

MEMBER UNITS EXHIBIT NUMBER 12

**MEMORANDUM OF UNDERSTANDING FOR
COOPERATION IN RESEARCH AND FISH MAINTENANCE
-SANTA YNEZ RIVER -**

THIS MEMORANDUM OF UNDERSTANDING, made and entered into as of May 1, 1994 by and between:

**THE CALIFORNIA DEPARTMENT OF FISH AND GAME,
THE SANTA YNEZ RIVER WATER CONSERVATION
DISTRICT, IMPROVEMENT DISTRICT NO. 1,
THE CACHUMA CONSERVATION RELEASE BOARD,
THE UNITED STATES BUREAU OF RECLAMATION,
SANTA YNEZ RIVER WATER CONSERVATION DISTRICT,
THE UNITED STATES FISH AND WILDLIFE SERVICE,
SANTA BARBARA COUNTY WATER AGENCY,
AND OTHER AGENCIES AS AGREE TO ITS TERMS,**

together referred to herein as the "parties", WITNESSETH:

WHEREAS, the United States Bureau of Reclamation operates Bradbury Dam and the adjacent reservoir, commonly referred to as the Cachuma Project, in Santa Barbara County, California, on the Santa Ynez River; and

WHEREAS, The United States Bureau of Reclamation has entered into a contract with the Santa Barbara County Water Agency to deliver water for use in Santa Barbara County for municipal, industrial and agricultural purposes (Master Agreement); and

WHEREAS, the parties who are entitled to receive water pursuant to the Master Agreement are the Santa Ynez Water Conservation District, Improvement District No. 1 and the five member units of the Cachuma Conservation Release Board who are: the Goleta Water District, the City of Santa Barbara, the Montecito Water District, the Carpinteria County Water District, and the Summerland Water District; and,

WHEREAS, the United States Bureau of Reclamation and the parties to the Master Agreement are now in the process of developing an environmental evaluation (EIS/EIR) of decisions regarding renewal of provisions of the Master Agreement in 1995; and,

WHEREAS, the California Department of Fish and Game is the State agency responsible for conservation and management of fish, wildlife and their habitats and,

WHEREAS, the Santa Ynez River Water Conservation District is the trustee for beneficial municipal, industrial and agricultural users downstream from the Cachuma Project and within the Santa Ynez River Watershed; and

WHEREAS, the United States Fish and Wildlife Service has responsibilities to advise the United States Bureau of Reclamation as to fish and wildlife issues related to federal projects; and,

WHEREAS the City of Lompoc is situated downstream from the Cachuma Project and within the Santa Ynez River watershed; and,

WHEREAS, the California Sportfishing Protection Alliance is a non-profit organization advocating California sportfishing interests, and has requested the State Water Resources Control Board and the California Department of Fish and Game to require the United States Bureau of Reclamation to release water as necessary to keep fish below Bradbury Dam in good condition; and,

WHEREAS, Santa Ynez River Water Conservation District, Improvement District No. 1, and the Cachuma Conservation Release Board member units believe that the releases sought by the California Sportfishing Protection Alliance will jeopardize their collective ability to meet the essential water requirements of their respective customers; and,

WHEREAS, the United States Bureau of Reclamation holds the Permit for the Cachuma Project pursuant to which Water Rights Order 89-18 is scheduled for review in July of 1994; and,

WHEREAS, the State Water Resources Control Board conducted consolidated hearings in July and September of 1990 for various purposes, including determining the historical and present status of the fishery on the Santa Ynez River below Bradbury Dam, which hearings were continued indefinitely for lack of sufficient information; and,

WHEREAS, the State Water Resources Control Board has previously requested the California Department of Fish and Game to recommend instream flow requirements to keep fish below Bradbury Dam in good condition; and,

WHEREAS, there are a great number of contentions and claims regarding fisheries on the Santa Ynez River which the parties wish to resolve by mutual agreement, rather than through legal conflict; and,

WHEREAS, data collection and studies necessary for resolution of such fishery issues may require three to five years to complete; and,

WHEREAS, opportunities will be available in the future for public consideration and review of the data, analysis and recommendations from such studies, including anticipated future hearings before the State Water Resources Control Board; and,

WHEREAS, many of the parties have previously participated in two separate similar understandings, which provided for cooperation in data gathering, the sharing of information and the management of water resources in a manner which attempts to balance the needs of consumptive water users with the needs of the fishery downstream of Bradbury Dam,

NOW THEREFORE, THE PARTIES ENTER THIS MEMORANDUM OF UNDERSTANDING to share work and information necessary for a mutually satisfactory

resolution of their respective concerns related to the protection of fish and the protection of existing domestic and agricultural uses, in accordance with the following provisions:

1. **CONSENSUS COMMITTEE** In order to implement this Memorandum of Understanding and to direct cooperative efforts with regard to fisheries within the Santa Ynez River below Bradbury Dam, the parties shall form and maintain a Consensus Committee to direct the efforts of a Technical Advisory Committee to advise on fisheries issues. The parties will maintain a Consensus Committee consisting of one designated representative from each party to this Memorandum of Understanding which shall meet at least once each calendar quarter to provide policy, financial, legal, engineering or other assistance to a Technical Advisory Committee (provided herein), as may be required by the parties. The United States Bureau of Reclamation shall provide a Chair to preside over and conduct the meetings of the Consensus Committee. The Consensus Committee shall have the following responsibilities:

a. The Consensus Committee shall review the work and the recommendations of the Technical Advisory Committee (provided herein) and, where requested by the Technical Advisory Committee, it shall take such action as the Consensus Committee determines is appropriate to implement the recommendations, pursuant to the purposes of this Memorandum of Understanding.

b. The Consensus Committee shall be given an accounting (to be maintained by the United States Bureau of Reclamation) of all water held in the Fish Reserve Account, described in Paragraph 7, herein, all water released in accord with this Memorandum of Understanding, and the schedule proposed for any further releases, on a regular and periodic basis, during the term hereof.

