

Exhibit A

Scope of Work

WATER ACTIVITY NAME – Water System Improvements for the City of Las Animas

GRANT RECIPIENT – City of Las Animas

FUNDING SOURCE -CWCB WSRA Arkansas Basin Account -	\$100,000
CWCB WSRA State Account -	\$200,000
DOLA CDBG Grant -	\$800,000
CDPHE Grant -	\$ 10,000
CWR&PDA Loan -	\$812,000
City Local Match -	\$400,000

BACKGROUND

The City of Las Animas has undertaken a comprehensive Preliminary Engineering Report evaluating its water system. One of the many findings within the PER determined that the city was going to fall short of meeting the water demands placed on the system; hence, a water gap was created. The Water Needs Assessment section of the SWSI report dated November 2004 noted that the City of Las Animas had reported they were capable of meeting future water demands up to 2030. However, the city was unaware at that time of the magnitude of the upcoming demands of their water system. In the fall of 2006, the local correctional facility announced to the city that they were undertaking an expansion. The expansion would double the inmate capacity of the correctional facility. This resulted in the scope of the PER being expanded to evaluate the water treatment plant (WTP) and the water supply. Construction on the expansion is in progress. The net affect of the correctional facility attaining its inmate expansion will be the city's inability to provide sufficient raw to the WTP and treated water to all of its constituents during high demand periods. Such being the case, the city's existing WTP will need to be expanded through the addition of secondary recovery of the WTP existing reverse osmosis (RO) trains.

In addition, two of the seven wells the city relies upon for raw water are in need of replacement. Furthermore, the city is pursuing replacement of two of the city's Light and Power wells to increase the supply of raw water to the WTP. Couple this with the fact that the city's raw water supply is limited by the piping arrangement between their wells and the WTP, such limits the total amount of raw water available to the city. Therefore, the city needs to bring the two Light and Power wells into production in conjunction with the installation of a transmission line extending to the WTP. This will require the wells to be redrilled and re-equipped. These improvements will enable the city to provide adequate raw and treated water to meet the demands placed on the system thereby eliminating the water gap.

In addition to the collection and treatment of its raw water, the city also has several areas throughout its water storage and distribution systems that require attention. In order to provide continuous service, the purchase of a portable standby generator along with the appropriate electrical transfer switches will be installed at the distribution system's pump house. The generator will provide the city with the ability to provide water from the ground level tank in the event of a power outage.

In addition to the above items, the city's project also includes the replacement of several segments of distribution piping including both new and replacement fire hydrants. Approximately 11% of the distribution piping still consists of cast iron piping dating back to the early 1900s. This piping has exceeded its life expectancy, experiences several problems and is undersized. The fire hydrants in need of replacement are sporadically located around the city. Additional hydrants will be incorporated into the system to address areas lacking adequate coverage.

The project is needed for multiple reasons. The city has identified a gap which needs to be closed. Therefore, the city needs to be in a position where it can comfortably provide water service during high demand conditions. The city's WTP will be stretched beyond its capacity with the doubling in size of the local correctional facility. Furthermore, the city needs to have the facilities in place to obtain the raw water it is entitled to in addition to conveying said raw water to its water treatment plant. To accomplish such, the city needs the addition of the secondary recovery system in its WTP, needs to redrill two wells and install a new parallel transmission line to convey raw water to the WTP. These items fall into alignment with the criteria set forth by CWCB and the IBCC. This will bring an economic boost to an area suffering from years of natural disasters, economic hardship and the transfer of water rights out of the basin. Any form of job creation within the area and even the region is more than welcome and strongly pursued.

Currently, the city does not have the ability to provide water during a power outage of long duration. Rectifying these situations requires the installation of an emergency portable generator for the distribution system pump station that draws water from the 2 million gallon tank.

Furthermore, 11% of the distribution system is approximately 100 years old and requires replacement. In addition, the city's piping underneath U.S. Highway 50 has been problematic and is in need of replacement. The city has been proactive in replacing a large part of the city's fire hydrants; however, some of the existing fire hydrants still need replacement. This is coupled with the fact that there are areas of the city that fail to have needed fire hydrant coverage. As such, several new fire hydrants and supporting water line improvements are required to meet this need. The specific goals of the project include:

1. Installation of a secondary reverse osmosis system within the existing water treatment plant to meet all demands placed on the water system.

