F1-215

ANDERSON-COTTONWOOD IRRIGATION DISTRICT
2810 Silver Street - Anderson, CA 96007
PHONE: 916-365-7329 FAX: 916-365-7623

July 28, 1997

CALFED Bay-Delta Program
1416 Ninth Street Suite 1155
Sacramento, California 95814

Subject: Anderson-Cottonwood Irrigation District Category III Proposal

Ladies and Gentlemen:

We are pleased to submit this proposal for Fish Passage Project for CALFED Bay-Delta Program funding consideration. This project directly addresses issues identified as key stressors with regard to all runs of Chinook salmon, as well as steelhead trout. The District plans to use a phased approach and cost sharing by State and Federal agencies to implement this project.

Please give me a call at (916) 365-7329 if you have any questions about the proposed project.

Sincerely,

Dee E. Swearingen
General Manager

Enclosures

RDD100163c3.doc

I-004701

Proposal for the
CalFed Bay-Delta Program

Fish Passage Improvement Project

July 1997

I-004702

Executive Summary

Project Title and Applicant Name

Anderson-Cottonwood Irrigation District (ACID) Fish Passage Improvement Project, submitted by the Anderson-Cottonwood Irrigation District

Project Description and Primary Biological/Ecological Objectives

The ACID Fish Passage Project will result in construction of fish passage facilities to correct fish passage problems and allow for annual management of fish passage at the existing ACID main diversion dam, near Redding, California. The project is located within a critically important reach for spawning chinook salmon, especially federal and state listed endangered winter-run chinook salmon in the upper Sacramento River. The construction of fish ladders will result in direct benefits to all anadromous fish species in the Sacramento River including all runs of chinook salmon, steelhead trout, green sturgeon and white sturgeon. The proposed improvements at the ACID dam will not only correct existing passage deficiencies, but also will provide for the management of fish passage as determined appropriate by the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS). The proposed project features are shown on Figures 1a and 1b in the Project Description section of this proposal.

A separate but related proposal, titled "ACID Fish Screen Improvement and Diversion Consolidation Project," has also been submitted. It addresses fish passage problems associated with the ACID diversion dam, and complements the proposed modifications described herein. Both projects can be implemented independently; however, completion of both projects would essentially resolve all current issues related to the operation of the ACID system as it affects Sacramento River anadromous fisheries.

Approach/Tasks/Schedule

The proposed approach provides for the following tasks: preliminary design, final design, environmental documentation, and permitting in Phase I, and construction, construction management, mitigation, and monitoring under Phase II. The grouping and sequencing of tasks are shown on Figure 2 in the Project Description section of this proposal. This proposal requests funding through Phase I only. As shown, the proposed project will be constructed and operational by the year 2000. The CDFG will provide guidance and review of the fish ladder design.

Justification for Project and Funding by CALFED

Justification for funding the proposed project by CALFED includes:

- The project directly addresses key stressors identified by CALFED, including mitigation barriers or delays caused by physical structures and inadequate attraction flows. The ACID diversion dam is listed as the first example under the CALFED Stressors and Example Restoration Actions table as a desirable project.
- The portion of the river in which the project is located is valuable habitat for priority species including all runs of chinook salmon as well as steelhead trout.

- The ACID lacks the financial resources to fund the project, and no other funds have yet been made available. CALFED funding will provide justification and incentive for matching funds through other programs, such as CVPIA.

Budget Costs and Third-Party Impacts

The requested funding for the scope of work identified in this proposal is $575,000. This project will benefit all third parties interested in restoration of anadromous fish species in the Sacramento River/Central Valley and Bay-Delta systems. Impacts to third parties will be limited because the majority of the work will be completed within or immediately adjacent to the Sacramento River. Work associated with the project will be implemented in accordance with all required permits and approvals.

Applicant Qualifications

ACID, under the management of Dee E. Swearingen, has repaired and replaced inverted siphons in: Hooker Creek, Cottonwood Creek, and the South Fork of Cottonwood Creek. These projects required permitting and approvals from the Corps of Engineers (404), Regional Water Quality Control Board (401), and the CDFG (1603). The District is also familiar with state and federal funding as projects were cost-shared by FEMA, OES and the District. Mr. Swearingen, while manager at Western Canal Water District (WCWD), was also instrumental in fish passage work on Butte Creek. The removal of the Point Four Dam and the Western Canal Water District's Butte Creek siphon project were formulated with Mr. Swearingen's oversight. Other project team members, a list of successful representative projects, and a letter of recommendation for the application team are shown in Figures 3, 4, and 5, respectively, in the Project Description section of this proposal.

Monitoring and Data Evaluation

A monitoring program will be established in coordination with CDFG, USFWS and NMFS to evaluate the effectiveness of the facilities through the installation of fish counting devices and a ladder performance evaluation program.

Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives

Problems of fish passage and spawning migration at the ACID main diversion dam have been documented through the years. The problems include impedance of migrating adult fall-, spring-, and winter-run chinook salmon and steelhead, all of which are priority species under the CALFED program, into the uppermost reach of the Sacramento River upstream of the ACID dam. Existing fish ladders at the ACID dam are inadequate and do not allow full fish passage past the ACID dam, and they do not provide the flexibility to control the passage of adult salmonids into the Sacramento River reach upstream of ACID. The resolution of this issue supports programs administered by the CDFG, USFWS, NMFS, U.S. Bureau of Reclamation (USBR) and Natural Resources Conservation Service (NRCS). The project directly addresses a key stressor with regard to migration barriers or delays caused by physical structures, and inadequate attraction flows.