2. **TECHNICAL ADVISORY COMMITTEE** The parties will maintain a Technical Advisory Committee, composed of persons with special training or experience in fishery biology, engineering, hydrology, and water supply and distribution fields in order to enhance cooperation among the parties; to collect, analyze and share information related to Santa Ynez River Watershed fisheries; and to make recommendations for releases of water related to fisheries. The State Department of Fish and Game shall provide a Chair to preside over and conduct the meetings of the Technical Advisory Committee and of the Biology Subcommittee. Each party may appoint a member to the Technical Advisory Committee. The State Water Resources Control Board may appoint a member to serve in *ex officio* status on the Technical Advisory Committee. The Technical Advisory Committee will meet regularly, or as often as it shall deem necessary, to fully explore alternative measures for the maintenance of fish downstream of Bradbury Dam. The Technical Advisory Committee shall have the following responsibilities:

a. The Technical Advisory Committee shall establish a process for the collection of relevant fishery data, including, but not limited to temperature, flows and location of fishery resources, which information shall be made available to all parties and to all interested persons, at regular intervals.

b. The Technical Advisory Committee shall develop recommendations for long term fishery management, projects and operations for consideration by the parties and by the Consensus Committee provided for herein.

c. The Technical Advisory Committee shall provide a year end summary of the minutes of meetings and of all information gathered during each calendar year, on or before the following March 1 of each year during the term hereof.

d. The Technical Advisory Committee shall attempt to determine the location and habitat requirements of any fish located downstream of Bradbury Dam.

e. A subcommittee of the Technical Advisory Committee (referred to herein as the Biology Subcommittee) composed of the three biologists who have served through the first and second understandings of the parties, shall make recommendations (as provided in Paragraph 7, hereof) to the United States Bureau of Reclamation regarding the release of water from the Fish Reserve Account, described herein. On all other matters the Technical Advisory Committee will make recommendation to the Consensus Committee.

f. A subcommittee of the Technical Advisory Committee (referred to herein as the Hydrology Subcommittee) composed of representatives from the Santa Barbara County Water Agency, the Santa Ynez River Water Conservation District and the Cachuma Conservation Release Board shall make investigations, as they may, from time to time, agree is necessary.

g. The Technical Advisory Committee shall supervise and direct the work necessary to complete the Study Plan approved by the parties and attached hereto as Exhibit A.

3. FINANCIAL ARRANGEMENTS The parties to this Memorandum of Understanding shall provide the staff, records, information, and technical assistance available from their respective jurisdictions to implement the Study Plan. In addition:

a. The Cachuma Conservation Release Board will provide, on an annual basis during the term of this Memorandum of Understanding, 89.7% of the funds required to conduct surveys, employ consultants, and for the copies, tools, equipment, supplies, travel, and other costs of the Study Plan, according to budgets approved as provided herein.

b. The Santa Ynez River Water Conservation District, Improvement District No. 1, will provide, on an annual basis during the term of this Memorandum of Understanding, 10.3% of the funds required to conduct surveys, employ consultants, and for the copies, tools, equipment, supplies, travel, and other costs of the Study Plan, according to budgets approved herein.

c. The Santa Barbara County Water Agency shall provide funding for USGS stream gauging and water quality measurement, immediately downstream of Bradbury Dam.

d. The Administrative Support Committee may join, contract with, and/or obtain contributions from one or more public agencies, businesses or public benefit organizations for the operation, benefit and support of the work provided for herein.

e. The total to be expended to conduct surveys, employ consultants, and for the copies, tools, equipment, supplies, travel, and other costs necessary to complete the Study Plan, shall not exceed the sum of One Hundred Seventy thousand one hundred ninety two and No/100 (\$170,192.00) dollars in any calendar year, during the term of this Memorandum of Understanding, without the further separate approval of the governing boards of the Cachuma Conservation Release Board and the Santa Ynez River Water Conservation District, Improvement District No. 1.

4. ADMINISTRATION The parties agree that there will be an Administrative Support Committee composed of one staff member from each of the following agencies: the City of Santa Barbara, the Montecito Water District and the Santa Ynez River Water Conservation District, Improvement District No. 1. The Administrative Support Committee shall, acting together, coordinate budgets for this Memorandum of Understanding; administer to the contracts for consultants hired for the work provided herein; and give notices, distribute documents, keep minutes, provide for meeting space, and perform such other administrative and coordination needs as the Consensus Committee and the Technical Advisory Committee may, from time to time, require. The Administrative Support Committee shall appoint an Administrator for direct support for the work undertaken by this Memorandum of Understanding. The Administrative Support Committee shall cause the studies, surveys, reports and material regarding the Santa Ynez River to be prepared through contractors, agency employees, and such other means as they shall deem appropriate. The Administrator shall keep records of financial transactions on a generally recognized accounting basis and such records shall be maintained for a period of 3 years following the completion of the work assigned. The Administrator shall provide copies of materials developed, agendas, minutes, and other significant deliverables to the State Water Resources Control Board staff as part of the work to complete the study plan.

