



**City of
Marine City**

DWSRF 2024 Project

COUNCIL MEETING


November 2, 2023

PROJECT SCOPE - WATER SYSTEM IMPROVEMENTS

- **Watermain Replacement and Looping**
- **Water Storage Tower Upgrades**
- **Lead Water Service Line Replacements**
- **Water Treatment Plant Upgrades**
- **SCADA Controls**
 - **Supervisory Control And Data Acquisition**
 - **Ability to Monitor and Control Remotely**



ESTIMATED PROJECT COST

City of Marine City	
DWSRF Water System Improvements	
5/9/2023	
Engineer's Cost Opinion	
Project Summary	
Description	Totals
WM Replacement - 2"-6" Upsized to 8" - Attached Table 1 - 27,750 feet	\$ 10,475,000.00
WM Replacement - 12" - Table 2 - Attached Table 2 - 10,150 feet	\$ 4,060,000.00
Lead Service lines - 330 Services	\$ 3,276,000.00
Water Treatment Plant (WTP) Misc Upgrades & Appurtenances	\$ 1,240,000.00
WTP - Replace Corroded Piping	\$ 500,000.00
WTP - Filter Media Replacement and Filter Rehabilitation	\$ 350,000.00
WTP - Lift Pump and Control Replacement	\$ 300,000.00
WTP - Clean and Coat Water Reservoir	\$ 250,000.00
WTP - Add Rapid Mixer & Modify Alum Feed System	\$ 150,000.00
WTP - Treatment Facility Structural Repairs	\$ 75,000.00
WTP - SCADA System Improvements	\$ 80,000.00
Water Tower Improvements Including Mixing	\$ 100,000.00
Contingency	\$ 810,000.00
Construction Cost Subtotal	\$ 21,666,000.00
Engineering & Legal	\$ 4,334,000.00
Project Cost Estimate	\$ 26,000,000.00

PROJECT SCORING & FINANCING

The City ranked 27 out of 203 with 90 points and received \$26 million in grants and loans. The State awarded a total of \$720 mil in grant, loans and BIL dollars to 60 communities.

As an Overburdened Community this provided funding in the form of a 50% Grant and a Low Interest Loan of 2% over 40 years.

Funding breakdown:

▪ ARPA Grant	\$11,394,760
▪ BIL LSLR Principal Forgiveness (Grant) -	<u>\$ 1,605,240</u>
▪ Total Grant Amount =	\$13,000,000
▪ BIL LSLR Loan -	\$ 1,670,760
▪ DWSRF Loan -	<u>\$11,329,240</u>
▪ Total Loan Amount =	\$13,000,000
▪ Monthly payment based on 2,650 Equivalent REU's =	\$ 14.94

DWSRF Interest Rate Advantage – USDA and Bonds 3.125% – 3.875% = as much as \$20.25/mnth

PROJECT SCHEDULE

- The proposed project is expected to be on track for Quarter 4 of 2024

Milestone	Date
Design/Engineering Start	November 2023
Environmental Assessment Published	April 2024
Design/Engineering Completion	May 2024
Part I and Part II Application Due	May 2024
Bid Advertisement	May 2024
Part III application Due	July 2024
EGLE Order of Approval Issued	August 2024
MFA Closing	August 2024
Begin Construction	April 2025
Construction Completion	August 2026

Dates may alter with final EGLE requirements

DESIGN COMPONENTS - WATERMAIN REPLACEMENTS & WATER TOWER UPGRADES

- Watermain installed within paved areas
 - Approximately 37,900 feet of 8" & 12" mains replacing 4" and 6" mains
 - Looping to eliminate dead ends
- Lead Service Line Replacement
 - From new watermain to inside structures
- Other associated components with watermain replacement
 - Pavement, sidewalk, curb and gutter replacements, and lawn restoration
- Water tower improvements
 - Mixing equipment
 - Drain inlet and splash plate at overflow