Title Page

Title of Project

Anderson-Cottonwood Irrigation District Fish Passage and Dam Improvement Project

Name of applicant/principal investigator(s); address; phone/fax/E-mail; organizational, institutional or corporate affiliations of applicant/principal investigator(s)

Anderson-Cottonwood Irrigation District
2810 Silver Street
Anderson, CA 96007
Phone: 916/365-7329, Fax: 916/365-7623
Contact Person: Dee Swearingen, General Manager

Type of Organization and Tax Status

Tax exempt Special District, operating under Division 11 of the California Water Code

Tax Identification Number and/or Contractor License, as applicable

Federal Identification Number: 94-1682332

Technical and Financial Contact Person(s), address, phone/fax/E-mail

Same as above

Participants/Collaborators in Implementation

CH2M HILL
P.O. Box 492478
Redding, California 96049-2478
Phone: 916/243-5886; Fax: 916/243-1654

Contact persons: Howard Wilson, P.E., Project Manager, extension 3291, E-mail—hwilson@ch2m.com and Ron Fehringer, P.E., Project Engineer, extension 3382, E-mail—rfehringer@ch2m.com

California Department of Fish and Game
601 Locust Street
Redding, California 96001
Phone: 916/225-2307; Fax: 916/225-2381
Contact person: Phil Warner, Senior Fish Habitat Supervisor, E-mail—107660.1322@compuserve.com

RFP Project Group Types(s) (Construction; Acquisition; Other Services)

Group 1: Public Works/Construction. The proposed overall project is a construction project, resulting in aquatic habitat restoration. This proposal requests funding for Phase 1, which is the design and environmental process necessary prior to initiating construction.

Project Description

Project Description and Approach

The ACID Fish Passage Project will result in construction of fish passage facilities to correct fish passage problems and allow for annual management of fish passage at the existing ACID main diversion dam, near Redding California.

It is proposed that this project will be implemented in two phases. In Phase I, funding secured from CALFED would be used for CH2M HILL, ACID's consultant, to work closely with the affected agencies to establish design criteria, complete preliminary design and final design, prepare environmental documentation, obtain the required permits, and complete construction bid documents. In Phase II, funding would be secured to construct the facilities, perform environmental mitigation, and establish/conduct the monitoring program. For Phase II, ACID will request matching funds from other sources, such as CVPIA, with the intent that the overall split of funding at the conclusion of the project will be approximately 50 percent State and 50 percent Federal.

The proposed project and approach are further detailed in the "Proposed Scope of Work" section of this proposal. The design of the fish passage facilities will be developed directly with CDFG and other agencies to ensure compliance, while public input will be solicited through the environmental process. The proposed approach will result in the facilities being constructed and fully operational by the year 2000.

Location and/or Geographic Boundaries of Project

The proposed project is located on the Sacramento River approximately 3.5 miles south of Keswick Dam (approximately rivermile 299) immediately upstream of the Highway 273 Bridge in Shasta County, as shown on Figures 1a and 1b.

Expected Benefit(s)

Key stressors associated with the ACID diversion dam include migration barriers or delays caused by physical structures, and inadequate attraction flows. Implementation of the project would make the additional 3.5 miles of the Sacramento River between the ACID dam and Keswick Dam more easily accessible to all runs of chinook salmon, steelhead, and sturgeon species for spawning and rearing. The ladders also will be designed so they may be closed if necessary to block fish passage during periods when CDFG, USFWS, and NMFS determine that spawning habitat upstream of the ACID dam is being fully utilized.

Fish passage problems at the ACID dam are documented in several studies including the *Central Valley Fish and Wildlife Management Study - Fishery Problems at Anderson Cottonwood Irrigation District Diversion Dam, Sacramento River, California,* prepared in July 1983. The fish passage problem at the ACID diversion dam has been identified as Action Number 10 for the Upper Mainstem Sacramento River in the Draft Restoration Plan for the Anadromous Fish Restoration Program (USFWS, 1997). Furthermore, Section 3406(b)(17) of the Central Valley

Project Improvement Act (CVPIA) specifically authorizes the U. S. Secretary of the Interior to achieve the goal of resolving the fish passage problems at ACID's diversion dam. The current ladders are generally considered a significant barrier to adult anadromous fish passage, and provide insufficient attraction flows and orientation to efficiently provide passage for adult salmonids.

Species, Habitats, and Benefits. Actions taken to address the stressors listed above will primarily benefit winter-, spring-, fall-, and late-fall-run chinook salmon, steelhead trout, green sturgeon, and white sturgeon.

Benefits to Third Parties and Other Restoration Programs. These actions will benefit all third parties interested in restoration of anadromous fish species in the Sacramento and Bay-Delta systems. The proposed project directly supports other programs such as those being implemented under the Central Valley Project Improvement Act (CVPIA) through the Anadromous Fish Restoration Program (AFRP), Section 3406(b)(17), and the California Salmon, Steelhead Trout and Anadromous Fisheries Program Act of 1988. Third-party impacts associated with ladder construction are anticipated to be minimal since much of the proposed project is within the Sacramento River. Construction will be in compliance with all applicable regulations and necessary permits.

Background and Biological/Technical Justification

The proposed project has been discussed by resource agencies for a number of years and represents a substantial net benefit in terms of increased potential for anadromous fish passage, access to under utilized habitat, and an increase in the production of natural runs of anadromous salmonids and sturgeon. The ACID project is located within a critically important reach for spawning chinook salmon and steelhead in the upper Sacramento River.

Spawning surveys have estimated that at least 66 percent of all listed endangered winter-run chinook spawned between the Sacramento River bridge at Anderson and the ACID diversion dam from 1981-1993 (F. Fisher, CDFG pers. comm,). Most of these fish spawned upstream of the Bonnyview diversion. However, in surveys since 1988 very few winter-run chinook redds have been observed upstream of the ACID dam despite a continuing project to provide spawning gravel from stockpiles downstream of Keswick Dam.

