

RECLAMATION

Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

NOTICE OF INTENT TO AWARD

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the Bureau of Reclamation's intention to fund the following project activities without full and open competition.

ABSTRACT	
Funding Announcement	
Project Title	Stanislaus River Fisheries Study
Recipient	State of California, Department of Fish and Game
Principal Investigator / Program Manager	Tim Heyne California Department of Fish and Game
Anticipated Federal Amount	\$220,426.00
Cost Share	\$0.00
Total Anticipated Award Amount	\$220,426.00
New Award or Continuation?	New Award
Anticipated Period of Performance	Date of execution through 09/30/2015.
Award Instrument	Grant Agreement R13AP20053
Statutory Authority	Public Law. 108-361 Sec 103. BAY DELTA PROGRAM. (d) Description of Activities Under Applicable Law - (1) (2) Conveyance - ((D) Program to meet standards. (vii) Updating of New Melones operating plan.--The Secretary shall update the New Melones operating plan to take into account, among other things, the actions described in this title that are designed to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives, and to ensure that actions to enhance fisheries in the Stanislaus River are based on the best available science. The monitoring is necessary to address the law's requirement to use the best available science to enhance fisheries in the Stanislaus River.

CFDA # and Title	15.517 Fish and Wildlife Coordination Act
Single Source Justification Criteria Cited	Yes
Reclamation Point of Contact	Beverly S. Breen, MP-3828 Phone: (916) 978-5146 U.S. Department of the Interior Bureau of Reclamation Mid-Pacific Region 2800 Cottage Way, Room E-1815 Sacramento, California 95825-1898 Email: bbreen@usbr.gov

OVERVIEW

Reclamation and the State of California, Department of Fish and Game (DFG) entered into an agreement in 1987 (1987 Agreement) which allowed for the withdrawal of the protest by DFG against Reclamation's application for permits to divert water for beneficial uses at New Melones Reservoir. The combined purposes of the 1987 agreement include: 1) providing appropriate Stanislaus River instream flows as needed to maintain or enhance the fishery resources during an interim period in which habitat requirements are better defined, and 2) completing studies of Chinook salmon fisheries of the Stanislaus River. A seven-year study program was developed jointly by Reclamation, DGF, and the US Fish and Wildlife Service (FWS) which included seven study elements, a schedule, estimated budget, along with the recognition that completion of the studies was contingent upon approval of the participating agencies respective budgets. The seven study elements described in the 1987 Agreement are:

- 1) Evaluate instream flow requirements
- 2) Evaluate distribution and growth of juvenile salmon
- 3) Define timing and magnitude of downstream migration
- 4) Determine annual spawning escapements
- 5) Evaluate spawning habitat suitability and improvement needs
- 6) Temperature stations and modeling
- 7) Coordinate and integrate studies

Completion of the anticipated studies was interrupted by shortfalls in approved budgets and resources. Some work was completed, some is ongoing, but other study elements remain as needs. The services proposed under this agreement include ongoing monitoring activities and data compilation that will provide Reclamation and stakeholders with biological data that address the remaining study elements of the 1987 Agreement and form the scientific basis for evaluating instream flow schedules for the New Melones Revised Plan of Operations.

DFG will conduct the following ancillary samples and information during their Chinook salmon escapement survey of the Stanislaus River in federal fiscal year 2013. Work requirements include:

- A. Collect and maintain inventory of scale and otolith samples with which to conduct age determination and subsequent cohort analysis.

- B. Collect and analyze (read) coded wire tag (CWT) data from marked hatchery and/or wild fish to determine escapement contribution for various life history stages and evaluate smolt survival.
- C. Collect information regarding egg retention. For each fresh female carcass, use a qualitative scale to measure egg retention where: completely spawned = 0 to 30% eggs remaining, partially spawned = >30 and < 70% eggs remaining, and unspawned = nearly full ovaries.
- D. Prepare and read a minimum of 350 scale samples for age determination. Documentation of this activity can be included in the annual adult escapement report or prepared as a separate document if additional time is required. Documentation will include:
 - 1. Collection techniques
 - 2. Scale reading methods
 - 3. Measure of accuracy (i.e. validate methods with known age fish)
 - 4. Measure of precision (i.e. three replicates with different readers)
 - 5. Pertinent individual fish information (i.e. length/frequency information)
 - 6. Conclusions and recommendations for future age determination activities.
- E. Provide samples, preparation assistance and interpretation advice to Reclamation staff performing stable isotope analysis of adult otoliths. This assistance includes but is not limited to cleaning, storage, grinding, data analysis and report of work on otoliths.
- F. Prepare and distribute a draft annual adult escapement report to Reclamation and other interested groups and stakeholders involved in Stanislaus River management. Provide one hard copy and one electronic copy of final report to Reclamation. Prepare a draft age determination report for salmon returning to the Stanislaus River over the last decade.

