

Bureau of Reclamation WaterSMART: Water and Energy Efficiency Grants for FY2013

Funding Group 1

Water Control Improvement Project
Cameron County Irrigation District No. 2

January 17, 2013

Submitted
by:

Cameron County Irrigation District No. 2
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1. Technical Proposal

1.1. Executive Summary

<i>Project Title:</i>	<i>Water Control Improvement Project</i>
<i>Date:</i>	<i>January 17, 2013</i>
<i>Applicant Name:</i>	<i>Cameron County Irrigation District No. 2</i>
<i>City, County State:</i>	<i>San Benito, Cameron County, Texas</i>

Cameron County Irrigation District No. 2 (District) is proposing to partner with the Bureau of Reclamation (Reclamation) to fund the installation of nine automatic gates located at strategic points throughout the District's distribution system to replace manual wooden slide gates. These gates will be sized to best accommodate flows in delivery laterals and will consist of seven flume gates and two slide gates.

The gate structures include remote flow measurement and control features that are fully compatible with the existing SCADA system in the District. This project will allow for the accurate metering of water flow and level. The proposed project will reduce the amount of water lost from the system due to spills into nearby drains and provide the District with the ability to measure water use in the system. As a result, the District will be better able to evaluate future water conveyance methods and implement more effective conservation techniques. The project is expected to directly conserve 4,484 acre-feet of water per year and indirectly improve the management for half of the District's total annual deliveries.

These improvements are expected to improve management of water deliveries (Task Area A). Portions of the project are also expected to increase energy efficiency of water deliveries (Task Area B). While not a primary goal of the project, improvements could indirectly benefit endangered species (Task Area C) and contribute to future water marketing efforts (Task Area D). The project is estimated to be completed within two years of award.

Actual pumping varies on an annual basis, depending on a number of factors, including precipitation and crop usage. Recent pumping data, covering calendar year 2011 indicated the District pumped 109,636 AFY. The current official representative of the District is Ms. Sonia Lambert, General Manager.

1.2. Background Data

The District is located in south Cameron County, Texas, and was organized by an election held on July 25, 1916. District boundaries and pumping plant location are shown on the project map (Appendix A). Major crops within the District include sugarcane, cotton, and grain.

The District contains 64,281.6 acres, of which 57,439.5 can be irrigated. The total acreage that is actually irrigated varies from year to year, but averages approximately 35,000 acres. Water is diverted from the District's pumping plant facilities located in Los Indios, Texas on the eastern side of the Rio Grande. After pumping from the river, the water is transported via two earthen canals that serve different areas of the District.

The District conveyance system consists of 295 miles of canals and pipelines. Of these 295 miles, 175 miles of unlined canals (included in this are 15 miles of resacas), 18 miles of lined canals, and 102 miles of pipeline. Of the 295 miles, 137 miles are considered to be main canals and 158 miles are classified as lateral canals. The District's total reservoir storage capacity is 7,925 ac-ft. Having pumped 109,636 AFY and delivered 89,680 AFY in 2011, the District estimates an operational efficiency of 82 percent.

The District's irrigation water right is 147,824 ac-ft per year. This water right is "as-available" and the actual water available to the District may vary from year to year. In addition to their irrigation water rights, the District holds municipal/domestic water rights of 5,518 ac-ft per year, municipal water rights of 6,390 ac-ft per year, and industrial water rights 192 ac-ft per year.

The District delivers municipal water to the East Rio Hondo Water Supply Corporation (6,485 ac-ft per year) and the Arroyo City Water Supply Corporation (200 ac-ft per year). The District's primary municipal customers include the City of San Benito (5,500 ac-ft per year) and the city of Rio Hondo (890 ac-ft per year). The District is the sole source of water for these municipalities, which serve a combined population of over 25,000 residents.

The District operates a pumping plant that houses eight pumps (two 50 cfs, 150 hp pumps; and six 100 cfs, 300 hp pumps) that are powered by electricity and natural gas.

The District has worked with Reclamation on numerous projects in the past, including:

- Pumping Plant Rehabilitation (03-FC-60-1799)
- Canal Rehabilitation (04-FC-60-1871)
- Water 2025 Challenge Grant – Gate Replacement (05-FC-60-2017)
- Water 2025 Challenge Grant – Canal Lining (07FC602235)

- Water 2025 Challenge Grant – Canal Flow Measurement & Control Improvements (08-FC-60-2330)
- Water 2025 Challenge Grant – S2 Pipeline Conversion Project (FOA R11SF80303)

1.3. Technical Project Description

The District proposes to install nine automatic gates throughout the District to replace wooden gates that are manually operated by canal riders. Locations of the proposed gates are provided in Figure 1-1.