Spawning surveys have estimated that, within the Sacramento River, approximately 75 percent of State of California proposed threatened spring-run chinook salmon spawned in the reach between Sacramento River bridge at Anderson and ACID's diversion dam during 1961 and from 1983-1993 (op. cit.). However, with the existing ladders at ACID's diversion dam, these adult spring-run chinook cannot easily access the cooler holding pools upstream of the dam. This holding habitat is crucial for spring-run chinook salmon because they hold in the mainstem of the Sacramento River from their arrival in May and until they spawn in September. The ability to regulate the passage of chinook salmon into the upstream reach of the Sacramento River would allow CDFG and USFWS to better manage spawning densities and geographical separation during the overlapping period when spring and fall-run chinook salmon spawn.

The fall- and late-fall-run chinook spawning surveys have also identified that approximately 25 percent of fall chinook and 43 percent of late-fall chinook salmon spawned in the reach of the

river between Anderson and the ACID diversion dam from 1967-1990 and 1984-1992, respectively (F. Fisher, pers. comm.). These species may also benefit from improved passage facilities at the ACID dam. Similarly, sturgeon species have been known to frequent the upper mainstem Sacramento River in the vicinity of the ACID facilities. These species may also benefit from additional access into the Sacramento River reach above the ACID dam.

Proposed Scope of Work

Task 1—Contract Management and Administration

Manage project cost and schedule, administer grant moneys, develop work plans, coordinate with other initiatives, coordinate and oversee the activities of the project team, communicate with agency staff, and provide financial reports to CALFED or the CALFED contract administrator. The applicant will prepare monthly reports summarizing degree of completion, activities during the reporting period, costs incurred, and milestones.

Task 2—Preliminary Design

Develop major project components to lay the groundwork for final decision-making and preparation of final plans and specifications. Activities are expected to include:

- Acquire project photography and mapping
- Finalize the size, location, type, and configuration of fish ladders
- Conduct geotechnical investigations as required at the ladder sites
- Support initial phases of environmental documentation
- Develop initial project delivery recommendations, including apparent best construction methods and schedule
- Develop budget cost estimate for construction

The deliverable from this task will be a Preliminary Design Report (PDR) summarizing the comparison of options, geotechnical findings, preliminary recommendations for construction methods and schedule, and the results of the budget cost estimate. The PDR will also include preliminary design drawings. This task is expected to include three to five meetings with agency personnel to finalize design criteria and project concepts.

Task 3—Final Design

Complete construction plans and specifications, ready for distribution to construction contractors upon receipt of funding for Phase II of the project. Prepare final engineer's cost estimate to verify funding needs and evaluate construction bids.

Task 4—Environmental Documentation

Prepare and certify joint NEPA/CEQA document that discloses all impacts and benefits associated with the proposed project. Activities are expected to include:

- Public scoping
- Prepare administrative draft document for agency review
- Prepare public draft document
- Respond to public comments/prepare draft document
- Prepare findings/decision documents

This task is expected to include five to seven meetings including public scoping, hearings, and coordination meetings with agency personnel

Task 5—Permitting

Prepare applications and coordinate acquisition of all environmental permits required to construct the project. Permits and approvals will be required by the following agencies:

- Corps of Engineers (404/Section 10 Permit)
- CDFG (Streambed Alteration Agreement/CESA compliance)
- NMFS (ESA compliance)
- USFWS (ESA compliance)
- State Lands Commission (Land Use Lease)
- Regional Water Quality Control Board (Waste Discharge Requirements/Stormwater)
- State Reclamation Board (Encroachment Permit)
- Department of Water Resources (Approval to Repair or Alter a Dam)

This task is expected to include 5 to 10 coordination meetings with agency personnel.

Monitoring and Data Evaluation

A monitoring program will be established in coordination with CDFG, USFWS and NMFS to evaluate the effectiveness of the facilities through the installation of fish counting devices and a ladder performance evaluation program. These monitoring activities will be developed, conducted, and reported under the guidance of CDFG, USBR, NMFS , and ACID personnel.

Implementability

Implementation of the proposed project will reduce impacts to anadromous species that are protected by the federal Endangered Species Act or proposed for listing, and are the subject of restoration efforts, including the AFRP. The project supports programs administered by several agencies including CDFG, USFWS, USBR, NMFS, and the NRCS. Design and construction of the project will require coordination with each of these agencies, including CDFG in the capacity of reviewing design criteria for the proposed ladders.

In addition to a NEPA/CEQA document and associated public scoping process, permits and approvals will be required as described in the Scope of Work section of this proposal. No issues that would significantly affect or delay the environmental documentation and permitting process are expected. The project will result in no significant land use changes, as the project is located in the Sacramento River. The project will not be affected by hydrology or climate because the facilities will be designed to withstand anticipated Sacramento River flows and conditions, and will be constructed during timeframes approved by CDFG, NMFS, and the SRB.

