

Population Served When Fully Operational

Abridged Application

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

RECEIVED

 $\frac{2016 \text{ FEB} - 5 \text{ P 2: } 02}{\text{By submitting this abridged application, you understand and confirm that the information provided is true and correct to the best of the$ 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 INFORM	NOITAN			斯拉斯斯拉斯		数数编数数数						
	Nam	ne of Entity		County	Regional W	ater Planning Area						
Sabine River Au	Sabine River Authority *ORIGINALLY SUBMITTE			Orange		1						
			Entity Contact Info	ormation								
6 1 1 2	Name	Mr. Travis Williams										
Contact Person	Title	Water Resource Ma	Vater Resource Manager									
	P.O. Box 579			.O. Box 579								
Mailing Add	ress	Orange, TX 77631-0579										
Phone Num	ber	(409) 764-2192		780								
Email Addre	ess	twilliams@sratx.org	I									
PROJECT DESCRI	PTION											
	ame of Pro	oject egional water plan)	Sabine River Auth	ority Pump Station								
Where can the project be found in the most recent Regional Water Plan?			Project described on page:		Capital costs listed on page:							
		Please attach a list o	of all water systems	served by the propose	ed project.							
Phase(s) Applied For			□ Planning	□ Acquisition	□ Design	□ Construction						

Description of Proposed Project

2,195,914

In an effort to conserve Toledo Bend stored water that SRA has had to release during drought conditions to address changes within the Sabine River that are limiting SRA's ability to withdraw water from the river as well as back-up its run-of-river water right, SRA is considering a water management strategy to construct a new raw water pump station and associated conveyance system. The approximately 8-mile conveyance system will consist of both a large diameter pipeline and a canal system to convey the diverted water from the proposed pump station back to SRA's existing canal system. A water management strategy for developing the project is included in the list of strategies for SRA in the 2016 East Texas Regional Water Plan. The project will be designed to accommodate an initial need of up to 85 MGD. Additionally, the raw water intake, pump station wet well structure, and conveyance system right-of-way will be designed and constructed to accommodate an additional 200 MGD of future demand totaling 285 MGD.



Emergency (select all that appl	y)			 □ Applicant/entity's water supply will last less than 180 days. □ Water supply need occurs earlier than anticipated in the State Water Plan. □ Applicant has received or applied for Federal emergency funding. ⋈ None of the above. 						
Agricultural Efficiency Project?					Efficiency improvement achieved by implementing the project (Please provide an attachment showing the basis for your calculation.) Yes \bigcirc <1% \bigcirc 10%-13.9% No \bigcirc 1%-1.9% \bigcirc 14%-17.9% \bigcirc 2%-5.9% \bigcirc ≥18% \bigcirc 6%-9.9%					
(Household Cost				v divid	ing the serv	Cost Factor ice area's average residential water bill by ombined service areas of all participating				
Estimated aver residential wat	age annual	\$366.24				Annual Median Household Income:	\$45,353			
				Conservation Water Loss N/A		Annual Volume of Water Produced/Conserved by the Project (in acre-feet per year)	159,110			
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 CO	OSTS									
	Low-interest Lo	an		\$ 69,405,000						
	Deferred Loan			\$ 5,595,000						
Estimated	Board Participa			\$						
Project Costs	Local Contribut	ion	are r	\$						
	Other:	I Drainat Cast	1	\$ 75,000,000						
	Total Estimated	STREET, MUSICING	.5	\$ /S	5,000,000					
	icipated Commi		nonte		☐ One	e-Time Commitment				

Attach proposed schedule for multi-year commitments

	PROJECT E	BUDGET - SAB	INE RIVER AU	THORITY		
Uses	Deferred	Board Participation	Low Interest	Total TWDB Cost	Other Funds	Total Cost
Construction						
Construction	\$0	\$0	\$53,110,000	\$53,110,000	\$0	\$53,110,000
Subtotal Construction	\$0	\$0	\$53,110,000	\$53,110,000	\$0	\$53,110,000
Basic Engineering Fees						
Planning +	\$920,000	\$0	\$0	\$920,000	\$0	\$920,000
Design	\$2,740,000	\$0	\$0	\$2,740,000	\$0	\$2,740,000
Construction Engineering	\$0	\$0	\$920,000	\$920,000	\$0	\$920,000
Subtotal Basic Engineering Fees	\$3,660,000	\$0	\$020,000	¢4 590 000	\$0	\$4,580,000
	\$3,660,000	\$0	\$920,000	\$4,580,000	\$ 0	\$4,560,000
Special Services						*
Application	\$50,000	\$0	\$0	\$50,000	\$0	\$50,000
Environmental	\$500,000	\$0	\$0	\$500,000	\$0	\$500,000
Surveying Geotechnical	\$350,000	\$0 \$0	\$0	\$350,000	\$0 \$0	\$350,000
	\$200,000	\$0	\$0	\$200,000	\$0 \$0	\$200,000
Testing Inspection	\$0 \$0	\$0	\$800,000 \$2,500,000	\$800,000 \$2,500,000	\$0 \$0	\$800,000 \$2,500,000
O&M Manual	\$0	\$0 \$0	\$2,500,000	\$2,500,000	\$0 \$0	\$2,500,000
Special Services Other	ΦΟ	Φ0	\$120,000	\$120,000	ΦΟ	\$120,000
**Intake Modeling	\$100,000	\$0	\$0	\$100,000	\$0	\$100,000
Subtotal Special Services	\$1,200,000	\$0	\$3,420,000	\$4,620,000	\$0	\$4,620,000
Other	. , ,		. , ,			. , ,
Administration	-	-	_	\$0	\$0	\$0
Land/Easements	\$0	-	\$1,360,000	\$1,360,000	\$0	\$1,360,000
Water Rights Purchase (If	***		\$1,000,000	* 1,000,000		+ 1,000,000
Applicable)	-	-	-	\$0	\$0	\$0
Capacity Buy-In (If						
Applicable)	-	-	-	\$0	\$0	\$0
Project Legal Expenses	-	-	-	\$0	\$0	\$0
Other ** Power	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$1,000,000
Other ** Mitigation	\$0	\$0	\$1,330,000	\$1,330,000	\$0	\$1,330,000
Subtotal Other Services	\$0	\$0	\$3,690,000	\$3,690,000	\$0	\$3,690,000
Fiscal Services						
Financial Advisor	\$31,083	-	\$207,033.8	\$238,116	\$0	\$238,116
Bond Counsel	\$42,975	-	\$216,088	\$259,063	\$0	\$259,063
Issuance Cost	\$5,595	-	\$19,016	\$24,611	\$0	\$24,611
Bond Insurance/Surety	\$0	-	\$0	\$0	\$0	\$0
Fiscal/Legal	\$6,900	-	\$13,811	\$20,711	\$0	\$20,711
Capitalized Interest	\$0	-	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$339,033	-	\$4,107,216	\$4,446,249	\$0	\$4,446,249
Loan Origination Fee Other **	\$0 \$11,014	\$0	\$0 \$235	\$0 \$11,249	\$0 \$0	\$0 \$11,249
		-				
Subtotal Fiscal Services	\$436,600	\$0	\$4,563,400	\$5,000,000	\$0	\$5,000,000
Contingency Contingency	\$298,400	\$0	\$3,701,600	\$4,000,000	\$0	\$4,000,000
Subtotal Contingency	\$298,400	\$ 0	\$3,701,600 \$3,701,600	\$4,000,000	\$0	\$4,000,000 \$4,000,000
TOTAL COSTS	\$5,595,000	\$0	\$69,405,000	\$75,000,000	\$0	\$75,000,000
I O I AL OUD I O	ψ5,595,000	40	\$00, 1 00,000	Ψ1 3,000,000	ΨU	ψ1 3,000,000

