

CALFED BAY-DELTA PROGRAM

I EXECUTIVE SUMMARY

a. Project Title: Water Management, Model and Conservation Plan
Applicant Name: County of Glenn

b. Project Description and Primary Biological/Ecological Objectives:

The purpose of this project is to gain knowledge of environmental consequences of ground and surface water extraction activities, including those impacts to wetland and riparian ecosystems within the Stony Creek recharge area. Existing information and a water monitoring program will be used to develop baseline data. This information would be used to develop a computer model of the Stony Creek aquifer in Glenn County. The computer model would be the basis for development of a water plan which would identify optimum uses for the amount of water available. A water management plan including a water budget and water conservation plan would be developed.

The Water Management and Conservation Plan will incorporate the data from the water monitoring and model into an area-wide comprehensive program to do the following:

- a) enhance management of all water resources in the area
- b) evaluate conjunctive use of the groundwater and surface water supplies of the area
- c) allow for better coordination of groundwater and surface water resources
- d) assure the continued economic viability of the area by sustaining a usable groundwater resource
- e) promote water conservation for domestic and agricultural users

c. Approach/Tasks/Schedule:

This would be a three year project to develop water baseline data, prepare a computer model of the Stony Creek aquifer and develop a water budget, and water management and conservation plan.

d. Justification for Project and Funding by CALFED:

The Glenn County Water Management, Model and Conservation Plan project will provide definitive information which will allow the best use of both surface and groundwater in the County and in the region. Water transfers from Glenn County have been proposed to solve various problems in the Bay-Delta Complex. These proposals are usually met with extreme fear and resistance by local residents because there is no definitive information on the local water resource.

Information on water and a water management, model and conservation plan will assist the goals of CALFED by providing water conservation education, by demonstrating how groundwater and surface water are related, and by showing the amount of water that is

DWR WAREHOUSE

available for improving aquatic and terrestrial habitats and ecological functions within the recharge area itself and in the Bay-Delta Complex.

e. Budget Costs and Third Party Impacts:

The budget for this project is \$360,000. The water monitoring will cost \$125,000. The water computer model will cost \$175,000 and the groundwater management plan will cost \$60,000.

This project does not take agricultural land out of production and, therefore, will not have any negative third party impacts.

f. Applicant Qualifications:

The Glenn County Resource, Planning and Development Department will coordinate this project. The RPD Director, has extensive background in water conservation and management and appropriate consultants will be used as needed. The RPD Director, serves as the County's liaison to the Glenn County Water Committee which includes all the water districts and agencies in the County.

g. Monitoring and Data Evaluation:

The County will work with California State University, Chico and the University of California, Davis to ensure that the work is performed correctly and appropriate data are used for the water model and the Water Management and Conservation Plan.

h. Local Support/Coordination with other Programs/Compatibility with CALFED objectives:

This project is supported by all the Glenn County water and irrigation districts, the Resource Conservation District and the Glenn County Farm Bureau. The County works closely with the Colusa Basin Drainage District, water purveyors and irrigation districts and with the local representatives of the US Fish and Wildlife Service at the Sacramento National Wildlife Refuge.

This project will be coordinated with other CALFED programs. The County has submitted two applications to CALFED dealing with Stony Creek while this application deals with water availability and use throughout the County.

The Glenn-Colusa Irrigation District (GCID) is applying for funds to construct a siphon under Stony Creek to replace their diversion dam. This project will change Stony Creek back into a true stream since access to the Sacramento River will no longer be blocked.

All of these projects will benefit the Sacramento River and the Bay-Delta Complex.