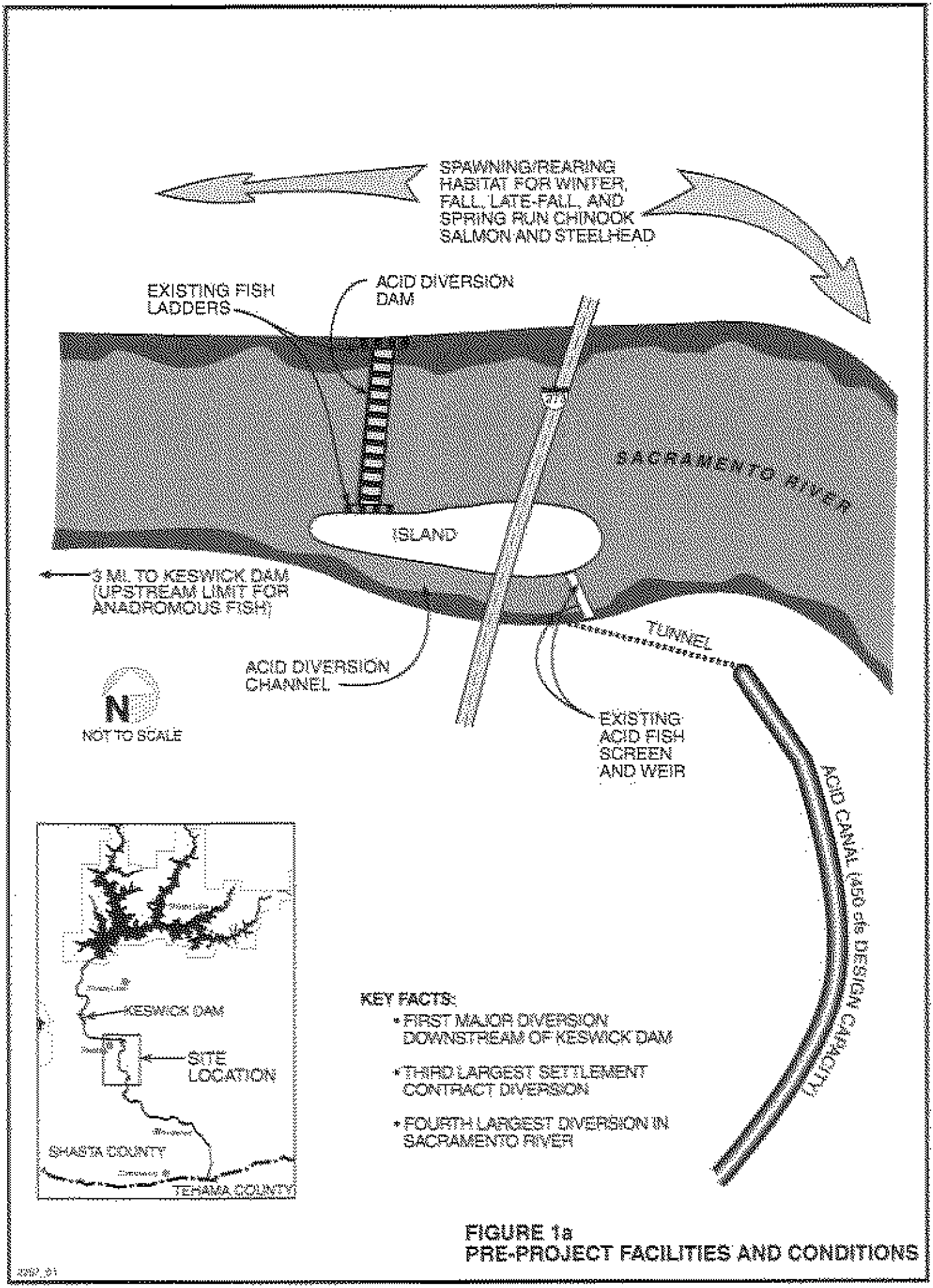


FIGURE 1a
PRE-PROJECT FACILITIES AND CONDITIONS

I-004710

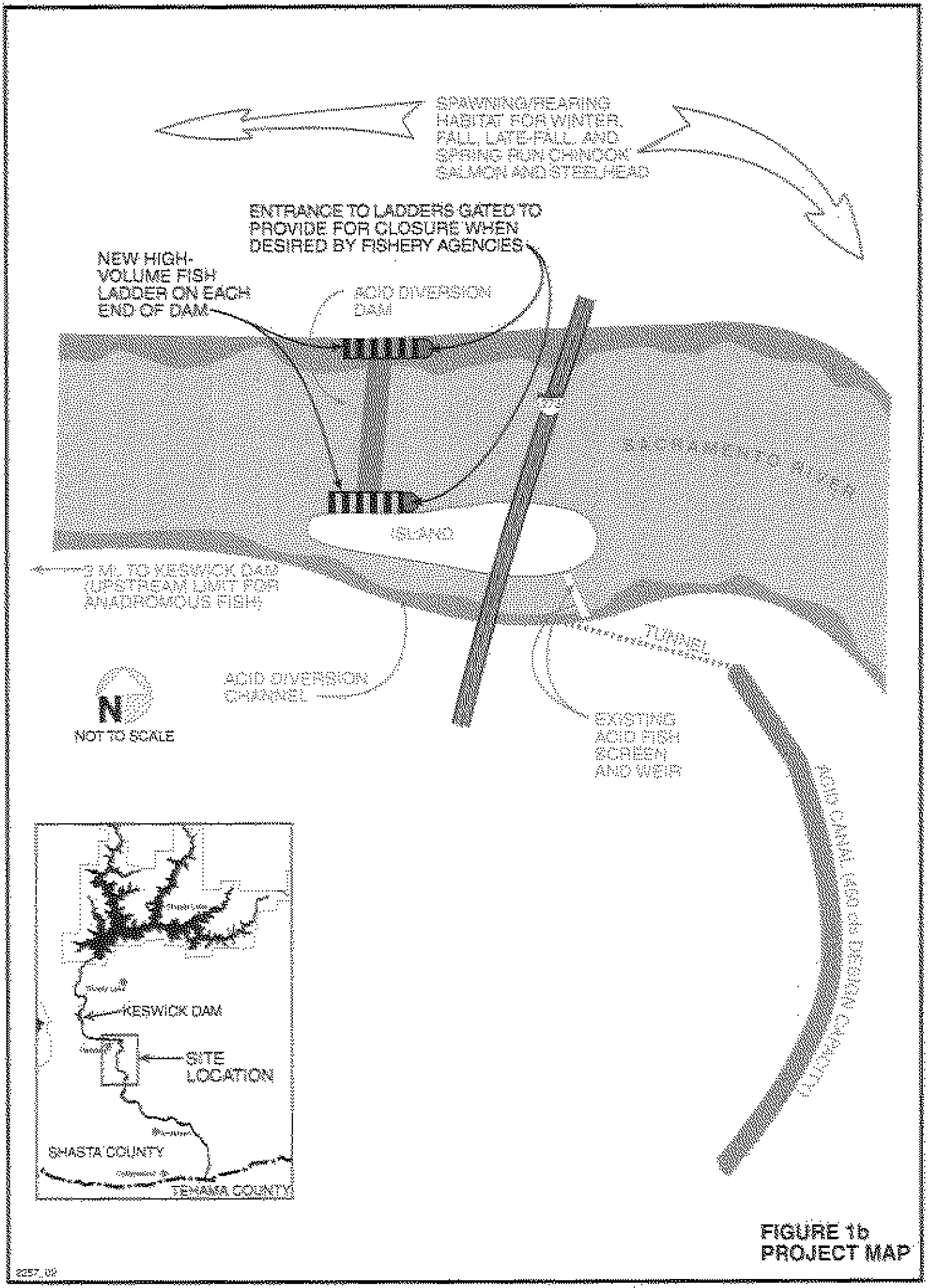