CAPITAL IMPROVEMENT PLAN – WATER MAIN PRIORITY LISTS

City of Marine City Water Main Replacement Plan Summary							
Table 1 - Water Main Replacement 8" - DWSRF Priority List 2023-24							
Street Name	Water Main Size and to Replace	Installation Date	Condition Rating	POF	COF	Criticality Rating	Feet to be Replaced
Fifth Street	2" to 8"	1949	3	3	3	9	616
Hanover	2" to 8"	1970	3	3	3	9	275
Lowell Street	2" to 8"	1970	3	3	3	9	242
N. Market (Westminster to Main)	2" to 8"	1949	2	3	3	9	488
Bell Street (West of S. Parker)	2" to 8"	1987	2	3	2	6	400
Harold Street	4" to 8"	1949	2	3	2	6	582
Washington (S. William to S. Mary)	2" to 8"	2012	2	3	2	6	274
S. Third	4" to 8"	1949	2	3	2	6	2957
Hill Street	6" to 8"	1978	2	3	2	6	887
N William (Maple North)	2" to 8"	1960	2	3	2	6	467
S. Mary	4" to 8"	1949	2	3	2	6	1522
East St. Clair (William to Mary)	4" to 8"	1949	2	3	2	6	400
N Mary (Broadway to Holland)	4" to 8"	1948	2	3	2	6	1370
Holland (N. Elizabeth to N. Mary)	6" to 8"	1949	2	3	2	6	933
S. Main (Bridge to S. Water)	2" to 8"	1949	2	3	2	6	1000
N. Parker	4" to 8"	1949	2	3	2	6	920
Jefferson (S. Main to Belle River)	6" to 8"	1947	2	3	2	6	1002
Pleasant	4" to 8"	1949	2	3	2	6	898
W Blvd (M-29 to King)	4" & 6" to 8"	1949	3	3	2	6	2416
W Blvd (M-29 to Belle River)	4" to 8"	1949	2	3	2	6	948
Woodworth (S. Mary to M-29)	4" to 8"	1949	3	3	2	6	750
S. Elizabeth	6" to 8"	1949	2	3	2	6	2208
Alger Street	4" to 8"	1949	2	3	2	6	939
N. Third	4" to 8"	1949	2	3	2	6	1196
S. Belle River (Chartier to Alger)	4" to 8"	1949	2	3	2	6	1299
Butler	4" to 8"	1949	2	3	2	6	626
Sixth	4" to 8"	1949	2	3	2	6	612
Total							26227

City of Marine City Water Main Replacement Plan Summary							
Table 2 - Water Main Replacement 12" - DWSRF Priority List 2023-24							
Street Name	Water Main Size and to Replace.	Installation Date	Condition rating	POF	COF	Criticality Rating	Feet to be Replaced
Washington (S. Water to Market)	10" to 12"	1937	3	4	3	12	262
S. Market (Washington to Union)	10" to 12"	1949	3	4	3	12	764
Cottrell Street	10" to 12"	1938	3	3	3	9	838
S. Water (Water Plant to Jefferson)	12" to 12"	1939	2	3	3	9	500
Jefferson (S. Main to S. Water)	12" to 12"	1948	2	3	3	9	810
Westminster	8" to 12"	1938	3	3	3	9	2062
N. Market (Broadway to Westminster)	8" to 12"	1949	2	3	2	6	907
S Water (Broadway to Bridge)	6" to 12"	1945	2	3	2	6	2143
Holland (M-29 to N. Elizabeth)	12" to 12"	1947	2	3	2	6	307
S. Main (Jefferson to Union)	6" to 12"	1949	2	3	2	6	1555
Total							10148



EXISTING PAVEMENT CONDITIONS



Jefferson & Elizabeth



**Main St. between
Union & St Clair**



S Main St., South of Bridge St.

DESIGN COMPONENTS – WATER TREATMENT PLANT AND SYSTEM UPGRADES

Required improvements based upon EGLE Administrative Consent Order (ACO)

- Structural repairs
- Replace corroded piping
- Filter media replacement
- New lift pumps & controls
- Clean and recoat reservoir
- New rapid mixer
- New SCADA System controls



BENEFITS & POSITIVE IMPACTS

- **Water system reliability**
- **Reduction in maintenance** →
- **Elimination of lead service lines**
- **Increased water pressure**
- **Safe, high quality drinking water**

**Watermain
Break 2023**





Questions?

**Thank You |
Marine City!**