	1		
Category A			0
Category B			0
Category C			0
Category D			0
Total Planning Costs	0	0	0

PROJECT I	BUDGET - SAB	INE RIVER AUT	THORITY DEFER	RRED LOAN SC	HEDULE	
Uses	Deferred	2016	2017	2018	2019	2020
Construction						
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Construction	\$0	\$0	\$0	\$0	\$0	\$0
Basic Engineering Fees						
Planning +	\$920,000	\$736,000.00	\$184,000.00	\$0	\$0	\$0
Design	\$2,740,000	\$0	\$1,918,000	\$822,000	\$0	\$0
Construction Engineering	\$0	\$0 \$0	\$0	\$0	\$0	\$0
Subtotal Basic Engineering	ΨΟ	ΨΟ	ΨΟ	ΨΟ	ΨΟ	ΨΟ
Fees	\$3,660,000	\$736,000	\$2,102,000	\$822,000	\$0	\$0
Special Services		,				·
Application	\$50,000	\$50,000	\$0	\$0	\$0	\$0
Environmental	\$500,000	\$150,000	\$350,000	\$0	\$0	\$0
Surveying	\$350,000	\$350,000	\$0	\$0	\$0	\$0
Geotechnical	\$200,000	\$200,000	\$0	\$0	\$0	\$0
Testing	\$0	\$0	\$0	\$0	\$0	\$0
Inspection	\$0	\$0	\$0	\$0	\$0	\$0
O&M Manual	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0
Special Services Other	ΨΟ	ΨΟ	ΨΟ	ΨΟ	ΨΟ	ΨΟ
**Intake Modeling	\$100,000	\$0	\$100,000	\$0	\$0	\$0
Subtotal Special Services	\$1,200,000			\$0	\$0	\$0
	\$1,200,000	\$750,000	\$450,000	ΦU	\$0	Φ U
Other						
Administration	\$0	\$0	\$0	\$0	\$0	\$0
Land/Easements Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Water Rights Purchase (If	00	# 0	00	Φ0	# 0	Φ0
Applicable) Capacity Buy-In (If	\$0	\$0	\$0	\$0	\$0	\$0
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Project Legal Expenses	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0 \$0
Other ** Power	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0
Other ** Mitigation	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0 \$0
		·				·
Subtotal Other Services	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal Services						
Financial Advisor	\$31,083	\$9,504	\$16,322	\$5,257	\$0	\$0
Bond Counsel	\$42,975	\$13,140	\$22,566	\$7,269	\$0	\$0
Issuance Cost	\$5,595	\$1,711	\$2,938	\$946	\$0	\$0
Bond Insurance/Surety	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal/Legal	\$6,900	\$2,110	\$3,623	\$1,167	\$0	\$0
Capitalized Interest	\$0	\$0	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$339,033	\$103,663	\$178,027	\$57,343	\$0	\$0
Loan Origination Fee	\$0	\$0	\$0	\$0	\$0	\$0
Other **	\$11,014	\$3,368	\$5,783	\$1,863	\$0	\$0
Subtotal Fiscal Services	\$436,600	\$133,495	\$229,260	\$73,845	\$0	\$0
Contingency	4 100,000	ψ.100 , 400	+==0,=00	ψ. 0,040	V	Ψ0
Contingency	\$298,400	\$91,239	\$156,691	\$50,470	\$0	\$0
Subtotal Contingency	\$298,400	\$91,239	\$156,691	\$50,470	\$0	\$0
TOTAL COSTS	\$5,595,000	\$1,710,734	\$2,937,950	\$946,315	\$0	\$0

