

***La Feria Irrigation District
Proposal to the Texas Water
Development Board for Use of Oil
Overcharge Proceeds for Preparation of
a “Project Report” for a Water and
Energy Conservation and Improvement
Project under Public Law 106-576***



Prepared by

La Feria Irrigation District Cameron County No. 3

Prepared: August 2001 Revised: November 30, 2001

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1 Official Name

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2 Citation to Legal Authority of District

The La Feria Irrigation District was initially organized under the provisions of Chapter 172 of the General Laws of the State of Texas, passed by the State Legislature at its Regular Session in 1913. The District was organized to purchase the diversion works, canals, distribution system and water rights of the La Feria Mutual Canal Company. On April 14, 1928, the District converted from a water improvement district to a water control and improvement district and changed its name to the "La Feria Water Control and Improvement District, Cameron County No. 3." In 1979, the District was converted to an irrigation district, operating under Chapter 58, Texas Water Code, and its name was changed to "La Feria Irrigation District."

2.1 Directors

Frank Burns, President
Earl Adams., Vice President
Samuel Ruiz, Secretary
Steve Lievens, Member
Edward Ostrowski, Sr., Member

3 District Official Representative

Bill Friend, General Manager
La Feria Irrigation District Cameron County Number 3
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La Feria, Texas 78559
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4 Proposed Conservation Measures and District Overview

The funds requested under this proposal will be used by the District to complete the engineering reports required the U.S. Department of Interior, Bureau of Reclamation (Reclamation) under the “Guidelines for Preparing and Reviewing Proposals for Water Conservation and Improvement Projects Under Public Law 106-576.” The proposed project is for the installation of irrigation pipelines. This project will save water by eliminating seepage, which has been estimated at 215 acre feet/mile per year by an ongoing Texas A&M study as a part of the Region M regional water planning work. This will result in the flow rate of water delivered to individual fields to be increased or allow for a greater number of fields to be simultaneously irrigated and to improve the District’s water delivery efficiency.

4.1 District Information

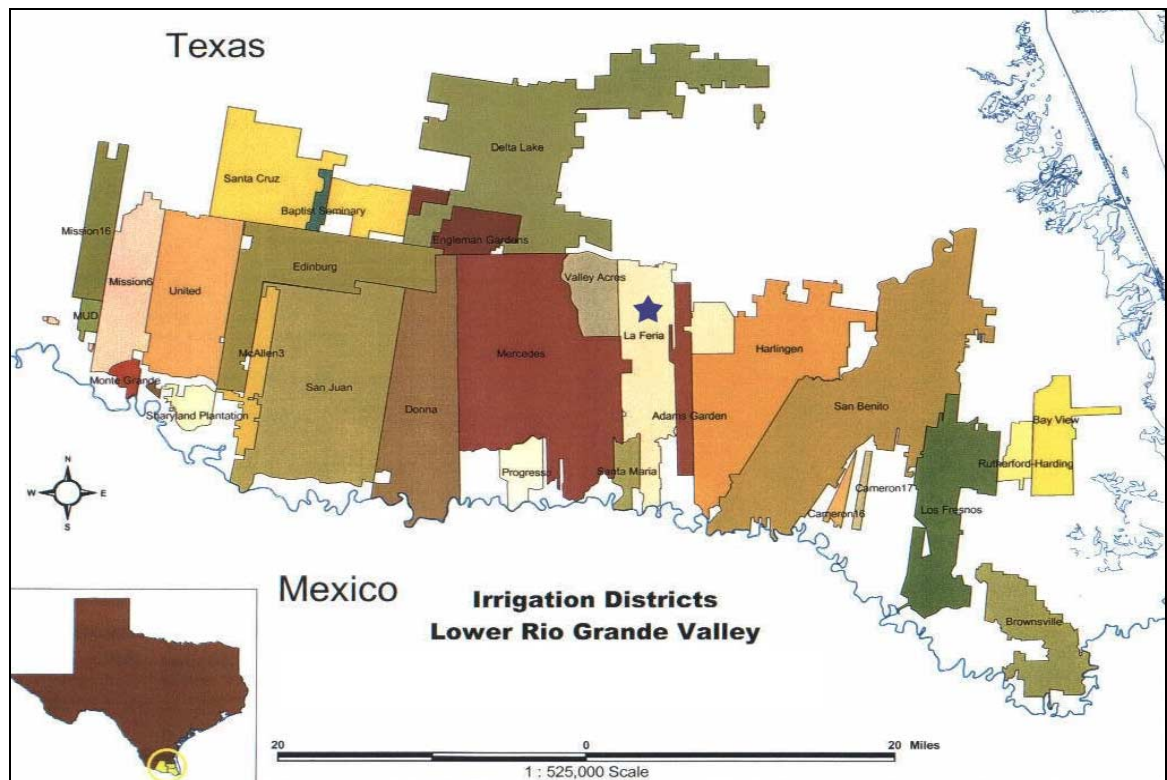


Figure 1: Approximate Boundaries of La Feria Irrigation District, Cameron County No. 3 (Texas A&M)

