

Appendix 9-A

Infrastructure Financing Survey Results

A survey of WUGs with identified needs was conducted to determine infrastructure costs and potential funding sources for infrastructure projects. Survey results are included in this appendix.

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Table 9-A.1 WMS Cost Summary

County	Entity		Basin Used	Strategy		Strategy Key	Capital Cost		Municipal Cost	Surface Water
Name	Name(s)		Name	Name		Name				
Anderson	County-Other	1	Neches	Expanded use of Queen City		ADC-1	\$ 212,732.00		\$ 212,732.00	\$ -
Anderson	County-Other	1	Neches	Expanded use of Carrizo		ADC-2	\$ 262,189.00		\$ 262,189.00	\$ -
Anderson	Frankston	1	Neches	Increase supply from Carrizo-Wilcox		FR-1	\$ 42,846.00		\$ 42,846.00	\$ -
Anderson	Mining		Neches	Increase supply from Carrizo-Wilcox		AND-1	\$ 228,730.00		\$ -	\$ -
Anderson	Steam-Electric		Neches	Water from Lake Palestine	1	ADS-1	\$ 24,917,400.00		\$ -	\$ 24,917,400.00
Angelina	County-Other	1	Neches	Obtain water from Lufkin	1	ANC-1A	\$ 10,604,000.00	\$ 10,604,000.00	\$ 10,604,000.00	\$ 10,604,000.00
Angelina	County-Other	1	Neches	Increase supply from Carrizo-Wilcox		ANC-2A	\$ 419,717.00		\$ 419,717.00	\$ -
Angelina	Diboll	1	Neches	Purchase Water from Lufkin	1	DI-1	\$ 6,195,000.00	\$ 6,195,000.00	\$ 6,195,000.00	\$ 6,195,000.00
Angelina	Diboll	1	Neches	Increase supply from Yegua		DI-3	\$ 576,576.00		\$ 576,576.00	\$ -
Angelina	Four Way WSC	1	Neches	Obtain water from Lufkin	1	FW-1	\$ 669,192.00		\$ 669,192.00	\$ 669,192.00
Angelina	Hudson	1	Neches	Increase supply from Carrizo-Wilcox		HU-1A	\$ 380,703.00		\$ 380,703.00	\$ -
Angelina	Hudson WSC	1	Neches	Increase supply from Carrizo-Wilcox		HW-1A	\$ 974,482.00		\$ 974,482.00	\$ -
Angelina	Lufkin	1	Neches	Construct pipeline to Sam Rayburn Reservoir	1	LU-1			\$ -	\$ -
Angelina	Manufacturing		Neches	Obtain water from City of Lufkin	1	ANM-1	\$ 15,609,700.00	\$ 15,609,700.00	\$ -	\$ 15,609,700.00
Angelina	Manufacturing		Neches	Obtain raw water from Lake Columbia	1	ANM-2	\$ 7,603,000.00		\$ -	\$ 7,603,000.00
Angelina	Live Stock			Stock Ponds			\$ 168,000.00		\$ -	\$ -
Angelina	Mining			Lake Columbia	1		\$ 5,793,150.00		\$ -	\$ 5,793,150.00
Angelina	Steam & Electric			Wells			\$ 1,724,909.00		\$ -	\$ -
Cherokee	Irrigation		Neches	Queen City		CH-1			\$ -	\$ -
Cherokee	Manufacturing		Neches	Obtain water from City of Jacksonville		CHM-1			\$ -	\$ -
Cherokee	Mining		Neches	Lake Columbia	1	CHN-1	\$ 3,619,300.00		\$ -	\$ 3,619,300.00
Cherokee	New Summerfield	1	Neches	Obtain treated water from Lake Columbia	1	NS-1			\$ -	\$ -
Cherokee	New Summerfield	1	Neches	Increase supply from Carrizo-Wilcox		NS-3	\$ 299,452.00		\$ 299,452.00	\$ -