Category A	
Category B	
Category C	
Category D	
Total Planning Costs	

PROJECT BU	JDGET - SABINE	RIVER AUTH	ORITY LOW IN	TEREST LOAN	N SCHEDULE	
Uses	Low Interest	2016	2017	2018	2019	2020
Construction						
Construction	\$53,110,000			\$7,966,500	\$26,555,000	\$18,588,500
Subtotal Construction	\$53,110,000	\$0	\$0	\$7,966,500	\$26,555,000	\$18,588,500
Basic Engineering Fees						
Planning +	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0
Construction Engineering	\$920,000	\$0	\$0	\$138,000	\$460,000	\$322,000
Subtotal Basic Engineering						
Fees	\$920,000	\$0	\$0	\$138,000	\$460,000	\$322,000
Special Services						
Application	\$0	\$0	\$0	\$0	\$0	\$0
Environmental	\$0	\$0	\$0	\$0	\$0	\$0
Surveying	\$0	\$0	\$0	\$0	\$0	\$0
Geotechnical	\$0	\$0	\$0	\$0	\$0	\$0
Testing	\$800,000	\$0	\$0	\$120,000	\$400,000	\$280,000
Inspection	\$2,500,000	\$0	\$0	\$375,000	\$1,250,000	\$875,000
O&M Manual	\$120,000	\$0	\$0	\$0	\$30,000	\$90,000
Special Services Other		•		•	•	•
**Intake Modeling	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Special Services	\$3,420,000	\$0	\$0	\$495,000	\$1,680,000	\$1,245,000
Other						
Administration	\$0	\$0	\$0	\$0	\$0	\$0
Land/Easements	\$1,360,000	\$0	\$1,360,000	\$0	\$0	\$0
Water Rights Purchase (If						
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Capacity Buy-In (If		•		•	•	
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Project Legal Expenses	\$0	\$0	\$0	\$0	\$0	\$0
Other ** Power	\$1,000,000	\$0	\$500,000	\$500,000	\$0	\$0
Other ** Mitigation	\$1,330,000	\$0	\$0	\$665,000	\$665,000	\$0
Subtotal Other Services	\$3,690,000	\$0	\$1,860,000	\$1,165,000	\$665,000	\$0
Fiscal Services						
Financial Advisor	\$207,034	\$0	\$8,997	\$47,231	\$89,420	\$61,386
Bond Counsel	\$216,088	\$0	\$12,269	\$64,406	\$82,664	\$56,749
Issuance Cost	\$19,016	\$0	\$1,524	\$7,998	\$5,629	\$3,865
Bond Insurance/Surety	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal/Legal	\$13,811	\$0	\$1,107	\$5,809	\$4,089	\$2,807
Capitalized Interest	\$0	\$0	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$4,107,216	\$0	\$120,392	\$632,010	\$1,989,221	\$1,365,592
Loan Origination Fee	\$0	\$0	\$0	\$0	\$0	\$0
Other **	\$235	\$0	\$59	\$59	\$59	\$59
Subtotal Fiscal Services	\$4,563,400	\$0	\$144,347	\$757,513	\$2,171,082	\$1,490,457
Contingency						
Contingency	\$3,701,600	\$0	\$112,610	\$591,172	\$1,777,543	\$1,220,275
Subtotal Contingency	\$3,701,600	\$0	\$112,610	\$591,172	\$1,777,543	\$1,220,275
TOTAL COSTS	\$69,405,000	\$0	\$2,116,957	\$11,113,186	\$33,308,625	\$22,866,232

Category A
Category B
Category C
Category D
Total Planning Costs

ATTACHMENT A SECTION 1. APPLICANT INFORMATION REFERENCES TO 2016 EAST TEXAS REGIONAL WATER PLAN (REGION I)

SECTION 1. APPLICANT INFORMATION

The applicant project can be found in the 2016 East Texas Regional Water Plan (Region I Plan) in the following:

Chapter 5B – Evaluation of Potentially Feasible, Recommended, and Alternative Water Management Strategies

Section 5B.3.14 - Sabine River Authority Water Management Strategies - Page 5B.106, 5B.108, 5B.109

Section 5B.6 – Summary of Recommended and Alternative Water Management Strategies – Page 5B-126

Appendix 5B-A – Technical Memorandums of Water Management Analysis – Pages Appendix 5B-A-184, 5B-A-185 (Included below)

Appendix 5B-B – Quantification of Environmental Impacts of Water Management Strategies and Strategy Evaluation Matrix – Pages Appendix 5B-B-12 (Included below)

Appendix 9-A - Infrastructure Financing Report - Survey Results

ETRWPA WATER MANAGEMENT STRATEGY ANALYSIS TECHNICAL MEMORANDUM FOR SRA PUMP STATION

Project Name:	Sabine River Authority – Pump Station
Project ID:	SRA-PS
Project Type:	Existing Surface Water Source
Potential Supply Quantity (Rounded):	89,680 ac-ft per year
Implementation Decade:	2020
Development Timeline:	2 years
Project Capital Cost:	\$72,832,675 (Sept. 2013)
Unit Water Cost (Rounded):	\$812.2 per ac-ft

PROJECT DESCRIPTION

SRA is also considering another water management strategy for a new raw water Pump Station. SRA intends to construct a new raw water Pump Station along the Sabine River, approximately 7 miles upstream of the existing raw water pump station. A water management strategy for developing the raw water Pump Station infrastructure is included in the list of strategies for SRA. The infrastructure improvements will include a 80 MGD raw water intake Pump Station, settling basin for the Sabine River supplies, and pipeline connecting the proposed Pump Station to the existing SRA canal system.

SUPPLY DEVELOPMENT

Additional supply available from this water management strategy is approximately 89,680 ac-ft per year. The implementation of this strategy restores access to SRA's supplies from Toledo Bend.

ENVIRONMENTAL CONSIDERATIONS

The impact to the environment due to pipeline construction is expected to be moderate. The strategy will have minimum impact to environmental water needs, no impact to the surrounding habitat, and a low impact to cultural resources in the area. Before this project could be pursued, Sabine River Authority would need to perform a site selection study to identify environmental impacts associated with the project.

PERMITTING AND DEVELOPMENT

No known issues identified.

PLANNING LEVEL OPINION OF COST

A detailed cost estimate was provided by SRA based on a detailed preliminary engineering study that was conducted for the Sabine River pump station and pipelines associated with this strategy. The recommended infrastructure configuration assumes construction of a pump station structure capable of future expansion by addition of pumps. The pump station, pipeline, and intake structure will contain

enough capacity for potential transfer of Toledo Bend supplies to Jefferson County. An 80 MGD pump station with structure constructed for 285 MGD, a 72-inch pipeline and power supply to accommodate 285 MGD were considered for the cost estimate.

- Pump Station Cost \$27,729,100
- Pipeline Cost \$45,103,575
- Total Construction Cost \$72,832,675

PROJECT EVALUATION

This strategy benefits both municipal and non-municipal customers of the Sabine River Authority and would have a positive impact on their water supply security. This analysis did not identify any impacts to agricultural or natural resources or to key parameters of water quality. Infrastructure Improvements will allow the Sabine River Authority to pull water from Toledo Bend Reservoir, will reduce demands on other water supplies in the region, and will have no other apparent impact on other State water resources. From a third party social and economic perspective, this infrastructure improvement strategy allows better access to existing surface water supplies and will be beneficial to the region because it provides water for economic growth.

Based on the analyses provided above, the Sabine River Authority recommended strategy for infrastructure improvements was evaluated across eleven different criteria for the purpose of quick comparison against alternative projects that may be incorporated into the 2016 East Texas Regional Water Plan. The results of this evaluation can be seen in the table below.

Criteria	Rating	Explanation
Quantity	4	89,680 ac-ft per year
Reliability	4	Reliable Supply
Cost	3	Medium Cost
Environmental Factors	4	Low Impacts
Impact on Other State Water Resources	4	Low Impact
Threat to Agricultural Resources/Rural Areas	4	Low
Interbasin Transfers		No
Other Natural Resources	4	No known Impacts
Major Impacts on Key Water Quality Parameters	4	No known Impacts

Political Feasibility	5	Sabine River Authority is the local sponsor.
Implementation Issues	4	No known risks

REFERENCES

Discussions with Sabine River Authority.

													Impacts of Str	ategy on:				
Number	County	Entity	Basin Used	Strategy	Strategy Key	Quantity (Ac- Ft/Yr)	Quantity	Reliability	Cost (\$/Ac- Ft)	Cost	Environmental Factors	Water Resources and Other WMS	Agricultural Resources/ Rural Areas	Interbasin Transfers	Other Natural Resources	Key Water Quality Parameters	Political Feasibility	Implementation Issues
#	Name	Name(s)	Name	Name	Name	(Ac- Ft/Yr)	(1-5)	(1-5)	\$	(1- 5)	(1-5)	(1-5)	(1-5)		(1-5)	(1-5)	(1-5)	(1-5)
58	Nacogdoches	Nacogdoches	Neches	Lake Columbia to Nacogdoches Raw Water Transmission System	NACP- COL	8,500	4	4	\$705	3	4	4	4	No	4	4	4	3
59	Jefferson	Port Arthur	Neches- Trinity	Municipal Conservation	PORT- CONS	10,340	4	4	\$333	4	4	4	4	No	4	4	4	4
60	Orange	Sabine River Authority	Sabine	SRA Toledo Bend Amendment	SRA-TB	293,300	4	3	-	5	4	4	4	No	4	4	5	3
61	Orange	Sabine River Authority	Sabine	SRA Pump Station	SRA-PS	89,680	4	4	\$812	3	4	4	4	No	4	4	5	4
62	Smith	Tyler	Neches	City of Tyler - Lake Palestine Expansion	TYLR- PAL	16,815	4	4	\$900	3	4	4	4	No	4	4	3	4
63	Anderson	Upper Neches River Municipal Water Authority	Neches	Neches Run-of- River Diversion	UNM- ROR	68,625	4	4	\$602	3	3	4	4	No	4	4	3	2

Appendix 9-A

Infrastructure Financing Report – Survey Results

This appendix includes surveys from Water User Groups with identified needs conducted by the ETRWPG. The survey determined or confirmed infrastructure costs and potential funding sources for infrastructure projects.

Appendix 9-A Infrastructure Financing Report - Survey Results

Sponsor Entity Name	Sponsor Entity Privacy Region	Project Name	WMS Project Sponsor Region	IFR Element Name	IFR Element Value	Neeu	IFR En Project R Data ID I	wn WMS	S Project ID	IFR Project Elements ID
MANUFACTURING, ORANGE	I ORAN-MFG		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$6,960,000.00	2020		1631 2	2058	1
MANUFACTURING, ORANGE	I ORAN-MFG		I	CONSTRUCTION FUNDING	\$35,661,000.00	2020		1631 2	2058	2
MANUFACTURING, ORANGE	I ORAN-MFG		I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		1631 2	2058	3
MANUFACTURING, SMITH	I SMTH-MFG-INFRASTRUC	TURE	I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$1,687,500.00	2020		1653 2	2048	1
MANUFACTURING, SMITH	I SMTH-MFG-INFRASTRUC	TURE	I	CONSTRUCTION FUNDING	\$5,516,500.00	2020		1653 2	2048	2
MANUFACTURING, SMITH	I SMTH-MFG-INFRASTRUC	TURE	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		1653 2	2048	3
MINING, ANGELINA	I ANGL-MIN-INFRASTRUCT	TURE	I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$1,316,000.00	2020		1728 2	2053	1
MINING, ANGELINA	I ANGL-MIN-INFRASTRUCT	TURE	I	CONSTRUCTION FUNDING	\$2,689,000.00	2020		1728 2	2053	2
MINING, ANGELINA	I ANGL-MIN-INFRASTRUCT	TURE	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		1728 2	2053	3
MINING, NACOGDOCHES	I NACW-MIN-INFRASTRUC	TURE	I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$2,930,000.00	2020		1879 2	2054	1
MINING, NACOGDOCHES	I NACW-MIN-INFRASTRUC	TURE	I	CONSTRUCTION FUNDING	\$9,535,000.00	2020		1879 2	2054	2
MINING, NACOGDOCHES	I NACW-MIN-INFRASTRUC	TURE	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		1879 2	2054	3
MINING, RUSK	I RUSK-MIN		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$4,150,000.00	2020		1903 2	2056	1
MINING, RUSK	I RUSK-MIN		I	CONSTRUCTION FUNDING	\$10,008,000.00	2020		1903 2	2056	2
MINING, RUSK	I RUSK-MIN		I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		1903 2	2056	3
MINING, SAN AUGUSTINE	I SAUG-MIN-INFRASTRUCT	TURE	I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$5,484,000.00	2020		2773 2	2055	1
MINING, SAN AUGUSTINE	I SAUG-MIN-INFRASTRUCT	TURE	I	CONSTRUCTION FUNDING	\$15,580,000.00	2020		2773 2	2055	2
MINING, SAN AUGUSTINE	I SAUG-MIN-INFRASTRUCT	TURE	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		2773 2	2055	3
MINING, SMITH	I SMTH-MIN INFRASTRUCT		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$465,450.00	2020			590	1
MINING, SMITH	I SMTH-MIN INFRASTRUCT		I	CONSTRUCTION FUNDING	\$2,637,550.00	2020			590	2
MINING, SMITH	I SMTH-MIN INFRASTRUCT		I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			590	3
MINING, TRINITY		EXPANSION (GROUNDWATER) - MINING, TRINITY COUNTY (T)	Н	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$162,145.00	2020			590	1
MINING, TRINITY		EXPANSION (GROUNDWATER) - MINING, TRINITY COUNTY (T)	Н	CONSTRUCTION FUNDING	\$918,821.00	2020			590	2
MINING, TRINITY		EXPANSION (GROUNDWATER) - MINING, TRINITY COUNTY (T)	Н	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			590	3
NACOGDOCHES	I NACP-COL		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$4,684,500.00	2030			2101	1
NACOGDOCHES	I NACP-COL		T	CONSTRUCTION FUNDING	\$31,144,500.00	2030			2101	2
NACOGDOCHES	I NACP-COL		I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2030			2101	3
OVERTON		R LOSS CONTROL PROGRAM	ĭ	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$243,000.00	2040			2043	1
OVERTON		R LOSS CONTROL PROGRAM	ĭ	CONSTRUCTION FUNDING	\$1,862,000.00	2040			2043	2
OVERTON		R LOSS CONTROL PROGRAM	ĭ	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2040			2043	3
PORT ARTHUR	- 	R LOSS CONTROL PROGRAM	I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$5,778,000.00	2020			2043	1
PORT ARTHUR		R LOSS CONTROL PROGRAM	I	CONSTRUCTION FUNDING	\$44,297,000.00	2020			2044	2
PORT ARTHUR		R LOSS CONTROL PROGRAM	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			2044	3
SABINE RIVER AUTHORITY	I SRA-INF - PUMPSTATION		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$10,924,901.00	2020			2193	1
SABINE RIVER AUTHORITY	I SRA-INF - PUMPSTATION		T T	CONSTRUCTION FUNDING	\$61,907,774.00	2020			2193	2
SABINE RIVER AUTHORITY	I SRA-INF - PUMPSTATION		1 T	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020	 		2193	3
STEAM ELECTRIC POWER, ANDERSON		DM LAKE PALESTINE - CONTRACT WITH CITY OF PALESTINE	1 T	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$7,467,500.00	2020	 		2121	1
·			1 T	CONSTRUCTION FUNDING	\$37,108,500.00	2020	 			2
STEAM ELECTRIC POWER, ANDERSON STEAM ELECTRIC POWER, ANDERSON	- 	M LAKE PALESTINE - CONTRACT WITH CITY OF PALESTINE M LAKE PALESTINE - CONTRACT WITH CITY OF PALESTINE	1 T	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020	 		2121	2
			1 T		\$2,510,250.00	2020	 		2139	1
STEAM ELECTRIC POWER, CHEROKEE STEAM ELECTRIC POWER, CHEROKEE	I CHER-SEP INFRASTRUCT		1 T	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING		2020				2
STEAM ELECTRIC POWER, CHEROKEE STEAM ELECTRIC POWER, CHEROKEE	I CHER-SEP INFRASTRUCT		1 T	CONSTRUCTION FUNDING PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	\$14,224,750.00 0.00	2020			2139 2139	3
STEAM ELECTRIC POWER, CHEROKEE STEAM ELECTRIC POWER, JEFFERSON	I CHER-SEP INFRASTRUCTU		1 T	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$8,713,000.00					3
· ·	I JEFF-SEP INFRASTRUCTU		1 Y			2020			.933	1
STEAM ELECTRIC POWER, JEFFERSON	I JEFF-SEP INFRASTRUCTU		1 Y	CONSTRUCTION FUNDING	\$45,805,000.00	2020			.933	3
STEAM ELECTRIC POWER, JEFFERSON	I JEFF-SEP INFRASTRUCTU		1 Y	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			.933	3
STEAM ELECTRIC POWER, NACOGDOCHES	I NACW-SEPI - LAKE COLU		1 Y	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$4,411,000.00	2020			2085	1
STEAM ELECTRIC POWER, NACOGDOCHES	I NACW-SEP1 - LAKE COLU		1 Y	CONSTRUCTION FUNDING	\$21,394,000.00	2020			2085	2
STEAM ELECTRIC POWER, NA COCDOCHES	I NACW SEP2 NEW WELLS		1 7	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			2085	3
STEAM ELECTRIC POWER, NACOCDOCHES	I NACW-SEP2 - NEW WELLS		1 Y	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$2,943,000.00	2060			2086	1
STEAM ELECTRIC POWER, NACOGDOCHES	I NACW-SEP2 - NEW WELLS		1	CONSTRUCTION FUNDING	\$13,078,000.00	2060			2086	2
STEAM ELECTRIC POWER, NACOGDOCHES	I NACW-SEP2 - NEW WELLS		1	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2060			2086	3
STEAM ELECTRIC POWER, NEWTON	I NEWT-SEP INFRASTRUCT		I -	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$6,744,500.00	2020			.935	1
STEAM ELECTRIC POWER, NEWTON	I NEWT-SEP INFRASTRUCT		I -	CONSTRUCTION FUNDING	\$31,425,500.00	2020			.935	2
STEAM ELECTRIC POWER, NEWTON	I NEWT-SEP INFRASTRUCT	URE	I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020			.935	3
STEAM ELECTRIC POWER, ORANGE	I ORAN-SEP		I	PLANNING, DESIGN, PERMITTING & ACQUISITION FUNDING	\$3,894,000.00	2020			2059	1
STEAM ELECTRIC POWER, ORANGE	I ORAN-SEP		I	CONSTRUCTION FUNDING	\$11,953,000.00	2020			2059	2
STEAM ELECTRIC POWER, ORANGE	I ORAN-SEP		I	PERCENT STATE PARTICIPATION IN OWNING EXCESS CAPACITY	0.00	2020		2310 2	2059	3

ATTACHMENT B SABINE RIVER AUTHORITY PUMP STATION OPERATIONS AND WATER CONSERVATION

MEMORANDUM



Innovative approaches
Practical results
Outstanding service

SUBJECT: Sabine River Authority Pump Station

Operations and Water Conservation

DATE: February 4, 2016

Toledo Bend Reservoir is owned and operated by the Sabine River Authority of Texas (SRA-TX) and the Sabine River Authority, State of Louisiana ("SRA-LA"), the SRAs. The SRA-TX has a water right to divert up to 750,000 acre-feet per year from Toledo Bend Reservoir; and in 2003, submitted an application to amend its existing water right to increase the diversions from Toledo Bend Reservoir by 293,300 acre-feet per year. In addition to its Toledo Bend water right, SRA-TX also has a water-right to divert up to 147,100 acre-feet per year of run-of-river supplies from the Lower Sabine River. Under the aforementioned water rights, SRA-TX has contracts to supply water to various manufacturing, steam-electric power, mining, irrigation, and municipal customers in Orange, Newton, Sabine, Rusk, and Shelby counties. The customers may be considered either Toledo Bend or run-of-river customers based on the water right basis of their contracts. SRA-TX owns and operates the Gulf Coast Division Canal System with over 75 miles of canal in Orange County which conveys water diverted from the Sabine River to various customer intakes located on the Canal System.

