

WASTEWATER TREATMENT PLANT UPGRADE PROJECT

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Outline

- Background, Purpose and Need
- Scope
- Cost
- Funding
- Project Next Steps



Background, Purpose and Need

- Wastewater Treatment Plant (WWTP)
 - Dates back to 1925 with major improvements made in the 1950's and early 2000's.
 - Many major components reaching their end of life.
 - Design capacity of 3.6 Million Gallons per Day (MGD); current average flow of 2.1 MGD.
 - Treats to secondary, undisinfected standards (minimal uses; no coliform requirement)
- The Wastewater Treatment Plant Upgrade Project ("Project") would result in Title 22 Recycled Water (disinfected tertiary water).



Background, Purpose and Need

- The Project would:
 - Comply with upcoming discharge standards related to Nitrate as described in the WWTP discharge permit (Board Order R7-2016-0015).
 - Current Nitrate concentration is 29 mg-N/L
 - EPA Max. Contaminant Level standard is 10 mg-N/L
 - Construct a Master Planned facility identified in the City's Integrated Master Plan for Water, Wastewater and Recycled Water
 - Provide for a source of recycled water leading to a diverse water portfolio to meet the City's current and future water demands
 - Local groundwater safe yield
 - Imported Water
 - Recycled Water



Scope of Work

- 3.6 MGD Membrane Bioreactor (MBR) Facility
- Reverse Osmosis (RO) facility to meet the Beaumont Basin Maximum Benefit Objectives:
 - Total Dissolved Solids (TDS): 330 mg/L
 - Nitrate: 5 mg-N/L
- Brine drying beds and evaporators
- Replacement of existing mechanical components



Project Costs

- 2022 Water/Wastewater Rate Study
 - Project budget of \$45,825,000 (Design/Construction)
 - Based on 2020 Nitrogen Removal Feasibility Study (approx. \$35M)
 - \$25,000,000 in debt financing
- Preliminary Engineering estimate indicates project costs around \$76.3M.
- Current solicitation has included a design-to-budget approach for a \$60M budget.



Funding Sources

Cash Balances

- Fund 660 (Water Operations): \$25,400,000
 - Allocated to Project: \$4,500,000
- Fund 661 (Water Improvement Fund): \$3,235,000
 - Allocated to Project: \$1,000,000
- Fund 680 (Wastewater Operations): \$5,795,000
 - Allocated to Project: \$3,000,000
- Fund 681 (Wastewater Improvement Fund): \$10,875,000
 - Allocated to Project: \$6,500,000
- Fund 682 (Tertiary Fund): \$8,001,000
 - Allocated to Project: \$8,000,000
- Fund 683 (BUA Wastewater Bond): \$2,500,000
 - Allocated to Project: \$2,500,000

**TOTAL
ALLOCATED TO
PROJECT:
\$25,500,000**

**FUNDING
SHORTFALL:
\$34,500,000**



Finance Options

- Revenue Bonds
 - Straight forward
 - Competitive interest rates
- i-Bank Infrastructure State Revolving Fund (ISRF)
 - 3-6 months to close
 - Will qualify for .45% point discount (DAC, MHI, Unemployment)
- Water Infrastructure Finance and Innovation Act (WIFIA)
 - 15-16 months to close
 - Payments can be deferred up to 5 years
 - Application Fee: \$100,000
- State Revolving Fund
 - Great interest rates
 - Funds up to 35% of construction estimates
 - 12-14 months
 - Several application packages
 - Program is underfunded

**Financing needed for
construction phase
FY 2026/2027**



Grants

- Bureau of Reclamation WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects (2 Rounds)
 - Funds up to 25% (\$30M Max.) of total project costs.
 - City submitted for Round 1, but was unsuccessful
 - City is preparing to submit for Round 2. Applications due 9/30/24.
 - Awards announced in February, 2025.
 - City could receive \$15M for a \$60M project.



Next Steps

- Do Nothing (Shelve Project)
 - Not recommended
 - Project needs: regulatory compliance, replace aging assets, diversify water supply portfolio, continued increase in costs
- Continue with Project (Progressive Design Build)
 - Solicit proposal for Phase 1 (Design)
 - Estimated cost \$4.5M - \$6.0M (In approved budget)
 - Design-to-Budget (\$60M Budget)
 - Phase 2 (Construction)
 - Option 1: Scope project to originally budgeted amount (\$40M)
 - Descoped items (e.g. RO, MBR size) could be funded by future rate adjustments
 - Option 2: Scope to \$55-\$60M if Title XVI Round 2 funds awarded



Discussion and Questions

