

**SWIFT ABRIDGED APPLICATION  
FOR  
COASTAL WATER AUTHORITY**



**PREPARED FOR**

**TEXAS WATER DEVELOPMENT BOARD**



**30 JANUARY 2015**



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.

**Section 1. APPLICANT INFORMATION**

<b>Name of Applicant</b>		<b>Applicant County</b>	<b>Regional Water Planning Area</b>	
<b>Entity Contact Information</b>		<b>Proposed Project or Strategy from 2011 Regional Water Plan &amp; State Water Plan</b>		
Contact Person		Name of Project (from 2012 State Water Plan)		
Title				
Mailing Address		Where does the project appear in the 2011 Regional Water Plan?	Project on Page:	
			Capital Costs on Page:	
Phone Number		Phase(s) Applied For	<input type="checkbox"/> Planning	<input type="checkbox"/> Design
Fax Number			<input type="checkbox"/> Acquisition	<input type="checkbox"/> Construction
Email Address				

**Section 2. PROJECT INFORMATION**

<b>Description of Proposed Project</b>			

<b>Population Served by Project When Fully Operational</b>		<b>Regional Project?</b> <i>(If yes, attach Regional Project Worksheet)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
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<b>Regional Water Planning Group Priority Ranking</b>	<i>Calculated by TWDB   <a href="#">31 TAC §363.1304 (12)</a></i>
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<b>Needs Met by the Project</b>	<i>Calculated by TWDB   <a href="#">31 TAC §363.1304 (5)</a></i>
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# State Water Implementation Fund for Texas (SWIFT)

## Abridged Application

Due February 3, 2015 by 5:00pm

<b>Emergency</b> (select all that apply)	<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 type="checkbox"/> None of the above.
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<b>Readiness to Proceed</b> (select all that apply)	<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 type="checkbox"/> Applicant has acquired all water rights associated with the proposed project, or none will be required.
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### Section 3. REQUESTED ASSISTANCE AND OTHER PROJECT FINANCING

<b>Estimated Project Costs</b>	TWDB Requested Amount		\$
	Local Contribution		\$
	Other:		\$
	Total Estimated Project Costs		\$

<b>Anticipated Commitment(s)</b> (Attach proposed schedule for multi-year commitments)	<input type="checkbox"/> One Time Commitment <input type="checkbox"/> Multi-year Commitment	<input type="checkbox"/> Low-Interest Loan <input type="checkbox"/> Deferred Loan <input type="checkbox"/> Board Participation
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### Section 4. SERVICE AREA INFORMATION

PWS ID #		CCN #	
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<b>Conservation</b>	Calculated by TWDB   <a href="#">31 TAC §363.1304 (11)</a>
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<b>Efficiency</b> (Agricultural Projects Only)  Efficiency improvement achieved by implementing the proposed project.	<input type="checkbox"/> <1% <input type="checkbox"/> 10%-13.9% <input type="checkbox"/> 1%-1.9% <input type="checkbox"/> 14%-17.9% <input type="checkbox"/> 2%-5.9% <input type="checkbox"/> ≥18% <input type="checkbox"/> 6%-9.9%
<i>Please provide an attachment explaining the basis for your calculation.</i>	

**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.)*

Estimated average annual residential water bill:		Annual Median Household Income:	
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### Notes

*(Use this space to describe important project or budget details not captured in this form)*

## **Attachment 1 – Additional Luce Bayou Interbasin Transfer Project Information**

### **Applicant and Project Information**

#### *Comprehensive Description of Proposed Project*

The Luce Bayou Interbasin Transfer Project (Project) is being implemented by the Coastal Water Authority (CWA) in response to a request made in May 2005 by the City of Houston. The Project includes infrastructure sized to transfer 450,000 acre-feet of water per year from the Trinity River to Lake Houston.

The primary components of the Project include a pump station to be constructed in Liberty County on property currently owned by CWA, 3.0 miles of dual 96-inch transmission mains followed by 23 miles of canal with final discharge into Lake Houston. Water will be treated at the City of Houston Northeast Water Purification Plant (primarily) and the East Water Purification Plant.

