programmatic and site-specific consultations, a variety of assurance mechanisms will likely be used. It is anticipated that reinitiation of consultation would only occur after all adaptive management measures have been exhausted or a significant change is made to the project description.

Adaptive management in the Conservation Strategy will play an important role in providing assurances. The Conservation Strategy will describe and implement processes of testing alternative ways of meeting conservation objectives and adapting future

management actions according to what has been learned. The adaptive management program will rely upon the identification of indicators of species or ecosystem health, and comprehensive monitoring to measure improvement over time. Success of the conservation measures may be closely linked to the implementation of the entire CALFED program. As restoration progresses and threats to listed species are reduced, resolution of conflicts between beneficial uses in the system will be facilitated.

C. Federal Section 10(a)(1)(B) Permit and Habitat Conservation Plan

Incidental take resulting from non-Federal actions will be addressed through a Section 10 permit and its associated HCP. The criteria for determining whether incidental take of a particular species will be covered under a Section 10 permit are: (1) the species is listed under the California and/or Federal ESA or could become listed during the term of the permit; (2) there is a reasonable likelihood of incidental take resulting from Program actions; (3) the level of take of the species resulting from Program actions can be reasonably assessed; (4) there is sufficient biological information available to determine the impacts of the take on the species and provide appropriate minimization and mitigation measures; and (5) the species conservation and management are provided for in the HCP. Species which do not meet these criteria would not be covered for incidental take through a Section 10 permit. Unlisted species can be covered under a Section 10 permit and HCP provided that they are treated as if they were listed (see discussion below).

1. Preparation of Habitat Conservation Plan(s)

If Section 10 is an appropriate regulatory mechanism for authorizing incidental take for an action or set of actions and those actions are sufficiently defined, the responsible non-Federal entity will submit an application for a Section 10(a)(1)(B) permit to USFWS and/or NMFS, as appropriate. As part of the permit application, the applicant must submit a conservation plan which fulfills the Section 10 criteria described previously (see section II.A.3).

The Conservation Strategy will provide the general framework for most of the required components of an HCP: the activity or activities sought to be authorized, the species which will be incidentally taken, the level or amount of take, the impact of that take on each of the species, and the measures proposed to monitor, minimize, and mitigate such impacts. The degree to which the Conservation Strategy will fulfill the requirements for this information will depend on the level of detail that was known about those particular actions at the time the Conservation Strategy was prepared. For some actions, the Conservation Strategy may completely fulfill certain Section 10 requirements; for other actions, an applicant will need to provide additional information or commitments to fulfill Section 10 requirements.

In those latter situations, the applicant will work with CALFED, USFWS, and/or NMFS, as appropriate, to identify the additional information or commitments needed based on a greater level of specificity or detail that will then be known about the action.

The additional information may include a more detailed evaluation of one or more of the following:

- the action or actions to be covered;
- the species sought to be covered by the permit;
- the level of incidental take likely to occur;
- the impacts of that take on each of the species;
- the measures proposed to minimize and mitigate the take;
- the proposed monitoring program and process for adaptive management;
- a discussion of the funding that will be used to implement the measures specified in the Conservation Strategy;
- a discussion of the procedures to be used to deal with unforeseen circumstances;
- a discussion of the process to be used for amending the permit;
- the requested term of the period (i.e., over what time period might take occur as a result of the covered activities);
- the geographic area which will be covered by the permit; and/or
- a description of the alternative actions the applicant considered to avoid or reduce the proposed level of take and the reasons why those alternatives are not being utilized (this analysis can likely tier off the Programmatic EIS/EIR analysis).

CALFED expects that the additional information required for an HCP would be similar to the additional information required as part of future NEPA/CEQA analysis for specific projects. To complete the permit application process, the applicant will submit to the USFWS and/or NMFS a permit application form along with the supplemental information and commitments necessary to fulfill Section 10(a) issuance criteria and demonstrate consistency with the Conservation Strategy.

