F1-059

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July 25, 1997

Kate Hansel
CALFED BAY - DELTA PROGRAM
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

SUBJECT: San Luis and Delta Mendota Water Authority Proposal

Dear Ms. Hansel:

Attached are ten (10) copies of the San Luis and Delta Mendota Water Authority Proposal for the CALFED Bay-Delta Program, 1997 Category III, Ecosystem Restoration Projects and Programs.

Please let us know if you have any questions.

Very truly yours,

Joseph C. McGahan

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Enclosures

FI-059

SAN LUIS & DELTA MENDOTA WATER AUTHORITY

REAL TIME MONITORING PROGRAM

PROPOSAL FOR CALFED BAY-DELTA PROGRAM

1997 CATEGORY III

ECOSYSTEM RESTORATION PROJECTS AND PROGRAMS

JULY 25, 1997

PREPARED BY:
SUMMERS ENGINEERING, INC.
CONSULTING ENGINEERS
HANFORD, CALIFORNIA

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I. *Executive Summary*

a. *Project Title and Applicant Name*

Real Time Monitoring Program
San Luis & Delta Mendota Water Authority

b. *Project Description and Primary Biological/Ecological Objectives*

The Grassland Basin Drainage Activity formed under the umbrella of the San Luis and Delta Mendota Water Authority is a 97,000 acre drainage area in the San Joaquin Valley bounded by Interstate 5 and the cities of Dos Palos and Mendota that has historically discharged agricultural drainage water to the San Joaquin River. Recently this entity implemented the Grassland Bypass Project which utilizes a portion of the San Luis Drain to convey drainage water to the San Joaquin River and to bypass the Grassland wetlands area for environmental benefit purposes. In order to fully manage the drainage water discharge from the grassland area and to coordinate it with the San Joaquin River flows, a real time monitoring program is proposed. The project would include installing monitoring stations at key discharge points in the Grassland Drainage Area. The monitoring stations would provide acquisition of flow and electrical conductivity data. Three stations have already been installed. Equipment has been purchased for one additional station and three additional stations are proposed.

c. *Approach/Tasks/Schedule*

The required scope of work for each real time monitoring station has already been established based on the installation of the three existing stations. The purchase of additional compatible equipment will be required for the three new stations which will be installed by staff from the Authority. The anticipated schedule is to complete the installation of the stations in the fall of 1997.

d. *Justification for Project and Funding by CALFED*

In order to manage the drainage flows within the Grassland Basin Drainage Area, Authority staff at the present time manually read and measure the flows at the various monitoring sites. Although there are continuous recorders, it is still necessary to access the records and to calculate the flows. It is anticipated that this real time monitoring program would be used in conjunction with stations on the San Joaquin River to better monitor and manage the Grassland Basin drainage flows.

Accurate real time monitoring of the existing drainage flows will help the various districts to monitor and minimize drainage discharges. This will result in reduced discharges of selenium, salinity, and suspended solids to the San Joaquin River and the Sacramento-San Joaquin River Delta.

e. Budget Costs and Third Party Impacts

The total project costs for the installation of all the real time monitoring stations have been estimated at $229,000. Planning and installation of the initial stations at $48,000 have already been completed and paid for by the San Luis-Delta Mendota Water Authority. Future water quality testing at $90,000 will be funded by the participating districts and the Grassland Basin Drainage Activity. The remaining cost of $91,000 for the purchase of equipment, site installation costs and development of the real time model are the CALFED Category III funds requested. Third party impacts are anticipated to be non existent.

f. Applicant Qualifications

Joseph C. McGahan, Principal Engineer of Summers Engineering, Inc. and Acting Drainage Coordinator for the Grassland Basin Drainage Activity will be responsible for the installation, monitoring, and oversight of the real time monitoring stations.

g. Monitoring and Data Evaluation

The real time monitoring flow and electrical conductivity data will be used along with the water quality testing to develop a real time model. The model will be developed to use in drainage discharge management.

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

The program will be coordinated and reviewed with all of the other drainage entities involved with the Grassland Bypass Project as well as all State and Federal responsible agencies involved with drainage concerns in the area.