5. DEVELOPMENT OF LONG TERM AGREEMENT The parties to this Memorandum of Understanding intend to develop information for, and to work toward, a long term agreement about any fishery below the Bradbury Dam.

a. The parties to this Memorandum of Understanding will convene as reasonably necessary in view of the ongoing nature of the Study Plan, to discuss a long term agreement for the fishery below Bradbury Dam.

b. The parties shall cooperate in an effort to resolve differences over provisions for the fishery below Bradbury Dam by agreement for the period between March 15, 1994 and March 14, 1995 and for such further period as to which this Memorandum of Understanding may be extended (March to March).

c. The parties agree to meet to discuss such long term agreement at least one time per year during the period of this Memorandum of Understanding and any extension thereof, with a first meeting to be held on or about January 16, 1995.

d. If the parties are unable to reach a long term agreement for the fishery below Bradbury Dam they shall prepare a stipulation regarding those areas in which they are in agreement and, by joint presentation, submit the remaining issues as appropriate for resolution by the California State Water Resources Control Board in accord with the rules and procedures of that Board.

6. IMPLEMENTATION The parties to this Memorandum of Understanding shall use their best efforts to ensure that the activities outlined in this Memorandum of Understanding are carried out in accordance with the recommendations provided by the Technical Advisory Committee. In providing direction concerning this Memorandum of Understanding, the Technical Advisory Committee shall attempt to operate by consensus. However, in the event that a consensus cannot be reached, and for the sole purpose of carrying out the approved study plan, the Administrator appointed by the Administrative

Support Committee shall make final resolution of the issue. The decision of the Administrator shall be final, with no right to review or appeal.

7. FISH RESERVE ACCOUNT To facilitate cooperative study and to maintain fish in the Santa Ynez River, below Bradbury Dam the United States Bureau of Reclamation shall establish a Fish Reserve Account to store spill water within the Cachuma Project for use as provided herein for the maintenance of fish below Bradbury Dam and to carry out necessary studies provided for in the Study Plan.

a. The Fish Reserve Account shall be used by the United States Bureau of Reclamation as necessary to maintain any fish below Bradbury Dam. Such use shall be based upon recommendation of the Biology Subcommittee of the Technical Advisory Committee.

b. The Fish Reserve Account shall be established in an amount equivalent to the amount of water stored in the Cachuma Project above elevation 750 feet, in accord with this Memorandum of Understanding.

c. In the event that the Fish Reserve Account is insufficient for purposes of the Memorandum of Understanding, and on the advice of the Technical Advisory Committee, the United States Bureau of Reclamation may make releases from the minimum pool of the Cachuma Project, up to an amount that shall not exceed 2000 acre feet during the term of the Memorandum of Understanding and an equal amount during each period of extension hereof, according to the same process as is provided for the Fish Reserve Account without further consultation with the Consensus Committee.

d. In the event that a consensus cannot be reached on the Biology Subcommittee, and for the sole purpose of carrying out the provisions of this Memorandum of Understanding, the chairperson of the Technical Advisory Committee shall make final resolution of the issue of release of the Fish Reserve Account. The decision of the Chair, regarding the recommended release, shall be final, with no right to review or appeal.

e. The Santa Ynez River Water Conservation District shall annually forecast its need for releases of water pursuant to WR 89-18. No later than May 31, 1994 the Santa Ynez River Water Conservation District shall announce whether it intends to call for release of water in calendar year 1994, as provided under WR 89-18. The Santa Ynez River Water Conservation District shall estimate the timing (duration) and the magnitude (acre feet) of the anticipated release to be required. The Santa Ynez River Water Conservation District shall cooperate with all parties to this Memorandum of Understanding in requesting water releases and in preparation of river studies of the Santa Ynez River. As the releases referred to in this subparagraph are reduced, the Santa Ynez River Water Conservation District shall coordinate with the Technical Advisory Committee to ensure that fishery resources are not adversely impacted by curtailment of the releases. Water released at the direction of the Santa Ynez River Water Conservation District shall be attributed to the credit obligations accruing under WR 89-18. The balance of releases which are carried out under this Memorandum of Understanding shall be from the minimum pool and the fishery reserve accounts or as otherwise specifically identified herein.

8. FLASHBOARD MODIFICATIONS The United States Bureau of Reclamation shall proceed forthwith to review the potential for modifying the flashboards of Bradbury

Dam for the purpose of enhancing the yield of the Cachuma Project. The United States Bureau of Reclamation shall schedule meetings with all necessary personnel for the purpose of investigating the feasibility of modifying the flashboards in a manner which does not impair public safety. The United States Bureau of Reclamation will exercise good faith in its efforts to obtain approval for the flashboard modifications as soon as possible. Any water captured by virtue of the modified flashboards shall be added to the Fish Reserve Account and it shall be subject to use as provided above.

9. DEPARTMENT OF FISH AND GAME The California Department of Fish and Game will provide technical expertise and assistance in developing information and implementing alternatives which will maintain fisheries.