4.2 Operations of District

Chapter 58 of the Texas Water code provides that the District is governed by five (5) directors elected from the District as a whole. An election is held in even-numbered years with three (3) directors being elected at one election and

two (2) directors elected at the next election for 4-year staggered terms. The Board of directors appoints a General Manager and such other managers and supervisors as is necessary, who are responsible to the directors for the administration, operation and maintenance of the District's properties, together with the supervision of the employees and staff of the District. The water rights of the District are devoted primarily to the irrigation of agricultural lands within the boundaries of the District. The District also delivers untreated water for other uses. The District has authority to divert raw water from the Rio Grande for domestic use by landowners and for delivery to the cities of La Feria and Santa Rosa and Sebastian Water Supply Corporation for their treatment and use for municipal purposes. The District also diverts, transports and delivers water for the irrigation of lands outside the District boundaries by contract.

4.3 District's Water Rights

The District's water rights are based upon those water rights adjudicated to the District in the Final Judgment in Cause No. 261 in the court of Civil Appeals for the thirteenth Judicial District of Texas in case styled, State of Texas, et al vs. Hidalgo County Water Control & Improvement District No. 18, et al, reported at 443 S.W.2d 728 (Tex. Civ. Ap.-Corpus Christi 1969, writ of error by the Supreme Court of Texas), sometimes referred to as "The Valley water suit," In that Judgment, District was awarded the right to divert not to exceed 75,625 acre feet per annum of waters of the Rio Grande from the United States share of the water in the Lower Rio Grande, to irrigate 30,250 acres on a Class "A" priority basis with respect to Court No. 621 and TWC Tract No. C-178. In that Judgment, the District was also adjudicated the right to divert Rio Grande water fro delivery to landowners in the District for domestic use amounting to 2,300 acre feet of water per annum.

In the Valley Water Suit Judgment the District was also awarded the right to divert and deliver 1,800 acre feet per annum of municipal use water to the City of La Feria: 900 acre feet of water to the City of Santa Rosa; 300 acre feet of water to the City of Sebastian.

4.4 Special Project Information

The District will prepare and submit the Project Plan to the Bureau of Reclamation. The studies completed for this project will address how the District will incorporate the U.S. Bureau of Reclamation adopted methodologies for long-term monitoring of energy and water conservation.

Upon submittal of the Project Plan to Reclamation, as required in Reclamation's Guidelines for Preparing and Reviewing Proposals, the District will work closely with Reclamation for the completion of the Project Report satisfactory to Reclamation, including all compliance requirements. It is

understood that Reclamation has ultimate responsibility for the fulfillment of Federal consultation and compliance responsibilities under NEPA and other associated laws, such as National Historical Preservation Act (NHPA) and the Endangered Species Act (ESA).

5 Scope of Work

5.1 Project Study

A consulting engineer shall be contracted by the District to prepare the Project Plan and Project Study Report. Such services shall be obtained pursuant to the procedures provided in Subchapter A, Chapter 2254, Government Code (Professional Services Procurement Act). The Project Study and Project Plans and Specifications will provide the engineering information as specified in “Guidelines for Preparing and Reviewing Proposals for Water Conservation and Improvement Projects Under Public Law 106-576,” United States Department of Interior, Bureau of Reclamation, June 2001.

5.2 Description of Proposed Conservation Measures

The proposed project consists of the installation of 3,700 feet of 24-inch pipeline from the Main Canal to the existing 0.6 pipeline and 24,816 feet of 30-inch pipeline from the 6.0 lateral north to northern end of the District. Selection of the exact locations of the proposed pipelines is contingent on results from Texas A&M studies of the seepage within the District.

5.2.1 Land Surveys of Existing Canals and Proposed Pipeline Alignments

A professional land surveyor licensed in the State of Texas and familiar with land surveys in Cameron County will update the District's existing easement and right-of-way maps. The surveys shall include plan and profile maps of the proposed canal lining or pipeline alignments.