II. TITLE PAGE

a. Project Title: Water Management, Model and Conservation Plan

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

John Benoit, Resource, Planning and Development Director
Glenn County Resource, Planning and Development Department
125 South Murdock Street, Willows, CA 95988
Phone: 916-934-6540, Fax: 916-934-6542

c. Type of Organization and Tax Status: Local Government, County

d. Tax Identification Number and/or Contractor license, as applicable:

Glenn County Employer identification Number: 94-6000691

e. Technical and Financial contact person(s) address, phone/fax/E-mail:

John Benoit, Resource, Planning and Development Director
Glenn County Resource, Planning and Development Department
125 South Murdock Street, Willows, CA 95988
Phone: 916-934-6540, Fax: 916-934-6542

f. Participants/Collaborators in Implementation:

California Water Service, Willows
Glenn-Colusa Irrigation District
Glide Water District
Kanawha Water District
Orland Unit Water Users' Association
Orland-Artois Water District
Princeton-Codora-Glenn Irrigation District
Provident Irrigation District

Glenn County Resource Conservation District
Glenn County Farm Bureau
Glenn County Department of Agriculture

g. RFP Project Group Type: Other Services

III. PROJECT DESCRIPTION:

a. Project Description and Approach (*Thoroughly describe the features and extent of the proposed project and the intended approach to complete the project.*)

WATER MONITORING:

To better understand and thereby make knowledgeable water management decisions regarding the water resources in the Stony Creek aquifer in Glenn County the first step is to monitor groundwater levels and gather baseline information. The State Department of Water Resources (DWR) measures a number of wells in the County but the number is small relative to the size of the groundwater basin. Also, there are areas within the County where the amount of recharge varies. Most of these areas have few monitoring wells.

To gain a better understanding of groundwater under the irrigated areas of the County it is necessary to expand the number of wells being monitored. It is also important to coordinate County monitoring efforts with the well monitoring efforts of DWR, the US Geological Survey and the US Bureau of Reclamation and any other agency engaged in similar activities in the County.

Groundwater monitoring will help to achieve the following goals:

- a) maintenance of a stable groundwater system in Glenn County
- b) use of groundwater for watershed enhancement projects along Stony Creek and the Sacramento River
- c) allow agencies to provide quality groundwater with a sustainable yield
- d) allow development of a groundwater management plan with reasonable discussion of water transfers
- e) allow evaluation of impacts from groundwater and surface water use for agriculture
- f) document groundwater recharge contribution of surface water used for irrigation

WATER COMPUTER MODEL:

The computer model of the Stony Creek Aquifer is necessary to integrate all the data from the groundwater monitoring and geologic, hydrologic, climatological and land use data into a form that can be used and understood for policy planning. Also, the model is necessary to provide a format to integrate new data from groundwater monitoring that will be acquired in the future and to compare the new data with the original data.

WATER MANAGEMENT AND CONSERVATION PLAN:

The Water Management and Conservation Plan will incorporate the data from the water monitoring and model into an area-wide comprehensive program to do the following:

- a) enhance management of all water resources in the area
- b) evaluate conjunctive use of the groundwater and surface water supplies of the area
- c) allow for better coordination of groundwater and surface water resources
- d) assure the continued economic viability of the area by sustaining a usable groundwater resource
- e) promote water conservation for domestic and agricultural users

b. Location and/or geographic boundaries of project

Identify the County and Watershed to which the project applies. Use maps as appropriate.

The project will be located in Glenn County which is located in the Sacramento Valley approximately eighty miles north of Sacramento. The Stony Creek Aquifer lies in the eastern part of the County. Please see attached map.

c. Expected benefit(s)

Identify the primary stressors, species, and/or habitats which are the focus of the project. Identify and, to the extent possible, quantify the expected benefits.

Distinguish primary benefits from secondary benefits.

Identify potential benefits to third parties, other ecosystem restoration programs, and CALFED non-ecosystem objectives.

The Stressor Category for this project is "Alteration of Flows and other Effects of Water Management", subcategory "Hydrograph Alterations". This means "Inadequate flow, flow variability, seasonal flow distribution, flow timing, standing due to flow fluctuation, lack of flushing flows, lack of attraction flows, lack of channel forming flows, saltwater intrusion.

The restoration actions will include the following:

- a) Development of a water budget for low-water years.
- b) Development of a water management plan and water conservation program.

d. Background and Biological/Technical Justification

Discuss the need for the project (e.g. existing conditions) and a comparison of proposed approach with alternative and other similar approaches to achieve comparable objectives(s). Summarize the basis for expected benefit(s).

Discuss nature of and basis for durability of the benefit(s) resulting from implementation of the proposed project (e.g. sensitivity to hydrologic/climatic changes; enhanced ecosystem function/processes).