In federal fiscal year 2014 through federal fiscal year 2015, DFG will compile fisheries information into a summary report, which addresses study elements of the 1987 Agreement. Work requirements include:

- A. Prepare summary report(s) that describe the work performed, studies initiated and completed, and/or data collected relative to each study element.
- B. Conduct an extensive data mining effort to gather fisheries information related to the 1987 Agreement from within DFG and other agencies.

Create an electronic library/database of historical data and information that can be distributed among stakeholders for independent review.

RECIPIENT INVOLVEMENT

This agreement will allow for enhancement of surveys already being performed by DFG. The Recipient shall complete the following tasks:

Task 1: Conduct the following ancillary samples and information during DFG's Chinook salmon escapement survey of the Stanislaus River in federal fiscal year 2013. Work requirements include:

- G. Collect and maintain inventory of scale and otolith samples with which to conduct age determination and subsequent cohort analysis.
- H. Collect and analyze (read) coded wire tag (CWT) data from marked hatchery and/or wild fish to determine escapement contribution for various life history stages and evaluate smolt survival.
- I. Collect information regarding egg retention. For each fresh female carcass, use a qualitative scale to measure egg retention where: completely spawned = 0 to 30% eggs remaining, partially spawned = >30 and < 70% eggs remaining, and unspawned = nearly full ovaries.
- J. Prepare and read a minimum of 350 scale samples for age determination. Documentation of this activity can be included in the annual adult escapement report or prepared as a separate document if additional time is required. Documentation will include:
 - 7. Collection techniques
 - 8. Scale reading methods
 - 9. Measure of accuracy (i.e. validate methods with known age fish)
 - 10. Measure of precision (i.e. three replicates with different readers)
 - 11. Pertinent individual fish information (i.e. length/frequency information)
 - 12. Conclusions and recommendations for future age determination activities.
- K. Provide samples, preparation assistance and interpretation advice to Reclamation staff performing stable isotope analysis of adult otoliths. This assistance includes but is not limited to cleaning, storage, grinding, data analysis and report of work on otoliths.
- L. Prepare and distribute a draft annual adult escapement report to Reclamation and other interested groups and stakeholders involved in Stanislaus River management. Provide one hard copy and one electronic copy of final report to Reclamation. Prepare a draft age determination report for salmon returning to the Stanislaus River over the last decade.

Task 2: In federal fiscal year 2014 through federal fiscal year 2015, DFG will compile fisheries information into a summary report, in cooperation with Reclamation, which addresses study elements of the 1987 Agreement. Work requirements include:

- A. Prepare summary report(s) that describe the work performed, studies initiated and completed, and/or data collected relative to each study element.
- B. Conduct an extensive data mining effort to gather fisheries information related to the 1987 Agreement from within DFG and other agencies.

Create an electronic library/database of historical data and information that can be distributed among stakeholders for independent review.

Timeline/Schedule: The period of performance of this agreement is from the date of award through September 30, 2015. Meeting objectives is estimated at end of the monitoring program – September 30, 2015.

- A. Draft 2012 Carcass Survey report – September 1, 2013
- B. Stanislaus River Salmon age determination report (2006-2012 – April 1, 2014
- C. Summary report Stanislaus River Fish Evaluations since 1987 – September 1, 2015

RECLAMATION INVOLVEMENT

No substantial involvement on the part of Reclamation is anticipated for the successful completion of the objectives to be funded by this award. It is anticipated that Reclamation's involvement will consist of standard federal stewardship responsibilities such as monitoring project performance, technical assistance at the request of the recipient, etc.

SINGLE-SOURCE JUSTIFICATION

DEPARTMENT OF THE INTERIOR SINGLE SOURCE POLICY REQUIREMENTS
Department of the Interior Policy (505 DM 2) requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.
In order for an assistance award to be made without competition, the award must satisfy one or more of the following criteria: (1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives; (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of an activity presently being funded, and for which competition would have a significant adverse effect on the continuity or completion of the activity; (3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress' intent to restrict the award to a particular recipient of purpose; (4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or

other such unique qualifications;

- (5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.

