



# Abridged Application

Due February 5, 2016 by 5:00pm  
 SWIFT@twdb.texas.gov

RECEIVED

2016 FEB -5 P 4: 06

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

Name of Entity	County	Regional Water Planning Area
Harris County MUD #50	Harris	H

## Entity Contact Information

Contact Person	Name	Mr. Carl D. McConnell, PE, PMP		
	Title	District Engineer		
Mailing Address	Dannenbaum Engineering Corporation			
	3100 West Alabama			
	Houston, Texas 77098			
Phone Number	713-527-6384	Fax Number		
Email Address	Carl.Mcconnell@dannenbaum.com			

## PROJECT DESCRIPTION

Name of Project <i>(As it appears in the 2016 regional water plan)</i>	Municipal Conservation, Harris County MUD #50			
Where can the project be found in the most recent Regional Water Plan?	Project described on page:	5-B-CNSV-003-2	Capital costs listed on page:	5-A-104

Please attach a list of all water systems served by the proposed project.

Phase(s) Applied For	<input checked="" type="checkbox"/> Planning	<input checked="" type="checkbox"/> Acquisition	<input checked="" type="checkbox"/> Design	<input checked="" type="checkbox"/> Construction
Population Served When Fully Operational	4,900			

## Description of Proposed Project

Harris County MUD #50 is submitting this application for the acquisition of land and construction of a 8,200 ft<sup>2</sup> building that will serve as a water education center and also provide administrative offices for MUD #50 staff. The proposed building program will include the following:

- Community room to house public meetings, MUD #50 Board meetings, water conservation workshops, and community events;
- Indoor education facility, providing "hands on" experience with water conservation devices, computer kiosks promoting TWDB's "WaterIQ: Know Your Water" platform, and documenting our water conservation progress to meet our targets for both the Region H plan and the subsidence district;
- Outdoor education facility, providing "hands on" experience with different landscape options and irrigation systems (e.g., drip irrigation, multi-stream rotational heads), including rainwater harvesting;
- Water and energy efficient fixtures both inside and outside the building, including plumbing fixtures, landscape, rainwater harvesting, lighting, HVAC, and building envelope;
- Signage to highlight the water and energy benefits of installed water and energy efficient fixtures; and



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- Administrative offices for MUC #50 staff.

The Region H water plan lists a series of water conservation measures to achieve municipal conservation savings on 5-B-CNSV-003-2, all of which will either be installed or promoted at the proposed water education center. The plan also notes that the “list of practices and recommended strategy are not intended to be exhaustive of all practices that may be employed to reduce municipal water use,” and that outreach and education is a part of 70%-80% of WUGs in Region H. This application creates an educational facility that can take advantage of the debt financing offered by SWIFT to target our municipal conservation savings goals.

The original cost estimate for municipal conservation for Harris County MUD #50 was based on the Alliance for Water Efficiency cost effectiveness tool (see page 5-B-CNSV-003-6). The proposed cost takes into account MUD #50’s specific scope of work, understanding that this is a MUD #50 asset eligible for debt financing. We will pursue an amendment as necessary to the State Water Plan to reflect the actual capital cost of our proposal. We will pursue this amendment in parallel with the TWDB’s review of our application and, hopefully, the development of our final application.

<b>Emergency</b> <i>(select all that apply)</i>	<input type="checkbox"/> Applicant/entity’s water supply will last less than 180 days. <input type="checkbox"/> Water supply need occurs earlier than anticipated in the State Water Plan. <input type="checkbox"/> Applicant has received or applied for Federal emergency funding. <input checked="" type="checkbox"/> None of the above.
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<b>Agricultural Efficiency Project?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Efficiency improvement achieved by implementing the project <i>(Please provide an attachment showing the basis for your calculation.)</i> <input type="checkbox"/> <1% <input type="checkbox"/> 10%-13.9% <input type="checkbox"/> 1%-1.9% <input type="checkbox"/> 14%-17.9% <input checked="" type="checkbox"/> 2%-5.9% <input type="checkbox"/> ≥18% <input type="checkbox"/> 6%-9.9%
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**Household Cost Factor**  
*(Household Cost Factor for SWIFT prioritization is 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.)*

<b>Estimated average annual residential water bill:</b>	\$401.88	<b>Annual Median Household Income:</b>	\$30,789
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<b>The proposed project addresses:</b>	<input checked="" type="checkbox"/> Conservation <input type="checkbox"/> Water Loss <input type="checkbox"/> N/A	<b>Annual Volume of Water Produced/Conserved by the Project</b> <i>(in acre-feet per year)</i>	2 acre-feet per year starting in 2020, and reaching 10 acre-feet per year (or 3.8% of water demand) by 2040. (See page 5-A-76 of the Region H plan).
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<b>Readiness to Proceed</b> <i>(select all that apply)</i>	<input type="checkbox"/> Preliminary planning or design work (30% of total project) has been completed or is not required. <input type="checkbox"/> Applicant is prepared to begin implementation or construction within 18 months of application deadline. <input checked="" type="checkbox"/> Applicant has acquired all water rights associated with the proposed project, or none will be required.
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ESTIMATED COSTS		
<b>Estimated Project Costs</b>	Low-interest Loan	\$ 1,300,000.00
	Deferred Loan	\$
	Board Participation	\$



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	Local Contribution	\$
	Other:	\$
	Total Estimated Project Costs	\$ 1,300,000.00

<b>Anticipated Commitments</b> <i>Attach proposed schedule for multi-year commitments</i>	<input checked="" type="checkbox"/> One-Time Commitment	<input type="checkbox"/> Multi-Year Commitments
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**HC MUD 50 - AMI Water Meter System**

	<b>Item</b>	<b>QTY</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Price</b>
	<b>Construction</b>				
1	AMI Pilot Kit - Includes Panasonic Toughbook, software package, 25 "No Lead" brass meters with Tesla4 Register, 3 month on site training, and network collector	1	EA	\$ 23,000	\$ 23,000
2	5/8"x3/4" "No Lead" brass meters with Tesla4 registers	1,025	EA	\$ 210	\$ 215,250
3	Retro-Fit with register only, includes universal adapter	375	EA	\$ 180	\$ 67,500
4	Extended Antenna - Flush Mount with Meter Lid	1,400	EA	\$ 25	\$ 35,000
5	Cost per meter per year for AMI Fee	1,400	EA	\$ 2	\$ 2,100
6	6" Turbine Meter for Water Wells	2	EA	\$ 2,300	\$ 4,600
7	8" Turbine Meter for Water Wells	1	EA	\$ 2,735	\$ 2,735
8	Install cost per 5/8"x3/4" meter, with Cast Iron lid. Work done by RG3 Utilities	1,025	EA	\$ 42	\$ 43,050
9	Network Fixed Base Collector with install cost included, as needed	1	EA	\$ 26,200	\$ 26,200
10	Network Fixed Base Repeater with install cost included, as needed	1	EA	\$ 3,810	\$ 3,810
	<b>Total Construction</b>				<b>\$ 423,245</b>
	<b>Contingency</b>				<b>\$ 26,755</b>
	<b>Engineering</b>				<b>\$ 50,000</b>
	<b>Costs Associated with Bond Issuance</b>				<b>\$ 40,000</b>
	<b>Total Project Cost</b>				<b>\$ 540,000</b>

HC MUD 50 - Water Education Center and Administrative Offices

	Item	QTY	Unit	Unit Price	Total Price
	<b>Construction</b>				
1	Building	8200	SQFT	\$ 110	\$ 902,000
2	Site Improvements	1	LS	\$ 98,000	\$ 98,000
	<b>Total Construction</b>				<b>\$ 1,000,000</b>
	Property Acquisition				\$ 30,000
	Architecture/Engineering				\$ 110,000
	Survey				\$ 25,000
	Geotechnical/Material Testing				\$ 25,000
	Environmental				\$ 10,000
	Bond Issuance Costs				\$ 100,000
	<b>Total Project Cost</b>				<b>\$ 1,300,000</b>