Task One: Final Design

Upon award, the District will work with its engineers to survey the project area. Surveying results and review of deliveries will be used to prepare a hydraulic analysis to ensure gate sizes are adequate to support system flows. Preliminary designs will then be completed for District review.

Concurrently, the District and its consultant will consult with the Texas Historical Commission to ensure the project will not adversely affect historical and archeological resources in the area.

The District envisions constructing the project using in-kind labor, but will confirm if the District is fully equipped to complete all project components during this task. If necessary, the District consultant will prepare bid documents for any subcontracted work. The consultant will develop and finalize an inventory of supplies and materials necessary for project completion and place orders in anticipation of construction activities.

The District and its Engineer will also establish protocols to most effectively measure post project benefits. This task is expected to be completed within the nine months following the execution of the agreement between Reclamation and the District.

Task Two: Construction

The District will mobilize all construction personnel and equipment and inform customers of construction activities. Any contracts for subcontracted work, if necessary, will be executed at the beginning of Task Two.

To accommodate customers, the District will need to schedule improvements during the off-season. To remain flexible with customer orders, this task has been allotted six months. Task two is divided into three construction components.

Task 2.1 will include all site clearing and preparation activities. These activities may include draining, dredging, and removal of debris in and around the gate structures, as well as removal of concrete frames surrounding existing gates.

Task 2.2 will include the construction of gate frames at each of the improvement sites.

Task 2.3 will include the installation, start-up, and programming of the gates. This component is scheduled to be completed following construction of the frames. Depending on water delivery schedules, the District may perform some Task 2.2 and 2.3 activities concurrently between sites.