Reclamation did not solicit full and open competition for this award based the following criteria:

(4) UNIQUE QUALIFICATIONS

Single Source Justification Description:

Reclamation's Central California Area Office proposes to award a Grant Agreement with the California Department of Fish and Game (DFG) to conduct an escapement survey of fall-run Chinook salmon in the Stanislaus River 2012 – 2017.

State of California, Department of Fish and Game (DFG), will 1) conduct a 2012 – 2017 spawning escapement survey of fall-run Chinook salmon in the Stanislaus River and 2) prepare and distribute a final report to Reclamation and other stakeholders.

The following unique qualifications of DFG provide a strong basis for this sole source justification:

1. DFG has conducted escapement surveys on the Stanislaus River since 1953.
2. DFG has successfully conducted the spawning escapement survey for Reclamation in the past.
3. DFG is responsible for establishing standardized state-wide sampling protocols for escapement monitoring which both increases the validity of data as well as provides additional scientifically defensible results.
4. DFG has the legal authority to conduct the surveys without obtaining any additional specialized collecting permits that would be required by other contractors.

There is a distinct savings to the government by continuing with DFG to conduct this survey because of the contractor's experience, past performance, and legal authorities.

This is a highly specialized monitoring program that requires special skills to manage data collection, ensure quality assurance and control, and deliver scientifically valid data. DFG is the appropriate agency to conduct this type of monitoring and will provide an estimate of spawning Chinook salmon in the Stanislaus River using the best available science. Any other contractor would be required to obtain scientific collecting permits specific to the proposed work. These permits require a minimum of six months to obtain, preventing completion of the required work this year and would add significant additional costs to the government.

STATUTORY AUTHORITY

Public Law 108-361 Section 103. Bay Delta Program

(c) AUTHORIZATIONS FOR FEDERAL AGENCIES UNDER APPLICABLE LAW-

(1) SECRETARY OF THE INTERIOR- The Secretary of the Interior is authorized to carry out the activities described in paragraphs (1) through (10) of subsection (d), to the extent authorized under the reclamation laws, the Central Valley Project Improvement Act (title XXXIV of Public Law 102-575; 106 Stat. 4706), the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other applicable law.

(d) DESCRIPTION OF ACTIVITIES UNDER APPLICABLE LAW-

(1) WATER STORAGE-

(A) IN GENERAL- Activities under this paragraph consist of--

(i) planning and feasibility studies for projects to be pursued with project-specific study for enlargement of--

(I) the Shasta Dam in Shasta County; and

(II) the Los Vaqueros Reservoir in Contra Costa County;

(ii) planning and feasibility studies for the following projects requiring further consideration--

(I) the Sites Reservoir in Colusa County; and

(II) the Upper San Joaquin River storage in Fresno and Madera Counties;

(iii) developing and implementing groundwater management and groundwater storage projects; and

(iv) comprehensive water management planning.

(B) STORAGE PROJECT AUTHORIZATION AND BALANCED CALFED IMPLEMENTATION-

(i) IN GENERAL- If on completion of the feasibility study for a project described in clause (i) or (ii) of subparagraph (A), the Secretary, in consultation with the Governor, determines that the project should be constructed in whole or in part with Federal funds, the Secretary shall submit the feasibility study to Congress.

(ii) FINDING OF IMBALANCE- If Congress fails to authorize construction of the project by the end of the next full session following the submission of the feasibility study, the Secretary, in consultation with the Governor, shall prepare a written determination making a finding of imbalance for the Calfed Bay-Delta Program.

(iii) REPORT ON REBALANCING-

(I) IN GENERAL- If the Secretary makes a finding of imbalance for the Program under clause (ii), the Secretary, in consultation with the Governor, shall, not later than 180 days after the end of the full session described in clause (ii), prepare and submit to Congress a report on the measures necessary to rebalance the Program.

(II) SCHEDULES AND ALTERNATIVES- The report shall include preparation of revised schedules and identification of alternatives to rebalance the Program, including resubmission of the project to Congress with or without modification, construction of other projects, and construction of other projects that provide equivalent water supply and other benefits at equal or lesser cost.