Water from the Sabine River is diverted into the Canal System by its 82 year-old main pump station located in north Orange County. The main pump station, constructed in 1934, has four 90 million gallons per day (MGD) pumps with two of the 90 MGD pumps permanently decommissioned due to mechanical failure. An auxiliary 15 MGD relief pump was originally constructed in 1967 and replaced in 2011. In addition to the two functioning 90 MGD pumps at the main pump station, SRA-TX uses two 8.35 MGD tractor-driven power take off pumps as temporary backup when conditions dictate.

Approximately 4.5-miles upstream of SRA-TX's existing pump station, the Sabine River splits into two channels at a location commonly known as Cutoff Bayou (see **Figure 1**). The westerly channel (Texas Channel) conveys flows to SRA-TX's existing pump station while the easterly channel (Louisiana Channel) conveys flows to SRA-LA's pump station. **Figure 1** shows Cutoff Bayou, a potential river

FIGURE 1 - LOCATION MAP



SRA Pump Station Operations and Water Conservation February 4, 2016 Page 3 of 5



cut-through, SRA-TX's existing pump station, and the location of the proposed new pump station.

Historically, flows along the Sabine River were evenly split between the Texas and Louisiana Channels downstream of Cutoff Bayou. Due to hydrological and river morphological changes along the lower Sabine River, during natural low flow and drought conditions, Cutoff Bayou splits the Sabine River main stem flows with 23-percent going to the Texas Channel and 77-percent going to the Louisiana Channel. SRA-TX, along with the USGS, has been monitoring this flow split as far back as 1980. Results of this monitoring indicate that the flow split has increasingly favored the Louisiana Channel and this trend is expected to continue. During normal and wet hydrological conditions, flows within the Sabine River are adequate for SRA-TX to divert water using it main pump station. However, during drought and natural low-flow conditions, SRA-TX has had to make stored water releases from Toledo Bend Reservoir to raise the level of the river reaching the main pump station's intake canal so the water could be pumped.

SRA-TX is not contractually obligated to make these stored water releases from Toledo Bend to raise the Sabine River level downstream of Cutoff Bayou. However, SRA-TX has voluntarily made these releases, most recently during the drought of 2011 and again in 2012 and 2013, when drought conditions prevailed in the lower Sabine Basin. The image below of Cutoff Bayou was taken during the drought of 2011. Note the shallow conditions leading to the Texas Channel.





In addition to Toledo Bend stored water released to raise the river level at SRA-TX's main pump station intake, SRA-LA has needed releases from Toledo Bend during drought conditions to push the saltwater wedge downstream of its pump station located along the Louisiana Channel. In 2011, to ensure adequate river level in the Texas Channel to supply SRA-TX Canal System customers and to push the salt water wedge downstream along the Louisiana Channel, the SRA's released 318,220 acre-feet from Toledo Bend. Additionally, the SRA's had to make similar releases of 120,004 acre-feet and 58,264 acre-feet in 2012 and 2013 respectively.

An additional concern, as shown on **Figure 1**, is the potential of two opposing cut banks to erode through a narrow strip of land. Should the Sabine River eventually cut-through the narrow strip, the potential exists for all flows to be diverted to the Louisiana Channel during low flow conditions. A review of historical aerial photography indicates that this strip of land has narrowed from 445-feet in 1976 to 250-feet in 2015. In similar situations historically along the Sabine River, when two cut banks have reached within 100-150 feet of one another, the river has cut through during high flows creating

SRA Pump Station Operations and Water Conservation February 4, 2016 Page 5 of 5



oxbow's along the river. Most recently, the Sabine River cut through at Taylor's Bend in 2005¹.

In an effort to conserve Toledo Bend Reservoir water, SRA-TX is currently planning and designing a new pump station project, which will be on the main stem of the Sabine River upstream of Cutoff Bayou. Locating the proposed pump station upstream of Cutoff Bayou will not resolve the hydrological conditions at Cutoff Bayou and the flow split will most likely continue to favor the Louisiana Channel. However, by shifting the pump station upstream of Cutoff Bayou, SRA-TX will no longer need to release Toledo Bend stored water to raise the water level in the Texas Channel downstream of Cutoff Bayou. If the new pump station, located upstream of cutoff bayou, would have been completed prior to the drought of 2011, SRA-TX could have conserved a minimum of 159,110 acre-feet (50 percent of Toledo Bend stored water releases made in 2011), if not more.

¹ "https://www.researchgate.net/figure/260351733 fig4 Figure-4-Topographic-cross-section-west-to-east-showing-the-Sa"; accessed February 3.2016.

