

**MURRAY, BURNS & KIENLEN** F1-304

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**TRANSMITTAL MEMORANDUM**

July 28, 1997

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

JUL 28 1997

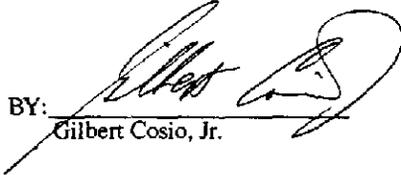
**FROM:** Gilbert Cosio, Jr.  
Murray, Burns and Kienlen

**SUBJECT: Transmittal of 1997 Category III Proposal --  
Reclamation District No. 2110 - Mokelumne River Setback Levee and  
Habitat Enhancement Project**

In accordance with specifications described in the "Request for Proposals, 1997 Category III, Ecosystem Restoration Projects and Programs", transmitted on behalf of Reclamation District No. 2110, are the enclosed ten (10) copies of their Proposal regarding the "Mokelumne River Setback Levee and Habitat Enhancement Project".

If you have any questions, or require additional information, please call me at (916)456-4400.

Sincerely,  
MURRAY, BURNS & KIENLEN

BY:   
Gilbert Cosio, Jr.

cc:  
Reclamation District No. 2110  
c/o Ms. Kadee Hoover

7/28/97  
3:17 PM

**EXECUTIVE SUMMARY**

Mokelumne River Setback Levee and  
Habitat Enhancement Project

Applicant  
Reclamation District No. 2110

F1-304

JUL 28 1997

**Project Description & Primary Biological/Ecological Objectives:**

Reclamation District No. 2110 is proposing a multi-purpose construction project in the north Delta. The project involves a setback levee consistent with the FEAT Report and CALFED objectives regarding flood control and environmental enhancement.

The project involves construction of a new levee, setback approximately 400 feet from the existing levee on the right bank of the Mokelumne River along RD 2110 (see Fig. 1). The proposed levee is 3.4 miles in length and will parallel the existing levee. A new channel will be constructed between the existing levee and proposed levee to provide additional flow capacity on the Mokelumne River. The new channel will also provide borrow material for the construction of the proposed levee. The existing levee will be left in place to protect existing and encourage additional waterside habitat. The proposed levee will be engineered for stability and provide additional waterside habitat.

The proposed project is a component of the preferred alternative identified in the draft EIR/EIS for the North Delta Program (Nov. 1990). It is a multi-phased project consisting of RFP project group I - Construction Project.

Priority habitats that will benefit from the project include seasonal wetlands and aquatic habitat, instream aquatic habitat, shaded riverine aquatic habitat (SRA) and mid-channel islands - shoal habitat. The project will address stressors related to flood plain and marsh plain changes (such as physical isolation of the flood plain) and channel form changes (such as elimination of side channels).

Priority species that will benefit are winter-run chinook salmon, spring-run chinook salmon, San Joaquin fall-run chinook salmon, Delta smelt, longfin smelt, splittail, steelhead trout and migratory birds. The fish species will benefit from increased shallow water and riverine habitat that is used for rearing and/or spawning. Migratory birds will benefit from the increased amount of SRA habitat.

The project is consistent with CALFED objectives and provides benefit to many areas of concern. These benefits include reduction in flood stages, greater flood conveyance on the Mokelumne and Cosumnes Rivers, and improved water quality, system reliability, recreation, fisheries and wildlife habitat.

**Approach/Tasks/Schedule:**

The project approach will be to carry out multi-phases in a clear step-by-step manner to provide public comment, address community concerns and meet CALFED objectives. The phasing will consist of Planning and Design, Acquisition of Property, and Construction. The tasks and schedule for each Phase are presented below:

<b>Phase I</b>	- Project evaluation and preliminary design	10/01/97 - 01/31/98
	- Environmental review & permitting	02/01/98 - 08/01/98
	- Monitoring & evaluation	10/15/98 - 12/01/98
<b>Phase II</b>	- Negotiate & purchase land	03/01/98 - 06/01/98
<b>Phase III</b>	- Preparation of final plans	06/01/98 - 08/01/98
	- Construction	09/01/98 - 09/01/99

**Justification:**

The proposed project is the upstream component of the North Delta Program preferred alternative. The dredge portion is not proposed for this project. The goals and benefits provided by the NPD are: 1) alleviate flooding in the north Delta, 2) reduce reverse flow in lower San Joaquin River, 3) improve water quality, 4) reduce fishery impacts, 5) improve State Water Project flexibility, 6) meet the priority habitat species requirements of this RFP and 7) address stressors related to flood plain and marsh plain change, and channel form changes. The project will incrementally provide the goals and benefits enumerated above.

**Budget Costs:**

The estimated budget costs for each phase are as follows:

Phase I	(planning and design)	—	\$	365,000
Phase II	(land acquisition)	—	\$	660,000
Phase III	(construction)	—	\$	<u>10,490,000</u>
TOTAL PROJECT COST				— \$ 11,515,000

**Third Party Impacts:**

The project will have no downstream effect on the peak flood stage during large flood events. In fact, the project will eliminate the devastating surge of water produced downstream when the McCormack-Williamson Tract floods and overtops at its downstream end. There may be a slight increase in peak stage downstream during lesser floods. (The existing, limited capacity channel tends to meter flows downstream.) It is not anticipated that this increase will be significant and will be carefully evaluated in the CEQA document.

