Abridged Application

Due by midnight on February 1, 2021
Submit via Email: SWIFT@twdb.texas.gov
Apply Online: https://ola.twdb.texas.gov

By submitting this abridged application, you understand and confirm that the information provided is true and correct to the best of your knowledge and further understand that the failure to submit a complete abridged application by the stated deadlines, or to respond in a timely manner to additional requests for information, may result in the withdrawal of the abridged application without review.

GENERAL INFORMATION

Entity Name	County	Regional Water Planning Area
Hidalgo County Irrigation District #6	Hidalgo	M - Rio Grande

Contact Who should TWDB contact with questions during the review of this submission?	**Name**	Dr. Antonio Uresti
	Title	General Manager
	Phone	956-585-8389
	Email	Antonio.uresti@hcid6.com

PROJECT DESCRIPTION

Project Name As it appears in your region's **2021 Regional Water Plan**	Hidalgo County ID No. 6 Conservation	
Where can the project be found in the 2021 Regional Water Plan?	**The project is described on page #:**	5.3-85
	The capital cost is listed on page #:	5.3-86

Phase(s) Applied For	☒ Planning ☐ Acquisition ☒ Design ☐ Construction
Population Served When Fully Operational	2,100

DESCRIPTION OF PROPOSED PROJECT COMPONENTS

Please be sure this description includes all major project components and clearly states what the project seeks to accomplish. A high level of detail is not necessary at this stage–such information is collected later in the application process–but the description should make clear that the proposed work is the same as identified in the regional water plan.

Hidalgo County Irrigation District No. 6 (HCID6) has adopted a new vision and system improvement plan that has been proved by investing on engineering studies that our district is in dire need to be modernized of our 100-year-old systems of canals. It is also understood by our Board and staff that federal and state intervention will be required in order to implement our improvement plan. The Board took the initiative in 2020 by assuring its constituents that they would maximize the use of its resources in order to be considered and added to the 2021 Regional Water Plan (Region M – Rio Grande) to commence seeking funding opportunities to address their needs via federal and state funding. Since our plan was approved and accepted by the TWDB, our Board and district is seeking favorable consideration and approval of our project name: Hidalgo County ID NO. 6 CONSERVATION.

Our project has taken the first steps in creating a comprehensive Capital Project Plan that will be the official blueprint to guide us in this much overdue/needed modernization. HCID6 has taken unprecedented steps to conserve water, utilizing our limited resources with our existing motor/pumps and being fiscal responsible as we seek funding opportunities to subsidize costs via low-interest loans and take advantage of any type of grants. Our goal is a commitment in forging our initiative that will be able to be good stewards of our water supply, so that we can ensure enough water for generations to come; therefore, all steps that have been taken have required meticulous planning and dialogue.

With the investment of $1.5 million in capital improvements, engineering studies/reports and administration costs in the last several years, our district is seeking to be recompensed in good faith with federal and state funding opportunities to demonstrate that our conscientious planning will be rewarded since our conclusive goal is to be interconnected with the Texas Water Development Board's mission of conservation.

Our project, Hidalgo County ID NO. 6 CONSERVATION, has a total capital cost of $16,160,527 to address the conservation needs of our district service area covering approximately 18,900 acres by exercising and maximizing the following:

- Improvement Water management and conservation of water
- Reduce evaporation
- Eliminate Seepage losses
- Reduce operation and maintenance costs
- Conserve energy

In order to be more efficient, HCID6 is analyzing its entire system through a comprehensive Improvement Plan (SIP). Our SIP Plan is to address the following by exercising all conservation measures, but not limited to other activities:

- Evaluate the district's primary and secondary canal systems
- Develop a mitigation plan for the seepage and evaporation issues
- Analyze the opportunities to deliver sufficient water to its patrons
- Evaluate solar power opportunities while maintaining our initial purpose
- Install GIS mapping to effectively identify our delivery system needs.

As mentioned before and in our report, the total cost for our project is $16,160,527; nevertheless, only $1,922,527.00 is needed to commence planning and design in order to kick-start this overdue conservation project and witness it into fruition by respectfully requesting multi-year funding commitments from your agency.

HCID6 will continue to work closely with our local community, state and federal agencies and other potential funding sources to maximize any type of funding opportunities to see this project commence and in the near future into fruition to benefit many years of conservation measures and new opportunities of continued planning and growth.

Emergency Select all that apply	☐ Applicant/entity's water supply will last less than 180 days. ☐ Applicant has received or applied for Federal emergency funding. ☒ None of the above.

Agricultural Efficiency Project?

