



Grand Rapids, Minnesota Water Treatment Plant Planning for Improvements

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Water Treatment Plant Improvements

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Today's Topics & Key Goals

- Infrastructure Summary
- Funding Readiness and Options
- Next Steps

Infrastructure Background

- WTP construction in 1988
 - Serves Grand Rapids and LaPrairie
- Current Population Served: ~11,824
- Projected 2045 Population: ~16,077
- Current Average Demand: ~1.1 MGD
- Projected 2045 Demand: ~1.5 MGD

Infrastructure Assessment

- Wells
 - 5 groundwater wells
- Aeration
 - Removes gases and odors
 - Increases pH
 - Poor Condition
- Gravity Filters
 - Bottleneck hydraulics in plant
 - Original underdrains
 - Risk of failure (impacts water quality)
- Ion Exchange Softeners
 - Soften water to meet additional water quality goals
 - Resin is aged - short runs
- Chemical Feed
 - Chloramines provide disinfection
 - Fluoride (state required)
 - Soda ash (pH adjustment)
 - Permanganate (iron and manganese removal)
- Pumps and Electrical
 - Failing pumps
 - Outdated Controls

Project Alternative

Option	Pros	Cons
1. Proceed with Full Project (Bid January 2027)	Provides all necessary improvements for plant	Cost
2. Phase Project (Bid by July 2027)	Provides improvements for select critical processes	Future work still required Future phasing may be difficult
3. Delay Full Project for Funding (Bid July 2027)	Provides all necessary improvements	No guarantees additional funding will be received Inflation costs



Project Budgets

Grand Rapids WTP Improvements Cost Estimate - Full Project		
Item		Cost
General Conditions/Mobilization	10%	\$920,000
Chemical Feed and Lift Station		\$1,730,000
Filters		\$1,480,000
Pumps & Electrical Rom Addition		\$1,035,000
Softeners		\$730,000
Aerator		\$825,000
Building and Site Improvements		\$781,000
Piping/Valves		\$382,500
Plumbing HVAC		\$682,800
Electrical		\$1,549,250
Subtotal		\$10,115,550
Contingency	20%	\$2,020,000
Total Construction Cost		\$12,135,550
Design		\$980,000
Construction Administration	10%	\$1,215,000
Total Project Cost		\$14,330,000

Grand Rapids WTP Revised Phase 1 Summary		
Item		Cost
General Conditions/Mobilization	10%	\$540,000
Filter Work		\$1,480,000
Plumbing and Lift Station		\$875,000
Pump Replacements		\$965,000
Electrical Room Addition		\$170,000
Electrical and Controls		\$1,610,000
Piping & Valves		\$185,000
HVAC	2%	\$100,000
Subtotal		\$5,925,000
Contingency	15%	\$890,000
Total Construction Cost		\$6,815,000
Design		\$980,000
Construction Administration	10%	\$680,000
Total Project Cost		\$8,475,000

Funding Strategies

State Revolving
Fund Loans

Water Infrastructure
Affordability Grants

Small Cities
Development
Program

Assessments

Bonding

Appropriations

- Current SPAP Grant Secured = \$2.5M
 - Must have bid project and contract with PFA by end of 2027
- Funding levels depend on affordability metrics, bid prices, and program awards

Review of Model and Progress



Next Steps

- GRPU to decide which route to proceed with:

Option
1. Phase Project (Bid by July 2027)
2. Delay Full Project for Funding (Bid July 2027 – If no funding, could still phase project at this point)



Questions/Discussion

Grand Rapids, Minnesota

Water Treatment Plant Improvements

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