Cherokee	Rusk	1	Neches	Obtain treated water from Lake Columbia	1	RU-1	\$ 28,435,800.00	\$ 28,435,800.00	\$ 28,435,800.00	\$ 28,435,800.00
Cherokee	Rusk	1	Neches	Increase supply from Carrizo-Wilcox		RU-3	\$ 299,452.00		\$ 299,452.00	\$ -
Hardin	County-Other	1	Neches	Use additional water from Gulf Coast Aquifer		HAC-1A	\$ 1,670,664.00		\$ 1,670,664.00	\$ -
									\$ -	\$ -
									\$ -	\$ -
Hardin	Manufacturing		Neches	Use additional water from Gulf Coast Aquifer		HAM-1	\$ 429,542.00		\$ -	\$ -
Hardin	Irrigation		Neches	Use surface water sources	1	HAI-1	\$ 2,405,001.00		\$ -	\$ 2,405,001.00
Henderson	Athens	1	Neches	Purchase water from Athens MWA	1	AT-2			\$ -	\$ -
Henderson	Bethel Ash WSC	1	Neches	Overdraft and drill new well in Carrizo-Wilcox		BA-1			\$ -	\$ -
Henderson	County-Other	1	Neches	Overdraft Carrizo-Wilcox		HECo-2	\$ 609,900.00		\$ 609,900.00	\$ -
Henderson	County-Other	1	Neches	Expanded use of Queen City		HECo-3	\$ 4,420,100.00		\$ 4,420,100.00	\$ -
Henderson	County-Other	1	Neches	Water from UNRMWA	1	HECo-4	\$ 8,937,350.00		\$ 8,937,350.00	\$ 8,937,350.00
									\$ -	\$ -
Henderson	Irrigation		Neches	Obtain water through Athens MWA strategies	1	HEI-1			\$ -	\$ -
Henderson	Livestock		Neches	Temporary Pumping		HEL-1	\$ -		\$ -	\$ -
Henderson	Livestock		Neches	Obtain water through Athens MWA strategies	1	AMWA-1			\$ -	\$ -
Houston	Irrigation		Neches/Trinity	Increase supply from Carrizo-Wilcox		HOI-1	\$ 3,205,560.00		\$ -	\$ -
Houston	Livestock		Neches/Trinity	Increase supply from Carrizo-Wilcox		HOL-1	\$ 2,671,300.00		\$ -	\$ -
Jasper	County-Other	1	Neches	Use of additional water from Gulf Coast Aquifer		JAC-1	\$ 1,369,957.00		\$ 1,369,957.00	\$ -
									\$ -	\$ -
Jefferson	Mining		Neches	Use additional supply from Gulf Coast Aquifer		JEM-1	\$ 103,083.00		\$ -	\$ -
Jefferson	Steam-Electric		Neches	Use additional water from the Neches River	1	JESE-1	\$ 13,647,296.00		\$ -	\$ 13,647,296.00
Nacogdoches	Appleby WSC	1	Neches	Increase supply from Carrizo-Wilcox		AP-1	\$ 4,392,350.00		\$ 4,392,350.00	\$ -
Nacogdoches	D&M WSC	1	Neches	Increase supply from Carrizo-Wilcox		DM-1	\$ 492,348.00		\$ 492,348.00	\$ -
Nacogdoches	County-Other	1	Neches	Obtain raw water from Lake Columbia	1	NC-2			\$ -	\$ -

Table 9-A.1 WMS Cost Summary

County	Entity		Basin Used	Strategy	Strategy Key	Capital Cost		Municipal Cost	Surface Water
Nacogdoches	Lilly Grove SUD	1	Neches	Increase supply from Carrizo-Wilcox	LG-2	\$ 580,504.00		\$ 580,504.00	\$ -
	Lilly Grove SUD	1	Neches	Lake Naconiche	LG-1	\$ 7,320,600.00	\$ 7,320,600.00	\$ 7,320,600.00	\$ -
Nacogdoches	Livestock		Neches	Increase supply from Carrizo-Wilcox	NCL-1	\$ 1,969,392.00		\$ -	\$ -
Nacogdoches	Mining		Neches	Water from ANRA	1 NCMI-1	\$ 9,593,450.00		\$ -	\$ 9,593,450.00
Nacogdoches	Nacogdoches		Neches	Acquire agreement w/ downstream water rights holders	NA-1			\$ -	\$ -
Nacogdoches	Nacogdoches		Neches	Obtain and treat water from Lake Columbia	1 Alt. Str. NA-3			\$ -	\$ -
Nacogdoches	Nacogdoches		Neches	Obtain and treat water from Toledo Bend	1 Alt. Str. NA-4			\$ -	\$ -
Nacogdoches	Steam-Electric		Neches	Obtain raw water from Lake Columbia	1 NCS-1	\$ 10,718,000.00	\$ 10,718,000.00	\$ -	\$ 10,718,000.00
Nacogdoches	Steam-Electric		Neches	Obtain raw water from Houston County Lake	1 NCS-1	\$ 2,012,400.00		\$ -	\$ 2,012,400.00
Nacogdoches	Swift WSC	1	Neches	Increase supply from Carrizo-Wilcox	SW-1	\$ 498,171.00		\$ 498,171.00	\$ -
Nacogdoches	Swift WSC	1	Neches	Lake Naconiche	1 SW-2	\$ 5,856,500.00	\$ 5,856,500.00	\$ 5,856,500.00	\$ 5,856,500.00
Nacogdoches	Swift WSC	1	Neches	Lake Columbia	1 SW-3			\$ -	\$ -
Newton	Manufacturing		Sabine	Purchase additional water from SRA (Toledo Bend)	1 NWM-2	\$ 1,389,500.00	\$ 1,389,500.00	\$ -	\$ 1,389,500.00
Newton	Manufacturing		Sabine	Install Wells in Gulf Coast Aquifer	NWM-1	\$ 891,529.00		\$ -	\$ -
Newton	Steam & Electric		Sabine	Water from SRA	1 NWP-1	\$ 12,515,350.00		\$ -	\$ 12,515,350.00
Orange	Manufacturing		Sabine	Water from SRA	1 OR-1	\$ -		\$ -	\$ -
Orange	County-Other	1	Sabine	Additional Wells	ORC-1	\$ 432,222.00		\$ 432,222.00	\$ -
Orange	Mauriceville WSC	1	Sabine	Increase groundwater supply (install well in Jasper County)	ORMa-1	\$ 550,848.00		\$ 550,848.00	\$ -
Polk	County-Other	1	Neches	Use additional supply from Gulf Coast Aquifer	POC-1A	\$ 2,991,140.00		\$ 2,991,140.00	\$ -
Polk	Manufacturing		Neches	Expand existing supplies	POM-1	\$ 581,344.00		\$ -	\$ -
Polk	City of Woodville	1	Neches	New Wells Gulf Coast Aquifer		\$ 511,400.00		\$ 511,400.00	\$ -
Rusk	Mining		Neches	Increase supply from Carrizo-Wilcox	RUL-1	\$ 241,600.00		\$ -	\$ -
Rusk	Steam-Electric		Neches	Toledo Bend	1 RUSE-1	\$ 1,318,500.00		\$ -	\$ 1,318,500.00
Rusk	Steam-Electric		Neches	Obtain water from Lake Columbia	1 RUSE-2	\$ 8,640,450.00		\$ -	\$ 8,640,450.00
Sabine	County-Other	1	Sabine	Increase groundwater supply from Carrizo-Wilcox Aquifer	SBC-1	\$ 328,840.00		\$ 328,840.00	\$ -
Sabine	County-Other	1	Sabine	Purchase water from City of Hemphill	1 SBC-2	\$ 809,000.00		\$ 809,000.00	\$ 809,000.00
Sabine	Livestock		Sabine	Increase groundwater supply from Carrizo-Wilcox Aquifer	SBL-1	\$ 226,430.00		\$ -	\$ -
Sabine	Livestock		Sabine	Increase supply from local sources	SBL-2	\$ 562,700.00		\$ -	\$ -
San Augustine	County-Other	1	Neches	Increase groundwater supply from Carrizo-Wilcox Aquifer	SAC-1			\$ -	\$ -
San Augustine	County-Other	1	Neches	Expand contracts with San Augustine	SAC-2			\$ -	\$ -
San Augustine	Irrigation		Neches	Increase groundwater supply from Carrizo-Wilcox Aquifer	SAL-1	\$ 224,690.00		\$ -	\$ -
San Augustine	Livestock		Sabine	Stock Ponds	SAL-1	\$ 562,700.00		\$ -	\$ -
San Augustine	Livestock		Sabine	Increase groundwater supply from Carrizo-Wilcox Aquifer	SAL-2	\$ 189,570.00		\$ -	\$ -
San Augustine	Livestock		Neches	Increase groundwater supply from Carrizo-Wilcox Aquifer	SAL-3	\$ 379,140.00		\$ -	\$ -
San Augustine	Mining		Neches	From ANRA	1 SAMi-1	\$ 2,627,850.00		\$ -	\$ 2,627,850.00
San Augustine	Mining		Neches	From LNVA	1 SAMi-2	\$ 8,212,450.00	\$ 8,212,450.00	\$ -	\$ 8,212,450.00
Shelby	City of Center	1	Sabine	Agreements with senior downstream water rights holders	SHC-2			\$ -	\$ -
Shelby	County-Other	1	Sabine	Purchase water from City of Center	SHCo-2			\$ -	\$ -
Shelby	County-Other	1	Sabine	Increase groundwater supply from Carrizo-Wilcox Aquifer	SHCo-1	\$ 2,278,400.00		\$ 2,278,400.00	\$ -
Shelby	County-Other	1	Sabine	Purchase water from SRA	1 SHCo-3	\$ 3,024,150.00		\$ 3,024,150.00	\$ 3,024,150.00
Shelby	Livestock		Sabine	Increase groundwater supply from Carrizo-Wilcox Aquifer	SHL-1	\$ 1,387,600.00		\$ -	\$ -
Shelby	Livestock		Neches	Increase groundwater supply from Carrizo-Wilcox Aquifer	SHL-2	\$ 1,040,800.00		\$ -	\$ -

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Table 9-A.2 2011 WMS Summary

Sum of sumCapCost		EarliestOnline entityType		2010 Total		2020 Total		2030 Total		2040 Total		2050 Total		2060 Total		Grand Total	
Entity Name	Project Name	WUG	WWP	WUG	WWP	WUG	WWP	WUG	WWP	WUG	WWP	WUG	WWP	WUG	WWP		
ANGELINA & NECHES RIVER AUTHORITY	ANRA TREATMENT AND DISTRIBUTION SYSTEM NEW SOURCE - LAKE COLUMBIA					\$ 35,127,250.00	\$ 231,865,000.00	\$ 35,127,250.00	\$ 231,865,000.00							\$ 35,127,250.00	\$ 231,865,000.00
ANGELINA & NECHES RIVER AUTHORITY Total						\$ 266,992,250.00	\$ 266,992,250.00									\$ 266,992,250.00	\$ 266,992,250.00
APPLEBY WSC	LAKE NACONICHE REGIONAL WATER SUPPLY SYSTEM					\$ 4,392,350.00	\$ 4,392,350.00	\$ 4,392,350.00	\$ 4,392,350.00							\$ 4,392,350.00	\$ 4,392,350.00
APPLEBY WSC Total						\$ 4,392,350.00	\$ 4,392,350.00	\$ 4,392,350.00	\$ 4,392,350.00							\$ 4,392,350.00	\$ 4,392,350.00
ATHENS MUNICIPAL WATER AUTHORITY	FOREST GROVE RESERVOIR PROJECT NEW WTP OVERDRAFT CARRIZO WILCOX AQUIFER		\$ 3,799,000.00	\$ 3,799,000.00						\$ 26,619,000.00	\$ 26,619,000.00			\$ 12,387,000.00	\$ 12,387,000.00	\$ 26,619,000.00	\$ 12,387,000.00
ATHENS MUNICIPAL WATER AUTHORITY Total			\$ 3,799,000.00	\$ 3,799,000.00						\$ 26,619,000.00	\$ 26,619,000.00			\$ 12,387,000.00	\$ 12,387,000.00	\$ 42,805,000.00	\$ 42,805,000.00
BROWNSBORO	OVERDRAFT CARRIZO WILCOX AQUIFER	\$ 148,600.00		\$ 148,600.00												\$ 148,600.00	\$ 148,600.00
BROWNSBORO Total		\$ 148,600.00		\$ 148,600.00												\$ 148,600.00	\$ 148,600.00
BULLARD	NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 305,674.00		\$ 305,674.00												\$ 305,674.00	\$ 305,674.00
BULLARD Total		\$ 305,674.00		\$ 305,674.00												\$ 305,674.00	\$ 305,674.00
CONSOLIDATED WSC	EXPANDED USE OF GW	\$ 2,357.00		\$ 2,357.00												\$ 2,357.00	\$ 2,357.00
CONSOLIDATED WSC Total		\$ 2,357.00		\$ 2,357.00												\$ 2,357.00	\$ 2,357.00
D&M WSC	NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 492,348.00		\$ 492,348.00												\$ 492,348.00	\$ 492,348.00
D&M WSC Total		\$ 492,348.00		\$ 492,348.00												\$ 492,348.00	\$ 492,348.00
DIBOLL	NEW WELLS - YEGUA JACKSON AQUIFER PURCHASE WATER FROM PROVIDER (2)	\$ 576,576.00		\$ 576,576.00		\$ 6,195,000.00	\$ 6,195,000.00									\$ 576,576.00	\$ 6,195,000.00
DIBOLL Total		\$ 576,576.00		\$ 576,576.00		\$ 6,771,576.00	\$ 6,771,576.00									\$ 6,771,576.00	\$ 6,771,576.00
FOUR WAY WSC	PURCHASE WATER FROM PROVIDER (2)	\$ 669,192.00		\$ 669,192.00												\$ 669,192.00	\$ 669,192.00
FOUR WAY WSC Total		\$ 669,192.00		\$ 669,192.00												\$ 669,192.00	\$ 669,192.00
FRANKSTON	NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 255,951.00		\$ 255,951.00												\$ 255,951.00	\$ 255,951.00
FRANKSTON Total		\$ 255,951.00		\$ 255,951.00												\$ 255,951.00	\$ 255,951.00
HUDSON WSC	NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 3,274,192.00		\$ 3,274,192.00												\$ 3,274,192.00	\$ 3,274,192.00
HUDSON WSC Total		\$ 3,274,192.00		\$ 3,274,192.00												\$ 3,274,192.00	\$ 3,274,192.00
JACKSONVILLE	INFRASTRUCTURE IMPROVEMENTS PURCHASE WATER FROM PROVIDER (3)		\$ 1,000,000.00	\$ 1,000,000.00		\$ 19,133,700.00	\$ 19,133,700.00									\$ 1,000,000.00	\$ 19,133,700.00
JACKSONVILLE Total			\$ 20,133,700.00	\$ 20,133,700.00												\$ 20,133,700.00	\$ 20,133,700.00
LILLY GROVE SUD	LAKE NACONICHE REGIONAL WATER SUPPLY SYSTEM NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 580,504.00		\$ 580,504.00		\$ 7,320,600.00	\$ 7,320,600.00									\$ 580,504.00	\$ 7,320,600.00
LILLY GROVE SUD Total		\$ 580,504.00		\$ 580,504.00		\$ 7,320,600.00	\$ 7,320,600.00									\$ 7,901,104.00	\$ 7,901,104.00
LINDALE RURAL WSC	DRILL NEW WELL NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 413,194.29		\$ 413,194.29												\$ 413,194.29	\$ 413,194.29
LINDALE RURAL WSC Total		\$ 413,194.29		\$ 413,194.29												\$ 413,194.29	\$ 413,194.29
LOWER NECHES VALLEY AUTHORITY	PURCHASE WATER FROM PROVIDER (2) SEDIMENT REDUCTION WHOLESALE CUSTOMER CONSERVATION		\$ 39,168,200.00	\$ 39,168,200.00		\$ 161,333,000.00	\$ 161,333,000.00									\$ 39,168,200.00	\$ 161,333,000.00