(C) WATER SUPPLY AND YIELD STUDY-

(i) IN GENERAL- The Secretary, acting through the Bureau of Reclamation and in coordination with the State, shall conduct a study of available water supplies and existing and future needs for water--

(I) within the units of the Central Valley Project;

(II) within the area served by Central Valley Project agricultural, municipal, and industrial water service contractors; and

(III) within the Calfed Delta solution area.

(ii) RELATIONSHIP TO PRIOR STUDY- In conducting the study, the Secretary shall incorporate and revise, as necessary, the results of the study required by section 3408(j) of the Central Valley Project Improvement Act of 1992 (Public Law 102-575; 106 Stat. 4730).

(iii) REPORT- Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report describing the results of the study, including--

(I) new firm yield and water supply improvements, if any, for Central Valley Project agricultural water service contractors and municipal and industrial water service contractors, including those identified in Bulletin 160;

(II) all water management actions or projects, including those identified in Bulletin 160, that would--

(aa) improve firm yield or water supply; and

(bb) if taken or constructed, balance available water supplies and existing demand with due recognition of water right priorities and environmental needs;

(III) the financial costs of the actions and projects described under subclause (II); and

(IV) the beneficiaries of those actions and projects and an assessment of the willingness of the beneficiaries to pay the capital costs and operation and maintenance costs of the actions and projects.

(D) MANAGEMENT- The Secretary shall conduct activities related to developing groundwater storage projects to the extent authorized under law.

(E) COMPREHENSIVE WATER PLANNING- The Secretary shall conduct activities related to comprehensive water management planning to the extent authorized under law.

(2) CONVEYANCE-

(A) SOUTH DELTA ACTIONS-

(i) IN GENERAL- In the case of the South Delta, activities under this subparagraph consist of--

(I) the South Delta Improvements Program through actions to--

(aa) increase the State Water Project export limit to 8,500 cfs;

(bb) install permanent, operable barriers in the South Delta, under which Federal agencies shall cooperate with the State to accelerate installation of the permanent, operable barriers in the South Delta, with an intent to complete that installation not later than September 30, 2007;

(cc) evaluate, consistent with the Record of Decision, fish screens and intake facilities at the Tracy Pumping Plant facilities; and

(dd) increase the State Water Project export to the maximum capability of 10,300 cfs;

(II) reduction of agricultural drainage in South Delta channels, and other actions necessary to minimize the impact of drainage on drinking water quality;

(III) evaluation of lower San Joaquin River floodway improvements;

(IV) installation and operation of temporary barriers in the South Delta until fully operable barriers are constructed; and

(V) actions to protect navigation and local diversions not adequately protected by temporary barriers.

(ii) ACTIONS TO INCREASE PUMPING- Actions to increase pumping shall be accomplished in a manner consistent with the Record of Decision requirement to avoid redirected impacts and adverse impacts to fishery protection and with any applicable Federal or State law that protects--

(I) water diversions and use (including avoidance of increased costs of diversion) by in-Delta water users (including in-Delta agricultural users that have historically relied on water diverted for use in the Delta);

(II) water quality for municipal, industrial, agricultural, and other uses; and

(III) water supplies for areas of origin.

(B) NORTH DELTA ACTIONS- In the case of the North Delta, activities under this subparagraph consist of--

(i) evaluation and implementation of improved operational procedures for the Delta Cross Channel to address fishery and water quality concerns;

(ii) evaluation of a screened through-Delta facility on the Sacramento River; and

(iii) evaluation of lower Mokelumne River floodway improvements.

(C) INTERTIES- Activities under this subparagraph consist of--

(i) evaluation and construction of an intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal, near the City of Tracy, as an operation and maintenance activity, except that the Secretary shall design and construct the intertie in a manner consistent with a possible future expansion of the intertie capacity (as described in subsection (f)(1)(B)); and

(ii) assessment of a connection of the Central Valley Project to the Clifton Court Forebay of the State Water Project, with a corresponding increase in the screened intake of the Forebay.

(D) PROGRAM TO MEET STANDARDS-

(i) IN GENERAL- Prior to increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a

program to meet all existing water quality standards and objectives for which the Central Valley Project has responsibility.

(ii) MEASURES- In developing and implementing the program, the Secretary shall include, to the maximum extent feasible, the measures described in clauses (iii) through (vii).

