



Drinking Water Facility Plan

Drinking Water Facility Plan

- ▶ 20-year planning document that includes:
 - Growth, Flow Projections and Resiliency
 - PROJECT 1 - Membrane Water Treatment Facility Upgrades
 - Plant Capacity and Growth Evaluation
 - Water Source & Treatment Plant Improvements
 - PROJECT 2 - Distribution & Storage Upgrades
 - New up to 1MG Elevated Storage Tank
 - Distribution System Improvements
 - Valve Exercising & Replacement Program
 - PROJECT 3 - Water Meter Replacements
 - SAHFI Funding Justification for Projects 1 & 2



PROJECT 1 - Source Water & Treatment Plant Upgrades



Project Need:

The existing treatment plant has insufficient capacity to treat the projected future drinking water demand while maintaining redundant backup capacity for emergencies

Alternatives:

- A. **Expand RO Skid & Replace Existing RO Membranes**
- B. New Larger RO Skid
- C. Replace RO Skid with Ultrafiltration Skid

Selected Alt. Capital Cost:

\$4,190,000

Environmental Impact:

- No known permanent negative impacts are associated with the selected alternative.

Scope of Work:

- Replace backup generators and ATSs at source water wells
- Purchase a portable genset for providing additional backup power for wells
- Replace membranes on existing RO skids
- Expand existing RO skids from 0.75 to 1.125 MGD capacity
- Replace clearwell, concentrate pumps, and high service pumps
- Add propane powered backup pumps – one high service + one clearwell
- Replace chemical system canopy with climate controlled chemical building
- Replace chem. feed and storage with larger capacity pumps and storage
- Purchase critical shelf spares for difficult to obtain parts with long lead times
- Upgrade camera system to allow for remote monitoring
- Controls and electrical improvements to provide greater level of protection against lightning strikes and FPL power surges
- Upgrade SCADA to incorporate plant upgrades

Cost to the Rate Payer:

- Project is scheduled for SAHFI Grant funding. Current rates are sufficient to cover any additional projected debt service for this project per Utility Rate Structure adopted on October 10, 2024.

PROJECT 2 - Distribution System & Storage Upgrades



Project Need:

The City's total storage volume is insufficient to meet Florida code requirements with projected future demands. Distribution piping lacks redundancy and operability due to dead ends and faulty valves

Alternatives:

- A. Concrete Ground Storage Tank & Pump Station and Distribution Upgrades
- B. **Pedosphere Elevated Storage Tank and Distribution Upgrades**
- C. Fluted Column Elevated Storage Tank and Distribution Upgrades

Selected Alt. Capital Cost:

\$26,206,000

Scope of Work:

- Up to 1 MG elevated storage tank adjacent to source water wells
- Helms Rd/SR80 New Pipe Loop for pressure improvements
- Zone B New Pipe Installation replace 2" galvanized pipe
- New backup gensets at source water wells will incorporate backup power supply for equipment associated with new elevated storage tank
- Pressure surge/water hammer prevention equipment on downstream side of high service pumps for protection of distribution system
- Replacement of undersized hydrants or hydrants at end of useful life
- Replacement of failed isolation gate valves in water distribution network
- Water main improvements to replace undersized pipes that are limiting distribution during fire flow events and to eliminate some of the significant system dead ends

Cost to the Rate Payer:

- Project is scheduled for SAHFI Grant funding. Current rates are sufficient to cover any additional projected debt service for this project per Utility Rate Structure adopted on October 10, 2024. |

Environmental Impact:

- No known permanent negative impacts are associated with the selected alternative.

PROJECT 3 – Water Meter Replacements



Project Need:

Failing large-diameter service meters for commercial customers and failing meters at well sources, likely contributing to missed billing and system revenues

Alternatives:

- A. **Replace Commercial & Production Meters & AMI Endpoints**
- B. Replace All Commercial & Production Meters, Replace Old AMI Endpoints
- C. Keep Existing Metering In Place (No Action)

Selected Alt. Capital Cost:

\$262,000

Scope of Work:

- Replace the City's commercial service and production meters 1 ½ inch and larger
- Replace the AMI endpoints at each meter at the same time.
- Includes up to 100 commercial service meters with their AMI endpoints and 4 production meters.

Cost to the Rate Payer:

- Current rates are sufficient to cover the projected debt service for this project per Utility Rate Structure adopted on October 10, 2024. |

Environmental Impact:

- No known permanent negative impacts are associated with the selected alternative.

Drinking Water Improvements Cost Estimates

Table ES-1-1: Selected Plan Proposed Costs

| Selected Alternatives Opinion of Probable Capital Cost | | | |
|---|---|---|--|
| | Project 1 – Source & Treatment Upgrades | Project 2 – Distribution and Storage Upgrades | Project 3 – Large Commercial Service and Production Meter Upgrades |
| Construction Base Cost (2024) | \$2,794,000 | \$17,473,000 | \$185,000 |
| Construction Contingency 10% | \$279,000 | \$1,747,000 | \$19,000 |
| Engineering, Permitting and Design 10% | \$279,000 | \$1,747,000 | \$19,000 |
| Engineering Services During Construction 8% | \$224,000 | \$1,398,000 | \$0 |
| Fiscal, Legal and Administration 3% | \$84,000 | \$524,000 | \$6,000 |
| Land Acquisition | \$0 | \$100,000 | \$0 |
| Construction Escalation to mid-point of construction (end of 2026 7%) | \$530,000 | \$3,217,000 | \$33,000 |
| Total Opinion of Capital Costs | \$4,190,000 | \$26,206,000 | \$262,000 |

Total Allocated SAHFI Funding = \$19,500,000

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City Commission Discussion

Public Comment

Consideration of Resolution

Thank you! Questions?

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