II. Title Page

a. ***Title of Project:*** Real Time Monitoring Program

b. ***Name of Applicant; address; phone/fax:***
San Luis-Delta Mendota Water Authority
842 6th Street, Suite 7
Post Office Box 2157
Los Banos, California 93635
Joseph C. McGahan, Acting Drainage Coordinator
(209) 826-9696, Fax (209) 826-9698

c. ***Type of Organization and Tax Status:*** Joint Powers Authority formed January 1, 1992 under Article 1, Chapter 5, Division 7, Title 1 of the Government Code (commencing with Section 6500).

d. ***Tax Identification Number:***
Federal - 52-1717350
State - 499-0521-9

e. ***Technical and Financial Contact Person:***
Joseph C. McGahan
Acting Drainage Coordinator
(209) 826-9696, Fax (209) 826-9698

f. ***Participants:*** Other agencies involved would be Panoche Drainage District, Firebaugh Canal Water District, Pacheco Water District, Charleston Drainage District, Broadview Water District, Camp 13 Drainage District and Widren Water District.

g. ***RFP Project Group Type:*** Group 1 Construction Project which will involve equipment purchase, installation, and ongoing water sampling at the real time monitoring stations.

III. Project Description

a. Project Description and Approach

The Grassland Basin Drainage Activity was formed under the umbrella of the San Luis-Delta Mendota Water Authority. The Drainage Activity is a 97,000 acre drainage area in the San Joaquin Valley bounded by Interstate 5 and the cities of Dos Palos and Mendota that has historically discharged subsurface tilewater and tailwater to the San Joaquin River. The location of the Drainage Area Boundary in relation to the Grasslands and the San Joaquin River is shown on Figure 1. Recently this entity implemented the Grassland Bypass Project which utilizes a portion of the San Luis Drain to convey drainage water to the San Joaquin River and to bypass the grassland wetlands area for environmental benefit purposes. Historically this discharge of drainage water included a combination of subsurface drainage water (tilewater) and surface tailwater.

In order to fully manage the drainage water discharge from the Grassland Drainage Area and to coordinate it with flows along the San Joaquin River and the San Joaquin Delta a real time monitoring program for the local area is necessary. The project would include installing monitoring stations at key discharge points from the Grassland Drainage Area. Monitoring stations would include measuring facilities, data collection platforms and remote transmission facilities for acquisition of flow and electrical conductivity data. Each station will also have automatic sampler equipment for the collection of water samples for water quality testing. The locations for the monitoring stations are shown on the attached map. Real time stations have been installed at PE-14, DJ-1 and FC-1, and equipment has been purchased for FC-5. It is necessary to purchase equipment and install components at CH-2, PO-2, and BV-3.

b. Location and/or geographic boundaries of project

The real time monitoring sites would be located in both Merced and Fresno Counties (see the attached Figure 2). The area is within the grassland basin watershed which discharges to the San Joaquin River.

c. Expected benefit(s)

It is anticipated that this real time monitoring program would be used in conjunction with real time stations on the San Joaquin River that have been installed by the San Joaquin River Management Program, California Department of Water Resources, the U.S. Bureau of Reclamation and the

U.S. Geological Survey. These stations would thus be part of a river-wide monitoring program, and, therefore, management scenarios can be developed utilizing this information to help manage the discharge of subsurface drainage water to the San Joaquin River and to the Sacramento-San Joaquin River Delta.

d. Background and Biological/Technical Justification

In order to manage the drainage flows within the drainage area it is necessary to manually read and measure the flows at the various monitoring sites. Although there are continuous recorders at the sites, it is necessary to access the records and to manually calculate the flows. This does not lend itself to immediate access to information which is required if there is a need to reduce the drainage flows to the San Joaquin River. It is felt with daily real time data there will be an increase in the ability to meet the required drainage discharge load reductions. There will be long term benefits with the project as the real time network is installed. The monitoring equipment can be coordinated with downstream networks in the future to better manage the water quality in the San Joaquin River and San Joaquin-Sacramento Delta system. The project is an ongoing one and some of the real time monitoring sites have already been installed.

e. Proposed Scope of Work

The scope of work for what is required at each monitoring site has already been determined based on the real time stations that are already available and in place. The equipment is also comparable with downstream equipment in use in the San Luis Drain as part of the Grassland Bypass Project. Access software is already being utilized by management personnel for the existing sites and it will be very easy to incorporate the software at the additional sites. Reports will be prepared weekly for use by management personnel and more often as necessary under emergency conditions.

f. Monitoring and Data Evaluation

The operation and maintenance cost for the facilities will be budgeted under the Grassland Basin Drainage Activity and would be contributed by the local agencies. The planning and water quality testing would be contributed by the Grassland Basin Drainage Activity. The project is consistent with the desire to provide subsurface drainage source control, specifically efficient water management in selenium source areas. It is

understood that source water application in the Grassland Basin Drainage Area must be managed in conjunction with subsurface drainage discharges. This real time component project will be utilized in the water management program for the various districts to minimize drainage discharge. This will result in reduced discharges of selenium, salinity and suspended solids to the San Joaquin River and to the Sacramento-San Joaquin River Delta.

g. Implementability

Planning, environmental compliance and design for the project have already been completed. As mentioned, three of the stations are already installed and operable.