FIGURE 1b
PROJECT MAP

2257_02

I-004711

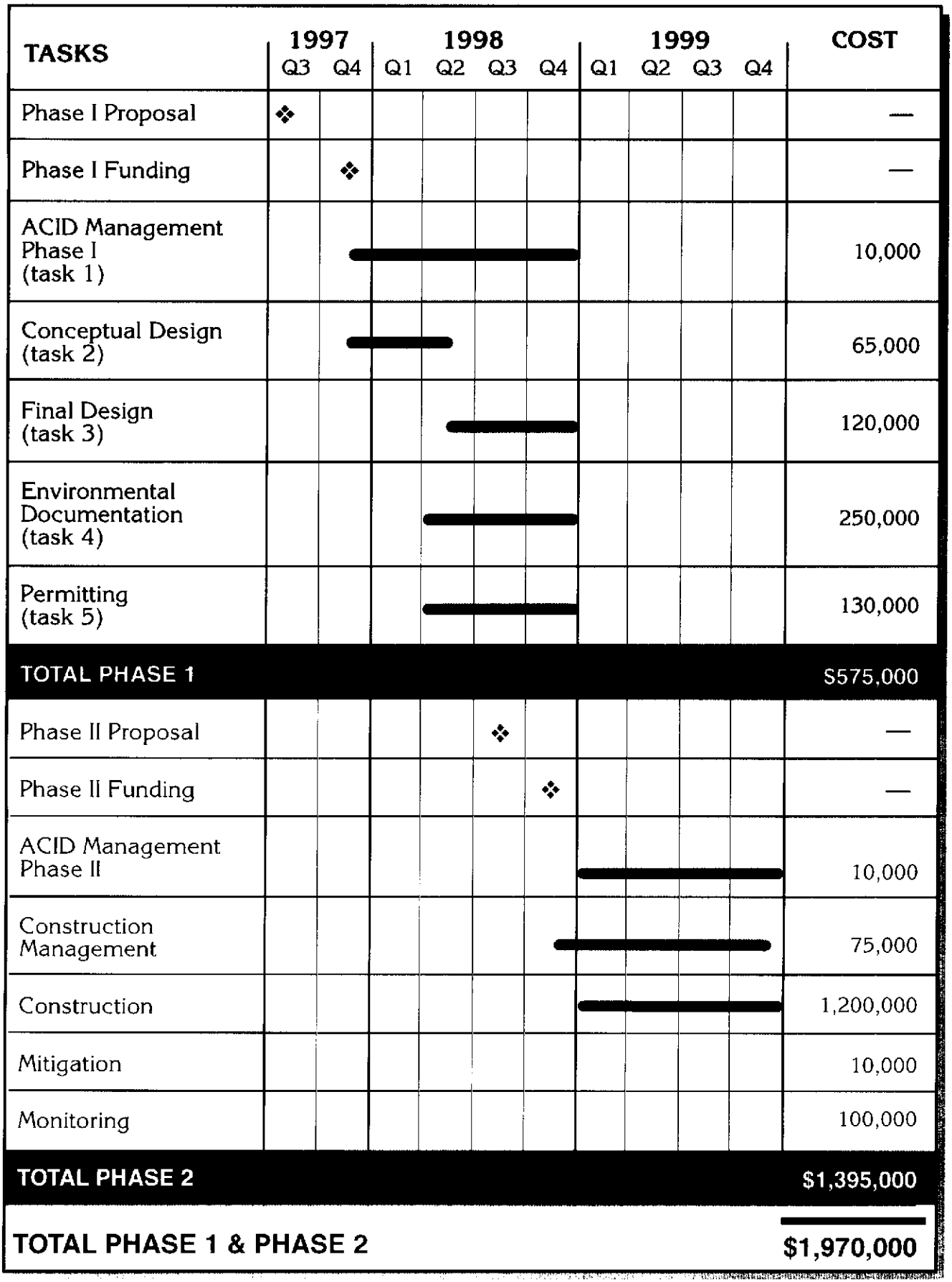
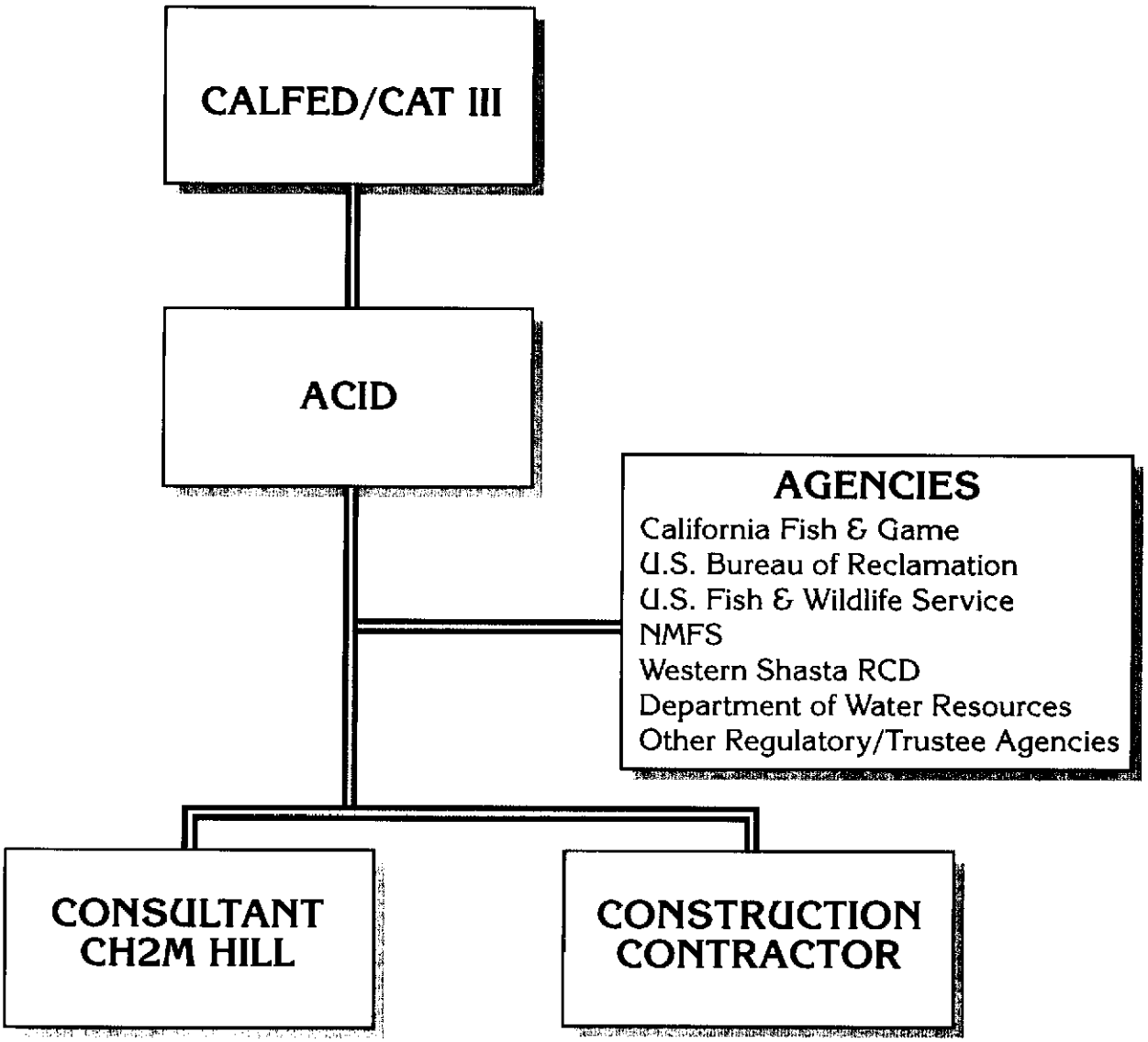


