



Proposed FY2022- FY2026 Capital Improvement Program

Program Overview & Adoption

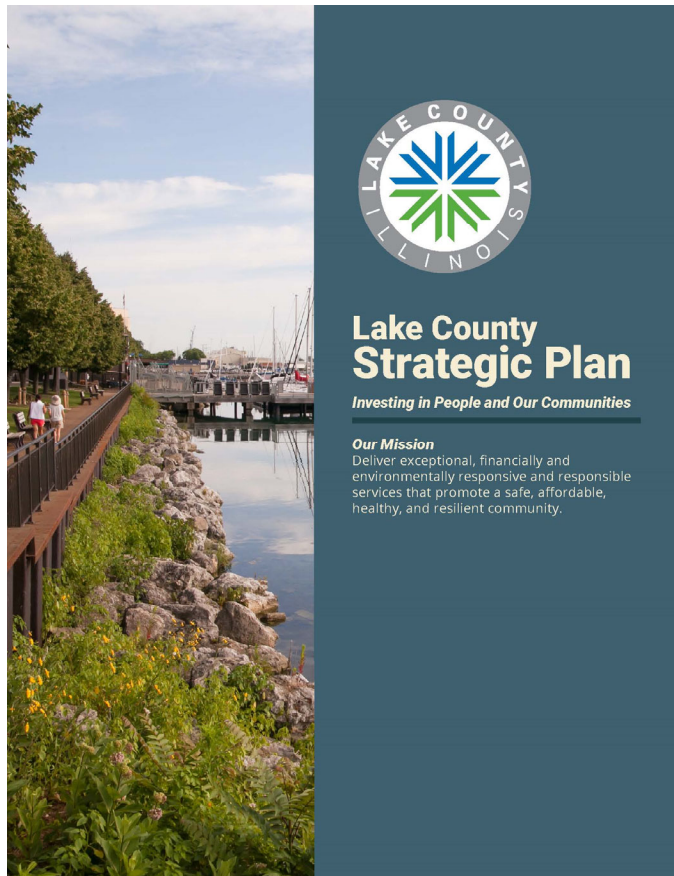
**Department of Public Works
September 8, 2021**

Presentation Outline

- ◆ **Strategic Alignment**
- ◆ **Department Overview**
- ◆ **Financial Information**
- ◆ **Capital Improvement Program (CIP) Development**
- ◆ **FY2021 CIP**
- ◆ **Proposed FY2022-FY2026 CIP**

Strategic Alignment

2019 Strategic Plan



County's Mission:
**Deliver exceptional,
financially and
environmentally
responsive / responsible
services that promote a
safe, affordable,
healthy, and resilient
community.**

Strategic Alignment

2019 Strategic Plan and Public Works

✓ GOAL: IMPROVE INFRASTRUCTURE

STRATEGIC STATEMENT:
Develop and implement solutions that support modern, equitable, comprehensive, safe, and sustainable transportation, water, wastewater, and stormwater infrastructure systems.



Strategic Alignment

2019 Strategic Plan and Public Works

✓ GOAL: PROMOTE A SUSTAINABLE ENVIRONMENT

STRATEGIC STATEMENT: Preserve the health of our natural resources, air, and drinking water through the widespread use of environmentally sustainable management practices, effective stormwater management, carbon footprint reduction, and the enhancement and rehabilitation of lakes and other ecological systems.



Department Overview

- Created by County Board Resolution on October 9, 1962
- Provide drinking water and sanitary sewer services
- Administer testing, inspections, water & sewer permits
- Perform other government services

Department Mission: provide drinking water and wastewater treatment services in an efficient, reliable and safe manner that meet or exceed the expectations of our customers and satisfy all local, state and federal requirements.