IV. Costs and Schedule to Implement Proposal Project

a. Budget Costs

The following table summarizes the project costs which have been spent to date and the equipment purchase and site development costs still remaining for the three sites which do not have a real time monitoring station in place. The San Luis & Delta Mendota Water Authority will cover all water quality testing and ongoing operation and maintenance costs for the stations. The new equipment purchases will be compatible with the existing equipment presently available at the other stations.

Project Cost Summay

Item No.	Work or Material	Amount	
1	Planning	$10,000	Completed
2	Real-time stage (flow) and conductivity recorders Sites PE-14, FC-5, DJ-1, and FC-1.	$32,000	Completed
3	Real-time stage (flow) and conductivity recorders Sites CH-2, PO-2, and BV-3.	$24,000	
4	Installation of Real-time Sites FC-5, CH-2, PO-2, and BV-3	$12,000	
5	Auto Samplers for Sites PE-14 and PO-2	$6,000	Completed
6	Auto Samplers for Sites FC-5, DJ-1, FC-1, CH-2, and BV-3	$15,000	
7	Water Quality Testing 7 sites, 365 days, 2,555 samples, $35 each	$90,000	
8	Development of Real-time model	$40,000	
	Subtotal	$229,000	
	Less Work Completed	-$48,000	
	Less Water Quality Testing	-$90,000	
	Net Amount Requested	$91,000	

b. Schedule Milestones

Field work at some of these monitoring stations began during the spring of 1997. If funding is made available under the 1997 Category III Program, the Authority plans to complete the installation of the remaining real time monitoring stations during the fall of 1997.

c. Third Party Impacts

At the present time there are no known third party impacts which would negatively affect this proposed project.

V. Application Qualifications

The San Luis and Delta Mendota Water Authority staff presently monitor the and maintain the existing real time monitoring stations and will continue this for the new stations as well. Joseph McGahan, Acting Drainage Coordinator, will oversee the installation, operation, and data collection for the real time monitoring stations. A copy of his resume is attached.

VI. Compliance with standard items and conditions

The Non Discrimination Compliance Statement, Item 8, and the Non Conclusion Affidavit, Item 11, are attached. The San Luis and Delta Mendota Water Authority should be able to comply with all of the required standard items and conditions.

JOSEPH C. McGAHAN

Principal Engineer

RESUME

Registrations Registered Civil Engineer California No. 26307

Education California State Polytechnic College, 1970, B.S.
California Institute of Technology, 1971, M.S.

History Joseph C. McGahan has spent 26 years working in the field of irrigation, drainage, and municipal water supply engineering in California and Arizona.

Responsibilities and affiliations Responsible for seeing that the firm's projects are completed in a timely manner. Coordinates studies and the design on water transmission pipeline projects. Responsible for irrigation and drainage studies for numerous clients. The work has included the preparation of feasibility reports, economic analyses, structural design, hydraulic design, preparation of specifications and supervision of construction. Other work includes the design of water treatment facilities for municipal purposes.

Presented various papers and presentations to groups nationwide regarding water quality non-point source issues.

Member of the American Water Works Association, American Society of Civil Engineers, and the U. S. Committee on Irrigation and Drainage.

Item 8

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME

San Luis & Delta Mendota Water Authority

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.

LARRY GILBERT

OFFICIAL'S NAME

7-24-97 | MERCED

DATE EXECUTED | EXECUTED IN THE COUNTY OF

PROSPECTIVE CONTRACTOR'S SIGNATURE

DIRECTOR OF FINANCE & ADMINISTRATION

PROSPECTIVE CONTRACTOR'S TITLE

SAN LUIS & DELTA-MENDOTA WATER AUTHORITY

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

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 Merced)

LARRY GILBERT (name), being first duly sworn, deposes and says that he or she is DIRECTOR OF FINANCE & ADMINISTRATION (position title) of San Luis & Delta Mendota Water Authority (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: 7/24/97 By _____ (person signing for bidder)

Subscribed and sworn to before me on

SEE ATTACHED

_____ (Notary Public)

(Notarial Seal)

JURAT

State of CALIFORNIA
County of MERCED } ss.