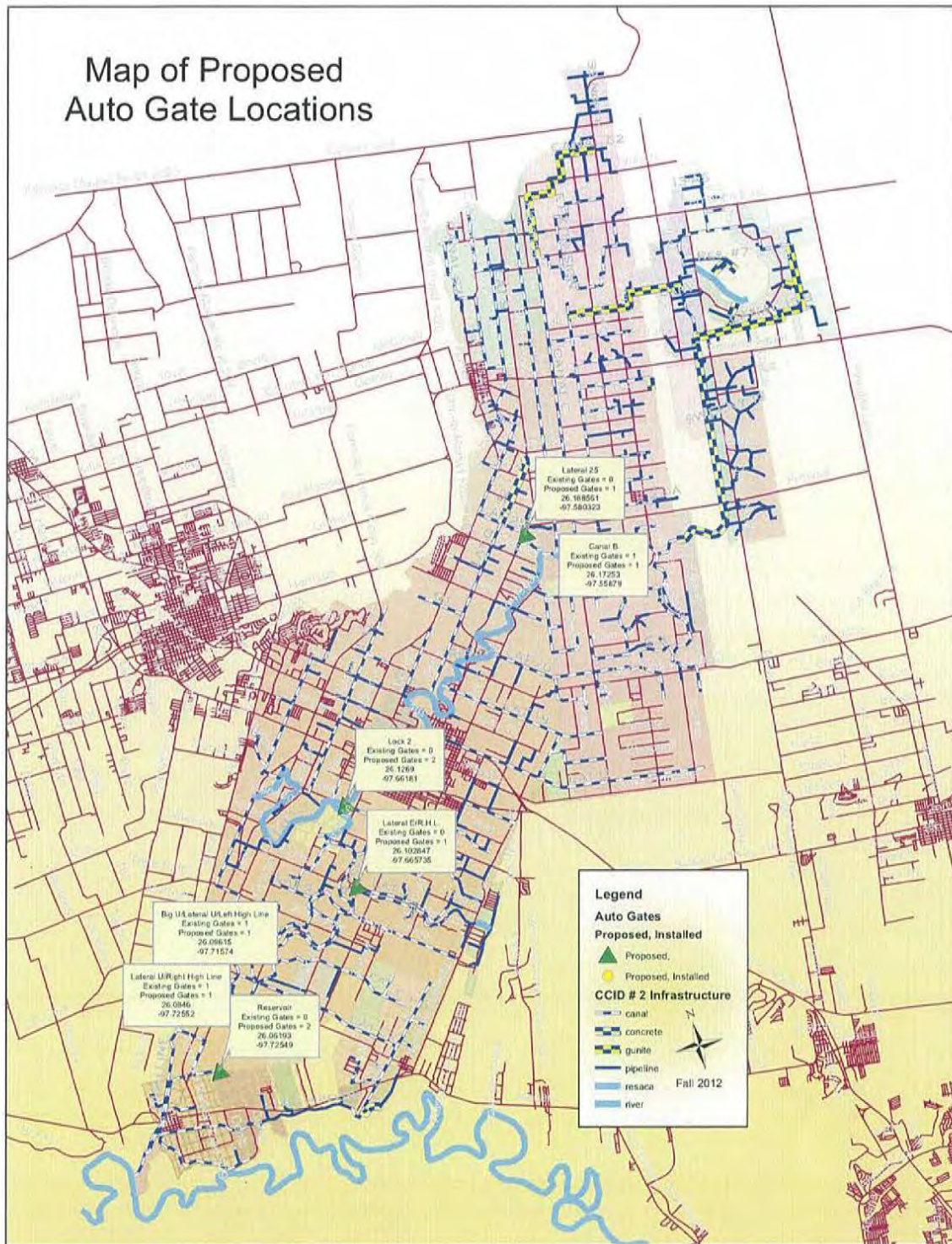


Figure 1-1: Proposed Gate Locations

Task Three: Monitoring and Reporting

Following completion of construction activities, the District and its consultant will monitor installation performance, troubleshoot any problems, and record post project benefits. Task three will also include project management and reporting activities, which will be performed concurrently with Tasks One and Two. This task is expected to be completed within 21 months of award and six months after completion of construction activities.

Task	Duration	Estimated Date
Task 1: <i>Finalize Design</i>	9 months	February 2013-October 2013
Task 2: <i>Construction and Startup</i>	6 months	October 2013-March 2014
Task 3: <i>Monitoring and Reporting</i>	6 months	April 2014-September 2014

1.4. Evaluation Criteria

Evaluation Criterion A: Water Conservation

Subcriterion No. A.1: Water Conservation

The proposed improvements will conserve water by reducing tailwater losses resulting from mismatched deliveries, leakage from wooden gates, and response times inherent in manual control of the gates.

Subcriteria No. A.1(a)—Quantifiable Water Savings

Eliminating these losses would result in a total water savings of 4,484 AFY.

Subcriterion No. A.1(b)—Improved Water Management

District water supply is pumped from the District's pumping plant and enters one of two canal systems: the High Line and Low Line canals. The proposed improvements will better manage the water delivered to approximately half of the District. Based on 2011 deliveries, the High Line system conveys a total of 44,840 AFY to customers, which would be better managed by the project.

The net affect to the District operation and maintenance budget is expected to be a decrease of at least \$6,048 per year. During the growing season, approximately 1.8 hours is spent each week for a ditch rider to drive to each gate for measurement and adjustment. Because of the automation and measurement features of the proposed gates, it is estimated that only about 0.2 hours will be spent at each gate for regular inspection. For ten gate locations, the difference in time results in a total of 302.4 hours during the (21 week) growing season. At an average labor rate of about \$20.00 per hour (including fringe benefits), the total amount saved is expected to be about \$6,048 per year. This estimate does not include any revenues generated by marketing the water conserved or reductions

in fuel use. Because the power source is self-contained within the gate unit (solar), no increases to District electrical bills are anticipated.

Subcriterion No. A.2 : Percentage of Total Supply

The average irrigation water diverted last year was 109,636 acre feet. The volume conserved by this project as a percentage of total supply is estimated at 4.09% of total supply.

$$\frac{4,484 \text{ AFY}}{109,636 \text{ AFY}} \times \frac{\text{Estimated Water Savings}}{\text{Average Irrigation Supply}} = 4.09\%$$

The District delivered 89,680 acre feet last year. Thus, District efficiency was estimated at 82 percent. With estimated water savings of 4,484 AFY, this project would reduce total estimated off-farm losses (19,956 acre feet) by 22.5 percent.

Subcriterion No. A.3 : Reasonableness of Costs

Project costs total \$461,168. Based on discussions with gate manufacturers, the expected improvements are expected to provide benefits for at least 20 years.

This project is expected to conserve 4,484 AFY at a total cost of \$5.14 per AFY. This project is expected to better manage 44,480 AFY at a total cost of \$0.51 per AFY.

Evaluation Criterion B: Energy-Water Nexus

Subcriterion No. B.1—Implementing Renewable Energy Projects Related to Water Management and Delivery

This project will not include any renewable energy generating facilities.

Subcriterion No. B.2—Increasing Energy Efficiency in Water Management

The water conserved by the project is expected to save energy in pumping costs. During the past two years, the energy usage at the river pumping plant averaged 2,873,494 kWh per year. Assuming diversions of 109,636 AFY, each acre foot pumped requires 26.21 kWh. The expected 4,484 AFY water savings are expected to save 117,525.64 kWh per year.