2. Provide raw water at the rate required to meet demand, which results in the need to redrill two existing well coupled with the installation of a new transmission line to the water treatment plant.
3. Install meters on the remaining city facilities that are not metered.
4. Provide a means of pumping water from the tank to the distribution system within a long duration power outage.
5. Undertake distribution system improvements to eliminate old, deteriorating, undersized water mains and frequent pipeline failures
6. Replace existing and install new fire hydrants throughout the city for fire protection and system flushing.

SUMMARY OF TASKS

The \$300,000 CWCB WRSA grant funds are a portion of the overall financing for the Water System Improvements project for the City of Las Animas. Preliminary construction cost estimates for the overall project are included in Table 2. WSR grant funding will fund several of these items. The items to be funded through the WSR grant are grouped into three tasks for the purpose of this Scope of Work.

The description of each task in the Scope of Work includes a summary of the activities to be undertaken and the final work products and deliverables to be produced. The tables below, following the task descriptions, summarize the budget for the Scope of Work.

Following is a detailed summary of the Scope of Work needed to complete the construction activities for

Task 1: Redrilling, equipping and placing on line two additional wells (Items 1.1.1 and 1.1.2)

The activities and work products included in this task involve the drilling, equipping with the appropriate submersible pumps, casing pipes, screens, raw water piping, meters, valves, fittings, electrical equipment, yard piping and SCADA equipment required for two additional wells made available through the City of Las Animas Light and Power Division.

Task 2: Installation of new raw water transmission line (Item 1.1.3)

The work within the task encompasses the installation of a new 6-inch raw water transmission line from the two newly drilled wells contained within Task No. 1. Activities and products included within this task include furnishing and installing a PVC raw water transmission line complete with pipe, fittings, joint restraints, thrust blocks, unclassified excavation, bedding, backfill, compaction, surface restoration and all incidental materials of construction, complete in place.

Task 3: Replacement of potable water distribution mains and associated appurtenances (Items 1.5.1, 1.5.5, 1.5.6, 1.5.7, and 1.5.8)

The work within the task encompasses the installation of replacement water mains ranging in size from 4, 6, 8, 10 and 12-inch piping. Material will include both PVC and

HDPE, depending upon the location. Products and activities included within this task include furnishing and installing PVC or HDPE water distribution mains complete with pipe, fittings, joint restraints, thrust blocks, service line taps, pipe and connections, connections to existing water distribution mains, valves, fire hydrants, unclassified excavation, bedding, backfill, compaction, surface restoration and all incidental materials of construction, complete in place.

The specific locations where the Colorado Water Conservation Board's (CWCB) Water Supply Reserve Account (WSRA) Grant funds will be used in regard to distribution replacement segments include the following locations:

1. From the water treatment plant to Columbine Place Elevated Storage tank
2. Carson Ave from Sixth St to Fifth St
3. US Hwy 50 (Bent Avenue)
4. Sixth Street from Carson Ave to U.S. HWY 50.
5. Alley between Sixth & Fifth and Carson & US HWY 50

BUDGET

The total budget for the Water System Improvements project for the City of Las Animas is \$2,322,000. The estimated budgeted amounts for each task, as described above, is included in Table 1. These are estimated budget amounts and will not be finalized until the bid process as been undertaken and a contractor selected. Therefore, the City requests the right to move funds from one designated task to another as long as the amount stays within the allocated \$300,000 from CWCB.

Table 1: Budget by WSRA Task

Task	Description	Grant Funds	Matching funds	Totals
1	Redrilling, equipping and connecting two wells. (see Table 2 Items 1.1.1 and 1.1.2)	160,000	3,000	163,000
2	Installation of new 6-inch raw water transmission main (see Table 2 Items 1.1.3)	50,000	11,100	61,100
3	Installation of replacement distribution mains (see Table 2 Items 1.5.1, 1.5.5, 1.5.6, 1.5.7, and 1.5.8)	90,000	390,433	480,433
Totals		300,000	404,533	704,533