2. Other Requirements/Processing a Permit Application

a. Implementing Agreement

One of the permit issuance criteria, as noted above in Section II, is other measures, as needed, that the plan will be implemented. This requirement is typically fulfilled by the preparation of an Implementing Agreement (IA) between the agency or agencies issuing the permit and the permit applicant or applicants. The IA spells out the responsibilities of each of the parties under the HCP and the remedies available should any party fail to meet those obligations. CALFED anticipates that an Implementing Agreement with all the appropriate entities and individuals will be prepared for the overall Program implementation. Depending

on the nature and extent of the IA prepared for the CALFED Program, separate IAs may not be necessary for each incidental take permit application submitted. CALFED also intends that the IA or IAs will spell out the specific remedies for failure to comply with permit conditions, consistent with the ESA and CESA.

b. NEPA Requirements

The Federal agency issuing the incidental take permit (i.e., USFWS and/or NMFS) is responsible for complying with NEPA. Compliance with NEPA (the preparation of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), or use of a categorical exclusion) is the agency's responsibility; however, the permit applicant may help prepare the document to expedite the process.

An EA or EIS must describe the purpose and need for the proposed action of issuing a Section 10(a)(1)(B) permit, the existing environmental conditions, the alternatives considered, and the environmental effects likely to result from implementing the proposed action and each of the alternatives. The alternatives considered will consist of the proposed action (implementation of HCP and issuance of incidental take permit); no action (no HCP and no incidental take permit); and other alternatives, as appropriate.

This Programmatic EIS/EIR for the CALFED Bay-Delta Program is expected to satisfy some of the NEPA requirements associated with issuance of a Section 10(a)(1)(B) permit or permits, such as a description of the existing environment. However, supplemental NEPA compliance will likely need to be prepared as specific permit applications are submitted to the USFWS and/or NMFS. Supplemental NEPA compliance could tier off the Programmatic EIS/EIR for the CALFED Program. Further, it is likely that NEPA compliance related to the issuance of Section 10(a)(1)(B) permits can be incorporated into the "second tier" documents prepared for specific projects to meet general NEPA/CEQA requirements.

c. Internal Section 7 Consultation

In addition to the above requirements, the USFWS and/or NMFS, as appropriate, must conduct an internal Section 7 consultation on issuance of the incidental take permit, which is a Federal action subject to Section 7(a)(2) of the ESA. Again, there is likely to be some overlap with either the Programmatic Section 7 or subsequent Section 7 consultations prepared for specific actions; however, the extent of that overlap is not known at this time. The USFWS and NMFS can combine the internal consultation conducted on their own action of permit issuance with consultation on other Federal actions in one biological opinion.

d. Public Review and Comment Process

Once the completed application package is received by the USFWS and/or NMFS, and a draft NEPA document has been prepared, the agencies will publish a notice in the *Federal Register* announcing receipt of the permit application and provide a minimum of 30 days for the public to comment on the application. The public review and comment period for the NEPA document is typically combined with the permit application comment period.

Following the close of the public comment period, the USFWS and NMFS must review and, if appropriate, respond to public comments. If substantial changes are made to the permit application, an additional public comment period may be necessary. Once all comments have been reviewed and responded to appropriately, if the permit application is determined to meet the issuance criteria, the USFWS and/or NMFS must issue the incidental take permit. In general, a permit application which required an EA takes 3 to 5 months to process once the completed application is submitted; processing of an application which required an EIS is targeted for 10 months or less from the time a completed application is submitted. It is likely, however, that permit applications for CALFED Program actions can be processed in less time than the projected targets because much of the information will have already undergone significant public and agency review.

3. Incidental Take Permit Options

There are numerous ways that a 10(a)(1)(B) permit might be structured to facilitate streamlining of the permitting process, and to ensure that species and their habitats are addressed appropriately. The structure of a 10(a)(1)(B) permit is dependent on many factors and will be tailored to the specific needs of the permitted activity.

Most of the HCPs that have been processed by the USFWS and/or NMFS to date address the Section 10 requirements on a species-by-species basis, and involve one individual or entity that holds the permit. This structure could be used for the CALFED Program. It is also possible that non-Federal actions requiring incidental take authorization could be covered by a "programmatic" or "master" Section 10(a)(1)(B) permit held by a qualified entity. A programmatic permit may be appropriate for addressing similar types of actions that occur in different locations and at different times (e.g., levee maintenance activities) or a group of different actions occurring within the same geographic area (e.g., ERPP actions within the legal Delta). The use of a programmatic or master permit would depend, in part, on the level of detail known about the activities to be covered by such a permit. Another option for permit structuring is to develop an initial HCP to cover a specific set of non-Federal actions (e.g., a set of actions that are ready to be permitted at

the end of Phase II), and develop supplemental HCPs in the future (including appropriate NEPA compliance) as other Program components become more defined.