	☒ Yes ☐ No	
If "Yes," agricultural efficiency improvement achieved by implementing the project: Please provide an attachment showing the basis for your calculation.	☐ <1% ☐ 1%-1.9% ☐ 2%-5.9% ☐ 6%-9.9%	☐ 10%-13.9% ☒ 14%-17.9% ☐ ≥18%

Household Cost Factor Household Cost Factor calculated by dividing the service area's average residential water bill by its annual median household income. For regional projects, these should represent the combined service areas of all participating entities.			
Estimated average annual residential water bill:	$917.62	**Annual Median Household Income:**	$35,921

The proposed project addresses:	☒ Conservation	☒ Water Loss	☐ N/A

Volume of Water Produced/Conserved (in Acre/Feet per Year)

Please provide the total water supply project yield of the entire project on an annual basis in acre-feet per year, for each planning decade. A water volume in the 2040 decade, for example, is assumed to come online in or prior to the year 2040 but is a snapshot annual volume for that decade; it is not a sum of the annual use in the decade.

2020	2030	2040	2050	2060	2070
1,979	2,199	2,421	2,641	2,861	3,082

Readiness to Proceed Select all that apply	☐ Preliminary planning or design work (30% of total project) has been completed or is not required. ☒ Applicant is prepared to begin implementation or construction within 18 months of application deadline. ☒ Applicant has acquired all water rights associated with the proposed project, or none will be required.

ESTIMATED COSTS

Low-interest Loan	$ 16,160,527
Deferred Loan	$
Board Participation	$
Local Contribution	$
Other:	$
Total Estimated Project Costs	$ 16,160,527

Anticipated Commitments Please attach proposed schedule for multi-year commitments.	☒ One-Time Commitment	☐ Multi-Year Commitments

Anticipated Debt Service Structure Please attach explanation if requesting non-level debt service.	☒ Level	☐ Other Request

LIST OF WATER SYSTEMS SERVED BY THE PROPOSED PROJECT

NAME	PWS ID
400 total farmers	HCID6

Agua SUD	10 800 22
USDA Air Force Base	10 800 75
Frontera Energy	n/a

ATTACHMENTS CHECKLIST

☒ Methodology for determining agricultural conservation savings (if applicable)

☐ Proposed multi-year commitment schedule (if applicable)

☐ Proposed debt service structure (if applicable)

SUBMITTAL

Instructions	To submit your Abridged Application via email, please send this form to SWIFT@twdb.texas.gov.
	To submit your Abridged Application using TWDB's Online Loan Application tool, please visit https://ola.twdb.texas.gov.
TWDB Contact Information	If you would like to schedule a meeting to discuss your project with TWDB staff, please contact the Regional Project Development Team for your region: http://www.twdb.texas.gov/financial/programs/swift/regional_project_teams.asp.
	For general SWIFT program inquiries, please email SWIFT@twdb.texas.gov.

Development of Anticipated Water Savings
Hidalgo County Irrigation District No. 6 Water Conservation & Service Area Expansion Project

Overall Water Loss

No. of Acres, Irrigated	18,900	acres	
Gross Water Diverted to the District, duty	1.4	Acre-Feet/Acre	
Gross Water Diverted	26,460	Acre-Feet	
Net water applied, duty	1.05	Acre-feet/Acre	25.00%
Net water applied to District operation	19,845	Acre-feet	
Total water loss:	6,615	acre-feet	

Breakdown of losses

The following losses cannot be changed

Main Canal Seepage	192.37	ac-ft/mile/year		
Main Canal Inventory	45	miles		
Elevated Sections	12	miles		
Estimate that the seepage losses are from the elevated sections:				
Canal Seepage Loss	***12 miles***		***2,308***	***acre-ft.***
Loss due to spillage, evaporation, miscellaneous (remaining loss after canal seepage)			***4,307***	***acre-ft.***
Estimated evaporation of canals and resevoir				
	8	ac-ft/mile/year		
	45	miles	360	acre-ft.
HCID No. 6 Reservoir**	37	inches loss		
	116	surface acres		
** net evaporation			358	acre-ft.
Net losses subject to improvement (canal and pipeline seepage)			***3,589***	***acre-feet***

Anticipated Water Savings, from Project Improvements

1	Reline Canal & Replace Leaking Pipe	52,000	feet of concrete pipelines		
		1.22	acre-ft/(mile-day)		
		90	days operation	1,081	Acre-feet
	Total Water Savings from loss reduction			1,081	Acre-feet
	Loss reduction of losses subject to improvement			30.13%	
	Overall Loss reduction within District			16.35%	

Notes:

1. Canal seepage values are based on Texas A&M ponding studies for lined canals in soils typical of District.

2. Evaporation rates for Hidalgo County are 60 inches per year; while yearly precipitation is approximately 23 inches. Thus, the net evaporation rate is 37 inches per year.

3. Leakage through the joints of concrete pipe, based on studies for ASCE, indicates a value of 22000 gal per day/diameter-mile. The average diameter is 18 inches and we estimate that pipelines are used 90 days over the yearly cycle.