



City of Grand Island

Tuesday, July 19, 2022

Study Session

Item -3

Wastewater Treatment Plant FY23 Budget Presentation

Staff Contact: Keith Kurz PE, Interim Public Works Director

2023 Wastewater Budget



Matt Walker, PE
Assistant Public Works Director- Wastewater

Enterprise Fund


- Process wastewater generated by community residents, businesses and industries
- Meet state and national requirements
- Rely strictly on revenue for funding
- Average residential bill for 2021 was \$31.95, below the \$55.77 average for similar cities*

*AWWA 2019 WATER AND WASTEWATER NATIONAL RATE SURVEY, AVG POPULATION 53,000

Wastewater Overview

Collection, Treatment, & Disposal of Wastewater


Collections

-  Maintain & Rehabilitate City Infrastructure


Maintenance

-  Buildings, Equip., Grounds, & Lift Stations

Operations

-  Responsible for Treatment of Wastewater

Regulatory Compliance

-  Laboratory, Permitting, & Stormwater



FY 2022 Capital Projects

Project	2022 Budget	2022 Forecast
SS Capital Outlay	\$ -	\$ 5,400
Building 2 Renovation (Admin/Lab)	\$ 500,000	\$ 670,000
Clarifier Rehabilitation	\$ 186,000	\$ 360,000
Diffuser Replacement	\$ 50,000	\$ 26,000
WWTP Drive/Gate/ R & R Pavement	\$ -	\$ 136,879
Facility Security	\$ 50,000	\$ 50,000
Flow Improvements	\$ 3,430,000	\$ 450,000
UV System UPgrade	\$ 39,000	\$ 50,900
SS Capital Outlay	\$ -	\$ 35,150
Sewer Rehabilitation	\$ -	\$ 400,000
Central NE Regional Airport Sanitary Sewer Rehab	\$ 5,370,000	\$ 4,500,000
SS Dist 544; Ellington & Westwood Park Subs	\$ -	\$ 6,649
Collection System Breaks	\$ 70,000	\$ 13,058
Relocate Lift Station No. 17	\$ 1,425,000	\$ 265,000
Lift Station No. 28 Equalization Tanks	\$ 600,000	\$ 285,000
Lift Station No. 1 Rehabilitation	\$ 300,000	\$ 370,000
2022 Sanitary Sewer Rehab; 2022-S-1	\$ 90,000	\$ 350,000
Flow Monitoring	\$ 85,000	\$ 63,000
	12,195,000.00	8,037,035

Proposed Capital Projects for 2022/2023

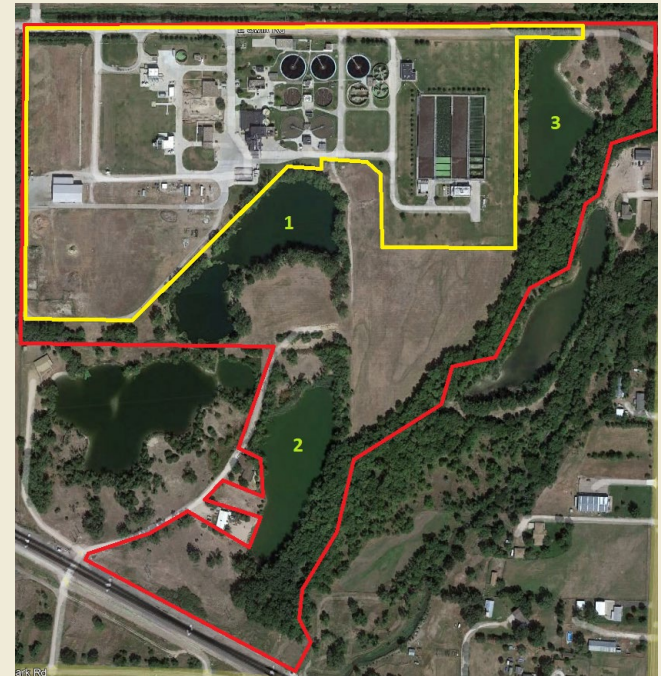
- WWTP Security Improvements
- WWTP Flow Improvements
- UV System Upgrade
- Central NE Regional Airport Collection System Rehabilitation
- Lift Station 1 Rehabilitation
- Lift Station 17 Relocation
- Lift Station 28 Equalization Tank
- North Central Sanitary Sewer Rehabilitation
- Grant-funded Assessment Districts
- Veterans Legacy



WWTP Security Improvements

\$50,000

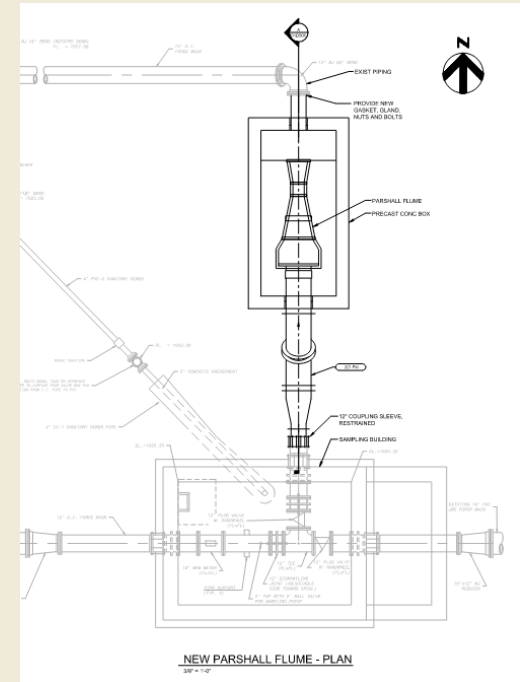
- Dissuade intrusion & protect assets
 - History of theft
 - Fishing is problematic
- Add cameras, fencing, & vegetation
 - 90 acres total; 42 fenced
 - 25 buildings & three large ponds