(iii) RECIRCULATION PROGRAM- The Secretary shall incorporate into the program a recirculation program to provide flow, reduce salinity concentrations in the San Joaquin River, and reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives through the use of excess capacity in export pumping and conveyance facilities.

(iv) BEST MANAGEMENT PRACTICES PLAN-

(I) IN GENERAL- The Secretary shall develop and implement, in coordination with the State's programs to improve water quality in the San Joaquin River, a best management practices plan to reduce the water quality impacts of the discharges from wildlife refuges that receive water from the Federal Government and discharge salt or other constituents into the San Joaquin River.

(II) COORDINATION WITH INTERESTED PARTIES- The plan shall be developed in coordination with interested parties in the San Joaquin Valley and the Delta.

(III) COORDINATION WITH ENTITIES THAT DISCHARGE WATER- The Secretary shall also coordinate activities under this clause with other entities that discharge water into the San Joaquin River to reduce salinity concentrations discharged into the River, including the timing of discharges to optimize their assimilation.

(v) ACQUISITION OF WATER- The Secretary shall incorporate into the program the acquisition from willing sellers of water from streams tributary to the San Joaquin River or other sources to provide flow, dilute discharges of salt or other constituents, and to improve water quality in the San Joaquin River below the confluence of the Merced and San Joaquin Rivers, and to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives.

(vi) PURPOSE- The purpose of the authority and direction provided to the Secretary under this subparagraph is to provide greater flexibility in meeting the existing water quality standards and objectives for which the Central Valley Project has responsibility so as to reduce the demand on water from New Melones Reservoir used for that purpose and to assist the Secretary in meeting any obligations to Central Valley Project contractors from the New Melones Project.

(vii) UPDATING OF NEW MELONES OPERATING PLAN- The Secretary shall update the New Melones operating plan to take into account, among other things, the actions described in this title that are designed to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives, and to ensure that actions to enhance fisheries in the Stanislaus River are based on the best available science.

(3) WATER USE EFFICIENCY-

(A) WATER CONSERVATION PROJECTS- Activities under this paragraph include water conservation projects that provide water supply reliability, water quality, and ecosystem benefits to the California Bay-Delta system.

(B) TECHNICAL ASSISTANCE- Activities under this paragraph include technical assistance for urban and agricultural water conservation projects.

(C) WATER RECYCLING AND DESALINATION PROJECTS- Activities under this paragraph include water recycling and desalination projects, including groundwater remediation projects and projects identified in the Bay Area Water Plan and the Southern California Comprehensive Water Reclamation and Reuse Study and other projects, giving priority to projects that include regional solutions to benefit regional water supply and reliability needs.

(D) WATER MEASUREMENT AND TRANSFER ACTIONS- Activities under this paragraph include water measurement and transfer actions.

(E) URBAN WATER CONSERVATION- Activities under this paragraph include implementation of best management practices for urban water conservation.

(F) RECLAMATION AND RECYCLING PROJECTS-

(i) PROJECTS- This subparagraph applies to--

(I) projects identified in the Southern California Comprehensive Water Reclamation and Reuse Study, dated April 2001 and

authorized by section 1606 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h-4); and

(II) projects identified in the San Francisco Bay Area Regional Water Recycling Program described in the San Francisco Bay Area Regional Water Recycling Program Recycled Water Master Plan, dated December 1999 and authorized by section 1611 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h-9).

(ii) DEADLINE- Not later than 180 days after the date of enactment of this Act, the Secretary shall--

(I) complete the review of the existing studies of the projects described in clause (i); and

(II) make the feasibility determinations described in clause (iii).

(iii) FEASIBILITY DETERMINATIONS- A project described in clause (i) is presumed to be feasible if the Secretary determines for the project--

(I) in consultation with the affected local sponsoring agency and the State, that the existing planning and environmental studies for the project (together with supporting materials and documentation) have been prepared consistent with Bureau of Reclamation procedures for projects under consideration for financial assistance under the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h et seq.); and

(II) that the planning and environmental studies for the project (together with supporting materials and documentation) demonstrate that the project will contribute to the goals of improving water supply reliability in the Calfed solution area or the Colorado River Basin within the State and otherwise meets the requirements of section 1604 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h-2).

(iv) REPORT- Not later than 90 days after the date of completion of a feasibility study or the review of a feasibility study under this subparagraph, the Secretary shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report describing the results of the study or review.