Furthermore, the increased management of deliveries within the District is assumed to provide further reductions in energy demand.

Evaluation Criterion C: Benefits to Endangered Species

The project will address endangered species concerns by providing benefit to habitats supported by the Rio Grande by more efficiently using diverted water. Conducting

irrigation operations in the most efficient way will allow conserved water to remain in stream to support wildlife habitat in the Rio Grande and feed into designated critical habitat in the Laguna Madre.

Project construction is not expected to adversely affect the habitat of endangered or threatened species as project activities are limited to areas previously disturbed by original canal construction and subsequent maintenance activities.

Evaluation Criterion D: Water Marketing

Conserved water will not be directly marketed as part of this project. However, all of the water savings could be included in future water markets. Efficiency gained from this and similar projects will be able to offer regional planners and potential customers more options that support sustainable growth and sound management of surface water supplies. The 4,484 AFY expected to be conserved by the project can be marketed to other agricultural or municipal users in the region if determined surplus by the District.

Districts regularly market surplus water to each other on an annual basis as needed. In addition, Texas law also allows Rio Grande water rights to be converted from irrigation (junior) purposes to priority (senior) municipal rights at an exchange rate of 2:1. Prior to 2007, such transfers were negotiated between irrigation districts and municipalities in the area on a case-by-case basis. After a two-year negotiation process between irrigators and municipalities, a more formal water market was agreed to and codified by Senate Bill 3, which was enacted by the Texas Legislature in 2007. This bill created a uniform method of converting and valuating water right transfers in the Lower Rio Grande Valley from irrigation to municipal purposes within Region M.

Region M includes eight Texas counties (Cameron, Hidalgo, Jim Hogg, Maverick, Starr, Webb, Willacy and Zapata) and a population of over 1.5 million residents. Major water demands include irrigation (1,164,000 million total acre-feet per year) and municipal (251,000 acre-feet per year). By 2060, the total population in Region M is expected to increase by 142 percent to over 3.8 million. Water conserved by the District in excess of their needs may be marketed or leased to this group of users, agricultural or municipal, through this process.

Evaluation Criterion E: Other Contributions to Water Supply Sustainability

The region is often faced with water supply issues, including drought and meeting the demand of a rapidly growing population. For the District and its 28 neighboring districts, the Rio Grande is the sole source for irrigation supply and the primary source for municipal supply. More efficient deliveries to this area of the District will increase District wide-efficiencies, and by extension conserve surface water in the region.

A total of 4,484 AFY saved will result from reducing spills and providing more accurate deliveries to customers, which will in turn lead to more accurate pumping and conveyance operations. Conserved water will remain in storage in Amistad and Falcon reservoirs, or be used for other beneficial uses in the Rio Grande.

The proposed project directly implements water conservation recommendations developed in collaboration with other water sector representatives during the regional water planning process for Region M. Represented entities include agriculture, municipal/domestic, industrial, and power generation. Because the region is almost entirely dependent on the Rio Grande, close collaboration regarding best management practices of water resources is common.

Evaluation Criterion F: Implementation and Results

Subcriterion No. F.1—Project Planning

This and similar projects have been identified and prioritized in past District planning efforts. In addition, the District has had success in completing these types of projects over the past several years. The District remains aware of issues affecting system efficiencies, through partnering with state and federal government agencies and research institutions to conduct studies, and first hand observations by system operators. This information has allowed the District to quantify conveyance inefficiencies and note structural conditions throughout the District. The District has identified the current project as one of a short list of candidate projects that would most cost-effectively conserve District supply. The District maintains a Drought Contingency and Irrigation Allocation Policy and Water Conversation Plan that are available upon request.

The District has performed preliminary design work and construction cost estimates for the proposed project. In addition, the District and its consultant have prepared preliminary water savings and cost estimate data in support of federal legislation that addresses water supply issues in South Texas. Components of this project were identified in the brief, but have not yet been funded.

The District is an active participant in regional and statewide planning efforts, which support sound management of state water resources while meeting the growing demands of a wide range of users. District operations comply with the drought response and conservation goals of the Rio Grande Regional Water Planning Group and the Texas Water Development Board. These state and regional planning efforts have recognized automation

projects as a cost-effective way for Districts to conserve significant volumes of water lost to spillage¹.

Subcriteria No. F.2—Readiness to Proceed

The District will work with its consultant during Task One to finalize designs. Preliminary sizing and cost estimating work has been completed, but surveying, on-site observation, and discussions with gate suppliers will verify project requirements. While environmental compliance is not expected to cause any delays in project implementation, the District and its consultant will work with applicable regulatory agencies during the design phase to accommodate any concerns.