Summarize the current status of the project: Is it a new or continuing project; what is the progress/accomplishments/expenditures to date; discuss the project's past interaction with other programs/project; identify the status of supporting documentation.

Areas in Glenn County experienced declining groundwater levels prior to importation of surface water from the Tehama-Colusa Canal. Since the availability of surface water is uncertain, it is important that the water resources be managed properly and protected for future use. The Stony Creek alluvial fan plays a large role in how water resources react. Other parts of the County have a very high water table, particularly during the irrigation season.

More information associated with the operation of Stony Creek needs to be developed. The groundwater characteristics north of the Stony Creek Channel differ from those south of the channel. Similarly the areas near the Sacramento River differ from one another from east side to west side, as well as north to south. These differences need to be understood, quantified and recognized.

The relationship of surface water and groundwater will be of particular importance to this study. Having more information on water will allow the use of water for ecological enhancement of the Bay-Delta Complex.

The various water agencies in the County have started to work together to accomplish this project but there is no funding available to do the work that would benefit the Bay-Delta Program.

e. Proposed Scope of Work

Identify appropriate incremental phases (e.g. feasibility, design, pre-construction, construction, pilot/demonstration, etc.) for completing the entire project.

Identify the specific tasks and deliverables to conduct/implement actions for the project phases(s) being proposed for CALFED funding.

Identify nature, content and timing of technical and financial reports to be provided in support of performance of the project.

1. Gather baseline information for the Stony Creek aquifer and water in Glenn County.

This phase of the project is estimated to take one year. There will be a written report for this phase of the project.

2. Monitor ground and surface water supplies.

This phase of the project will be done at the same time as Task #1 above and the information will be included in the report for Task #1. The monitoring will continue for two additional years.

3. Develop a water computer model for the Stony Creek aquifer

This phase of the project will take one year following completion of Tasks #1 and #2 above. There will be a written report which would serve as a technical appendix to the water management and conservation plan as well as the computer discs with the program and data.

4. Develop a water management and conservation plan.

This phase of the project will take one year following completion of Tasks # 1, #2, and #3 above. There will be a written Draft Plan, written comments and a written Final Plan prepared for public distribution. Monthly financial reports and quarterly narrative reports will be provided.

f. Monitoring and Data Evaluation

Discuss the nature and extent of monitoring and data evaluation, and provide a comparison of the proposed monitoring/data evaluation approach with alternative and other similar approaches.

Discuss the potential for, or planned coordination and integration of monitoring/data evaluation with other programs.

Address how the proposed project will use peer review in the monitoring and data evaluation process.

The County will work with California State University, Chico and the University of California, Davis to ensure that the work is performed correctly and appropriate data are used for the water model and the Water Management and Conservation Plan. The County has also been in close contact with the Department of Water Resources office in Red Bluff regarding water in Glenn County.