Subscribed and sworn to (or affirmed) before me this 24TH (Date) day of July (Month), 1997 (Year), by

(1) LARRY GILBERT
Name of Signer(s)

(2) N/A
Name of Signer(s)

S. MURETT
Commission # 1134366
Notary Public — California
Merced County
My Comm. Expires Jan 24, 2001

Signature of Notary Public

OPTIONAL

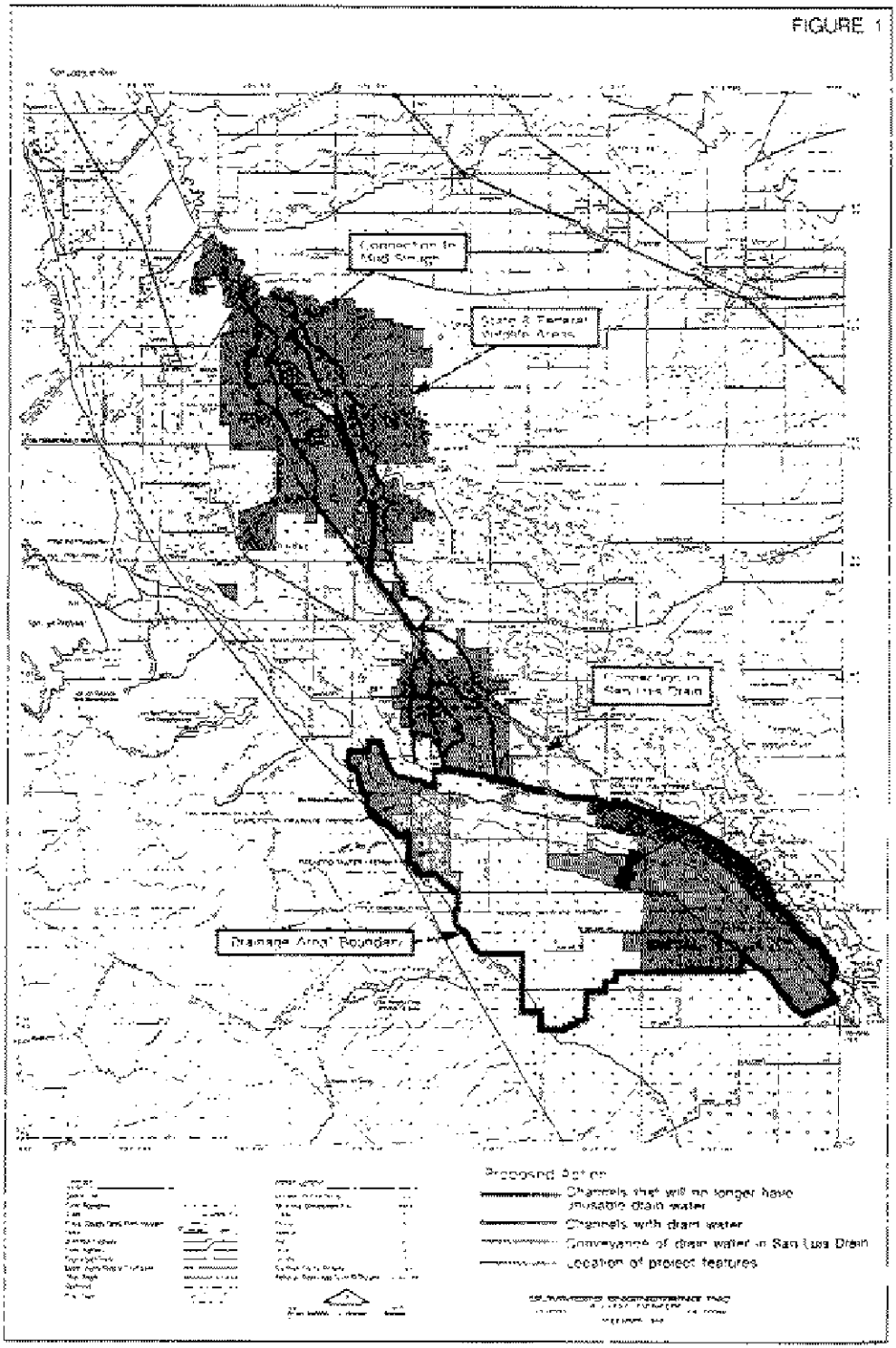
Though the information in this section is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document
Title or Type of Document: NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER & SUBMITTED WITH BID FOR PUBLIC WORKS
Document Date: 7-24-97 Number of Pages: 1
Signer(s) Other Than Named Above: N/A