10. TERM This Memorandum of Understanding shall be effective upon its execution by the Cachuma Conservation Release Board, the Santa Ynez River Water Conservation District, Improvement District No. 1, and by representatives of the California Department of Fish and Game and United States Bureau of Reclamation. This Memorandum of Understanding shall remain in full force and effect for the term beginning May 1, 1994 and ending March 14, 1995, and may be extended for successive one year terms ending March 15 upon the mutual approval of the parties who wish to continue the understanding.

11. PRIMARY FORUM All parties to this Memorandum of Understanding shall use their best efforts and good faith to develop information concerning fisheries through the provisions of this Memorandum of Understanding and the Technical Advisory Committee provided herein. The parties acknowledge that the United States Bureau of Reclamation, the Santa Barbara County Water Agency and the Cachuma Project Authority will pursue information necessary to satisfy NEPA and CEQA for the purposes of the Cachuma Project Contract Renewal. The parties desire to have the arrangements in this Memorandum of Understanding operate as the primary forum for resolution of issues related to maintaining fish, and agree:

a. The parties will use their best efforts to cooperate in the development of related information in each process to avoid overlap and duplication in other processes, including, but not limited to the Cachuma Project Contract Renewal, and the State Water Resources Control Board Consolidated Hearings on the Santa Ynez River.

b. The parties reserve their present rights and contentions related to or arising out of the impoundment and/or release of water in or through the Cachuma Project, and the impact and/or mitigation of impacts of such impoundment and/or releases of water upon fish and fish habitat in Lake Cachuma and downstream of Bradbury Dam in the Santa Ynez River, during the term of this Memorandum of Understanding, including any extension.

c. The parties agree that additional environmental information will need to be prepared in connection with Consolidated Hearings on the Santa Ynez River before the State Water Resources Control Board, currently scheduled for July 1994. The parties acknowledge that data collection and studies for presentation of such information related to fish and fish habitat issues arising out of, or related to, the water rights issues before the State Water Resources Control Board may require three to five years to complete. The

United States Bureau of Reclamation, the Cachuma Conservation Release Board and Santa Ynez River Water Conservation District, Improvement District No. 1, agree to prepare and certify a supplemental document or documents, as appropriate, for presentation to the State Water Resources Control Board including the information obtained from implementation of the Study Plan.

12. ACCESS TO INFORMATION Each of the parties to the memorandum of understanding shall have access to and right to use and publish any and all information, data, summaries, charts, programs and other material developed for the Santa Ynez River area. All information will be gathered, distributed and maintained in a manner to assure freedom of access and use for such material. None of the parties nor any administrators to this understanding shall be individually responsible to perfect or to defend such rights of use or access. The data collected pursuant to this Memorandum of Understanding may be referred to, used and presented, to the extent it is timely available, as part of the normal course of public hearings to be provided for the EIR/EIS as proposed or approved for the Cachuma Project Contract Renewal.

13. COUNTERPART ORIGINALS This agreement may be executed in one or more counterparts and each counterpart shall be evidence of participation.

14. PROJECT BUDGETS The Administrator shall operate for the calendar year 1994 in accord with the budget attached hereto as Exhibit B. For the years thereafter, the Administrator shall prepare and present an operating budget (not to exceed \$170,192) for approval by the Technical Advisory Committee pursuant to the provisions of Paragraph 6 of this understanding. The Administrator shall operate thereafter in accord with the approved budgets.

15. NO WARRANTY FOR LEGAL DEFENSE Services in legal defense of the study plan, the releases of water made herein, or in legal defense of the environmental material prepared pursuant to this Memorandum of Understanding, and other services that may be required by reason of challenges made or to be made to the project (which may include challenges on environmental grounds), are beyond the scope of service to be provided herein. Each party specifically reserves the right to participate or not participate in any such defense or challenge, from time to time, or to any extent at all, at the discretion of that party.

16. AMENDMENT This agreement may be amended, from time to time, with the written consent of all parties.

17. NO INDEMNITY No participant to this Memorandum of Understanding nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by another party under or in

connection with any work, authority or jurisdiction delegated to the other party under this Memorandum of Understanding.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in as of the day and year first above written.

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT, IMPROVEMENT
DISTRICT NO. 1

By Thomas M. Release

CALIFORNIA DEPARTMENT
OF FISH AND GAME

By _____

CACHUMA CONSERVATION
RELEASE BOARD

By C. Charles Evans

CALIFORNIA SPORTFISHING
PROTECTION ALLIANCE

By _____

UNITED STATES BUREAU
OF RECLAMATION

By Will H. [unclear]

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT

By [Signature]

UNITED STATES FISH
AND WILDLIFE SERVICE

By Craig [unclear]

SANTA BARBARA COUNTY
WATER AGENCY

By _____

CITY OF LOMPOC

By _____

By _____

connection with any work, authority or jurisdiction delegated to the other party under this Memorandum of Understanding.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in as of the day and year first above written.

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT, IMPROVEMENT
DISTRICT NO. 1

By _____

CACHUMA CONSERVATION
RELEASE BOARD

By C. Charles Evans

UNITED STATES BUREAU
OF RECLAMATION

By William H. [Signature]

UNITED STATES FISH
AND WILDLIFE SERVICE

By Greg Sauner

CITY OF LOMPOC

By _____

CALIFORNIA DEPARTMENT
OF FISH AND GAME

By [Signature]

CALIFORNIA SPORTFISHING
PROTECTION ALLIANCE

By _____

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT

By _____

SANTA BARBARA COUNTY
WATER AGENCY

By _____

By _____

connection with any work, authority or jurisdiction delegated to the other party under this Memorandum of Understanding.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in as of the day and year first above written.