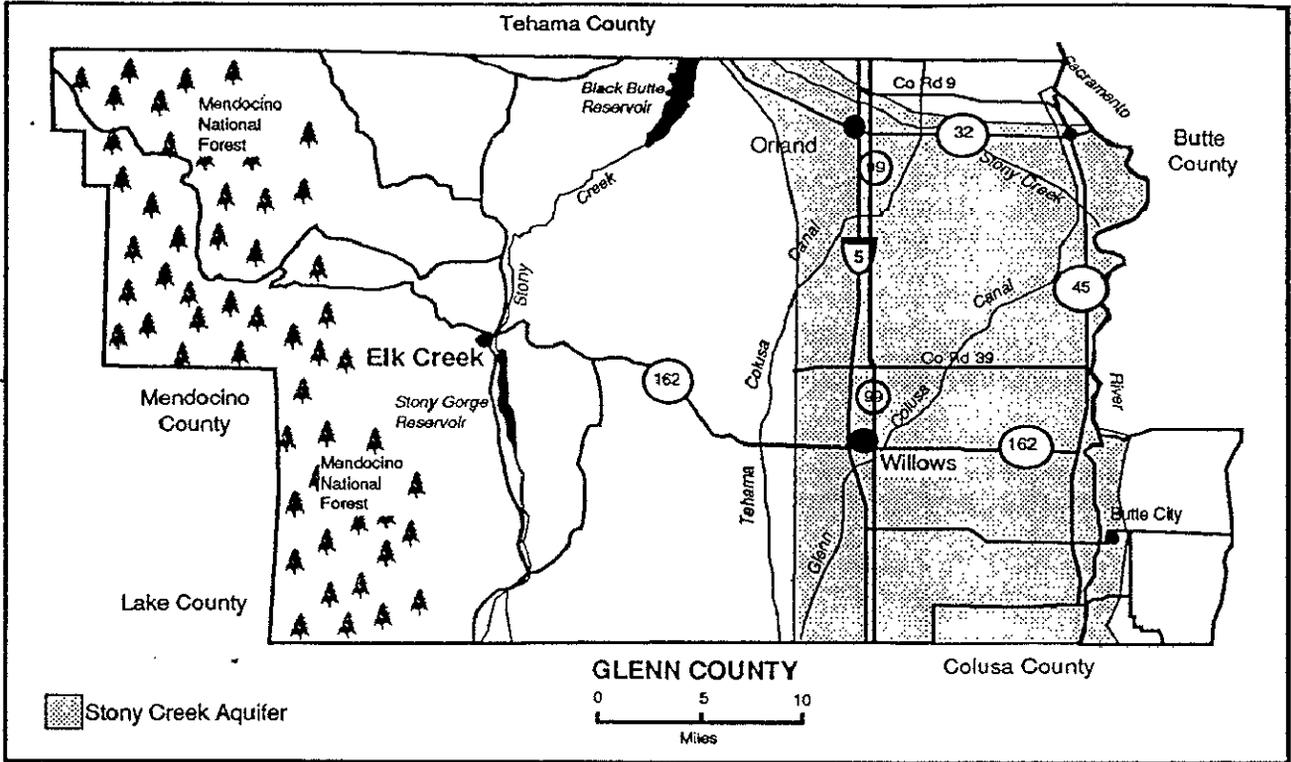
The Glenn County Department of Agriculture will assist in monitoring and data evaluation. There is also a local group of concerned citizens, the Surface Water Stewardship Committee, which will be involved in the project.

g. Implementability

Discuss issues such as: Compliance with laws and regulations; the nature and status of permits, easements, encumbrances, environmental compliance, etc.; required coordination with other projects; sensitivity to hydrologic/climatic conditions; the nature and extent of local support, outreach efforts, and participation; availability of willing sellers; land use conditions and changes; assessment of hazardous materials conditions; cultural impacts; etc.

There is tremendous local support for this project because most farmers are dependent on both surface water and groundwater and they are aware of the importance of using water wisely and maintaining the Bay-Delta Complex. The Glenn County Resource Conservation District is supportive of this project. The Glenn County Farm Bureau is supportive of this project. The water and irrigation districts within the County are supportive of this project. There has been an ad hoc water committee in the County meeting for several years working for the wise use of water resources.

This project could serve as a model for other similar projects in counties that are up-stream from the Bay-Delta Complex.



IV. COSTS AND SCHEDULE TO IMPLEMENT PROPOSED PROJECT

a. Budget Costs

Identify budgeted costs for the program in total and specific to each of the tasks for which you are requesting CALFED funding.

Specify the breakdown of costs and funding source for each task using within the following categories: Direct salary and benefit costs; Indirect overhead labor costs (General, administrative and fee), if any; Costs of service contracts; Costs of material/acquisition contracts; and miscellaneous and other direct costs. An example table for displaying cost breakdown is shown below in Table 1.

Separate O&M costs out by phasestask of the project.

Discuss the basis/need for CALFED funding to support the project, and the potential for incremental CALFED funding for distinct project phases.

Identify contingency planning for anticipated current year and future year funding needs, especially cost sharing and O&M.

Identify funding partnership needs and/or commitments, and specify the source of partnership funding (CVPIA, etc..) and status of that funding.

Identify subcontract bid and evaluation process.

Task 1: Gather baseline information for the Stony Creek aquifer and water in Glenn County.