ATTACHMENT C SABINE RIVER AUTHORITY PUMP STATION COST ESTIMATES

PROJECT BUDGET - SABINE RIVER AUTHORITY						
Uses	Deferred	Board Participation	Low Interest	Total TWDB Cost	Other Funds	Total Cost
Construction						
Construction	\$0	\$0	\$53,110,000	\$53,110,000	\$0	\$53,110,000
Subtotal Construction	\$0	\$0	\$53,110,000	\$53,110,000	\$0	\$53,110,000
Basic Engineering Fees						
Planning +	\$920,000	\$0	\$0	\$920,000	\$0	\$920,000
Design	\$2,740,000	\$0	\$0	\$2,740,000	\$0	\$2,740,000
Construction Engineering	\$0	\$0	\$920,000	\$920,000	\$0	\$920,000
Subtotal Basic Engineering Fees	\$3,660,000	\$0	\$020,000	¢4 590 000	\$0	\$4,580,000
	\$3,660,000	\$0	\$920,000	\$4,580,000	\$ 0	\$4,560,000
Special Services						
Application	\$50,000	\$0	\$0	\$50,000	\$0	\$50,000
Environmental	\$500,000	\$0	\$0	\$500,000	\$0	\$500,000
Surveying Geotechnical	\$350,000	\$0 \$0	\$0	\$350,000	\$0 \$0	\$350,000
	\$200,000	\$0	\$0	\$200,000	\$0 \$0	\$200,000
Testing Inspection	\$0 \$0	\$0	\$800,000 \$2,500,000	\$800,000 \$2,500,000	\$0 \$0	\$800,000 \$2,500,000
O&M Manual	\$0	\$0 \$0	\$2,500,000	\$2,500,000	\$0 \$0	\$2,500,000
Special Services Other	ΦΟ	Φ0	\$120,000	\$120,000	ΦΟ	\$120,000
**Intake Modeling	\$100,000	\$0	\$0	\$100,000	\$0	\$100,000
Subtotal Special Services	\$1,200,000	\$0	\$3,420,000	\$4,620,000	\$0	\$4,620,000
Other	. , ,		. , ,			. , ,
Administration	-	-	_	\$0	\$0	\$0
Land/Easements	\$0	-	\$1,360,000	\$1,360,000	\$0	\$1,360,000
Water Rights Purchase (If	***		\$1,000,000	* 1,000,000		+ 1,000,000
Applicable)	-	-	-	\$0	\$0	\$0
Capacity Buy-In (If						
Applicable)	-	-	-	\$0	\$0	\$0
Project Legal Expenses	-	-	-	\$0	\$0	\$0
Other ** Power	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$1,000,000
Other ** Mitigation	\$0	\$0	\$1,330,000	\$1,330,000	\$0	\$1,330,000
Subtotal Other Services	\$0	\$0	\$3,690,000	\$3,690,000	\$0	\$3,690,000
Fiscal Services						
Financial Advisor	\$31,083	-	\$207,033.8	\$238,116	\$0	\$238,116
Bond Counsel	\$42,975	-	\$216,088	\$259,063	\$0	\$259,063
Issuance Cost	\$5,595	-	\$19,016	\$24,611	\$0	\$24,611
Bond Insurance/Surety	\$0	-	\$0	\$0	\$0	\$0
Fiscal/Legal	\$6,900	-	\$13,811	\$20,711	\$0	\$20,711
Capitalized Interest	\$0	-	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$339,033	-	\$4,107,216	\$4,446,249	\$0	\$4,446,249
Loan Origination Fee Other **	\$0 \$11,014	\$0	\$0 \$235	\$0 \$11,249	\$0 \$0	\$0 \$11,249
Subtotal Fiscal Services	\$436,600	\$0	\$4,563,400	\$5,000,000	\$0	\$5,000,000
Contingency Contingency	\$298,400	\$0	\$3,701,600	\$4,000,000	\$0	\$4,000,000
Subtotal Contingency	\$298,400	\$ 0	\$3,701,600 \$3, 701,600	\$4,000,000	\$0	\$4,000,000 \$4,000,000
TOTAL COSTS	\$5,595,000	\$0	\$69,405,000	\$75,000,000	\$0	\$75,000,000
I S I AL SOSIO	ψ5,595,000	40	\$00, 1 00,000	Ψ1 3,000,000	ΨU	ψ1 3,000,000

Category A			0
Category B			0
Category C			0
Category D			0
Total Planning Costs	0	0	0

PROJECT	BUDGET - SAB	INE RIVER AUT	THORITY DEFER	RRED LOAN SC	HEDULE	
Uses	Deferred	2016	2017	2018	2019	2020
Construction						
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Construction	\$0	\$0	\$0	\$0	\$0	\$0
Basic Engineering Fees						
Planning +	\$920,000	\$736,000.00	\$184,000.00	\$0	\$0	\$0
Design	\$2,740,000	\$0	\$1,918,000	\$822,000	\$0	\$0
Construction Engineering	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Basic Engineering	Ψΰ	ΨΟ	Ψΰ	Ψΰ	Ψΰ	ΨΟ
Fees	\$3,660,000	\$736,000	\$2,102,000	\$822,000	\$0	\$0
Special Services						
Application	\$50,000	\$50,000	\$0	\$0	\$0	\$0
Environmental	\$500,000	\$150,000	\$350,000	\$0	\$0	\$0
Surveying	\$350,000	\$350,000	\$0	\$0	\$0	\$0
Geotechnical	\$200,000	\$200,000	\$0	\$0	\$0	\$0
Testing	\$0	\$0	\$0	\$0	\$0	\$0
Inspection	\$0	\$0	\$0	\$0	\$0	\$0
O&M Manual	\$0	\$0	\$0	\$0	\$0	\$0
Special Services Other	4 0	Ψū	40	ΨÜ	40	
**Intake Modeling	\$100,000	\$0	\$100,000	\$0	\$0	\$0
Subtotal Special Services	\$1,200,000	\$750,000	\$450,000	\$0	\$0	\$0
Other						
Administration	\$0	\$0	\$0	\$0	\$0	\$0
Land/Easements Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Water Rights Purchase (If	* -	* -	* -	* -	, ,	T -
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Capacity Buy-In (If						
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Project Legal Expenses	\$0	\$0	\$0	\$0	\$0	\$0
Other ** Power	\$0	\$0	\$0	\$0	\$0	\$0
Other ** Mitigation	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Other Services	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal Services						
Financial Advisor	\$31,083	\$9,504	\$16,322	\$5,257	\$0	\$0
Bond Counsel	\$42,975	\$13,140	\$22,566	\$7,269	\$0	\$0
Issuance Cost	\$5,595	\$1,711	\$2,938	\$946	\$0	\$0
Bond Insurance/Surety	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal/Legal	\$6,900	\$2,110	\$3,623	\$1,167	\$0	\$0
Capitalized Interest	\$0	\$0	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$339,033	\$103,663	\$178,027	\$57,343	\$0	\$0
Loan Origination Fee	\$0	\$0	\$0	\$0	\$0	\$0
Other **	\$11,014	\$3,368	\$5,783	\$1,863	\$0	\$0
Subtotal Fiscal Services	\$436,600	\$133,495	\$229,260	\$73,845	\$0	\$0
Contingency						
Contingency	\$298,400	\$91,239	\$156,691	\$50,470	\$0	\$0
Subtotal Contingency	\$298,400	\$91,239	\$156,691	\$50,470	\$0	\$0
TOTAL COSTS	\$5,595,000	\$1,710,734	\$2,937,950	\$946,315	\$0	\$0