As mentioned in the technical project proposal, the current project consists of three tasks. Sizing will be completed early during Task 1 in order to ensure fabrication and delivery of the gates before Task 2. The District estimates construction can be completed within a six month time frame to accommodate growers.

Subcriteria No. F.3—Performance Measures

The direct benefits of the project include expected water savings of 4,484 acre-feet of water per year currently being lost due to operational spills throughout the District's conveyance system, including the Left High Line Canal, Right High Line Canal and the District's Main Reservoir. The High Line canal system receives approximately one-half of the total water pumped by the District from the Rio Grande.

The District does not have adequate measurement capability on the High Line canal and downstream laterals to determine the amount of water presently being delivered or lost to spills. Regional studies of this and other irrigation district systems² have indicated that such spills range from 5 to 15 percent of the total volume delivered. Given the size of the canals involved and first-hand accounts of field staff, a conservative planning estimate of ten percent of the Low Line canal annual average delivery was calculated (4,484 acre-feet per year) and is the basis of projected direct water savings from the proposed project.

Evaluation Criterion G: Additional Non-Federal Funding

The District will provide all non-federal funding for the project.

Evaluation Criterion H: Connection to Reclamation Project Activities

Since 2002, Reclamation has had an active program providing engineering and financial grants assistance to irrigation districts in the Lower Rio Grande Valley. The program was

¹ Texas Water Development Board, Water For Texas 2007, pp 263

² "Irrigation District Efficiencies and Potential Water Savings in the Lower Rio Grande Valley of Texas".

authorized under P.L. 106-576 and subsequently expanded under P.L. 107-351. These pieces of legislation state that the Secretary of the Interior, acting through the Bureau of Reclamation, shall “undertake a program in cooperation with the State, water users in the program area, and other non-Federal entities, to investigate and identify opportunities to improve the supply of water for the program area as provided in this Act. The program shall include the review of studies or planning reports (or both) prepared by any competent engineering entity for projects designed to conserve and transport raw water in the program area. As part of the program, the Secretary shall evaluate alternatives in the program area that could be used to improve water supplies...”

With Reclamation’s assistance, South Texas irrigation districts have been able to complete a number of water conservation improvement projects. Notably, a 2004 project funded by Reclamation (\$7.66 million) and the North American Development Bank (\$5.8 million), allowed the District to replace its 100 year old pumping plant and construct other greatly needed improvements. This project not only increased operational efficiency, but gave District customers a much more reliable water source.

2. Environmental Compliance

The District intends to avoid any adverse consequences to local wildlife and environment. Proposed project activities will be limited to current canal profiles. This area has been previously disturbed by previous construction projects. However, in order to avoid any unforeseen environmental damage, the District will work with Reclamation and State and Federal agencies to ensure all required environmental regulations are followed.

1. Any earth-disturbing work will be limited to areas previously disturbed by construction and maintenance of the canals. Furthermore, any additional land disturbance will be minimal.
2. There are no known endangered or threatened species that inhabit the project area, nor is the area a designated critical habitat by the Fish and Wildlife Service. The District will work with Reclamation to ensure project activities adhere to federal environmental regulations.
3. There are no wetlands within the project area that would require compliance with the Clean Water Act. Furthermore, the Clean Water Act does not regulate irrigation and drainage water. All proposed activities will be reviewed to ensure permitting compliance and mitigation of environmental impact, if any.
4. Construction of the water delivery system and pumping plant began in 1903.
5. The canal and diversion structures in the proposed project area have been installed, modified, or rehabilitated at various times over the past fifty years on an as-needed basis.

6. There are no known eligible structures affected by the project that qualify for listing in the National Register of Historic Places. Complete project details will be provided to the Texas State Historical Preservation Office for approval before beginning construction.
7. There are no known archeological sites in the proposed area.
8. The Project is not anticipated to have any adverse effects on low income or minority populations.
9. There are no tribal jurisdictions in the project area.
10. The project is not expected to contribute to the “introduction, continued existence, or spread of noxious weeds or non-native species know to occur in the area.” The project is more likely to discourage the spread of invasive, water scavenging species by reducing the habitable surface area provided by open canals.

3. Required Permits and Approvals

Due to the age of the surrounding infrastructure, the District will seek project approval from the Texas State Historical Preservation Office. No other permits are anticipated at this time, but Task 1 will determine if in fact further approvals are necessary. The District will work with Reclamation to ensure that all Federal environmental compliance requirements are addressed before beginning construction.