Direct salary and benefit costs	\$20,000
Indirect overhead labor costs	\$2,500
Cost of service contract	0
Cost of material/acquisition contract	0
Miscellaneous	\$2,500
Total Cost for Task 1	\$25,000

Task 2: Monitor ground and surface water supplies

Direct salary and benefit costs	\$20,000
Indirect overhead labor costs	\$10,000
Cost of service contract	\$30,000
Cost of material/acquisition contract	\$20,000
Miscellaneous	\$20,000

Total Cost for Task 2 **\$100,000**

Task 3: Develop a water computer model for the Stony Creek aquifer

Direct salary and benefit costs	\$10,000
Indirect overhead labor costs	\$2,500
Cost of service contract	\$160,000
Cost of material/acquisition contract	0
Miscellaneous	\$2,500

Total Cost for Task 3 **\$175,000**

Task 4: Develop a water management and conservation plan.

Direct salary and benefit costs	\$50,000
Indirect overhead labor costs	\$5,000
Cost of service contract	0
Cost of material/acquisition contract	0
Miscellaneous	\$5,000
Total Cost for Task 4	\$60,000
Total Cost for Project:	<u>\$360,000</u>

b. Schedule Milestones

Identify the start/completion dates of specific tasks discussed above plus other key milestones (decision, testing etc.). Also identify how payments would relate to milestones, as applicable.

Tasks #1 and #2 will have a report prepared within three years, Tasks #3 and #4 will be completed during the third year from the date of approval of this project.

c. Third Party Impacts

Identify and quantify any anticipated or potential third party impacts that would result from implementation of this project, and associated mitigation measures.

Third party impacts are not anticipated in this project. There is no land acquisition and land is not being taken out of agricultural production. The local water districts and irrigation districts are involved in this project.

V. APPLICANT QUALIFICATIONS

Describe the planned organization of staff and other resources to be used in implementing this project.

Identify the nature and extent of other collaborating participants in the implementation of this project.

Identify specific individual responsibilities covering technical, administrative and project management roles.

Provide brief biosketches which identify the individual's qualifications as well as experience and performance on past related project consistent with their proposed roles and references for similar projects.

The following staff will be allocated to this project:

Glenn County Resource Planning and Development Department:

John Benoit, Resource, Planning and Development Director, and
Christy Leighton, Senior Planner.

John Benoit, Resource, Planning and Development Director will be the project manager for this project. Christy Leighton, Senior Planner, will be the principal planner for the project. A consultant, Mr. Wesley Gilbert of Gilbert Engineering, will be used for the water model.

The financial record keeping and reporting will be done by the grant administrator in the Resource, Planning and Development Department.

Glenn County Resource Planning and Development Department:

John Benoit, Resource, Planning and Development Director:

More than twenty years of progressively responsible, management, administrative and community development experience. Knowledgeable in facilities planning, general plan preparation, airport planning, geographic information systems, data management, grantsmanship, water management, economic development, personnel and fiscal management.

Master's degree in Geography, California State University, Chico. Bachelor degrees in Geography, California State University, Chico, and French, California State Universities and Colleges International Programs-Universite Aix-Marseilles, France.

Christy Leighton, Senior Planner:

More than twenty years of progressively responsible planning and administrative experience. Knowledgeable regarding the following:

- general plan preparation and maintenance,
- CEQA/NEPA compliance,
- economic development grant applications and management,
- gravel extraction laws and issues,
- Local Agency Formation Commission laws and procedures,
- administration, personnel and fiscal management.

Experienced in working with elected boards, professional committees, appointed commissions, consultants and citizen groups.

Master's Degree in Ecology, University of California, Davis.
Bachelor's Degree in Biology, Northwestern University, Evanston, Illinois.

Wesley E. Gilbert of Gilbert Engineering

More than eighteen (18) years of progressively responsible engineering and administrative experience in infrastructure development and public works engineering and administration. Knowledgeable in residential and commercial/industrial engineering and development, including street design and construction and utility systems design and construction, property and construction surveying for residential and commercial/industrial development; transportation planning; solid waste management and planning; airport operations, project development and planning; and groundwater hydrogeology and groundwater modeling.