(4) WATER TRANSFERS- Activities under this paragraph consist of--

(A) increasing the availability of existing facilities for water transfers;

- (B) lowering transaction costs through permit streamlining; and*
- (C) maintaining a water transfer information clearinghouse.*

(5) INTEGRATED REGIONAL WATER MANAGEMENT PLANS- Activities under this paragraph consist of assisting local and regional communities in the State in developing and implementing integrated regional water management plans to carry out projects and programs that improve water supply reliability, water quality, ecosystem restoration, and flood protection, or meet other local and regional needs, in a manner that is consistent with, and makes a significant contribution to, the Calfed Bay-Delta Program.

(6) ECOSYSTEM RESTORATION-

(A) IN GENERAL- Activities under this paragraph consist of--

- (i) implementation of large-scale restoration projects in San Francisco Bay and the Delta and its tributaries;*
- (ii) restoration of habitat in the Delta, San Pablo Bay, and Suisun Bay and Marsh, including tidal wetland and riparian habitat;*
- (iii) fish screen and fish passage improvement projects, including the Sacramento River Small Diversion Fish Screen Program;*
- (iv) implementation of an invasive species program, including prevention, control, and eradication;*
- (v) development and integration of Federal and State agricultural programs that benefit wildlife into the Ecosystem Restoration Program;*
- (vi) financial and technical support for locally-based collaborative programs to restore habitat while addressing the concerns of local communities;*
- (vii) water quality improvement projects to manage or reduce concentrations of salinity, selenium, mercury, pesticides, trace metals, dissolved oxygen, turbidity, sediment, and other pollutants;*
- (viii) land and water acquisitions to improve habitat and fish spawning and survival in the Delta and its tributaries;*
- (ix) integrated flood management, ecosystem restoration, and levee protection projects;*
- (x) scientific evaluations and targeted research on Program activities; and*
- (xi) strategic planning and tracking of Program performance.*

(B) REPORTING REQUIREMENTS- The Secretary or the head of the relevant Federal agency (as appropriate under clause (ii)) shall provide to the appropriate authorizing committees of the Senate and the House of Representatives and other appropriate parties in accordance with this subparagraph--

- (i) an annual ecosystem program plan report in accordance with subparagraph (C); and*
- (ii) detailed project reports in accordance with subparagraph (D).*

(C) ANNUAL ECOSYSTEM PROGRAM PLAN-

(i) IN GENERAL- Not later than October 1 of each year, with respect to each ecosystem restoration action carried out using Federal funds under this title, the Secretary, in consultation with the Governor, shall submit to the appropriate authorizing committees of the Senate and the House of Representatives an annual ecosystem program plan report.

(ii) PURPOSES- The purposes of the report are--

- (I) to describe the projects and programs to implement this subsection in the following fiscal year; and*
- (II) to establish priorities for funding the projects and programs for subsequent fiscal years.*

(iii) CONTENTS- The report shall describe--

- (I) the goals and objectives of the programs and projects;*
- (II) program accomplishments;*
- (III) major activities of the programs;*
- (IV) the Federal agencies involved in each project or program identified in the plan and the cost-share arrangements with cooperating agencies;*
- (V) the resource data and ecological monitoring data to be collected for the restoration projects and how the data are to be integrated, streamlined, and designed to measure the effectiveness and overall trend of ecosystem health in the Bay-Delta watershed;*
- (VI) implementation schedules and budgets;*
- (VII) existing monitoring programs and performance measures;*
- (VIII) the status and effectiveness of measures to minimize the impacts of the program on agricultural land; and*
- (IX) a description of expected benefits of the restoration program relative to the cost.*

(iv) SPECIAL RULE FOR LAND ACQUISITION USING FEDERAL FUNDS- For each ecosystem restoration project involving land acquisition using Federal funds under this title, the Secretary shall--

- (I) identify the specific parcels to be acquired in the annual ecosystem program plan report under this subparagraph; or*
- (II) not later than 150 days before the project is approved, provide to the appropriate authorizing committees of the Senate and the House of Representatives, the United States Senators from the State, and the United States Representative whose district would be affected, notice of any such proposed land acquisition using Federal funds under this title submitted to the Federal or State agency.*

(D) DETAILED PROJECT REPORTS-

(i) IN GENERAL- In the case of each ecosystem restoration program or project funded under this title that is not specifically identified in an annual ecosystem program plan under subparagraph (C), not later than 45 days prior to approval, the Secretary, in coordination with the State, shall submit to the appropriate authorizing committees of the Senate and the House of Representatives recommendations on the proposed program or project.