5.2.2 Selection Criteria for Pipeline Installation

Seepage studies shall be performed by the District or Texas A&M during the Project Study to identify “priority reaches” of the District’s canals based on quantity of water lost to seepage and the potential the project has for improving on-farm deliveries. The project study will identify the quantitative selection criteria for ranking each reach of the existing canal.

5.2.3 Identification of Seeps or Spill Areas

No known seeps or spills associated with the District’s distribution system have created any wetlands. The proposed pipeline alignment will be visually inspected and photographed with respect adjacent land conditions.

5.2.4 Determination of Water and Energy Conserved

The proposed Project Study shall estimate the quantity of water and energy conserved by the proposed projects using seepage and other engineering studies prepared by Texas A&M and the District. The District shall pursue executing a Memorandum of Understanding with the Texas Agricultural Experiment Station (TAES) to provide to the District with standard procedures for the determination of the quantity of energy conserved by the proposed project and assist the District in performing any field measurements of energy conserved. It is assumed that funding for all efforts by the Texas Agricultural Experiment Station proposed under this project will be from sources other than the funds requested in this proposal.

5.2.5 Cost Estimates

Construction cost estimates will be prepared using local cost information and Means Heavy Construction Cost Estimation software based on a unit price bids. The cost estimates shall use procedures recommend by Reclamation and those generally accepted by the heavy construction industry.

5.2.6 O&M Cost Estimates

The O&M cost for maintenance and repair of the pipeline installations is estimated to be very minimal. O&M costs shall be estimated based on similar projects installed during the last 20 years in the Lower Rio Grande Valley.

5.2.7 Cost Benefit Analysis

A simple cost-benefit analysis shall be prepared for the proposed project. Such analysis shall include fixed, operational, and maintenance costs associated with pipeline installation.

5.2.8 NEPA, NHPA, ESA, CWA Issues

The proposed pipelines shall be installed on existing District canals or within previously disturbed District right-of-ways or easements. The proposed pipelines will replace an existing canal or lateral and all construction will be on previously disturbed land. Upon submittal of the Project Plan to Reclamation, as required in Reclamation's Guidelines for Preparing and Reviewing Proposals, the District and/or its consultant shall work closely with Reclamation, which has ultimate responsibility for the fulfillment of Federal consultation and compliance responsibilities under NEPA and other associated laws, such as National Historical Preservation Act (NHPA) and the Endangered Species Act (ESA).

5.2.9 Proposed Mitigation

No environmental or other mitigation is expected to be required for the planned installation of the irrigation pipelines. The District will work with Reclamation

to determine if any mitigation is required and if so the final Project Study shall include the details and extents of such mitigation activities.

5.3 Plans and Specifications

5.3.1 Pipeline Plan and Profile Sheets and Surveying

The proposed Plans and Specifications shall include plan and profile engineering drawings of each reach proposed in the Project Study for the pipeline installation.

5.3.2 Turnout and Valve Detail Sheets

The proposed Plans and Specifications shall include engineering drawings specifying each turnout or valve that must be installed or replaced in the course of the canal reach being replaced with a pipeline.

5.3.3 Construction Specifications

The proposed Plans and Specifications shall include detailed construction specifications, as approved by Reclamation, for the construction and installation of the pipeline.

5.3.4 Materials Specifications

The proposed Plans and Specifications shall include Reclamation's specifications for pipeline materials.

5.3.5 Project Schedule

The Plans and Specifications shall include a detailed Gantt Chart project schedule identifying the completion times for installation for each reach and all project milestones.

5.4 Monitoring Activity (2 years)

5.4.1 Canal Lining/Pipeline Installation

5.4.2 Field Inspection During Construction

The District shall designate a full time construction inspector not affiliated with primary construction contractor to inspect and administer construction quality control documentation for the proposed projects.

5.4.3 Post Construction Seepage Measurement

Within 6 months after the installation of the pipeline, the District or Texas A&M shall perform a hydrostatic (ponded) seepage test on two reaches of the

pipeline and the land surrounding the pipeline shall be inspected for any visible leakage.

5.4.4 Annual Report Preparation

The District shall prepare an annual report containing the monthly reports and any other data proposed for incorporation into the Monitoring Final Report.

5.5 Monitoring Final Report

5.5.1 Pipeline Installation

The final report for the pipeline installation project shall include the post seepage measurements made on the pipelines and the quantity of water delivered by each systems and a estimate of the water conserved by each system.

5.5.2 Report Preparation

The Monitoring Final Report shall be prepared by the District. The Report shall include a summary of the 24 monthly reports prepared by the District during the 2 year Monitoring phase of the proposed projects.