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT, IMPROVEMENT
DISTRICT NO. 1

CALIFORNIA DEPARTMENT
OF FISH AND GAME

By _____

By _____

CACHUMA CONSERVATION
RELEASE BOARD

CALIFORNIA SPORTFISHING
PROTECTION ALLIANCE

By C. Charles Evans

By _____

UNITED STATES BUREAU
OF RECLAMATION

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT

By _____

By _____

UNITED STATES FISH
AND WILDLIFE SERVICE

SANTA BARBARA COUNTY
WATER AGENCY

By _____

By _____

CITY OF LOMPOC

By Joyce Howerton
Mayor Joyce Howerton
City of Lompoc

By _____

connection with any work, authority or jurisdiction delegated to the other party under this Memorandum of Understanding.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in as of the day and year first above written.

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT, IMPROVEMENT
DISTRICT NO. 1

CALIFORNIA DEPARTMENT
OF FISH AND GAME ✓

By _____

By _____

CACHUMA CONSERVATION
RELEASE BOARD

CALIFORNIA SPORTFISHING
PROTECTION ALLIANCE

By C. Charles Evans

By _____

UNITED STATES BUREAU
OF RECLAMATION

SANTA YNEZ RIVER WATER
CONSERVATION DISTRICT

By _____

By _____

UNITED STATES FISH
AND WILDLIFE SERVICE

SANTA BARBARA COUNTY
WATER AGENCY

By _____

By Tom Rogers

CITY OF LOMPOC

By _____

By _____

ATTEST:
ZANDRA CHOLMONDELEY
Clerk of the Board

Approved as to form

STEPHEN SHANE STARK, COUNTY COUNSEL

By: Elizabeth Martinez

By: Maryellen Barilotti
MARY ELLEN BARILOTTI, Deputy

APPROVED AS TO FORM:

STEPHEN SHANE STARK
ACTING COUNTY COUNSEL

By: Marshall Barlett
DEPUTY

EXHIBIT A
Study Plan
Proposed Work Program for the 1994
Santa Ynez River
Fisheries and Water Quality Monitoring

A proposed budget and level of effort, by task, for the 1994 Santa Ynez River fisheries and water quality monitoring program is attached (Exhibit B). The proposed program has been developed, in part, based upon monitoring results from 1993 studies and development of a framework and study plan for developing and evaluating alternative long-term fisheries management actions for the Santa Ynez River (draft outline 18 November 1993). The 1994 studies are proposed to be performed as a cooperative program with participation by the California Department of Fish and Game (CDF&G), U.S. Fish and Wildlife Service, National Marine Fisheries Service, Urban Creeks Council, U.S. Bureau of Reclamation, and Santa Ynez water users. The proposed budget and allocation of labor includes the addition of a Project Biologist to supervise the field investigation program and to coordinate data collection and analysis efforts conducted under the MOU. Please see the attached concept paper for further description of this position. In this budget it is proposed that the Project Biologist will be assisted by at least one seasonal aide, having a background in fisheries and water quality monitoring, which will be funded by the Santa Ynez water users. For purposes of budgeting it has been assumed that total compensation for the project biologist and seasonal aide positions, including direct compensation, benefits, administrative overhead, insurance, and other associated costs will be \$20.00 and \$15.00 per hour, respectively. Opportunities may exist for funding local graduate students and/or temporary positions as project funded seasonal aides. In addition, the project budget assumes cooperative involvement and volunteer assistance in various project tasks by CDF&G, Urban Creeks Council, National Marine Fisheries Service, U.S. Fish and Wildlife Service, and U.S. Bureau of Reclamation personnel. The Santa Ynez River Technical Advisory Committee, including senior biologists with the California Department of Fish and Game, Chuck Hanson (Hanson Environmental), and Tom Keegan (Entrix) will provide oversight and direction to the project biologist who will be responsible for the design, field collection methods and execution, data management, analysis, and interpretation and technical review and approval of study plans for each task and resulting project documentation reports. The Technical Advisory Committee will advise the project biologist in the development of an overall framework and plan for the fisheries and water quality monitoring and the use of resulting information as a basis for evaluating various alternative management actions to be considered for the Santa Ynez River below Bradbury Dam. The project biologist will also be responsible for providing a synthesis of information resulting from the 1994 monitoring and specific recommendations regarding modifications to the monitoring program for consideration by the Santa Ynez River Policy Consensus Committee.

The project biologist will also be responsible for coordination of the studies undertaken

under this plan of study with the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) process currently being done for the renewal of the Cachuma Project Contract. The project biologist will assure timely delivery of ongoing work products, including ongoing data collection and results of field investigations and timely and effective coordination of conjunctive field efforts.