Gilbert Engineering specializes in groundwater and hydrogeology modeling. Services include field research, meeting with water users and suppliers, collection of data, preparation and application of future scenario and model runs, maintenance, updating and calibrating groundwater models.

Bachelor of Science, Civil Engineering, California State University, Chico.

VI. COMPLIANCE WITH TERMS AND CONDITIONS

Submit the forms consistent with applicant type and with RFP project group type applicable to the proposal. Are the terms and conditions agreeable to and able to be complied with by the applicant? If not, specify those terms and conditions in which deviation is being requested. Example contractual terms and conditions for successful proposals are discussed on Section O.

Glenn County anticipates no problem meeting the terms and conditions required by CALFED. A copy of the Nondiscrimination Compliance Statement is attached.

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME
COUNTY OF GLENN

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.

JOHN BENOIT, Resource, Planning and Development Director

OFFICIAL'S NAME

DATE EXECUTED July 22, 1997 EXECUTED IN THE COUNTY OF Glenn

PROSPECTIVE CONTRACTOR'S SIGNATURE *John Benoit*

PROSPECTIVE CONTRACTOR'S TITLE COUNTY OF GLENN

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME COUNTY OF GLENN



**GLENN COUNTY
BOARD OF SUPERVISORS**

Courthouse, 526 West Sycamore Street
P. O. Box 391
Willows, California 95988
916-934-6400 FAX 916-934-6419

Charles Harris, Sr., District 1
Gary Freeman, District 2
Dick Mudd, District 3
Denny Bungarz, District 4
Keith Hansen, District 5 & Chairman
Vince Minto, County Clerk

At their meeting held on July 15, 1997, the Board took the following action:

Minute Order of the Board of Supervisors
County of Glenn, State of California

19.

Water

Also Present: John Benoit, Resource, Planning and Development Director

Sandy Denn, Glenn Colusa Irrigation District, andddd Groundwater Study Team Member

Matter: - Recommendation of Mr. Benoit to authorize submission of the following grant applications
- to the CALFED Bay-Delta Program for projects which will restore ecological health and improve water management for beneficial uses of the Bay-Delta System:

- a. Groundwater Monitoring, Model & Plan to develop baseline data for development of a computer model of the Stony Creek Aquifer in Glenn County;
- b. Stony Creek Restoration Site Plan and Pilot Projects for funding to identify specific sites to restore riparian vegetation and to implement several pilot projects with willing landowners;
- c. Stony Creek Plan and Water Quality Project for funding to develop a landowner group to prepare a Stony Creek Plan and water quality preservation measures.

Motion/Second: Supervisor Freeman/Supervisor Mudd

Order: Approve the aforesaid matter

Vote: Unanimous by members present.

CalFed Bay-Delta Program

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General, Admin and fee)	Service Contracts	Material and Acquisition Contracts	Miscellaneous and other Direct Costs	TOTAL COST
Task 1 Gather baseline information for the Stony Creek aquifer and water in Glenn County	400	\$20,000	\$2,500	\$0	\$0	\$2,500	\$25,000
Task 2 Monitor ground and surface water supplies	400	\$20,000	\$10,000	\$30,000	\$20,000	\$20,000	\$100,000
Task 3 Develop a water computer model for the Stony Creek aquifer	200	\$10,000	\$2,500	\$160,000	\$0	\$2,500	\$175,000
Task 4 Develop a water management and conservation plan	1000	\$50,000	\$5,000	\$0	\$0	\$5,000	\$60,000
TOTAL COST FOR PROJECT							\$360,000

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I-000631



Glenn County

Resource, Planning and Development Department

125 South Murdock Avenue
Willows, California 95988

916-934-6540 (Willows)
916-865-1204 (Orland)
916-934-6542-Fax

John Benoit, Director

July 23, 1997

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

Enclosed are three proposals for 1997 Category III funding for Ecosystem Restoration Projects and Programs. If you need further information on any of these projects please contact this office. Thank you for your consideration of these projects.

Yours truly,

A handwritten signature in cursive script that reads "Christy Leighton".

Christy Leighton
Senior Planner