6 Expense Budget

The proposed expense budget assumes 30% fringe rate and very little overhead cost, and no profit. The District’s in-kind contribution for this project will include the majority of the District overhead costs.

PROPOSED EXPENSE BUDGET – Pipeline Project

Category	
Salary and Wages	\$15,000
Fringe	\$4,500
Travel	\$500
Expendable Supplies	\$0
Subcontracting Services	\$113,070
Technical and Computer Services	\$0
Communications	\$0
Overhead	\$0
Profit	\$0
TOTAL	\$133,070

7 Task Budget

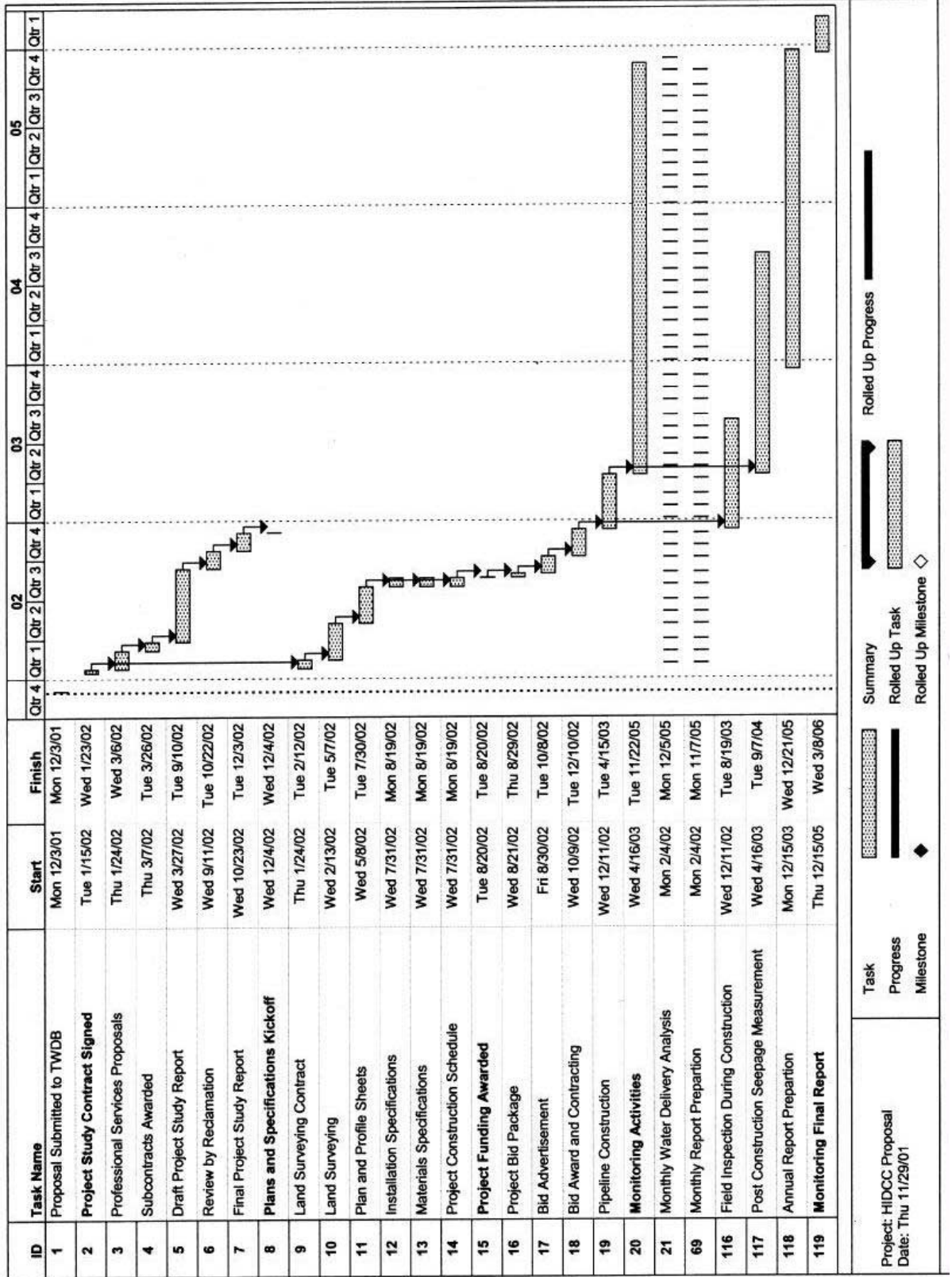
The proposed project budget was prepared according to the guidelines provided in “Proposal Information for Use of Oil Overcharge proceeds through the Texas Water Development Board.” The cost for each task proposed for the

subcontractor was estimated on an hourly basis at combined cost rate of between \$35 and \$90 per hour. The hourly combined cost rate includes overhead, fringe, and profit. The cost for each task performed by District staff was estimated using an annual salary converted to an hourly rate.