**Applicant Qualifications:**

Reclamation District No. 2110 (District) is the public agency responsible for maintenance and rehabilitation of the levees within its jurisdiction. The District has been a participant in the Subventions Program (SB 34) and as such is well acquainted with the CEQA processes, bidding laws, contracting for levee work, and in general flooding issues in the North Delta. The District has spend approximately \$1.4 million on levee maintenance and rehabilitation since 1986. Murray, Burns and Kienlen (MBK) has been the District's Engineer since the District's formation and has guided the District's Board of Trustees in the above activities.

**Monitoring & Data Evaluation:**

The project will be monitored for success of hydraulic and biological improvements to the system. Hydraulic improvements will be documented by completing an as-built survey of the new channel and levee, and evaluating how well the design improves the channel hydraulics. Biological monitoring will include documentation of botanical, wildlife, and fisheries resources before and after project construction.

**Local Support/Coordination With Other Programs/Compatibility with CALFED**

The design of the projects will incorporate advice from key State and federal resource management agencies. The project design will minimize adverse impacts to the land and water habitats, and respect key habitats of rare and endangered species in the Delta area. The project includes construction on agricultural land and will require appropriate environmental analysis. In addition, the project will need permits or approvals from the Corps of Engineers, the Department of Fish and Game, and the Central Valley Regional Water Quality Control Board. Coordination with nearby property owners will also be crucial, but is favorable at this time. It is anticipated that funding may also be obtained from the Department of Water Resources Delta Levee Subventions Program and the Delta Levee Special Projects Program. Preliminary discussion with Sacramento and San Joaquin County staff indicates that they would favor the project's hydraulic benefits.

**Mokelumne River Setback Levee  
and  
Habitat Enhancement Project**

Applicant

Reclamation District No. 2110  
McCormack-Williamson Tract  
% Mr. Tom McCormack  
Box A  
Rio Vista, California 94571  
Phone: (707) 374-5586 • FAX: (707) 374-2766

Applicant Type: Public Agency  
ID #68-03567907

Technical and Financial Contact

Gilbert Cosio, Jr.  
Murray, Burns and Kienlen  
1616 - 29th Street, Suite 300  
Sacramento, California 95816  
Phone: (916) 456-4400 • FAX: (916) 456-0253

Participants/Collaborators in implementation

California Department of Water Resources  
Reclamation District No. 2110

RFP Project Group Types

- Construction Project •

## **I. PROJECT DESCRIPTION:**

The proposed project is a component of the preferred alternative identified in the draft EIR/EIS for the North Delta Program (Nov. 1990). It is a multi-phased project consisting of RFP project group I - Construction Project.

The project involves construction of a new levee, setback approximately 400 feet from the existing Reclamation District No. 2110 (District) levee on the right bank of the Mokelumne River (see Fig. 1). The length of the proposed levee is 3.4 miles and will parallel the existing levee. A new channel will be constructed between the existing levee and proposed levee to provide additional flow capacity on the Mokelumne River. The new channel will also provide borrow material for the construction of the proposed levee. The existing levee will be left in place to protect existing and encourage additional waterside habitat. The proposed levee will be engineered for stability, increasing system reliability. The new berms and channel between the two levees will provide a significant increase in habitat.

A 50-foot wide berm on each side of the new channel, above the normal water surface level, will support riparian vegetation and enhance fisheries and wildlife habitat (see Fig. 2). The final berm width and elevation will be determined during the planning and design phase of the project to maximize wildlife and fisheries habitats.

The new parallel channel and the setback levee will require acquisition of approximately 210 acres of land to be acquired from landowners within McCormack-Williamson Tract. The entire District consists of a single landowner, therefore, since this project is being promoted by the District, it also represents the intent of the landowner.

Revegetation of the new levee and channel berms will consist of planting native trees, shrubs, and grasses to create a mosaic of habitat with diversity ranging from shallow water habitat to riparian forest and uplands. A qualified biologist has performed a habitat assessment of the levee habitat and noted that elderberry plants, habitat of the Federal listed endangered valley longhorn elderberry beetle (VELB) (*Dasmocerus californicus climorphus*), are present on the existing levee. The project will protect this habitat by creation of mid-channel islands and eliminating levee maintenance around this habitat.

The project is consistent with CALFED objectives and provides benefit to many areas of concern. These benefits include reduction in flood stages, greater flood conveyance on the Mokelumne and Cosumnes Rivers, and improved water quality, system reliability, recreation, fisheries and wildlife habitat.

### PROJECT LOCATION:

The project is in Sacramento County located one mile downstream of the confluence of the Cosumnes and Mokelumne Rivers in the North Delta (see Fig. 3). It is in an area prone to flooding problems because of its location as the discharge point of the Mokelumne River Drainage Basin into the Delta (Fig. 4).