FIGURE 2
PROJECT COST AND TIMELINE

2257_03



RESPONSIBILITIES/ROLES

ACID	Administration, Owner, Sponsor
AGENCIES	Review, Guidance, Establish Design Criteria
CH2M HILL	Design, Environmental Documentation, Permitting, Construction Services
CONSTRUCTION CONTRACTOR	Build Ladders; Remove Existing Ladders

FIGURE 3
PROJECT ORGANIZATION CHART

2257_06

	GCID Diversion, Sacramento River	RD108 Diversion, Sacramento River	WCWD Butte Creek Siphon	Point Four Dam, Butte Creek	ACID Cottonwood Creek, South Fork Cottonwood Creek, and Hooker Creek Siphons
Endangered Species	✔	✔	✔	✔	✔
Instream Structural Work	✔	✔	✔	✔	✔
Cooperation with Agencies	✔	✔	✔	✔	✔
Grant Funding/ Administration	✔	✔	✔	✔	✔
Project Development	✔		✔	✔	✔
Pipeline/ Canal Design	✔		✔		✔
Environmental Documentation			✔	✔	✔
Permitting			✔	✔	✔
Construction Management		✔	✔		✔
Sacramento River System	✔	✔	✔	✔	✔

FIGURE 4
PROJECT TEAM EXPERIENCE

2257_04

WESTERN CANAL WATER DISTRICT
P.O. Box 190
RICHVALE, CA 95974

PHONE: (916) 342-5083
FAX: (916) 342-8233

July 18, 1997

To Whom it may concern:

The first manager of Western Canal Water District was Mr. Dee Swearingen. He was hired in 1985 following formation of the District and acquisition of the facilities from the former owner, PG&E. During his tenure as manager, Dee was instrumental in formulating the early engineering studies to improve fish passage in Butte Creek. The District commissioned CH2M HILL Engineers to do the initial feasibility studies.

By the time Mr. Swearingen left the District in 1993, he and the engineers had a project plan for an inverted siphon under Butte Creek, and several associated features to make up for the removal of the District's dams in the creek. The feasibility study put the District in a good position to pursue the project as funding became available. Dee Swearingen is very capable to manage and direct any fish passage improvement project on behalf of his District.

CH2M HILL Engineering in Redding, California, continued on with WCWD to provide preliminary engineering, environmental services, final design, bid assistance, and construction management for the District in construction of the Western Canal Water District Butte Creek Siphon and Dam Removal Project. Their services have been invaluable and professional. I would recommend them for similar work.

The WCWD project is funded in a three way funding partnership of the District, U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, as members of the Department of Interior, and CALFED Category III Restoration Program.

Dee Swearingen, now Manager of Anderson Cottonwood Irrigation District, in collaboration with CH2M HILL Engineering have the knowledge and expertise to direct, manage, design and construct a good project.

Sincerely,

Gary N. Brown

Gary N. Brown
General Manager

FIGURE 5
LETTER OF RECOMMENDATION

2257_05

Costs and Schedule to Implement Proposed Project

Budget Costs

The ACID Fish Screen Improvement and Diversion Consolidation Project will ultimately result in the construction of over $1.6 million in facilities to improve fish passage. The District does not currently have the financial resources to implement the project. The Category III/CALFED funding program offers a unique opportunity to implement this important project, and allow shared funding to be secured.