Table 2: Preliminary Construction Cost Estimates

CITY OF LAS ANIMAS
WATER SYSTEM IMPROVEMENTS
PRELIMINARY CONSTRUCTION COST ESTIMATE

Item	Description	Quantity		Unit Cost	Total Cost
1.1.	Water Supply System				
1.	Complete installation of New Well (New electrical and control equipment)				
a.	Install new well hole, screen, casing, gravel pack, pump and motor, drop pipe, pitless adapter and level sensor.	1	LS	\$42,500	\$42,500
b.	New 6" piping from new well to raw water line at WTP	1	LS	8,000	8,000
c.	Conduit and conductors from WTP to new well	1	LS	10,000	10,000
d.	Plug and abandon existing well	1	LS	3,000	3,000
e.	SCADA control equipment and programming	1	LS	18,000	18,000
2.	Complete installation of New Well (New electrical and control equipment)				
a.	Install new well hole, screen, casing, gravel pack, pump and motor, drop pipe, pitless adapter and level sensor.	1	LS	\$42,500	\$42,500
b.	New 6" piping from new well to new raw water line	1	LS	8,000	8,000
c.	Conduit and conductors from new electrical drop to new well	1	LS	10,000	10,000
d.	Plug and abandon existing well	1	LS	3,000	3,000
e.	SCADA control equipment and programming	1	LS	18,000	18,000
3.	New raw water transmission main for new wells				
a.	New 6" piping from new well @ 5th & Cottonwood Ave	950	LF	20.00	19,000
b.	6" gate valves	3	EA	800	2,400
c.	Connection to existing piping	2	EA	2,000	4,000
d.	Asphalt replacement	850	SY	42	35,700
	Subtotal				\$224,100
1.2.	Water Treatment Plant				
a.	Capacity upgrade equipment including second stage recovery equipment and monitoring and control instrumentation and valves	1	LS	544,000	\$325,000
b.	Equipment Installation	1	LS	18,500	22,000
c.	Piping and valves	1	LS	27,000	15,000
d.	Electrical materials and installation	1	LS	49,500	25,000
e.	WTP and SCADA control equipment and programming	1	LS	45,200	85,000
f.	Skid A replacement membranes	96	EA	950	91,200
	Subtotal				\$563,200
1.3	Distribution Pumping Building and 2.0 MG Storage Tank Upgrades				
a.	Electrical switch to plug a generator into	1	LS	8,000	8,000
	Subtotal				\$8,000
1.4	Other Items				
a.	1-inch service meter and meter pit assembly at City Hall	1	EA	2,200	2,200
b.	2-inch service meter and meter pit assembly to City Parks	5	EA	3,800	19,000
c.	2-inch service meter and meter pit assembly to City Pool	1	EA	3,800	3,800
d.	2-inch service meter and meter pit assembly to bulk water sales station including vault and backflow preventer	1	EA	9,200	9,200
	Subtotal				\$34,200
1.5	Distribution Piping				
1.	From WTP to Columbine Place Elevated Storage tank				
a.	12" piping	2,150	LF	42.00	90,300
b.	12" gate valve & riser box	4	EA	1,500	6,000