### EXPECTED BENEFITS:

Priority habitats that will benefit from the project include seasonal wetlands and aquatic habitat, instream aquatic habitat, shaded riverine aquatic habitat (SRA) and mid-channel islands - shoal habitat. The project will address stressors related to flood plain and marsh plain changes (such as physical isolation of the flood plain) and channel form changes (such as elimination of side channels).

The existing Mokelumne River levee has a foot print covering 25 acres along the project reach. Out of this acreage approximately 2 acres is SRA habitat and the remainder is predominately mixed shrub or disturbed grass lands.

The proposed project will create approximately 82 acres of instream aquatic fish habitat, 42 acres of seasonal wetlands and aquatic habitat, 4 acres of SRA, and 25 acres of mid-channel island - shoal habitat.

Priority species that will benefit are winter-run chinook salmon, spring-run chinook salmon, San Joaquin fall-run chinook salmon, Delta smelt, longfin smelt, splittail, steelhead trout and migratory birds. The fish species will benefit from increased shallow water and riverine habitat that is used for rearing and/or spawning. Migratory birds will benefit from the increased amount of SRA habitat.

### BACKGROUND & JUSTIFICATION:

The North Delta Program was originally proposed by the Department of Water Resources (DWR) to address many areas of concern in the North Delta. The objectives are:

- Alleviate flooding in the north Delta.
- Reduce reverse flow in lower San Joaquin River.
- Improve water quality.
- Reduce fishery impacts.
- Improve State Water Project flexibility.

In November 1990 the Program issued a draft EIR/EIS which identified impacts and alternatives and selected a preferred alternative to meet the above goals and maximize recreation and wildlife benefits. The alternative selected included dredging and levee setbacks along the Mokelumne River starting near I-5 downstream to the confluence of the San Joaquin River.

The proposed project is the upstream component of the North Delta Program preferred alternative. The dredge portion is not proposed for this project. The project will incrementally provide the objectives enumerated above.

**PROPOSED SCOPE OF WORK:**

The project entails several phases and related tasks:

**Phase I - Planning and Design**

- pre-evaluation of project and design — This includes obtaining topography, geotechnical evaluation, initial coordination with agencies concerned with hydraulic design (Sacramento County, San Joaquin County, Reclamation District and DWR), hydraulic modelling, preliminary design, preparation of initial construction plans.
- environmental review and permitting — Includes preparation of environmental assessment, public scoping, preparation of CEQA documentation, permitting with Corps, DFG, RWQCB, and Reclamation Board.
- monitoring and evaluation — Includes developing monitoring and evaluation criteria and annual status reports.

**Phase II - Acquisition of Property**

- purchase 210 acres needed for project from willing sellers — coordinate with landowners for purchase of land and perform surveys and legal documentation.

**Phase III - Construction of Project**

- preparation of final plans and specs — incorporate comments from EIR and scoping into final design and specifications; prepare final plans.

- bidding — prepare contract and administer advertisement and bidding process and award of contract.
- construction and administration of project — provide construction staking and administration of contract with contractor and other sub-contractors for project construction, coordinate permitting criteria with regulatory agencies, issue payment recommendations and project completion evaluation.

Pre-evaluation consists of a full assessment of the “before” conditions on the project, including inventory of flora and fauna, elevation of the islands and surrounding underwater lands, soils and other data. This information will be prepared and submitted in a form suitable for inclusion in a Geographic Information System (GIS).

The design of the projects will incorporate advice from key State and federal resource management agencies. The project design will minimize adverse impacts to the land and water habitats, and respect key habitats of rare and endangered species in the Delta area. The project includes construction on agricultural land and will require appropriate environmental analysis. In addition, the project will need permits or approvals from the Corps of Engineers, the Department of Fish and Game, and the Central Valley Regional Water Quality Control Board.

#### MONITORING AND DATA EVALUATION:

The project will be monitored for success of hydraulic and biological improvements to the ecosystem. Hydraulic changes will be documented by completing an as-built survey of the new channel and levee, and evaluating how well the design improves the channel hydraulics. Biological monitoring will include documentation of botanical, wildlife, and fisheries resources before and after project construction.

Botanical resources will be mapped in GIS prior to construction to document acreages of different vegetation types and species along the existing levee. Annual post-construction surveys will update the GIS with changes in species composition and distribution. The areas of different dominant vegetation types will be quantified, and species lists updated following each survey. Areas for each vegetation type will be measured by reference to survey stakes along the length of the new and old levees.

Wildlife resources will be documented along the existing levee during spring, summer, and fall surveys prior to construction. Survey stations will be established along the length of the levee, and timed periods of wildlife observation made from each location.

Post-construction monitoring will involve revisiting the initial stations, in addition to establishment of new stations on the new levee. Surveys will continue to be made each spring, summer and fall for two years after construction.

Fisheries resources will be evaluated by assessing habitat changes, species composition, and relative abundance. Habitat changes will be quantified by calculating the wetted area, depth distributions, and habitat types under the existing and post-construction conditions. Fish species composition and relative abundance will be evaluated at sampling stations established along the existing levee by a combination of beach seining (where feasible) and boat electrofishing. These stations will be surveyed for species composition and relative abundance in the spring and summer prior to construction. Following construction, these same stations will be monitored during the spring and summer for two years. Additional sampling stations will be established in the newly created channel and along the setback levee and monitored for the same period. Changes in relative abundance and species composition of the original channel will be noted, and any trends in fish use of the new channel documented.