PROPOSED TASK BUDGET FOR FIDCC #3 - Pipeline Project

Task	Description	Amount			Totals	
		Previously Expended by District	Anticipated Expenditure by District	Requested from TWDB	From Task	From TWDB
(A) Project Study						
	a Description of Proposed Conservation Measures	\$3,000	\$0	\$0	\$3,000	\$0
	b Site Surveys of Existing Canals	\$2,400	\$0	\$1,800	\$4,200	\$1,800
	c Existing Facilities Inventory	\$0	\$0	\$900	\$900	\$900
	d Selection Criteria for Pipeline Locations	\$5,400	\$0	\$900	\$6,300	\$900
	e Identification of Seeps or Spill Areas	\$0	\$0	\$900	\$900	\$900
	f Determination of Water Conserved	\$0	\$0	\$1,800	\$1,800	\$1,800
	g Determination of Energy Conserved	\$0	\$0	\$450	\$450	\$450
	h Construction Cost Estimates	\$0	\$0	\$900	\$900	\$900
	i O&M Cost Estimates	\$0	\$0	\$900	\$900	\$900
	j Cost Benefit Analysis	\$0	\$0	\$450	\$450	\$450
	k NEPA, NHPA, EAS, CWA Issues	\$0	\$0	\$1,800	\$1,800	\$1,800
	l Proposed Mitigation	\$0	\$0	\$450	\$450	\$450
Subtotal		\$10,800	\$0	\$11,250	\$22,050	\$11,250
(B) Plans and Specification						
	a Pipeline Plan and Profile Sheets and Surveying	\$0	\$0	\$69,000	\$69,000	\$69,000
	b Turnout and Valve Detail Sheets	\$0	\$0	\$6,100	\$6,100	\$6,100
	c Installation Specifications	\$0	\$0	\$3,200	\$3,200	\$3,200
	d Materials Specifications	\$0	\$0	\$3,200	\$3,200	\$3,200
	e Project Schedule	\$0	\$0	\$2,700	\$2,700	\$2,700
Subtotal		\$0	\$0	\$84,200	\$84,200	\$84,200
(C) Monitoring Activity (2 years)						
	a Field Inspection During Construction	\$0	\$0	\$12,000	\$12,000	\$12,000
	b Post Construction Seepage Measurement	\$0	\$0	\$2,000	\$2,000	\$2,000
	c Annual Report Preparation	\$0	\$0	\$720	\$720	\$720
Subtotal		\$0	\$0	\$14,720	\$14,720	\$14,720
(D) Monitoring Final Report						
	a Report Preparation	\$0	\$0	\$3,600	\$3,600	\$3,600
Subtotal		\$0	\$0	\$3,600	\$3,600	\$3,600
(E) District Administration						
		\$2,000	\$20,000	\$19,300	\$41,300	\$19,300
Totals		\$12,800	\$20,000	\$133,070	\$165,870	\$133,070

8 Schedule



9 Subcontracts

The District plans to subcontract with an engineering firm or Reclamation to complete the Project Plan, Project Study, and Engineering Plans and Specification section of the proposed Project Report. The expense budgets proposes that approximately 15% of the requested fund will be used by the District to support District staff and 85% of the funds shall be used to fund subcontracts to Reclamation or a consulting engineering firm.

10 District Management and Oversight

The District has experience in administrative and field management of technical report preparation and supervision of engineering and surveying services. The District General Manager shall supervise the proposed Project Report and shall hold monthly meetings regarding the progress that is being made by District staff and consultants on such report. The proposed Project Report shall conform to Reclamation's "Guidelines for Preparing and Reviewing Proposals for Water Conservation and Improvement Projects Under Public Law 106-576" and shall be submitted to Reclamation as a draft for review and comment prior to the report being finalized.

11 Coordination with Region "M" Water Plan

The proposed project is consistent with the "Integrated Resource Management Plan" prepared under the auspices of the Lower Rio Grande Valley Development Council and Section 5.7.1 "Agricultural Water Conservation" of Chapter 5 "Evaluation and Selection of Water Management Strategies for the Rio Grande Region" of the Region M Water Plan approved by the Texas Water Development Board.