WWTP Flow Improvements

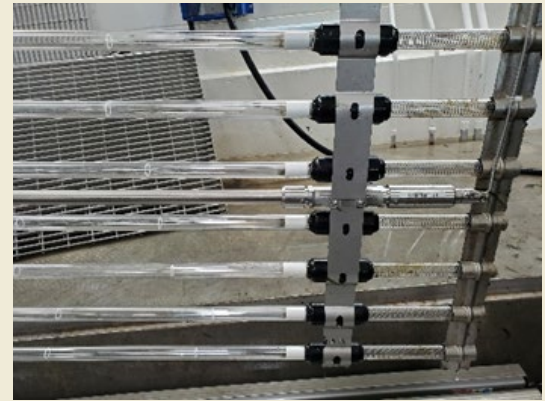
\$8,765,000

- Changes to plant piping & structures
- Improves flow measurement & distribution
- Enhances process control & validation
- Prepares Wastewater Division for anticipated regulatory changes



UV System Upgrade \$60,000

- 🌊 Ultraviolet light used for seasonal disinfection
- 🌊 Project replaces aging wiper systems
- 🌊 Replaces 1 of 4 banks of wipers each year



Central NE Regional Airport Collection System Rehab \$2,300,000 / \$7,000,000

- Construction of collection system near the airport
- Inter-local agreement with CNRA and County
- American Rescue Plan Act (ARPA) funds
- Currently under construction



Lift Station 1 Rehabilitation

\$50,000 / \$420,000

- 🌊 Demolish majority of building at Memorial Park
- 🌊 Rehab LS #1 portion of building
- 🌊 New roof and brick work
- 🌊 Smaller footprint
- 🌊 Better security



Lift Station No. 17 Relocation

\$1,550,000 / \$1,815,000

- Built in 1970
- Exceeded useful life
- Anticipated growth makes further upgrades impractical
- Located on S. Locust near Hwy 34



Lift Station 28 Equalization Tank

\$2,175,000 / \$3,000,000

- South Interceptor is at maximum capacity during storm surge
- Buffering tank will mitigate surge flows
- Will delay South Interceptor construction until later date (est. 2037)
- Tank will be adjacent to LS #28 which is near intersection of Highways 34 and 281
- Improve fencing, landscaping & add sidewalk



North Central Sanitary Sewer Rehabilitation; 2022-S-1

\$675,000 / \$1,025,000

- CIPP lining ~15,000 ft. of collection lines
 - Areas along 4th Street, Broadwell Ave, College St
- Manhole lining and repairs included



Grant-funded Assessment Districts

\$150,000 / \$1,650,000

- Using CRA Redevelopment and CDBG Funding
- Building sewer in low-income areas currently served by septic tanks
- Engineering to start in FY23, Construction tentatively FY24
- Project contingent upon funding

Veterans Legacy

\$30,000 / \$400,000

- Sewer Main from Capital Avenue to Highway 2 per preliminary plat
- Dependent on funding from other sources
- Coincides with other infrastructure improvements – paving, drainage, and water service
- Construction TBD



2023 Capital Improvement Projects

WWTP Security Improvements	\$ 50,000
WWTP Flow Improvements	\$ 8,765,000
UV System Upgrade	\$ 60,000
Central NE Regional Airport Collection System Rehab	\$ 2,300,000
Lift Station No. 1 Rehabilitation	\$ 50,000
Lift Station No. 17 Relocation	\$ 1,550,000
Lift Station No. 28 Equalization Tank	\$ 2,175,000
North Central Sanitary Sewer Rehab; 2022-S-1	\$ 675,000
Grant Funded Assessment Districts	\$ 150,000
Veterans Legacy	\$ 30,000
	\$ 15,805,000

2023 Budget

Projected 2022 Ending Cash Balance	\$ 13,935,108
Revenue	\$ 16,317,000
Other Funding Sources	\$ 30,000
S Interceptor Restricted Fund Release	\$ 2,800,000
Total Revenue	\$ 33,082,108
Operating Costs	\$ 9,689,319
Loan/Bond Payments	\$ 4,167,809
Capital Expenses	\$ 16,252,500
Total Expenditures	\$ 30,109,628
Ending Cash Balance	\$ 2,972,480

***With the Lift Station No. 28 Equalization Tanks aiding in the relief on the South Interceptor a portion of the funds that have been restricted are being released to fund this project*

2023 Project Future Expenses

<i>Project</i>	<i>2023</i>	<i>2024</i>	<i>2025</i>	<i>2026</i>
WWTP Facility Security	\$ 50,000	\$ -	\$ -	\$ -
WWTP Flow Improvements	\$ 8,765,000	\$ -	\$ -	\$ -
UV System Upgrade	\$ 60,000	\$ 60,000	\$ 500,000	\$ 500,000
Central NE Regional Airport Collection System Rehab	\$ 2,300,000	\$ -	\$ -	\$ -
Relocate Lift Station No. 17	\$ 1,550,000	\$ -	\$ -	\$ -
Lift Station No. 28 Equalization Tanks	\$ 2,175,000	\$ 125,000	\$ -	\$ -
Lift Station No. 1 Rehabilitation	\$ 50,000	\$ -	\$ -	\$ -
North Central Sanitary Sewer Rehab; 2022-S-1	\$ 675,000	\$ -	\$ -	\$ -
Grant Funded Assessment Districts	\$ 150,000	\$ 1,500,000		
Veterans Legacy (contingent on other funding)	\$ 30,000	\$ 400,000		
	\$ 15,805,000	\$ 2,085,000	\$ 500,000	\$ 500,000