#### IMPLEMENTABILITY:

Considering the size of the project, it will be easily implemented. It will not have controversial environmental impacts and construction will not involve working around many improvements. It is a "win-win" in regard to local flood control and the environment. The only question is how significant downstream hydraulic impacts will be.

Implementation will require working with regulatory agencies to minimize project impacts. The environmental impacts of the project should be minimal, since only agricultural ground will be impacted. Coordination with property owners will also be crucial, but is favorable at this time since there is only one landowner, whose representatives comprise the District Board of Trustees, proponent of the project.

Environmental compliance will include preparation of an EIR on the proposed project to relocate 18,000 feet of Mokelumne River levee in Sacramento County. The tasks will include preparation of the Initial Study and Notice of Preparation, public scoping, a preliminary Draft EIR, a public Draft EIR, and a final EIR/Responses to Comments:

1. **Initial Study/NOP:** The project engineer, environmental consultant, and project participants will visit the site at the initiation of the project. An Initial Study checklist and attached NOP will be prepared for the public, and mailed to responsible agencies, trustee agencies, and other interested individuals.

2. **Public Scoping for EIR:** A public scoping meeting will be held near the project site to obtain comments on the NOP. Based on comments received on the NOP, both in writing and at the public meeting, the contractor may request revision of the statement of work/contract.
3. **Preliminary Draft EIR:** A focused project Draft EIR will be prepared that meets CEQA requirements. The Draft EIR will utilize information available from a previous EIR/EIS on the North Delta Program. For costing purposes, it is assumed that key areas of potential impact on the project site and offsite (downstream) that are to be discussed in depth in the EIR are: agriculture, water/hydrology, waterborne transportation and recreation, biological resources (fish and wildlife, vegetation), and cultural resources. The project alternatives will include the "No Project" alternative and two others. The two other alternatives will be determined based on a screening of possible alternatives using criteria developed in consultation with the project engineer, environmental consultant, and agency representatives.
4. **Public Draft EIR:** A public draft EIR will be prepared, and one public hearing held in the vicinity of the project.
5. **Final EIR:** From written comments and oral testimony at the public hearing, a Responses to Comments document will be prepared that, together with the Draft EIR, will comprise the Final EIR.

## II. COST & SCHEDULE:

Table 1 shows the estimated costs of the tasks described in the Scope of Work section. Funding for this project and subsequent monitoring are requested from CALFED Category III for 100 percent of the total cost. However, it is anticipated that funding may also be obtained from the Department of Water Resources Delta Levee Subventions Program and the Delta Levee Special Projects Program.

Construction quantities are based on information supplied in the North Delta Program EIR/EIS. The construction assumes 1,200,000 cu.yds. of excavation. The new levee is estimated to require 640,000 cu.yds. of material and the remainder would be used to reinforce the existing levee. Approximately 280,000 tons of riprap will be required to protect the waterside slope of the existing levee and new levee.

Table 1

Phase I — Planning and Design							
Task	Direct Labor Hours	Direct Salary & Benefits	Overhead Labor	Service Contracts	Material & Acquisition Contracts	Miscellaneous & other District Costs	Total Cost
Pre-evaluation of project & design	—	—	—	\$ 105,000	—	\$15,000	\$120,000
Environmental (CEQA) review & permitting	—	—	—	150,000	—	10,000	160,000
Monitoring & evaluation	—	—	—	80,000	—	5,000	85,000
<b>Total Phase I Cost</b>							<b>\$385,000</b>

Phase II — Land Acquisition							
Task	Direct Labor Hours	Direct Salary & Benefits	Overhead Labor	Service Contracts	Material & Acquisition Contracts	Miscellaneous & other District Costs	Total Cost
Negotiate and purchase of land		—	—	\$30,000	\$630,000	—	\$660,000
<b>Total Phase II Cost</b>							<b>\$660,000</b>

Phase III — Construction of Project							
Task	Direct Labor Hours	Direct Salary & Benefits	Overhead Labor	Service Contracts	Material & Acquisition Contracts	Miscellaneous & other District Costs	Total Cost
Preparation of final plans and specs	—	—	—	\$ 30,000	—	\$5,000	\$ 35,000
Bidding & Administration of project	—	—	—	15,000	—	—	15,000
Construction	—	—	—	10,300,000	—	—	10,300,000
Vegetation planting	—	—	—	—	—	—	80,000
Construction inspection	—	—	—	—	—	—	80,000
<b>Total Phase III Cost</b>							<b>\$10,490,000</b>

**SCHEDULE OF MILESTONES:**

Outlined below is a schedule of the project milestones.