(ii) CONTENTS- The recommendations shall--

- (I) describe the selection of the program or project, including the level of public involvement and independent science review;*
- (II) describe the goals, objectives, and implementation schedule of the program or project, and the extent to which the program or project addresses regional and programmatic goals and priorities;*
- (III) describe the monitoring plans and performance measures that will be used for evaluating the performance of the proposed program or project;*
- (IV) identify any cost-sharing arrangements with cooperating entities;*
- (V) identify how the proposed program or project will comply with all applicable Federal and State laws, including the*

*National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and
(VI) in the case of any program or project involving the acquisition of private land using Federal funds under this title--*

(aa) describe the process and timing of notification of interested members of the public and local governments;

(bb) describe the measures taken to minimize impacts on agricultural land pursuant to the Record of Decision; and

(cc) include preliminary management plans for all properties to be acquired with Federal funds, including an overview of existing conditions (including habitat types in the affected project area), the expected ecological benefits, preliminary cost estimates, and implementation schedules.

(7) WATERSHEDS- Activities under this paragraph consist of--

- (A) building local capacity to assess and manage watersheds affecting the Delta system;*
- (B) technical assistance for watershed assessments and management plans; and*
- (C) developing and implementing locally-based watershed conservation, maintenance, and restoration actions.*

(8) WATER QUALITY- Activities under this paragraph consist of--

- (A) addressing drainage problems in the San Joaquin Valley to improve downstream water quality (including habitat restoration projects that improve water quality) if--*
 - (i) a plan is in place for monitoring downstream water quality improvements; and*
 - (ii) State and local agencies are consulted on the activities to be funded; except that no right, benefit, or privilege is created as a result of this subparagraph;*
- (B) implementation of source control programs in the Delta and its tributaries;*
- (C) developing recommendations through scientific panels and advisory council processes to meet the Calfed Bay-Delta Program goal of continuous improvement in Delta water quality for all uses;*
- (D) investing in treatment technology demonstration projects;*
- (E) controlling runoff into the California aqueduct, the Delta-Mendota Canal, and other similar conveyances;*
- (F) addressing water quality problems at the North Bay Aqueduct;*
- (G) supporting and participating in the development of projects to enable San Francisco Bay Area water districts, and water entities in San Joaquin and Sacramento Counties, to work cooperatively to address their water quality and supply reliability issues, including--*
 - (i) connections between aqueducts, water transfers, water conservation measures, institutional arrangements, and infrastructure improvements that encourage regional approaches; and*
 - (ii) investigations and studies of available capacity in a project to deliver water to the East Bay Municipal Utility District under its contract with the Bureau of Reclamation, dated July 20, 2001, in order to determine if such capacity can be utilized to meet the objectives of this subparagraph;*
- (H) development of water quality exchanges and other programs to make high quality water available for urban and other users;*

(I) development and implementation of a plan to meet all Delta water quality standards for which the Federal and State water projects have responsibility;
(J) development of recommendations through science panels and advisory council processes to meet the Calfed Bay-Delta Program goal of continuous improvement in water quality for all uses; and
(K) projects that are consistent with the framework of the water quality component of the Calfed Bay-Delta Program.

(9) SCIENCE- Activities under this paragraph consist of--

(A) supporting establishment and maintenance of an independent science board, technical panels, and standing boards to provide oversight and peer review of the Program;

(B) conducting expert evaluations and scientific assessments of all Program elements;

(C) coordinating existing monitoring and scientific research programs;

(D) developing and implementing adaptive management experiments to test, refine, and improve scientific understandings;

(E) establishing performance measures, and monitoring and evaluating the performance of all Program elements; and

(F) preparing an annual science report.

(10) DIVERSIFICATION OF WATER SUPPLIES- Activities under this paragraph consist of actions to diversify sources of level 2 refuge supplies and modes of delivery to refuges while maintaining the diversity of level 4 supplies pursuant to section 3406(d)(2) of the Central Valley Project Improvement Act (Public Law 102-575; 106 Stat. 4723).

The monitoring is necessary to address the law's requirement to use the best available science to enhance fisheries in the Stanislaus River.