4. Funding Plan and Letters of Commitment

The District will fund the entirety of the non-federal project costs: \$236,281 or 51.2% of the total project costs \$224,889. This includes \$51,661 in in-kind contributions from the use of District equipment and personnel.

The District will fund its portion of the project costs from its general operations account, proof of which is attached in Appendix B. These funds will be made available immediately. The in-kind portion of the project will be provided from general operating revenue of the District.

Funding Sources	Funding Amount
<i>Non-Federal Entities</i>	
CCID No. 2	\$236,281
<i>Federal Entities</i>	
Requested Reclamation Funding:	\$224,889
Total Project Funding:	\$461,168

5. Official Resolution

The District Board will review the completed application at its upcoming meeting. An official resolution will be signed and forwarded to Reclamation within 30 days of submitting this application.

6. Budget Proposal

6.1. Budget Proposal

Budget Item	Cost Per Hour	Hours	Cost	CCID2 Funding	USBR Funding	Total Cost
DISTRICT EXPENSES						
Salaries and Wages						
General Manager	\$53.04	54	\$2,864	\$2,864	\$0	\$2,864
Field Staff Supervisor	\$25.55	590	\$15,075	\$15,075	\$0	\$15,075
Field Staff	\$11.50	1850	\$21,275	\$10,638	\$10,638	\$21,275
Fringe Benefits						
General Manager	\$7.20	54	\$389	\$389	\$0	\$389
Field Staff Supervisor	\$3.47	590	\$2,047	\$2,047	\$0	\$2,047
Field Staff	\$1.50	1850	\$2,775	\$1,388	\$1,387	\$2,775
Equipment						
Excavator 1	\$140.00	90	\$12,600	\$6,300	\$6,300	\$12,600
Backhoe	\$55.00	180	\$9,900	\$4,950	\$4,950	\$9,900
Dozer	\$89.00	180	\$16,020	\$8,010	\$8,010	\$16,020
Travel	\$0.00	0	\$0	\$0	\$0	\$0
Subtotal		5438	\$82,945	\$51,661	\$31,285	\$82,945
CONTRACTOR EXPENSES						
Salaries and Wages						
Engineer	\$80.00	800	\$64,000	\$32,000	\$32,000	\$64,000
Surveying	\$60.00	160	\$9,600	\$4,800	\$4,800	\$9,600
Travel	\$0.00	0	\$0	\$0	\$0	\$0
Subtotal	\$140.00	\$960.00	\$73,600.00	\$36,800.00	\$36,800.00	\$73,600.00
PROJECT EXPENSES						
Supplies/Materials						
Miscellaneous Supplies			\$5,000	\$2,500	\$2,500	\$5,000
Motorized Gates	\$29,500.00	9	\$265,500	\$132,750	\$132,750	\$265,500
SCADA	\$1,900.00	9	\$17,100	\$8,550	\$8,550	\$17,100
Commissioning	\$560.00	9	\$5,040	\$2,520	\$2,520	\$5,040
Other Contractual						
Construction	\$0.00	0	\$0	\$0	\$0	\$0
Environmental and Regulatory Compliance	2%		\$8,984	\$0	\$8,984	\$8,984
Reporting			\$3,000	\$1,500	\$1,500	\$3,000
Subtotal	\$31,960.00		\$304,624	\$147,820	\$156,804	\$304,624
Total Direct Costs			\$461,169	\$236,281	\$224,889	\$461,168
Indirect Costs			\$0	\$0	\$0	\$0
TOTAL PROJECT COSTS			\$461,169	\$236,281	\$224,889	\$461,168

6.2. Budget Narrative

District Expenses

Salaries and Wages

District personnel will clear the proposed site and construct the improvements, as well as perform administrative duties during construction.

Fringe Benefits

Fringe benefits were assumed to include employer contributions for benefits such as medical, dental, sick time, vacation, and retirement. A rate of 13.57 percent was used in the estimate.

Equipment

The District will use the following equipment to perform earthwork at the project site.

Materials and Supplies

The District and its consultant based the preliminary budget on a quote received from Rubicon, dated January 4, 2013 (attached in Appendix C). The quote from the gate manufacturer includes 10% contingency costs.

Contractual Expenses

The District intends to contract with a consulting engineer for engineering design and drawing development.

Engineering Contractual

Salaries and Wages

Additional costs for engineering contractual include estimates based on recent quotes for similar surveying (\$9,600) completed on previous projects.