This proposal addresses Phase I of the overall project. Phase I consists of planning, design, management, environmental documentation, and permitting. The majority of the cost associated with this work will be incurred through a subcontract to ACID's consulting engineer, CH2M HILL, in preparing engineering plans and specifications, environmental documents, and permits. This proposal identifies CH2M HILL as the sole-source contractor due to the firm's intimate knowledge of the project area with regard to engineering, fisheries, and environmental issues, and proven experience on similar projects (see Applicant Qualifications). The CDFG will provide in-kind services with regard to ladder design, coordination, and review. The applicant (ACID) will also incur management and administration costs outside the normal operations of the District. No materials or acquisition contract costs, or operation and maintenance costs, are expected to be associated with Phase I. O&M costs for this project, once complete, would be funded through normal ACID budgets, and would not require funding assistance. A breakdown of Phase I project costs by task is provided in Table 1. In addition, Figure 2 (shown previously) provides a project timeline that includes funding needs by phase and task.

A request will be made to fund 50 percent of the total project costs from Federal funds under CVPIA. This Phase I request for Category III funds represents approximately 60 percent of CALFED's ultimate 50 percent cost share, assuming an approximately even State/Federal funding split.

The CDFG has $50,000 of Proposition 70 funds to support design and engineering for improvement of fish passage at the main ACID dam and diversion. The focus of this funding is for a new screen and fish ladders. If either or both of the ACID fish screen and fish passage proposals are funded under Category III, the Proposition 70 funds would be contributed as a cost share for CDFG approved design and engineering work.

TABLE 1
Cost Breakdown

Project Phase/ Task	Direct Labor Hours	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material/ Acquisition Contracts	Misc./Direct Costs	Total
Task 1*	392	$8,819	$882	0	0	$300	$10,000
Task 2	96	$2,715	$272	$61,500	0	$500	$65,000
Task 3*	96	$2,715	$272	$116,500	0	$500	$120,000
Task 4	72	$2,036	$204	$247,000	0	$1,000	$250,000
Task 5	72	$2,036	$204	$127,500	0	$500	$130,000
						TOTAL	**$575,000**

Schedule Milestones

The proposed schedule is shown on Figure 2 (shown previously).

Third-Party Impacts

As described above, no significant adverse third-party impacts are anticipated. Those parties which support restoration of anadromous species which would benefit from the proposed project would also benefit.

Applicant Qualifications

The project team and participating agencies are shown on Figure 3 (shown previously). ACID staff will manage the project and administer the budget. The CDFG will provide in-kind design criteria and guidance with respect to the main diversion fish screen. CH2M HILL will support the District by preparing engineering plans and specifications in coordination with CDFG and NMFS, prepare the environmental document, and assisting in permit acquisition. ACID and CH2M HILL will coordinate with each of agencies listed on Figure 3 to obtain guidance through the permit approval and acquisition process. ACID was formed in July 1914 under Division 11 of the State Water Code and is the oldest such District in the Sacramento Valley. In 1967, ACID entered into a settlement contract with the USBR which established the District's natural flow rights at 165,000 acre-feet per year, plus 10,000 acre-feet of "project water."

CH2M HILL is one of the nation's largest consulting engineering firms, with over 50 years of experience in water resources engineering, biological sciences, and environmental planning. Nearly 70 percent of the firm's revenues derive from consulting in water resources management. ACID has selected CH2M HILL for providing sole-source consulting services because of the firm's vast experience. Among recent projects are the design of fish screens for Glenn-Colusa Irrigation District (GCID) and Reclamation District 108 (RD108) diversions on the Sacramento River, and design of a siphon and associated facilities, as well as environmental documentation and permitting for the Butte Creek Siphon Project. These projects were undertaken in cooperation with the USFWS, U.S. Bureau of Reclamation (USBR), U.S. Army Corps of Engineers, CDFG, California Department of Water Resources (DWR), State Reclamation Board, Regional Water Quality Control Board, and NMFS. Figure 4 (shown previously) summarizes applicable projects successfully completed by the applicant's project team.

The following provides brief biosketches for the key members of the project team:

Dee Swearingen, Project Manager
ACID General Manager

Dee Swearingen has been General Manager of ACID since 1995. He has more than 28 years of experience in water resources management, water agency administration, and water resources consulting. Mr. Swearingen has served as general manager, secretary, and treasurer for water districts in California and Oregon. He has negotiated water contracts with the DWR and the USBR. Mr. Swearingen's expertise in water resources management encompasses district management, budget development, cost analysis, investments, structural design and implementation, water distribution system operation, dam operation and maintenance, liaison, personnel supervision, and public relations. He has been a board member of the Association of California Water Agencies board member, Executive Committee member, Vision 2000 Committee member, and Vice Chairman of the California Water Districts Section. He also has served on several other water resources boards and committees, including chairing the Northern California Water Association Managers' Committee. Mr. Swearingen has also administered and implemented numerous engineering projects for district facilities, including fish screening and passage structures.

Howard Wilson, P.E., CH2M HILL Project Manager
B.S., Civil Engineering; Registered Professional Engineer in California, Nevada, and Washington

Howard Wilson possesses more than 30 years of engineering experience, including project management and lead design experience on large, riparian water diversions and associated fish screens. He managed the evaluation of options for improving an existing rotary drum fish screen for GCID and led the design team for the successful GCID interim screen. Lower Sacramento River water levels and revised fish screening criteria dictated the need for a new fish screen or modifications to the existing facilities. The construction of the interim screen was completed within the preliminary design estimate, and Mr. Wilson is now managing design of the permanent fish screen for the GCID 3,000 cfs main intake and pump station. Mr. Wilson managed preliminary design of the M&T Ranch pump station relocation and fish screens. Other diversion intake, pump station, and fish screen designs he has managed include the Westpac Utilities Orr Ditch diversion on the Truckee River, Nevada; the Clear Lake intake for the Geysers Water Supply Project, Lake County, California; and the Yakima-Tieton Irrigation District intake screens, Yakima, Washington.