Category A	
Category B	
Category C	
Category D	
Total Planning Costs	

PROJECT BUDGET - SABINE RIVER AUTHORITY LOW INTEREST LOAN SCHEDULE						
Uses	Low Interest	2016	2017	2018	2019	2020
Construction						
Construction	\$53,110,000			\$7,966,500	\$26,555,000	\$18,588,500
Subtotal Construction	\$53,110,000	\$0	\$0	\$7,966,500	\$26,555,000	\$18,588,500
Basic Engineering Fees						
Planning +	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0
Construction Engineering	\$920,000	\$0	\$0	\$138,000	\$460,000	\$322,000
Subtotal Basic Engineering						
Fees	\$920,000	\$0	\$0	\$138,000	\$460,000	\$322,000
Special Services						
Application	\$0	\$0	\$0	\$0	\$0	\$0
Environmental	\$0	\$0	\$0	\$0	\$0	\$0
Surveying	\$0	\$0	\$0	\$0	\$0	\$0
Geotechnical	\$0	\$0	\$0	\$0	\$0	\$0
Testing	\$800,000	\$0	\$0	\$120,000	\$400,000	\$280,000
Inspection	\$2,500,000	\$0	\$0	\$375,000	\$1,250,000	\$875,000
O&M Manual	\$120,000	\$0	\$0	\$0	\$30,000	\$90,000
Special Services Other			*-	•	•	
**Intake Modeling	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Special Services	\$3,420,000	\$0	\$0	\$495,000	\$1,680,000	\$1,245,000
Other						
Administration	\$0	\$0	\$0	\$0	\$0	\$0
Land/Easements	\$1,360,000	\$0	\$1,360,000	\$0	\$0	\$0
Water Rights Purchase (If						
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Capacity Buy-In (If		•		•	•	
Applicable)	\$0	\$0	\$0	\$0	\$0	\$0
Project Legal Expenses	\$0	\$0	\$0	\$0	\$0	\$0
Other ** Power	\$1,000,000	\$0	\$500,000	\$500,000	\$0	\$0
Other ** Mitigation	\$1,330,000	\$0	\$0	\$665,000	\$665,000	\$0
Subtotal Other Services	\$3,690,000	\$0	\$1,860,000	\$1,165,000	\$665,000	\$0
Fiscal Services						
Financial Advisor	\$207,034	\$0	\$8,997	\$47,231	\$89,420	\$61,386
Bond Counsel	\$216,088	\$0	\$12,269	\$64,406	\$82,664	\$56,749
Issuance Cost	\$19,016	\$0	\$1,524	\$7,998	\$5,629	\$3,865
Bond Insurance/Surety	\$0	\$0	\$0	\$0	\$0	\$0
Fiscal/Legal	\$13,811	\$0	\$1,107	\$5,809	\$4,089	\$2,807
Capitalized Interest	\$0	\$0	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$4,107,216	\$0	\$120,392	\$632,010	\$1,989,221	\$1,365,592
Loan Origination Fee	\$0	\$0	\$0	\$0	\$0	\$0
Other **	\$235	\$0	\$59	\$59	\$59	\$59
Subtotal Fiscal Services	\$4,563,400	\$0	\$144,347	\$757,513	\$2,171,082	\$1,490,457
Contingency						
Contingency	\$3,701,600	\$0	\$112,610	\$591,172	\$1,777,543	\$1,220,275
Subtotal Contingency	\$3,701,600	\$0	\$112,610	\$591,172	\$1,777,543	\$1,220,275
TOTAL COSTS	\$69,405,000	\$0	\$2,116,957	\$11,113,186	\$33,308,625	\$22,866,232

Category A
Category B
Category C
Category D
Total Planning Costs

Texas Water Development Board

State Water Implementation Fund for Texas (SWIFT)

Abridged Application Regional Project Worksheet

Applicant: Sabine River Authority

Project Name: Sabine River Authority Pump Station

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	e	Rural
1.	Rose City	Yes
2.	Aqua Texas Inc-Northwest Harris County MUD 8	Yes
3.	Baybrook MUD 1	Yes
4.	Baytown Area	No
5.	Chimney Hill MUD	Yes
6.	City of Bellaire	No
7.	City of Bunkerhill Village	Yes
8.	City of Deer Park	No
9.	City of Galena Park	No
10.	City of Hilshire Vlg.	Yes
11.	City of Jacinto City	No
12.	City of Jersey Village	Yes
13.	City of Pasadena - East Plant	No
14.	City of Pearland	No
15.	City of Southside Place	Yes
16.	City of West University	No
17.	CLCWA	Yes
18.	Clearbrook City MUD	No
19.	Friendswood	No
20.	GCWA	No
21.	Greenwood Utility District	Yes
22.	Harris Co. MUD # 420	Yes
23.	Harris Co. MUD #158	Yes
24.	Harris Co. MUD #23	Yes
25.	Harris Co. MUD #261 & Winfern Forest UD	Yes
26.	Harris Co. MUD #372	Yes
27.	Harris Co. MUD #6	Yes
28.	Harris Co. MUD #8	Yes
29.	Harris Co. WCID # 89	Yes
30.	Harris Co. WICD - Fondren Road	Yes

Texas Water Development Board

State Water Implementation Fund for Texas (SWIFT)

Abridged Application Regional Project Worksheet

31.	Harris County MUD # 182	Yes
32.	Harris County MUD # 220	No
33.	Harris County MUD # 421	Yes
34.	Harris County MUD 55	No
35.	Harris County MUD 89	Yes
36.	Sagemeadow UD	Yes
37.	Houston	No
38.	Houston Area Water Commission	No
39.	John M. Fultz, Reciever/DBA H&J Utilities	Yes
40.	La Porte Area Water Authority	No
41.	Memorial Villages Water Authority	Yes
42.	Montgomery County MUD 98	Yes
43.	Municipal Operations & Consulting Inc-Harris County MUD 461	Yes
44.	North Channel Water Auth	Yes
45.	North Fort Bend Water Authority	Yes
46.	Pasadena	No
47.	Regional Water Adv. Comm.	Yes
48.	Rolling Fork Public Utility District	Yes
49.	South Houston	No
50.	Southwest H.C. MUD #1	Yes
51.	Sunbelt Fresh Water Supply District	Yes
52.	Webster	No
53.	West Harris County MUD #16	Yes
54.	West Harris County Regional Water Authority	Yes