Fringe Benefits

Fringe benefits were assumed to include employer contributions for benefits such as medical, dental, sick time, vacation, and retirement. The rate differs for each employee, by was averaged at 10 percent. Additional costs for surveying and geotechnical work will be included under engineering contractual and identified under the quote for engineering services.

Travel

No travel is anticipated for this project.

Other Expenses

Environmental and Regulatory Compliance Costs

A total of \$8,984 has been included to cover any regulatory and environmental compliance costs.

Reporting

A total of \$3,000 has been included for reporting and performance measurement requirements.

Total Cost

The project is estimated to cost a total of \$461,168.

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
2. Land, structures, rights-of-way, appraisals, etc.	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
3. Relocation expenses and payments	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
4. Architectural and engineering fees	\$ <input type="text" value="73,600"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="36,800"/>
5. Other architectural and engineering fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
6. Project inspection fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
7. Site work	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
8. Demolition and removal	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
9. Construction	\$ <input type="text" value="82,945"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="31,285"/>
10. Equipment	\$ <input type="text" value="292,640"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="146,320"/>
11. Miscellaneous	\$ <input type="text" value="11,984"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="10,494"/>
12. SUBTOTAL (sum of lines 1-11)	\$ <input type="text" value="461,168"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="224,889"/>
13. Contingencies	\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>
14. SUBTOTAL	\$ <input type="text" value="461,168"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="224,889"/>
15. Project (program) income	\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ <input type="text" value="461,168"/>	\$ <input type="text" value="0"/>	\$ <input type="text" value="224,889"/>
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c Multiply X <input type="text" value="49"/> % Enter the resulting Federal share.			\$ <input type="text" value="224,889"/>