RIGHT THUMBPRINT OF SIGNER #	RIGHT THUMBPRINT OF SIGNER #
Top of thumb here	Top of thumb here

I-001494

FIGURE 1



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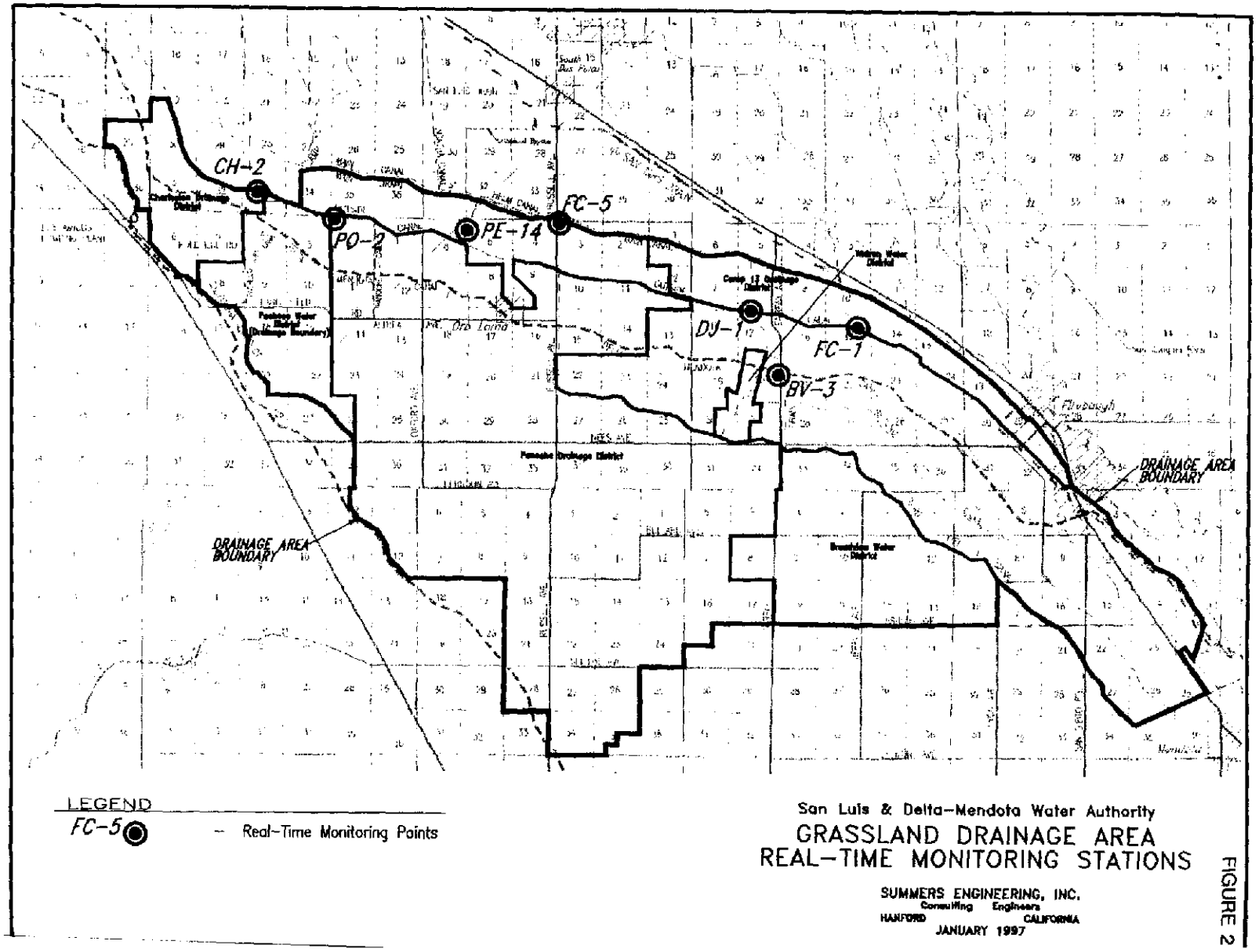

San Luis & Delta-Mendota Water Authority

GRASSLAND DRAINAGE AREA
REAL-TIME MONITORING STATIONS

SUMMERS ENGINEERING, INC.
Consulting Engineers
HANFORD CALIFORNIA
JANUARY 1997

FIGURE 2

I-001496