#### *Work Completed*

##### *Environmental Surveys and USACE Section 404 Permit*

CWA was required to complete an Environmental Impact Statement (EIS) for the project pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 and Section 404 of the Clean Water Act as well a Texas Commission on Environmental Quality (TCEQ) 401 Water Quality permit. The EIS evaluated multiple routes for the canal alignment and the impacts on the natural and human environment including:

- Water Quality
- Hydrology and Hydraulics
- Waters of the United States including Wetlands
- National Registry of Historic Places (Archeological)
- Threatened and Endangered Species
- Non-indigenous Aquatic Nuisance Prevention and Control Act
- Prime Farmland and Prime Farmland Soils
- Social and Economic Resources
- Environmental Justice

The 404 and 401 permits were approved by USACE and TCEQ on February 4, 2014. The *Final Environmental Impact Statement* can be accessed with the following link:

[http://gis.aecom.com/LBITP\\_FEIS.asp](http://gis.aecom.com/LBITP_FEIS.asp).

### *Property Acquisition*

CWA has acquired all property and right-of-way for the Project (Pump Station, Pipeline and Canal) including approximately 2,979 acres of property which is being donated to the U.S. Fish and Wildlife Service as mitigation for the project as required by the permit.

### *Work On-Going*

#### *Project Engineering/Design*

Following acquisition of the 404 Permit, CWA procured design consultants to prepare the detailed design of the pump station and Sam Houston Electric Cooperative to prepare transmission line routing studies to supply power to the pump station. CWA has also procured the consultant for the canal design as well as the Oil and Gas Pipeline Coordinator. CWA will soon begin procurement for the following design consultants: SCADA Design, Access Road Design, Canal Bridges Design, Canal Maintenance Station Design, and Pipeline Design.

### *Future Work*

With the loans detailed below, CWA has all necessary funding to complete the detailed design phase according to the schedule below:

<b>Feature</b>	<b>Start Date</b>	<b>Finish Date</b>
Pump Station Design	April 2014	August 2015
Canal Design	February 2015	April 2016
SCADA Design	March 2015	August 2015
Access Road Design (2 Phases)	April 2015	April 2017
Canal Bridges Design	April 2015	April 2016
Maintenance Station Design	May 2015	May 2016
Pipeline Design	October 2015	October 2016

Upon completion of the design work described above, CWA will procure construction contractors and execute construction work according to the following schedule:

<b>Feature</b>	<b>Start Date</b>	<b>Finish Date</b>
Pump Station Construction	January 2016	December 2018
Canal Construction	May 2016	December 2018
SCADA Construction	March 2016	June 2019
Access Road Construction (2 Phases)	January 2016	March 2019
Canal Bridges Construction	May 2016	March 2017
Maintenance Station Construction	August 2016	March 2017
Pipeline Construction	August 2017	December 2018
System Startup, Commissioning and Training	January 2019	June 2019

### *LBITP Pump Station Design Milestones*

30% Design – November 21, 2014  
VE Workshop – December 16, 2014  
60% Design - February 2015  
Physical Modeling – March 2015  
90% Design – May 2015  
100% Design – August 2015

### **Requested Assistance and Other Project Financing**

#### *Local and State Contribution*

CWA has submitted three previous applications to the Texas Water Development Board (TWDB) for financial assistance for the Project. The details for the applications, resultant loans and work covered are provided below:

<b>Application Date</b>	<b>Approval Date</b>	<b>Loan Identification</b>	<b>Amount</b>	<b>Contribution Type</b>	<b>Scope of Work</b>
December 2007	March 25, 2008	WIF-L080045	\$28,000,000	State	Environmental and Permitting – Field work and studies to support USACE 404 Permit and TCEQ 401 Permit; Archeological Surveys, Pump Station Detailed Design
December 2008	July 16, 2009	WIF-L090102	\$5,115,000	State	Environmental and Permitting – Field work and studies to support USACE 404 Permit and TCEQ 401 Permit; Archeological Surveys, Luce Bayou Preliminary Engineering
April 2013	January 31, 2014	SP-L1000087	\$28,754,000	State	Environmental and Permitting – Field work and studies to support USACE 404 Permit and TCEQ 401 Permit; Archeological Surveys; Transmission Power Routing Studies and CCN Permit Modification; Luce Bayou Canal Detailed Design; Luce Bayou SCADA Design, Luce Bayou Pipeline Design
			\$20,000,000	Local	Right-of-Way Acquisition contributed by regional partners.

**Total      \$81,869,000**

*Total Estimated Project Costs and TWDB Requested Amount*

	<u>2014 Updated Costs</u>
Engineering and Legal	\$60,297,249
Land Acquisition	\$20,000,000
Canal	\$132,004,000
Pipeline	\$43,000,000
Pump Station	\$84,829,292
Electrical Transmission	\$15,691,320
Other/Contingency	<u>\$26,047,139</u>
	\$381,869,000
Previous Funding	<u>\$81,869,000</u> (See Table 1 above)
Funding Needed	\$300,000,000

*Anticipated Commitment Schedule*

<b>Loan Closing Date</b>	<b>Board Participation</b>	<b>Low-Interest Loan</b>	<b>Draw Amount</b>
12/15/2015	\$66,567,400	\$0	\$66,567,400
6/15/2016	\$0	\$0	\$0
12/15/2016	\$70,983,600	\$0	\$70,983,600
6/15/2017	\$65,477,700	\$0	\$65,477,700
12/15/2017	\$73,712,500	\$0	\$73,712,500
6/15/2018	\$0	\$23,258,800	\$23,258,800
<b>TOTAL</b>	<b>\$276,741,200</b>	<b>\$23,258,800</b>	<b>\$300,000,000</b>

**2016 Regional Water Plan  
Population Projections for 2020-2070  
Region H**

REGION	COUNTY	WUG NAME	P2020	Average Annual Bill	Average Annual Bill (Weighted Amount)	Median Income	Median Income (Weighted Amount)
H - REGION H	FORT BEND	HOUSTON	41,589	\$366.24	\$3.92	\$45,010.00	\$481.87
H - REGION H	FORT BEND	NORTH FORT BEND WATER AUTHORITY	279,197	\$592.73	\$42.60	\$88,348.00	\$6,349.65
H - REGION H	FORT BEND	WHCRWA	11,255	\$425.04	\$1.23	\$52,533.00	\$152.20
H - REGION H	HARRIS	CENTRAL HARRIS COUNTY REGIONAL WATER AUTHORITY	50,418	\$505.00	\$6.55	\$43,518.00	\$564.80
H - REGION H	HARRIS	HOUSTON	2,201,986	\$366.24	\$207.60	\$45,010.00	\$25,513.25
H - REGION H	HARRIS	NHCRWA	731,265	\$487.76	\$91.82	\$75,975.00	\$14,301.70
H - REGION H	HARRIS	NORTH FORT BEND WATER AUTHORITY	8,697	\$592.73	\$1.33	\$88,348.00	\$197.79
H - REGION H	HARRIS	WHCRWA	555,456	\$425.04	\$60.77	\$52,533.00	\$7,511.46
H - REGION H	MONTGOMERY	HOUSTON	4,839	\$366.24	\$0.46	\$45,010.00	\$56.07
		<b>TOTAL</b>	<b>3,884,702</b>	<b>\$475.35</b>	<b>\$416.28</b>	<b>\$61,076.80</b>	<b>\$55,128.80</b>

*Notes:*

1. LBTP will be fully operational by June 2019
2. The Totals shown for "Average Annual Bill (Weighted Amount)" and " Median Income (Weighted Amount)" are weighted averages based on population in each WUG.



# State Water Implementation Fund for Texas (SWIFT)

## Abridged Application Regional Project Worksheet

**Applicant: Coastal Water Authority**

**Project Name: Luce Bayou Interbasin Transfer**

**Instructions:** List all entities (aside from the applicant) that will be served by the proposed project. Use the "Rural" column to indicate the entities serving populations of 10,000 or fewer.

Press "Tab" to add new rows as needed.

Entity Name	Rural
1. North Harris County Regional Water Authority	No
2. Central Harris County Regional Water Authority	No
3. West Harris County Regional Water Authority	No
4. North Fort Bend Water Authority	No
5. City of Houston	No

## Luce Bayou Interbasin Transfer Project SWIFT Funding Disbursement Estimation by Fund