Appendix A: District Map

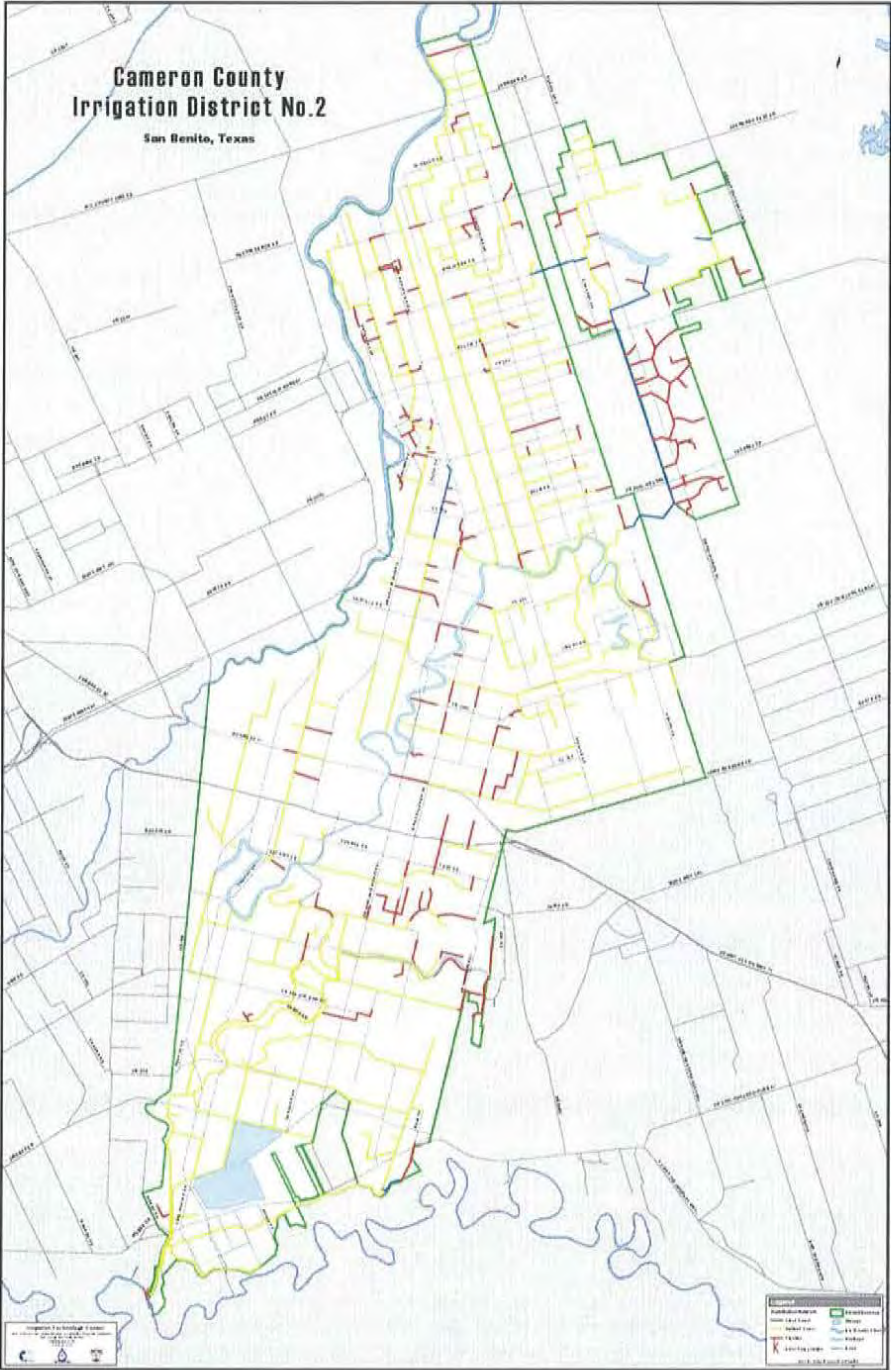


Figure 0-1: District Map. Source Irrigation Technology Center, Texas A&M University

Appendix B: District Assets



Account Number: 36641
 Date: 12/31/12
 Page Number: 1 of 2
 Enclosures: 10

**CAMERON COUNTY IRRIGATION DIST 2
 HOLD STATEMENT**

36641

Account Summary

Beginning Balance		
as of 12/01/12		1,329,279.91
Deposits & Other Credits		454.03
Charges & Fees		0.00
Checks & Other Debits		460,808.18
Average Balance		1,069,173.78
Ending Balance		
as of 12/31/12		868,925.76

Checks Paid

Date	Amount	Number	Date	Amount	Number
12/03	22,987.92	1208	12/17	345.89	1213
12/04	58,354.76	1209	12/18	268.88	1214
12/11	7,185.55	1210	12/17	196.35	1215
12/27	738.34	1211	12/17	364,314.24	1216
12/17	522.70	1212	12/27	6.11	1217

* Indicates a break in check number sequence

Miscellaneous Debits

Date	Check#	Description	Debit Amount
12/11		xfer to 26158	5,887.44

Deposits and Miscellaneous Credits

Date	Description	Credit Amount
12/31	Interest Credit	454.03

Account Daily Balance Summary

Date	Amount	Date	Amount	Date	Amount
12/03	1,306,291.99	12/17	869,485.06	12/31	868,925.76
12/04	1,247,937.23	12/18	869,216.18		
12/11	1,234,864.24	12/27	868,471.73		

Cameron County Irrigation District No. 2
Furnishing Automatic Flume and Slip Gates
 LIST 01/040213.

	1	2	2	3	3	3	4	5	5	6			
PACKAGE	Location	EXISTING SLOTS	EXISTING MOTORIZED GATES	EXISTING MODEL NUMBER	Number of Proposed Add'l Gates	Type of Gate	Gate Width (B, in.)	Gate Ht (OE, in.)	FIELD OBSERVED WIDTH INCHES 2012	DESIRD FLOWS CFS	USWS TO INVERT SLOT	DSWS TO INVERT SLOT	Budget Cost
A1	BIG U/LATERAL U/LEFT HIGH LINE	2	1	FGA-1050-1273	1	FGB-1050-1273	46.6	48.4	45	72			\$ 25,800
A2	LAT U/ RIGHT HIGH LINE	2	1	FGA-1180-1587	1	FGB-1180-1587	51.7	60.4	52	90			\$ 31,000
A3	LOCK 2	4	0	NA	2	FGB-1180-1587	51.7	60.4	57	400			\$ 62,000
B1	RESERVOIR	3	0	NA	2	SG-1050-1525	46.55	60.09	48	300			\$ 54,800
B2	CANAL B	3	1	FGA-1050-1437	1	FGB-1050-1437	46.6	54.5	48	70			\$ 27,400
B3	LATERAL 25	4	0	NA	1	FGB-0760-	35.2		36	80			\$ 30,000
B4	LATERAL E/ RIGHT HIGH LINE	1	0	NA	1	SG-1790-1525	73.44	60.09	76.5	70			\$ 31,900
	SCADA (equip + configuration) ¹				9								\$ 17,100
	Gate Install + commissioning ²				9								\$ 5,000
	Budgetary Cost ³												\$ 285,000

¹ Includes radio, antenna, cables, port connector and configuration of the HMI for all new gates
² Includes inspection of frame installation by client, supervision of gate installation, calibration, testing, startup and commissioning of all new gates.
³ Cost estimate is budgetary only; includes 10%+ contingency.