CALFED has not made a determination on how a Section 10(a)(1)(B) permit or permits will be structured. These decisions will be made, with public involvement, as the Program becomes more defined.

4. Potential Assurances Associated with Section 10(a)(1)(B)

Assurances can be provided to non-Federal entities through Section 10(a)(1)(B) permits. Such assurances must be consistent with the final rule on HCP assurances published in the *Federal Register* in February 1998 (see discussion in Section II.A.3).

D. Federal ESA Section 4(d) Rule

Special rules may be written for threatened species as one mechanism to ensure their conservation and authorize take (see discussion in Section II.A.5). Such a 4(d) rule may be promulgated based on the Conservation Strategy. Various assurances also can be built into 4(d) rules.

E. Natural Community Conservation Planning Act Section 2835

The Natural Community Conservation Planning Act provides that CDFG may work with any party to develop a NCCP which identifies and provides for the regional or area-wide protection and perpetuation of natural wildlife diversity and following approval of such a plan, may permit the taking of any identified species whose conservation and management is provided for in that NCCP. Any authorized take of state listed species must be consistent with Sections 2081 and 2090 of the California Fish and Game Code. The incidental take of any identified species whose conservation and management is provided for by a CALFED NCCP will be permitted. Prior to issuing any take permits the CDFG must make written findings that the conservation and management of those species have been provided for and that the take has been minimized and fully mitigated.

F. California Endangered Species Act Section 2081

The CDFG may permit the take of state listed species which is incidental to an otherwise lawful activity provided the impacts of the authorized take are minimized and fully mitigated.

G. CESA State Agency Consultation (Section 2090)

The CESA requires state agencies to consult with CDFG to ensure that any action authorized, funded, or carried out by that agency is not likely to jeopardize the continued existence of any endangered or threatened species. The CDFG is required to issue written findings (i.e., a biological opinion) of whether the action is likely to jeopardize the continued existence of a listed species and whether any taking of listed species will occur. The biological opinion will identify reasonable and prudent alternatives which would prevent jeopardy and reasonable and prudent measures to minimize the effects of any taking. Any incidental take which is consistent with the CDFG's biological opinion is not prohibited. Whenever possible, the CDFG adopts a Federal biological opinion as its written findings. The CDFG will work closely with the USFWS and NMFS in analyzing and reviewing CALFED activities. It is anticipated that the Federal biological opinions resulting from the Federal programmatic and site specific consultations will be adopted as the required CESA findings.

V. IMPLEMENTATION PHASING

CALFED anticipates that project specific incidental take authorizations would be granted in a phased approach consistent with the overall implementation of the Program as defined in the Final EIS/EIR and spelled out in the Implementation Strategy for the CALFED Program. As required by Proposition 204, the CALFED Program elements will achieve balanced solutions in all identified problem areas, including the ecosystem, water supply, water quality, and system integrity. The Conservation Strategy will include a "road map" that helps assure that the numerous CALFED programs proceed in a timely fashion while allowing for restoration, mitigation, and minimization measures to most effectively conserve covered species. For example, some ERPP actions may best precede certain new facility construction, so as to provide habitat for movement of displaced species, whereas some ERPP actions may best be deferred until other program actions are complete so as to avoid locating restoration projects on sites that may subsequently be disturbed. Assurances that the CALFED actions proceed in this phased approach would become a part of the ESA compliance and take requirements granted for the overall program.

Compliance with the California and Federal ESAs through this comprehensive Conservation Strategy approach (as opposed to a project-by-project basis) has clear benefits to both the species and habitats being conserved and the human "stakeholders" in the CALFED process. As ecosystem restoration progresses, threats to listed and other covered species will be reduced. Additional benefits to species and their habitats will accrue through other CALFED Program actions (e.g., water quality actions, water conservation actions, etc.) and mitigation actions designed to offset specific adverse impacts from Program actions. Together these measures will achieve or contribute to the conservation of a large number of species and the ecosystems upon which they depend. In turn, conflicts between beneficial uses in the system will be easier to

resolve because they will occur in the context of improving species and ecosystem health. In short, the Conservation Strategy is intended to integrate CALFED Program enhancement and mitigation actions to provide for improved species and habitat protection, increase assurances of overall Program implementation, and streamline California and Federal ESA take authorization for approved actions.