c.	Connect to existing pipe	3	EA	2,000	\$6,000
d.	Connect to existing fire hydrant	4	EA	1,500	\$6,000
e.	Connection of service lines	17	EA	375	\$6,375
f.	Service line replacement	595	LF	10	\$5,950
	Subtotal				\$120,625
2.	HDPE directional bore underneath US Highway 50				
a.	4" piping	320	LF	43.00	13,760
b.	6" piping	720	LF	48.00	34,560
c.	8" piping	320	LF	52.00	\$16,640
d.	12" piping	80	LF	60.00	\$4,800
e.	4" gate valve w/ riser box	9	EA	700	\$6,300
f.	6" gate valve w/ riser box	12	EA	800	\$9,600
g.	8" gate valve w/ riser box		EA	1,200	\$3,600
h.	12" gate valve w/ riser box	1	EA	1,500	\$1,500
I.	Asphalt replacement	200	SY	60.00	\$12,000
j.	Sidewalk replacement	840	SF	10.00	\$8,400
	Subtotal				\$111,160
3.	7th Street Grove to Cottonwood				
a.	7th Street Grove to Cottonwood (See other sheet for breakdown)				\$93,717
	Subtotal				\$93,717
4.	Bore & Casing underneath Railroad				
a.	6" carrier with 14" casing - booted and cased	200	LF	350.00	70,000
b.	6" piping - (open excavation with no casing)	740	LF	20.00	14,800
c.	8" carrier with 18" casing	100	LF	400.00	40,000
d.	8" piping - (open excavation with no casing)	640	LF	28.00	17,920
e.	6" gate valve w/ riser box	4	EA	800	\$3,200
f.	8" gate valve w/ riser box	4	EA	1,200	\$4,800
g.	Connect to existing pipe	8	EA	1,500	\$12,000
	Subtotal				\$162,720
5.	Carson Ave from Sixth St to Fifth St				
a.	12" piping	480	LF	42.00	20,160
b.	12" gate valve & riser box	2	EA	1,500	3,000
c.	Connect to existing pipe	2	EA	1,500	\$3,000
d.	Connect to existing fire hydrant	1	EA	1,500	\$1,500
e.	Connection of service lines	20	EA	375	\$7,500
f.	Service line replacement	700	LF	10	\$7,000
g.	New meter pits	10	EA	1,000	\$10,000
h.	New curb stops	10	EA	500	\$5,000
I.	asphalt replacement	110	SY	42.00	\$4,620
j.	Sidewalk replacement	150	SF	10.00	\$1,500
	Subtotal				\$63,280
6.	US Hwy 50 (Bent Avenue)				
a.	8" piping	1,100	LF	28.00	30,800
b.	8" gate valve & riser box	4	EA	1,500	6,000
c.	Connect to existing pipe	1	EA	1,500	\$1,500
d.	Connect to existing fire hydrant	3	EA	1,500	\$4,500
e.	Connection of service lines	40	EA	375	\$15,000
f.	Service line replacement	1,400	LF	10	\$14,000
g.	New meter pits	40	EA	1,000	\$40,000
h.	New curb stops	40	EA	500	\$20,000
I.	asphalt replacement	16	SY	42.00	\$653

j.	Sidewalk replacement	6,180	SF	10.00	\$61,800
	Subtotal				\$194,253
7.	Sixth Street from Carson Ave to U.S. HWY 50				
a.	8" piping	340	LF	28.00	9,520
b.	8" gate valve & riser box	3	EA	1,200	3,600
c.	6" gate valve & riser box	1	EA	800	800
d.	Connect to existing pipe	3	EA	1,500	\$4,500
e.	Connect to existing fire hydrant	1	EA	1,500	\$1,500
f.	Connection of service lines	11	EA	375	\$4,125
g.	Service line replacement	385	LF	10.00	\$3,850
h.	New meter pits	10	EA	1,000	\$10,000
I.	New curb stops	12	EA	500	\$6,000
j.	asphalt replacement	350	SY	42.00	\$14,700
h.	Structural concrete replacement	350	SF	10.00	\$3,500
	Subtotal				\$62,095
8.	Alley between Sixth & Fifth and Carson & US HWY 50				
a.	8" piping	370	LF	28.00	10,360
b.	8" gate valve & riser box	2	EA	1,200	2,400
c.	Connect to existing pipe	-	EA	1,500	\$0
d.	Connect to existing fire hydrant	1	EA	1,500	\$1,500
e.	Connection of service lines	10	EA	375	\$3,750
f.	Service line replacement	300	LF	10.00	\$3,000
g.	New meter pits	10	EA	1,000	\$10,000
h.	New curb stops	10	EA	500	\$5,000
I.	asphalt replacement	85	SY	42.00	\$3,570
j.	Structural concrete replacement	60	SF	10.00	\$600
	Subtotal				\$40,180
	Subtotal preliminary cost				\$1,677,530
	Project contingencies @ 16.5%				276,965
	Engineering design/contract administration				160,690
	Construction observation based on 210 calendar days				117,865
	Other Engineering - see attached list				74,950
	Administrative expenses (Advertising, Legal Council, Bond Council, etc.)				14,000
	Total preliminary construction cost estimate				\$2,322,000

SCHEDULE

The project will be based on a contract period of a 210 calendar days. The start dated will commence after the Notice of Proceed has been provided. The project has yet to bid; therefore, specific dates will be provided once the project has been bid, awarded, and the Notice to Proceed issued. However, the anticipated schedule is as follows:

	<u>COMPLETION DATE</u>
Design approval package	<u>June 2008</u>
Advertisement for bids	<u>July 2008</u>
Award Contracts	<u>August 2008</u>
Start Construction	<u>September 2008</u>
Complete Construction	<u>April 2009</u>

PAYMENT

Payment will be made based on actual expenditures and invoicing by the water activity sponsor. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed.

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation.