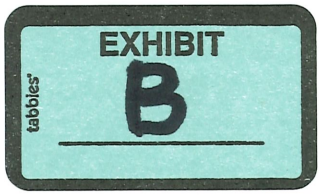

CITY OF WEST MONROE
Louisiana Water Sector Program Round 2 Application

SUMMARY OF ESTIMATED PROJECT COSTS
PROJECT NAME: Water System Capacity and Resiliency Improvements

SUB-PROJECT	DESCRIPTION	CONSTRUCTION	CONTINGENCY	TOTAL PROJECT COST
W-01	Well 12+Treatment+Standpipe	3,135,055	313,505	$ 3,448,560
W-02	Modernize Electrical & Control	242,400	24,240	266,640
W-03	Chlorine Bldg Well 8	17,500	1,750	19,250
W-04	Wiring Generator at Well 7,9	14,800	1,480	16,280
W-05	Redundant Chlorine Systems	106,000	10,600	116,600
W-06	Generator for Well 10	552,000	55,200	607,200
W-07	Pressure Sensors Well 2,6	2,700	270	2,970
W-08	New Chemical Enclosures	34,500	3,450	37,950
W-09	Entrance Drives Wells 5,9	27,600	2,760	30,360
W-10	Entrance Drive Well 11	25,700	2,570	28,270
W-11	Generator for Well 7,9	428,500	42,850	471,350
W-12	Weatherize Components	96,800	9,680	106,480
W-13	Generator for Well 6	276,000	27,600	303,600
W-14	Chlorine Leak Detection	75,200	7,520	82,720
W-15	Fall Prevention Systems	32,000	3,200	35,200
W-16	Install Ladder Gates	27,600	2,760	30,360
W-17	Site Security	226,400	22,640	249,040
W-18	Tank Mixer Elevated Tank 1	46,000	4,600	50,600
W-19	Pressure Monitoring System	150,000	15,000	165,000
	TOTALS	$ 5,516,755	$ 551,675	$ 6,068,430

NOTE: The City of West Monroe will pay Legal/Fiscal, Engineering, Surveying, Inspection, and Land Acquisition costs. These items are not included in loan request.

CITY OF WEST MONROE WATER SYSTEM

CAPACITY AND RESILIENCY IMPROVEMENTS SUB-PROJECTS

THESE PROJECTS WERE DEVELOPED FROM THE RESULTS OF RESILIENCY/RISK ASSESSMENT (RRA) CERTIFIED BY EPA ON JUNE 30, 2021.

PROJECT NO. W–01

PROJECT NAME: New Water Well 12+Treatment+Standpipe

CONSIDERATIONS:

1. Low pressure in service area south of I-20.
2. Difficulty with filling of elevated tank #1.
3. Need to improve water quality relative to chlorination process.
4. Need to comply with existing THM violations contained in LDHH Administrative Order.

NEEDED ACTION:

Construct a new deep water well to provide additional source of potable water and provide treatment – this increases resiliency of the entire storage, treatment, and distribution system.

PROJECT NO. W-02

PROJECT NAME: Modernize Electrical & Control

CONSIDERATIONS:

1. Well # 2 is not able to operate online. Problem with controls.
2. Difficulty with automatic filling of 3 ground storage tanks at well sites 2 & 5.
3. Need to improve water quality by reducing age of stored water.
4. Booster pump control not operating automatically with system pressure.

NEEDED ACTION:

Replace obsolete electrical components and revise pump control system for Well 2, 5, 6, and 9. This project increases resiliency of continued well operation.

PROJECT NO. W-03

PROJECT NAME: Chlorine Bldg Well 8

CONSIDERATIONS:

1. The existing chlorination building is structurally inadequate due to age.
2. This building is used for cylinder storage and chlorination system components.
3. The existing building contains insufficient safety components and alarms.
4. Booster pump control not operating automatically with system pressure.

NEEDED ACTION:

Construct a new wooden building to satisfy the considerations listed above as identified in the RRA.

PROJECT NO. W-04

PROJECT NAME: Wiring of Generator at Well 7, 9

CONSIDERATIONS:

1. The existing generator is not in service and will be replaced under Project W0-11.
2. This site contains two (2) water wells, however, the older generator is not capable of serving both wells simultaneously.
3. The new generator will allow both wells to operate together when needed.
4. New electrical components need to be configured to allow simultaneous operation.

NEEDED ACTION:

Each well needs to be rewired with new electrical components when the new generator is installed. This allowance to simultaneous operation will increase the resiliency of this well site.

PROJECT NO. W-05

PROJECT NAME: Redundant Chlorine Systems

CONSIDERATIONS:

1. The existing chlorination systems contain no backup.
2. The chlorination systems are essential to protect the stored & distributed water.
3. Several chlorination systems' pumps and smaller tubing suffered from severe weather episodes which produced health hazards as indicated in the RRA.

NEEDED ACTION:

Install backup chlorination system to increase resiliency for continued disinfection of potable water.

PROJECT NO. W-06

PROJECT NAME: Generator for Well 10

CONSIDERATIONS:

1. Well 10 is provided with emergency power only from a mobile generator which does not have the load capacity required for this site and needs to be upgraded to a permanent site generator.
2. This site is not in compliance with State Sanitary Code.
3. This well site includes treatment processes and is essential to provide proper quality of potable water to customers.

NEEDED ACTION:

Purchase and install a properly sized generator and automatic transfer switch to increase the source-water resiliency.

PROJECT NO. W-07

PROJECT NAME: Pressure Sensors Wells 2, 6

CONSIDERATIONS:

1. The existing pressure sensors are aged and in–operatable.
2. To facilitate proper operation of the well and booster pumps, new sensors are needed.
3. To allow interim operation of these pressure controls until new controls are installed, replacement of sensors will facilitate continued operation of the wells.

NEEDED ACTION:

Purchase and install these two (2) sensors to facilitate proper operation.

PROJECT NO. W-08

PROJECT NAME: New Chemical Enclosures

CONSIDERATIONS:

1. The existing enclosures at several sites are damaged from past weather episodes.
2. To facilitate proper operation of injection systems need sufficient protection.
3. To provide adequate security of chemical injection systems and protection of injection system from weather, these older enclosures need upgrading.

NEEDED ACTION:

Purchase and install these protective enclosures. This item detected in RRA.

PROJECT NO. W-09

PROJECT NAME: Entrance Drives for Wells 5, 9

CONSIDERATIONS:

1. The existing entrances are not in compliance with State Sanitary Code.
2. To facilitate entrance to sites during all-weather conditions.
3. Allowance for entrance of operators, maintenance personnel and suppliers is inadequate.

NEEDED ACTION:

Purchase and install these two (2) sensors to facilitate proper operation.

PROJECT NO. W-10

PROJECT NAME: Entrance Drive Well 11

CONSIDERATIONS:

1. The existing present entry to this new well site is inadequate.
2. This site does not comply with State Sanitary Code.

NEEDED ACTION:

Construct DHH approves all-weather entrance drive.

PROJECT NO. W-11

PROJECT NAME: Generator for Well 7, 9

CONSIDERATIONS:

1. The existing general is aged and in-operatable.
2. To facilitate proper operation of the well and booster pumps, new sensors are needed.
3. The older generator is undersized for emergency power source for this site.

NEEDED ACTION:

Purchase and install a new, properly sized generator and well pumps re-wired as stated under Project W-04.

PROJECT NO. W-12

PROJECT NAME: Weatherize Components

CONSIDERATIONS:

1. Some sites as identified in RRA have deteriorated insulation.
2. To facilitate proper protection of smaller tubing from freezing weather events.
3. Some well discharge assemblies are inadequate.

NEEDED ACTION:

Have proper insulation installed and, where needed, better automatic heater placed in chemical injection enclosures.

PROJECT NO. W-13

PROJECT NAME: Generator for Well 6

CONSIDERATIONS:

1. The existing generator is obsolete and is gas operated.
2. The local hospital is dependent on this well site – especially during power outages.
3. Need to change to diesel powered generator in lieu of gas.

NEEDED ACTION:

Purchase and install a new permanent generator with automatic transfer switch,

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RISK REDUCTION:

PROJECT NO. W-14

PROJECT NAME: Chlorine Leak Detection

CONSIDERATIONS:

1. None of the existing chlorine storage units include adequate detection/alarm systems to safeguard operators or neighbor customers.
2. No safety for suppliers.

NEEDED ACTION:

Purchase and install OSHA approved detection and alarm monitoring system.

PROJECT NO. W-15

PROJECT NAME: Fall Prevention Systems

CONSIDERATIONS:

1. Several ground storage tanks have inadequate fall prevention mechanisms.
2. Elevated Tank #1 has improper fall prevention device.

NEEDED ACTION:

Purchase and install OSHA approved fall prevention devices.

PROJECT NO. W-16

PROJECT NAME: Install Ladder Gates

CONSIDERATIONS:

1. The existing water storage tanks have inadequate devices for unauthorized entry to the ladders.
2. To facilitate proper prevention of security for potential contamination.

NEEDED ACTION:

Purchase and install OSHA approved ladder gates to assure only operator and contractors have access to tank top and tank openings.

PROJECT NO. W-17

PROJECT NAME: Site Security

CONSIDERATIONS:

1. The existing well and tank sites have inadequate site lighting.
2. To facilitate proper operation, maintenance, repairs, and observation and security
3. Need to increase prevention from nighttime accidents.

NEEDED ACTION:

Purchase and install area lighting. In critical sites, these lights may also be installed by sensors for additional security.

PROJECT NO. W-18

PROJECT NAME: Tank Mixer Elevated Tank 1

CONSIDERATIONS:

1. Some of the water storage tanks suffer from excessive water age – especially Elevated tank #1 as indicated in the RRA.
2. Needed to improve water quality.

NEEDED ACTION:

Purchase and install recycle pump to transfer fresh water from the lower volume and discharge into the top volume.

PROJECT NO. W-19

PROJECT NAME: Pressure Monitoring System

CONSIDERATIONS:

1. The only points currently monitored for system pressure are located at well/tank sites.
2. For variations of distribution pressure, no monitoring sites are installed.
3. No monitor (SCADA) and recording of system pressure exist.
4. No history of distribution pressure is available.
5. No distribution pressure available to help determine pipeline problems during locations and timeframes in real-time.

NEEDED ACTION:

Purchase and install pressures in certain zones within the system, approximately 10 locations.