<b>Phase I</b>	- Project evaluation and preliminary design	10/01/97 - 01/31/98
	- Environmental review & permitting	02/01/98 - 08/01/98
	- Monitoring & evaluation	10/15/98 - 12/01/98
<b>Phase II</b>	- Negotiate & purchase land	03/01/98 - 06/01/98
<b>Phase III</b>	- Preparation of final plans	06/01/98 - 08/01/98
	- Construction	09/01/98 - 09/01/99

**THIRD PARTY IMPACTS:**

The project will have no downstream effect on the peak flood stage during large flood events. In fact, the project will eliminate the devastating surge of water produced downstream when the McCormack-Williamson Tract floods and overtops at its downstream end. There may be a slight increase in peak stage downstream during lesser floods. The current construction tends to meter flows downstream. It is not anticipated that this increase will be significant and will be carefully evaluated in the CEQA document.

### **III. APPLICANT QUALIFICATIONS:**

Reclamation District No. 2110 (District) is the public agency responsible for maintenance and rehabilitation of the levees within its jurisdiction. The District has been a participant in the Subventions Program (SB 34) and as such is well acquainted with the CEQA processes, bidding laws, contracting for levee work, and in general flooding issues in the North Delta. The District has spent approximately \$1.4 million on levee maintenance and rehabilitation since 1986. Murray, Burns and Kienlen (MBK) has been the District Engineer since formation of the District and has guided the District's Board of Trustees in the above activities.

MBK is a consulting civil engineering firm providing services in the general areas of flood control, water supply planning and water rights. As a subset of their flood control clientele, MBK provides engineering services to Delta reclamation districts. MBK personnel involved with Delta reclamation district engineering have extensive experience in water resources engineering and planning. MBK personnel have been, and continue to be, extremely involved in shaping the future of the Delta by sitting on numerous boards and advisory committees regarding such areas as environmental and regulatory issues, funding, engineering and land use.

Consistent with Government Code §4525, Murray, Burns and Kienlen was selected by RD 2110 to provide planning, permitting and engineering services in connection with project planning and construction. The selection was made on the basis of qualifications and demonstrated competence for the requested services, including documentation of fair and reasonable prices.

MBK acts as a consultant for twenty (20) other reclamation districts in the Sacramento-San Joaquin Delta. MBK is also a prime engineering consultant to the Sacramento Area Flood Control Agency (SAFCA) and has been involved as a consultant for many organizations concerned with water conveyance and flood control in the Central Valley.

Mr. Gilbert Cosio, principal of Murray, Burns and Kienlen, will be responsible for engineering and management of the project. Mr. Cosio would be responsible to coordinate all activities in regard to engineering and environmental services performed for Reclamation District No. 2110. Mr. Cosio has 17 years of experience in flood control, hydrology, hydraulics, water resource planning, drainage water supply, surveying and levee maintenance. Mr. Cosio is currently Principal in charge of all Delta levee reclamation district work for MBK. Mr. Cosio coordinates levee inspections, levee maintenance and rehabilitation projects, competitive bid plans and specification preparation and contract administration for Delta reclamation districts. He also oversees maintenance planning,

funding application and claims, regulatory coordination, environmental assessments, CEQA documentation and reports and presentations to respective reclamation district boards of trustees. Mr. Cosio's Delta work has also led to testimony at public hearings, Reclamation Board hearings and workshops, and State Water Resources Control Board hearings. Mr. Cosio has coordinated levee work and claims with County, State and Federal agencies in charge of disaster assistance. Mr. Cosio was a member of the Delta Coalition, which was a committee involved with developing delta levee maintenance legislation in 1988. Mr. Cosio is also a member of the Habitat Advisory Committee set up to administer the mitigation element of the Delta Levee Subventions Program and a member of the Habitat Advisory Committee subcommittee regarding regulatory permit streamlining for levee maintenance projects.

EA Engineering, Science, and Technology, Inc., is a multidisciplinary environmental consulting firm with a staff of Northern California scientists who specialize in environmental analyses related to water resources. EA's staff have been conducting aquatic studies in the Delta and its tributary watersheds for over 20 years, and have conducted feasibility studies and assessments of many habitat restoration projects.

EA Engineering, Science, and Technology has consulted with MBK on Delta projects since 1993. In that capacity, they have provided biological design, monitoring, and survey services to MBK for Delta projects, and completed CEQA compliance documents associated with various habitat improvement projects.

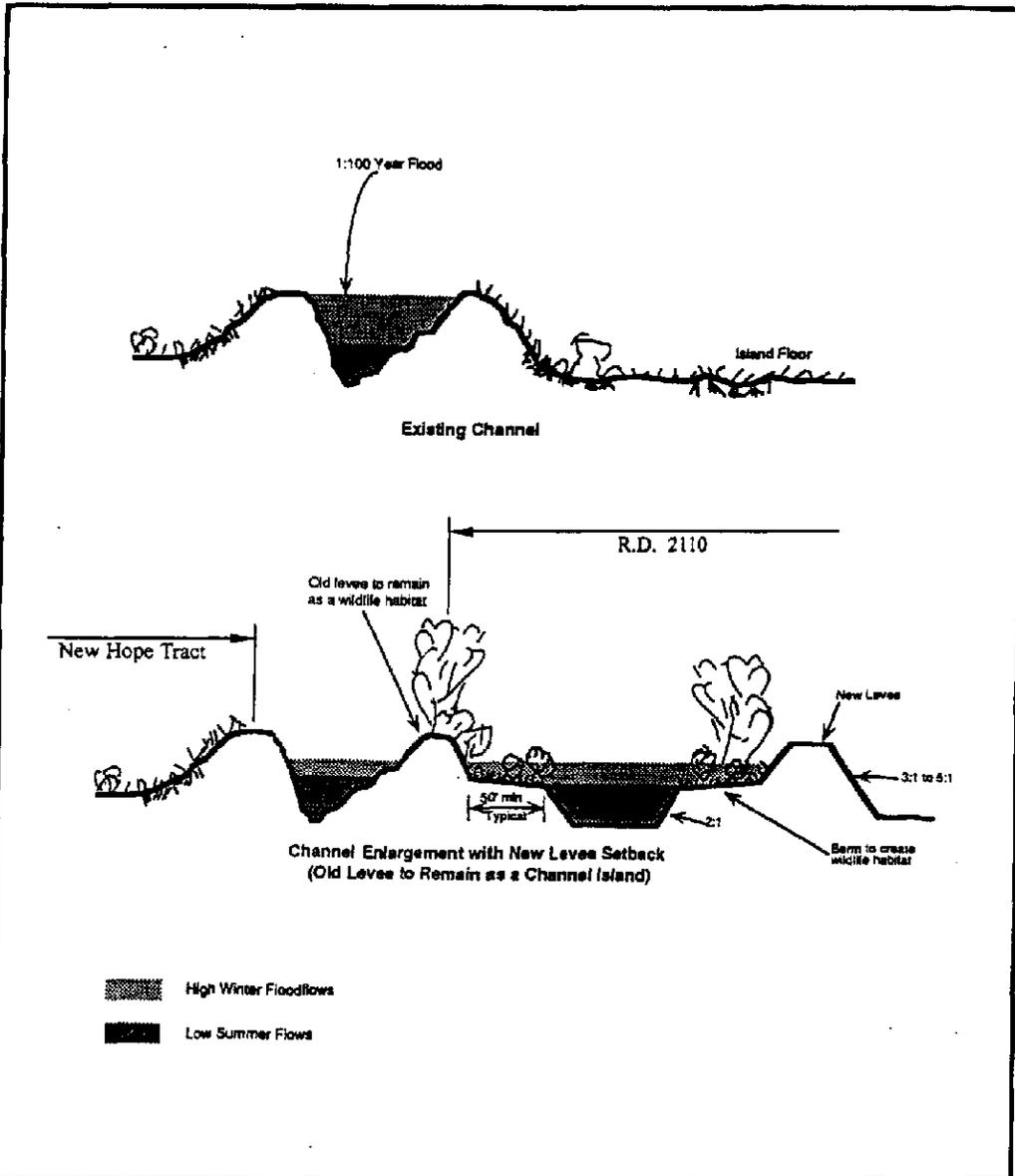
Consistent with Government Code §4525, EA Engineering, Science, and Technology, Inc., was selected by Murray, Burns and Kienlen to provide environmental services in connection with project development and permit processing. The selection was made on the basis of qualifications and demonstrated competence for the requested services, including documentation of fair and reasonable prices.

Pursuant to California Government Code §1090, EA Engineering, Science, and Technology, Inc., is disclosing a remote interest in proposals submitted for funding under CALFED's 1997 Category III program. EA staff, as third tier subcontractors to the Bureau of Reclamation, have provided technical and administrative support to CALFED agency staff in the Restoration Coordination Program. In this capacity, EA staff have assisted with documentation of public meetings of the Ecosystem Roundtable, and compiled technical team meeting information for distribution to Roundtable members and the public. EA's legal counsel has determined that EA's participation as a subconsultant in contracts that may be awarded under the Category III program does not constitute a violation of California Government Code §1090.

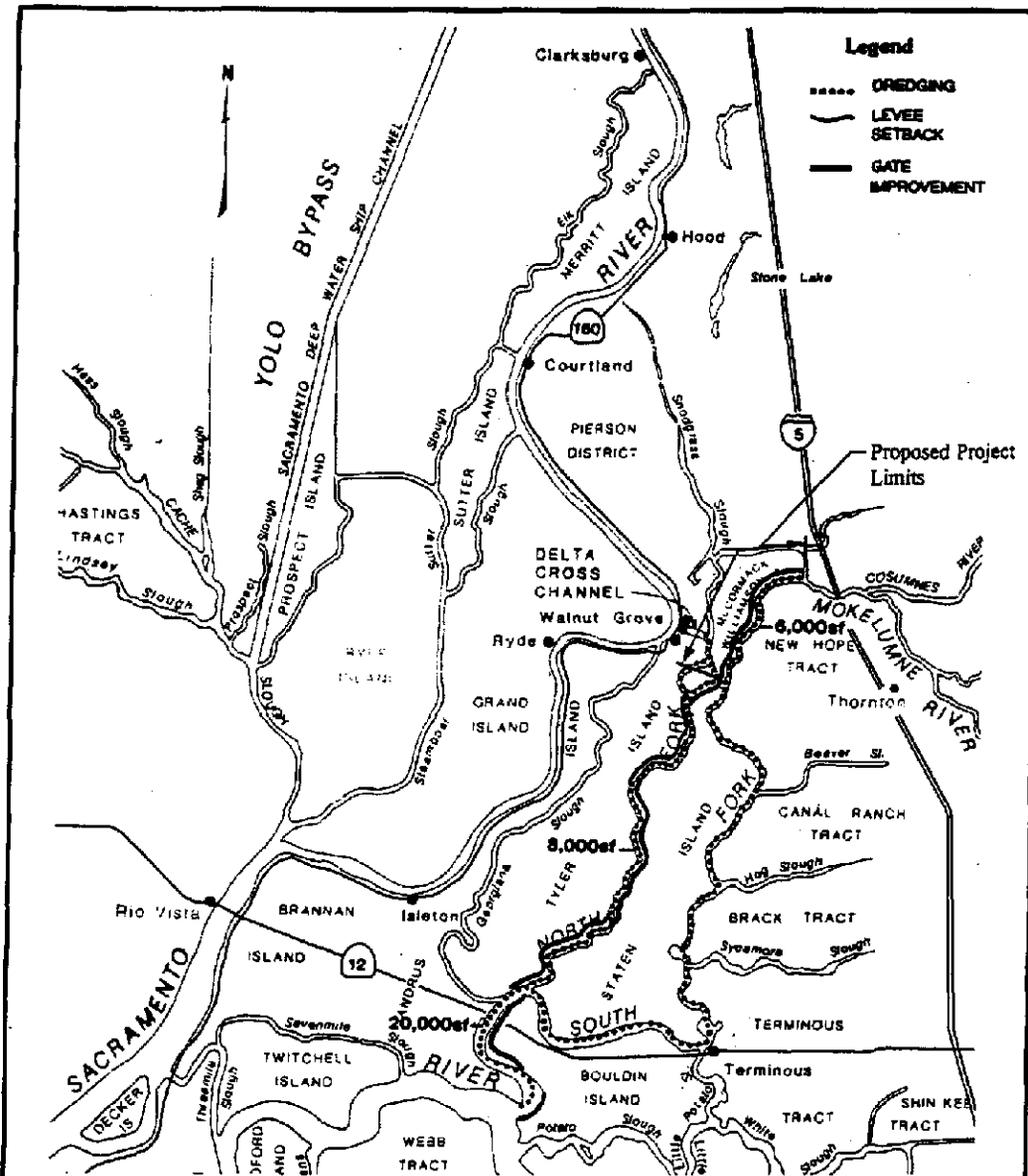
Mr. Scott Wilcox of EA Engineering, Science, and Technology is a senior fisheries biologist whose role will involve technical oversight and management of tasks related to biological monitoring and environmental compliance. His areas of technical expertise include aquatic and terrestrial resource impact assessment, habitat quantification and evaluation, and fisheries analyses in riverine and estuarine systems. His 17 years of experience includes biological investigations for approximately 30 projects within or tributary to the Central Valley and the Delta. Many of these projects involved planning of aquatic habitat restoration actions and characterization of habitat conditions. Relevant project experience includes design, monitoring, and CEQA compliance for levee habitat improvement projects; TES species surveys and Section 7 consultation for Delta smelt; and evaluation of potential construction project impacts on Sacramento splittail. Professional references for similar projects include Frank Wernette (209-948-7800) and Peter Perrine (916-358-2926) of the Department of Fish and Game.

Mr. George Molnar is a senior wetland geologist who will manage riparian vegetation monitoring tasks. Mr. Molnar has 17 years of experience in wetland and riparian assessment, monitoring, and restoration. He has a diverse range of experience in riparian habitats in California and other western states. His experience includes the design and implementation of studies of flood plain terrace geomorphology, moisture conditions, and vegetation succession along the Carmel River in Central California and the lower Gila River in Southern Arizona. He also designed an innovative flood plain enhancement plan for the Gila River that will promote natural willow and cottonwood regeneration through reestablishment of more normal peak flow periodicity and frequency. Mr. Molnar has conducted riparian habitat restoration monitoring in Edson Creek, a tributary of the McCloud River in Shasta Trinity National Forest, California; a wetland/riparian impacts study of the Animas-LaPlata Rivers Project in southwestern Colorado; and assessments of wetland impacts related to levee and drainage improvements along Elder Creek and Magpie/Sump 157 Creeks in Sacramento.





<p><b>Habitat and Channel Capacity Improvements</b></p> <p><b>McCormack-Williamson Tract</b></p> <p>Mokelumne River</p>	<p>APPLICANT:</p> <p>Reclamation District No. 2110          McCormack-Williamson Tract          c/o Mr. Tom McCormack          Box A          Rio Vista, California 94571</p>	<p><b>Mokelumne River Setback Levee and Habitat Enhancement Project</b></p> <p>DATUM: NGVD          COUNTY: Sacramento</p>
<p>MURRAY BURNS AND KIRKLEN - Consulting Civil Engineers          1616 29th Street San Leandro, Eastonville CA 95016 • (916) 456-4400</p>	<p>Date: July 1997</p>	<p>Figure 2</p>



North Delta Program  
Preferred Alternative

McCormack-Williamson Tract  
Mokelumne River

APPLICANT:

Reclamation District No. 2110  
McCormack-Williamson Tract  
c/o Mr. Tom McCormack  
Box A  
Rio Vista, California 94571

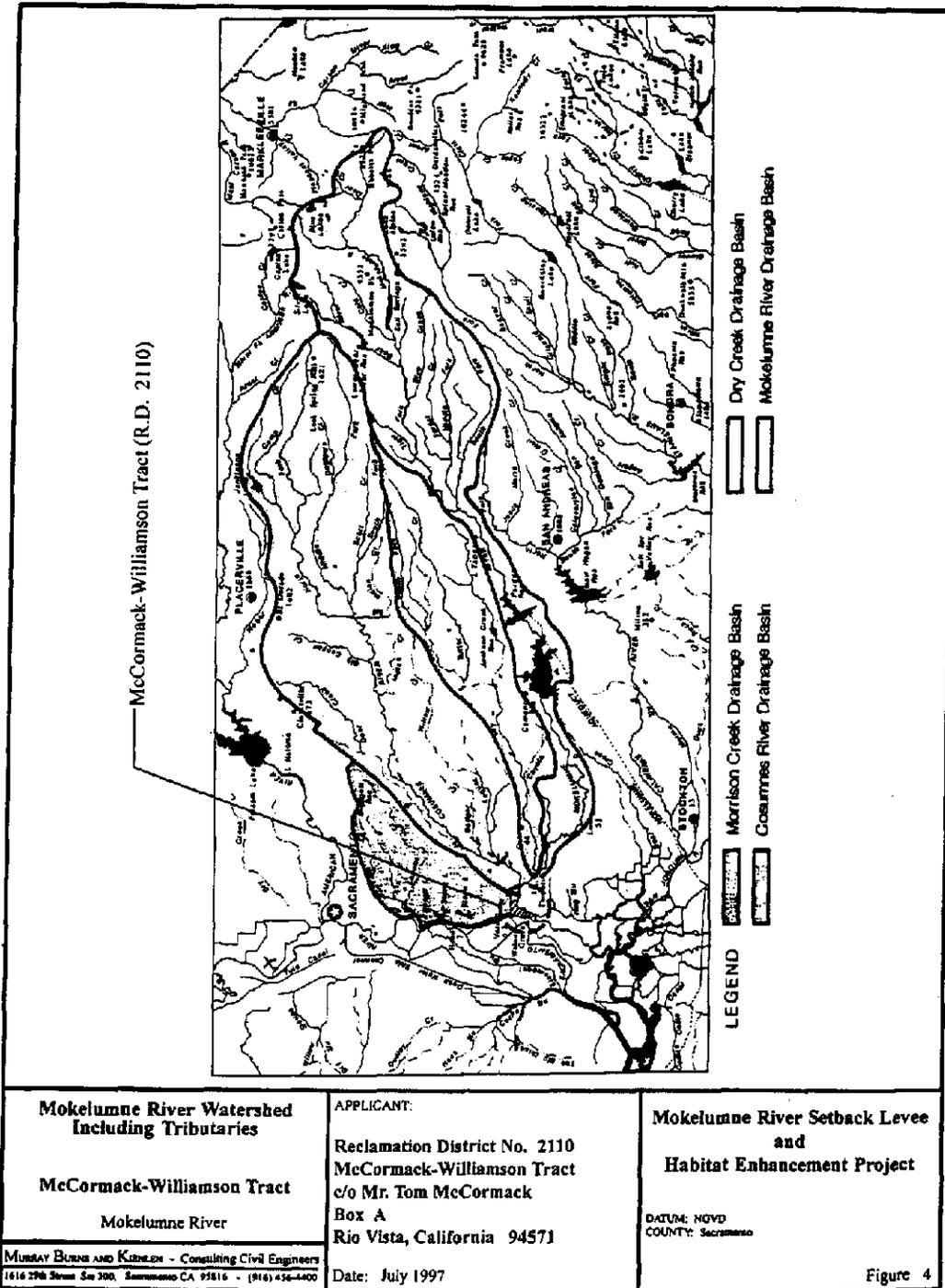
Mokelumne River Setback Levee  
and  
Habitat Enhancement Project

DATUM: NGVD  
COUNTY: SACRAMENTO

MURRAY BURNS AND KIMBLE - Consulting Civil Engineers  
1616 29th Street Ste 300, Sacramento CA 95816 - (916) 456-4400

Date: July 1997

Figure 3



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

STATE OF CALIFORNIA )  
 )ss  
 COUNTY OF Sacramento )

Gordon Barnes, being first duly sworn, deposes and  
 (name)

says that he or she is President of  
 (position title)

Reclamation District No. 2110  
 (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: 7/23/97 By Gordon Barnes  
 (person signing for bidder)



(Notarial Seal)

Subscribed and sworn to before me on

July 23, 1997  
Kristi L. Johnson  
 (Notary Public)

## NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME

Reclamation District No. 2110

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

Gordon Barnes

DATE EXECUTED

7/29/99

EXECUTED IN THE COUNTY OF

Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

Morton Bice

PROSPECTIVE CONTRACTOR'S TITLE

President - Reclamation District No. 2110

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Reclamation District No. 2110