LOWER NECHES VALLEY AUTHORITY Total			\$ 201,901,200.00	\$ 201,901,200.00												\$ 201,901,200.00	\$ 201,901,200.00
LUFKIN	ANGELINA COUNTY REGIONAL PROJECT LAKE KURTH REGIONAL SYSTEM NEW WELLS - CARRIZO WILCOX AQUIFER		\$ 56,488,600.00	\$ 56,488,600.00		\$ 14,097,000.00	\$ 14,097,000.00			\$ 53,164,000.00	\$ 53,164,000.00					\$ 53,164,000.00	\$ 123,749,600.00
LUFKIN Total			\$ 70,585,600.00	\$ 70,585,600.00						\$ 53,164,000.00	\$ 53,164,000.00					\$ 123,749,600.00	\$ 123,749,600.00
MAURICEVILLE SUD	NEW WELLS - GULF COAST AQUIFER	\$ 550,848.00		\$ 550,848.00												\$ 550,848.00	\$ 550,848.00
MAURICEVILLE SUD Total		\$ 550,848.00		\$ 550,848.00												\$ 550,848.00	\$ 550,848.00
NACOGDOCHES	NEW WELLS - CARRIZO WILCOX AQUIFER PURCHASE WATER FROM PROVIDER (3)		\$ 2,727,000.00	\$ 2,727,000.00		\$ 37,282,050.00	\$ 37,282,050.00									\$ 2,727,000.00	\$ 37,282,050.00
NACOGDOCHES Total			\$ 40,009,050.00	\$ 40,009,050.00												\$ 40,009,050.00	\$ 40,009,050.00
RUSK	PURCHASE WATER FROM PROVIDER (2)	\$ 28,435,800.00		\$ 28,435,800.00												\$ 28,435,800.00	\$ 28,435,800.00
RUSK Total		\$ 28,435,800.00		\$ 28,435,800.00												\$ 28,435,800.00	\$ 28,435,800.00
SABINE RIVER AUTHORITY	TOLEDO BEND PROJECT (500,000)											\$ 475,648,000.00	\$ 475,648,000.00			\$ 475,648,000.00	\$ 475,648,000.00
SABINE RIVER AUTHORITY Total												\$ 475,648,000.00	\$ 475,648,000.00			\$ 475,648,000.00	\$ 475,648,000.00
SWIFT WSC	LAKE NACONICHE REGIONAL WATER SUPPLY SYSTEM NEW WELLS - CARRIZO WILCOX AQUIFER	\$ 498,171.00		\$ 498,171.00		\$ 5,856,500.00	\$ 5,856,500.00									\$ 498,171.00	\$ 5,856,500.00
SWIFT WSC Total		\$ 498,171.00		\$ 498,171.00		\$ 5,856,500.00	\$ 5,856,500.00									\$ 6,354,671.00	\$ 6,354,671.00
TYLER	LAKE PALESTINE INFRASTRUCTURE							\$ 79,389,250.00	\$ 79,389,250.00							\$ 79,389,250.00	\$ 79,389,250.00
TYLER Total								\$ 79,389,250.00	\$ 79,389,250.00							\$ 79,389,250.00	\$ 79,389,250.00
WEST HARDIN WSC	EXPANDED USE OF GW	\$ 80,123.00		\$ 80,123.00												\$ 80,123.00	\$ 80,123.00
WEST HARDIN WSC Total		\$ 80,123.00		\$ 80,123.00												\$ 80,123.00	\$ 80,123.00
WOODVILLE	NEW WELLS - GULF COAST AQUIFER	\$ 511,400.00		\$ 511,400.00												\$ 511,400.00	\$ 511,400.00
WOODVILLE Total		\$ 511,400.00		\$ 511,400.00												\$ 511,400.00	\$ 511,400.00
Grand Total		\$ 43,337,189.29	\$ 336,428,550.00	\$ 379,765,739.29		\$ 17,569,450.00	\$ 266,992,250.00	\$ 284,561,700.00	\$ 79,389,250.00	\$ 79,389,250.00	\$ 79,783,000.00	\$ 79,783,000.00	\$ 475,648,000.00	\$ 475,648,000.00	\$ 12,387,000.00	\$ 12,387,000.00	\$ 1,311,534,689.29

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