The proposed 1994 budget assumes that there will be sufficient rainfall and runoff within the Santa Ynez River Basin to result in releases from Lake Cachuma and seasonal increases in the flow of water within both the mainstem and major tributaries (e.g., similar hydrologic conditions to those occurring in 1993). In the event that flows on the Santa Ynez River and tributaries are substantially lower than conditions occurring during 1993 (e.g., no releases from Lake Cachuma, the sandbar is not breached, there is no live stream between Bradbury Dam and the river mouth, etc.) the monitoring program and level of effort would need to be modified accordingly. Although both fisheries and water quality monitoring would continue to be performed under low-flow water year conditions, the scope, level of effort, and budget allocations would be reduced from the levels presented in the attached budget summary. It is proposed that the fisheries and water quality monitoring proceed, under the assumption of average or above precipitation conditions, for the period from January through March. A Technical Advisory Committee meeting is proposed to be scheduled in April, after the selection of the project biologist, at which time precipitation records will be reviewed, along with information gathered to date, and potential modifications to the study plan and scope of work will be evaluated. The Technical Advisory Committee will prepare a recommendation in April for the Policy Consensus Committee regarding potential modifications to the proposed monitoring program.

A brief description of each of the major tasks proposed for 1994 is presented below.

Adult Trout/Fishery Surveys

A monitoring program is proposed for the period from January through March with the objectives of (1) documenting and quantifying the seasonal timing and numbers of adult trout, and other fish species, migrating into the mainstem Santa Ynez River and major tributaries including, but not limited to, Hilton Creek, San Lucas Creek, Salsipuedes Creek, and El Jaro Creek in addition to movement within the mainstem river, (2) document the geographic location, timing, and numbers of trout and other fish species spawning within the mainstem and tributaries, and (3) recreational angler harvest of adult trout and other fish species within the mainstem and major tributaries. The fisheries surveys will be performed throughout the monitoring period through use of weirs and traps for monitoring adult migration, electrofishing, and direct visual observations. The studies will be performed by the project biologist with assistance from the seasonal aide and available resource agency staff. Scale and tissue samples collected during the surveys will be analyzed for evidence of saltwater residence. The project biologist will be responsible for supervising the preparation of a written study plan, outlining the methods and schedule for the surveys, for review and approval by the TAC prior to initiating extensive field data collection.

Juvenile Trout/Fishery Production

Surveys will be performed during the period from April through June with the objectives of (1) documenting the abundance of juvenile trout and other fish species for use in evaluating hatching and reproductive success, (2) the geographic distribution of juvenile trout and other fish species within the mainstem and tributaries which can subsequently be related to information on habitat conditions, flow, and water temperature, and (3) data on growth, survival, and condition of fish inhabiting various areas within the mainstem and tributaries. The fisheries surveys will be performed to characterize the relative abundance of various fish species and lifestages within various habitat areas (e.g., tributary, mainstem, deep pools, riffles, etc.) and potential changes in the relative abundance and distribution of the fisheries community in response to variation in streamflow, water temperature, or other environmental conditions. The surveys will be performed using electrofishing, direct observation through snorkeling surveys, trapping, beach seining, or other appropriate methods. The fisheries surveys will be under the direct supervision of the project biologist who will be responsible for managing the project-funded seasonal aide. Additional participation in fisheries surveys, on a voluntary basis, is assumed by the Urban Creeks Council and the CDF&G. The project biologist will be responsible for supervising the preparation of a written study plan for the juvenile fisheries surveys for review and approval by the TAC prior to initiating extensive field collection efforts.

Summer/Fall Population Surveys

Fisheries surveys will be performed periodically throughout the period from July through December with the objective of documenting (1) species composition of the fisheries community inhabiting various reaches of the mainstem Santa Ynez River, major tributaries, and the lagoon, (2) documenting the relative abundance of various fisheries species and their health and condition by habitat area which will also be used to provide information on the geographic distribution of each species and the relative importance of various habitat areas, (3) provide information on the response of various fish species to seasonal variation in environmental conditions including instream flows and water temperatures, and (4) develop scientific information regarding life history characteristics and habitat requirements for various fish species inhabiting the Santa Ynez River system. The fisheries will be performed using electrofishing, beach seining, trapping, direct observation during snorkeling surveys, and other appropriate methods. The studies will be under the direct supervision of the project biologist who will oversee and manage the project-funded seasonal aide. Additional field support will be provided, on a voluntary basis, by the Urban Creeks Council, National Marine Fisheries Service, and CDF&G. The project biologist will be responsible for supervising the preparation of a written study plan, including collection methods and proposed survey schedule, for review and approval of the TAC.

Flow Monitoring

Flow monitoring will be performed throughout the year at selected locations, in addition to currently monitored USGS gaging stations, to document seasonal changes in instream flows.

Field surveys will primarily focus on flow monitoring within the upper reach of the Santa Ynez River mainstem between Bradbury Dam and the Highway 154 Bridge, although additional flow measurements in major tributaries will also be performed based, in part, on local hydrologic conditions and results of fisheries monitoring. Flow monitoring will be performed using both cross-sectional measurements to establish stage-discharge relationships for selected locations, and routine state monitoring from established staff gages. Actual flow measurements and staff gage monitoring will be the responsibility of USBR personnel and one project-funded seasonal aide. A study plan for flow monitoring, including recommended locations, methods, and monitoring schedule will be prepared under supervision of a designated task leader for review and approval by the TAC.

A proposal has been developed for continuous flow monitoring and other water quality measurements by the USGS at four locations (immediately below the spill basin, below the long pool, at the San Lucas Ranch, and at Highway 154 bridge). The cost for USGS monitoring has not been included in the 1994 project budget summary. The Santa Barbara County Water Agency is considering funding the proposal. If funded, this would replace most of the work effort described in the paragraph above. Additional flow monitoring will be coordinated by the project biologist assisted by USBR.

Water Quality Monitoring

Water quality monitoring will be performed throughout the year with the objective of documenting water temperature and dissolved oxygen at various locations within the mainstem and major tributaries. Water temperature monitoring will be an extension of the ongoing data collection program initiated in 1993 by CDF and G and Hanson Environmental. The project biologist will be responsible for temperature monitoring at seven locations using CDF&G and Hanson Environmental equipment (four CDF&G, three Hanson Environmental). In addition, vertical water temperature profiles will be measured within the mainstem and tributaries (deep pools) six times per year under the direction of the project biologist. Vertical profiles of dissolved oxygen will also be monitored within deeper pools within the mainstem and tributaries six times per year in addition to water temperature and dissolved oxygen monitoring conducted at each location where fisheries surveys are also performed. Vertical profiles of water temperature and dissolved oxygen will also be monitored at three locations within Lake Cachuma six times per year by USBR personnel. Water chemistry profiles, including but not limited to, EC, nutrients, metals, and other major water quality constituents using grab samples collected from eight locations within the mainstem, major tributaries, and reservoir four times (quarterly). The project biologist, working with USBR and other personnel, will develop a study plan for water quality monitoring for review and approval by the TAC.

Water Temperature Modeling

USBR will initiate development and verification of a water temperature model for the lower Santa Ynez River. USBR will be responsible for the compilation of local meteorological data and formulation of a predictive water temperature model which includes consideration

of water temperature released from Lake Cachuma, instream flows, and seasonal variation in solar radiation and other meteorological conditions. Predicted water temperatures from the model will be calibrated and verified including consideration of diel variation, for various locations within the mainstem channel based on water temperature monitoring as described above. Development of the water temperature model will be coordinated with the TAC.

Habitat Mapping and Inventory

At this time the status of the habitat mapping effort is uncertain. This work may be done under the auspices of the Cachuma Contract Renewal EIS/EIR. If so, the end product will be incorporated into this study plan. If not, the project biologist working with the TAC will develop a plan of action for mapping appropriate habitat.

IFIM Study Design

The CDF and G IFIM group will be responsible for reviewing results of hydrological records, fisheries monitoring, water quality monitoring, and the habitat inventory for use as a basis in assessing the potential application of IFIM techniques for the lower Santa Ynez River. Information collection during earlier DWR IFIM surveys will also be reviewed. No field surveys or data collection activity is proposed. The CDF and G IFIM group will be responsible for preparing a summary and analysis of the potential application of IFIM techniques for the Santa Ynez River for review and approval by the TAC.

Initial Identification of Potential Management Alternatives

Several alternative management actions have been proposed for improving fisheries conditions on the lower Santa Ynez River. These potential alternative management actions include raising the flashboards on Bradbury Dam to increase storage within Lake Cachuma and use of a fish ladder for allowing upstream and downstream passage of fish over Bradbury Dam. USBR will be responsible for developing an engineering and cost analysis of the alternative for raising flashboards on Bradbury Dam. Urban Creeks Council will be responsible for developing a preliminary design concept and operational plan for a fish ladder at Bradbury Dam. Results of these assessments will be documented in written reports provided to the TAC for review. Results of fisheries and water quality monitoring proposed for 1994, in combination with results of 1992 studies and other information, will also be used for identifying preliminary management alternatives for improving fisheries and habitat conditions below Bradbury Dam. Consideration of various potential alternative management actions will be presented and discussed by the TAC.

Participation in TAC Meetings

The proposed 1994 budget includes participation by Chuck Hanson and Tom Keegan in eight TAC meetings. The project biologist will be responsible for preparation of documentation notes for each of the TAC meetings. For purposes of budget estimation it

has been assumed that all TAC meetings will be held in Santa Barbara requiring air travel for both Chuck and Tom Keegan. Participation in TAC meetings by CDF and G, USFWS, and NMFS, Urban Creeks Council, and other agencies and participants is assumed to occur at no cost to the project. Participation in TAC meetings by project-funded seasonal aides has been assumed to be included in labor allocations for individual tasks as described above. Participation by Chuck Hanson (four-meetings) and Tom Keegan (two meetings) with the Santa Ynez River Policy Consensus Committee has also been included as part of the project budget.

Preparation of 1994 Project Documentation Report

At completion of the 1994 fisheries and water quality monitoring program, a report will be prepared documenting the locations, methods, and results of each element of the 1994 monitoring program. The documentation report will present a compilation of documentation reports prepared for individual project elements and tasks as described above. In addition, however, the final 1994 documentation report will require preparation of a synthesis of key findings and development of a recommended program for monitoring and evaluation of potential alternative management actions to be performed in 1995. The documentation report is scheduled to be completed in January 1995 along with specific recommendations to be presented from the TAC to the Policy Consensus Committee at that time. Preparation of the documentation report will be the primary responsibility of the project biologist with assistance from the project-funded seasonal aide(s).

Contingency

A contingency amounting to 10% of the proposed project budget has been included as part of the proposed 1994 fisheries and water quality monitoring budget. The contingency fund could be used for either additional labor or project supplies to accommodate modifications to the scope of work or inclusion of additional tasks identified during the course of performing the monitoring outlined above.

A budget summary of all project-related financial expenditures will be prepared each month under the supervision of the project biologist. The monthly project budget statement will include, by task, a comparison of the authorized budget and actual expenditures. The budget summary will also include the cumulative year-to-date expenditures versus scheduled budgeted expenditures for purposes of monitoring project costs. The monthly budget summaries will be distributed to the TAC and will serve as a basis, in part, for evaluating recommended modifications to the project scope as needed. No expenditures from the contingency fund should be made without TAC approval.

EXHIBIT B. Budget for 1994 fisheries work

12-May-94 FILE = FISHBGT.WQ2

Includes local project biologist, 7th Period share of costs

Tasks	Time Period	Hours	Project Cost
Adult Trout/fishery surveys	January-March		
Adult Migration survey (weir monitoring)			
Trout spawning surveys			
Angler harvest (creel surveys)			
Task management			
CDF&G Sr. biologist		40	No cost
Hanson		30	\$3,600
Entrix (Tom Keegan)		20	\$2,200
CDF&G biologist		80	No cost
Project Biologist (project funded)		528	\$10,560
Seasonal aide (project funded)		528	\$7,920
Supplies and equipment			\$5,000
Travel (4 trips@\$350 ea.)			\$1,400
Field travel (\$250/mn)			\$750
Total Jan-March Survey Costs			\$31,430
Juvenile trout/fishery production (4 surveys)	April-June		
Relative abundance			
Distribution in mainstem/tributaries			
Growth and condition			
Task management			
CDF&G Sr. biologist		32	No cost
Hanson		20	\$2,500
Entrix (Tom Keegan)		10	\$1,100
CDF&G biologist		96	No cost
Project Biologist (project funded)		224	\$4,480
Seasonal aide (project funded)		224	\$3,360
Supplies and equipment			\$10,000
Travel (@\$350 ea.)			\$2,500
Field travel (\$250/mn)			\$750
Total Apr-June Survey Costs			\$24,690
Summer/fall population surveys (8 surveys)	July-December		
Species composition			
Relative abundance/condition			
Life history/habitat requirements			
Task management			
CDF&G Sr. biologist		64	No cost
Hanson		24	\$2,880
Entrix (Tom Keegan)		24	\$2,640

CDF&G biologist		192	No cost
Project Biologist (project funded)		448	\$8,960
Seasonal aide (project funded)		448	\$6,720
UCC		180	No cost
NMFS		180	No cost
Supplies and equipment			\$2,000
Travel (@\$350 ea.)			\$2,500
Field travel (\$250/mn)			\$1,500
Total Summer-Fall Survey Costs			\$27,200
Year-long Data Collection	January-December		
Flow monitoring in mainstem and tributaries USGS gage installation USBR staff gage installation and monitoring (4 locations) Stage-discharge relationships/measurement			Water Agency?
USBR		288	No cost
Project Biologist (project funded)		288	\$5,760
Supplies and expenses			\$2,000
Total Flow Monitoring Costs			\$7,760
Water quality monitoring Temperature (hourly) CDF&G (4 locations) Hanson (3 locations) Temperature (vertical profile) Mainstem/tributaries-pools (6 times/yr) Lake Cachuma (6 times/yr) Dissolved oxygen measurement - geographic/vertical (6 times/yr) Water chemistry characterization Mainstem/tributaries/reservoir (8 locations/4 times/yr)			
CDF&G temperature monitoring		96	No cost
Hanson temperature monitoring		96	\$10,000
Vertical profiles in river (Project aid)			
USBR vertical profiles in reservoir		48	No cost
DO monitoring (Project Biologist)		48	\$960
USBR DO monitoring		120	No cost
Water chemistry (\$125/sample)			\$4,000
Total Water Quality Costs			\$14,960
Development of water temperature model Verification of flow-temperature relationship Compilation of local meteorological data			
USBR (Jack Roul)			No cost
Habitat mapping and inventory Riparian vegetation			

Presence of threatened/endangered species Instream habitat conditions (e.g., gravel, cover, etc.)			
USFWS/NMFS			No cost
Seasonal aide (project funded)		120	\$1,800
IFIM study design (no data collection CDF&G IFIM group			No cost
Total Year-long Data Collection Costs			\$24,520
Miscellaneous Activities			
Initial identification of potential alternatives Raise flash boards Fish ladder (conceptual design) Other actions			
Urban Creeks Council			No cost
USBR			No cost
CDF&G et al			No cost
Hanson		20	\$2,400
Entrix		20	\$2,200
Project Biologist		40	\$800
Total Initial Identification			\$5,400
Participation in TAC			
Hanson		64	\$7,680
Entrix (Tom Keegan)		64	\$7,040
Project Biologist (including documentation)		128	\$2,560
Travel			\$5,000
CDF&G et al			No cost
Participation in Policy Committee (6 meetings)			
Hanson (4 meetings)		48	\$5,760
Entrix (Tom Keegan, 2 meetings)		24	\$2,640
Travel			\$2,000
CDF&G et al			No cost
Preparation of 1994 documentation			
Hanson		20	\$2,600
Entrix (Tom Keegan)		20	\$2,200
Project Biologist		200	\$4,000
CDF&G et al			No cost
Total Miscellaneous Activities Costs			\$46,880
Contingency (10%)			\$15,472
Total Cost			\$170,192