Mark Oliver, Lead Planner
B.S., Environmental Policy Analysis and Planning

Mark Oliver is a senior environmental planner with experience in environmental impact analysis, documentation, and permitting of water resources projects throughout Northern California. He has managed environmental studies and acquired permits on behalf of federal, state, local, and private clients. He managed a joint NEPA/CEQA document for the proposed construction of a siphon and associated water conveyance facilities on Butte Creek for the WCWD and the USFWS. The project is currently under construction and will remove four existing dams to improve chinook salmon fish passage. The project includes a large-scale siphon, as well as irrigation canals, check structures, and pipelines. He also directed the NEPA and CEQA documentation and compliance efforts to install additional water conveyance facilities to seven wildlife refuges and management areas in the Sacramento and San Joaquin Valleys for the USBR and USFWS. Mr. Oliver is also managing a joint EIS/EIR for the proposed restoration of the Trinity River fishery.

Ronald Fehringer, P.E., Lead Engineer
M.S., Agricultural Engineering; B.S., Agricultural Engineering; Registered Professional Engineer in California

Ron Fehringer has managed or served as task manager for a variety of conveyance system design projects. For the Butte Creek Water Supply and Fish Passage Plan, he characterized the water rights associated with Butte Creek and met with water users to assess their existing diversions and future water needs. He developed a conceptual design for alternate means of water delivery to water users as part of a comparison of water supply and fish passage alternatives for the USBR. Mr. Fehringer served as project manager and lead project engineer for the preliminary design, final design, and construction management inspection for the WCWD's Butte Creek Siphon and Dam Removal project. The dual objectives of this project were to improve fish passage in Butte Creek, while simultaneously improving the reliability of water deliveries to District customers.

Bob Gatton, P.E., Fish Screen Design Manager
M.S., Civil Engineering; M.S., Systems Management; B.S., Civil Engineering; Professional Engineer in Washington

Bob Gatton specializes in designing fish screening, passage, and hatchery facilities. He is a design consultant for the GCID and RD108 fish screening facilities on the districts' Sacramento River diversions. For the Rocky Reach Dam and Hydroelectric Facility on the Columbia River, he managed conceptual design, layout, equipment selection, and agency coordination for the construction 2,000 cfs and 5,000 cfs ganged screens and other fish protection facilities to pass more than 1 million fish around the dam. The project had to be completed in a 10-week period to meet the fish outmigration schedule, while avoiding disruption of power service. Mr. Gatton provided similar services for Yelm Hydropower, North Shore Dalles Hydro, and Dryden Canal, which were all large, flat plat profile wire screens oriented diagonally across the flow. Location, orientation, screen cleaning, and juvenile bypass systems were all design challenges for these projects.

Mark Randall, P.E., Structural Engineer
M.S. Structural Engineering; B.S., Engineering; Registered Civil and Structural Engineer in California, Nevada, and Arizona

Mark Randall has 17 years of engineering experience, specializing in the design of submerged structures in rivers, lakes, basins, and related environments. He was lead structural designer for the GCID interim fish screen and is now lead structural designer for the GCID permanent screen. He provided construction oversight for installation of the GCID interim fish screen. He also was the lead structural designer for the Orr Ditch Pump Station for Sierra Pacific Power Company in Reno, Nevada, and for the Big Bend Water District Water Treatment Plant in Laughlin, Nevada. Both of these projects included fish screens for protection of threatened or endangered fish species.

Alice Low, Fishery Biologist
M.S., Ecology; B.S. Biology

Alice Low specializes in fisheries research, management, and impact assessment. She has developed and managed numerous projects involving fishery resources in California. Her experience includes designing research and impact assessment studies, preparing scientific reports, managing field and laboratory staff, and conducting environmental reviews of CEQA and NEPA documents.

Ms. Low is currently working with the NMFS to develop fish screen performance criteria for the Comprehensive Assessment and Monitoring Program under CVPIA. During 11 years as a fishery biologist with CDFG, Ms. Low participated in a research project on young-of-the-year striped bass in the Sacramento-San Joaquin estuary, served as environmental services fishery biologist for the San Joaquin Valley and the Central Sierra Nevada region of California, and coordinated a habitat improvement program and an overall restoration program for fall-run chinook salmon in the San Joaquin River basin.

Compliance with Standard Terms and Conditions

The terms and conditions discussed in Section O of the Request for Proposals are acceptable to the applicant. Forms 8 and 11 are attached.

Item 8

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME
ANDERSON-COTTONWOOD IRRIGATION DISTRICT

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME
DEE E. SWEARINGEN

DATE EXECUTED
JULY 23, 1997

EXECUTED IN THE COUNTY OF
SHASTA

PROSPECTIVE CONTRACTOR'S SIGNATURE
Dee E Swearingen

PROSPECTIVE CONTRACTOR'S TITLE
GENERAL MANAGER

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME
ANDERSON - COTTONWOOD IRRIGATION DISTRICT

Item 11

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

STATE OF CALIFORNIA)ss

COUNTY OF SHASTA)

DEE E. SWEARINGEN (name), being first duly sworn, deposes and says that he or she is GENERAL MANAGER (position title) of ANDERSON-COTTONWOOD IRRIGATION DISTRICT (the bidder)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DATED: JULY 23, 1997 By Dee E Swearingen (person signing for bidder)

MARSHA E. KELLEY
Comm. No. 1016964
NOTARY PUBLIC-CALIFORNIA
SHASTA COUNTY
MY COMMISSION EXPIRES
MARCH 11, 1998
CAR-11 CAR-11

(Notarial Seal)

Subscribed and sworn to before me on

JULY 23, 1997

Marsha E Kelley

(Notary Public)