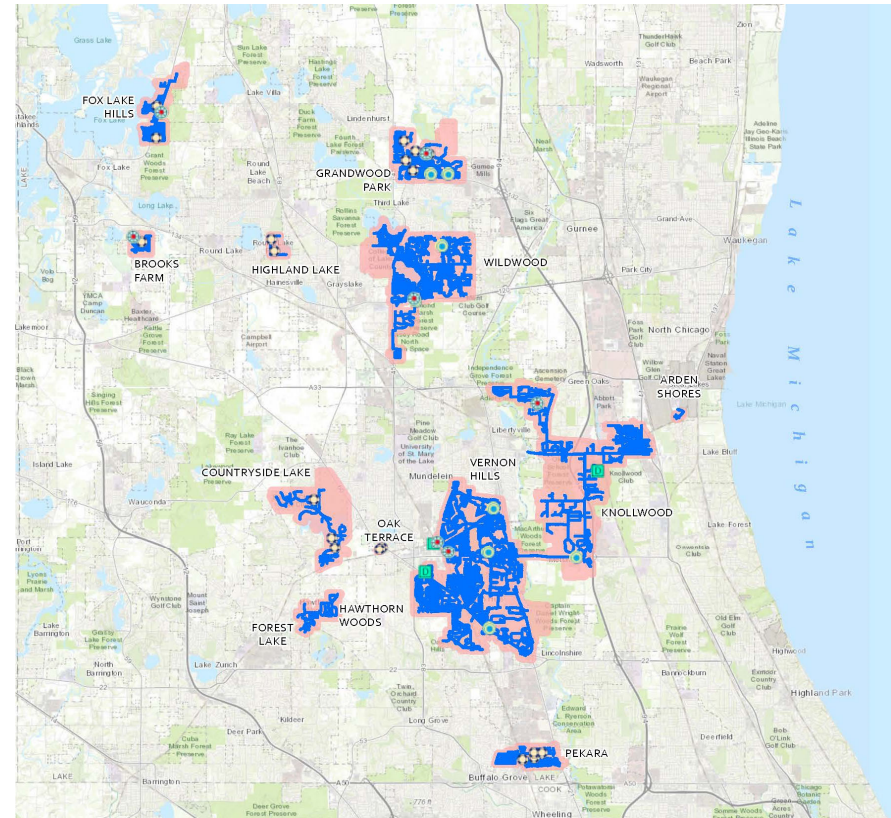
Department Overview

Our Systems



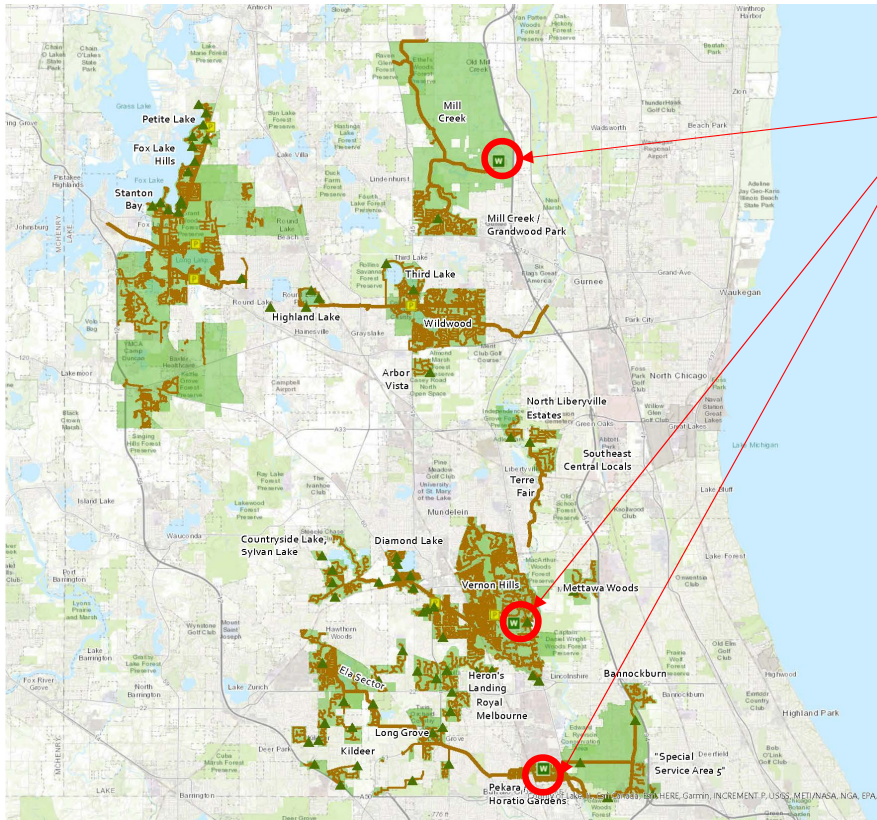
Water Systems

- 11 public water systems
- 290+ miles of water main
- 23 wells
- 10 water reservoirs
- 8 water towers



Department Overview

Our Systems



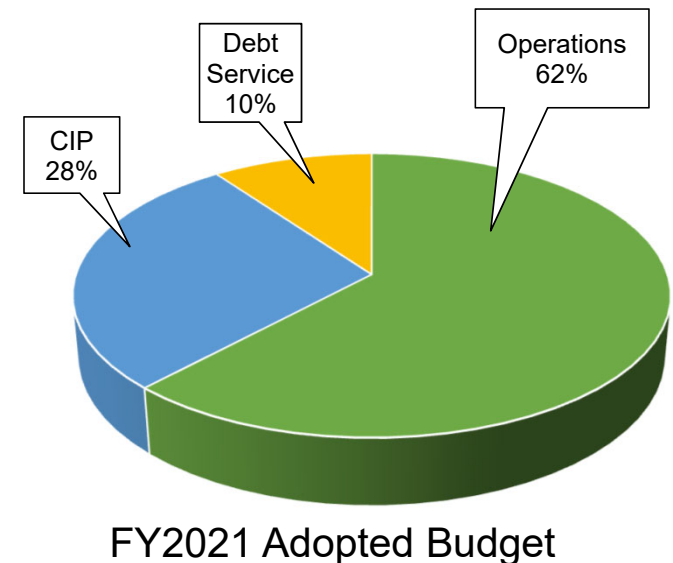
Wastewater Systems

- 3 wastewater reclamation facilities
- 7 sewer systems
- 470+ miles of sanitary sewer pipe
- 7 regional interceptor sewers
- 107 sanitary lift stations
- 5 major pump stations
- 1 excess flow facility
- 1 mile levee maintenance

Financial Information

Budget and Funding

- County's sole Enterprise Fund
- Not property tax based
- Connection fees
- User fees from water and sewer used by property owners
- \$62.3M FY2021 Adopted Department Budget
- Exploring grant funding opportunities



Financial Information

Bond Refinancing Savings

Successful Revenue Bond Refinancing



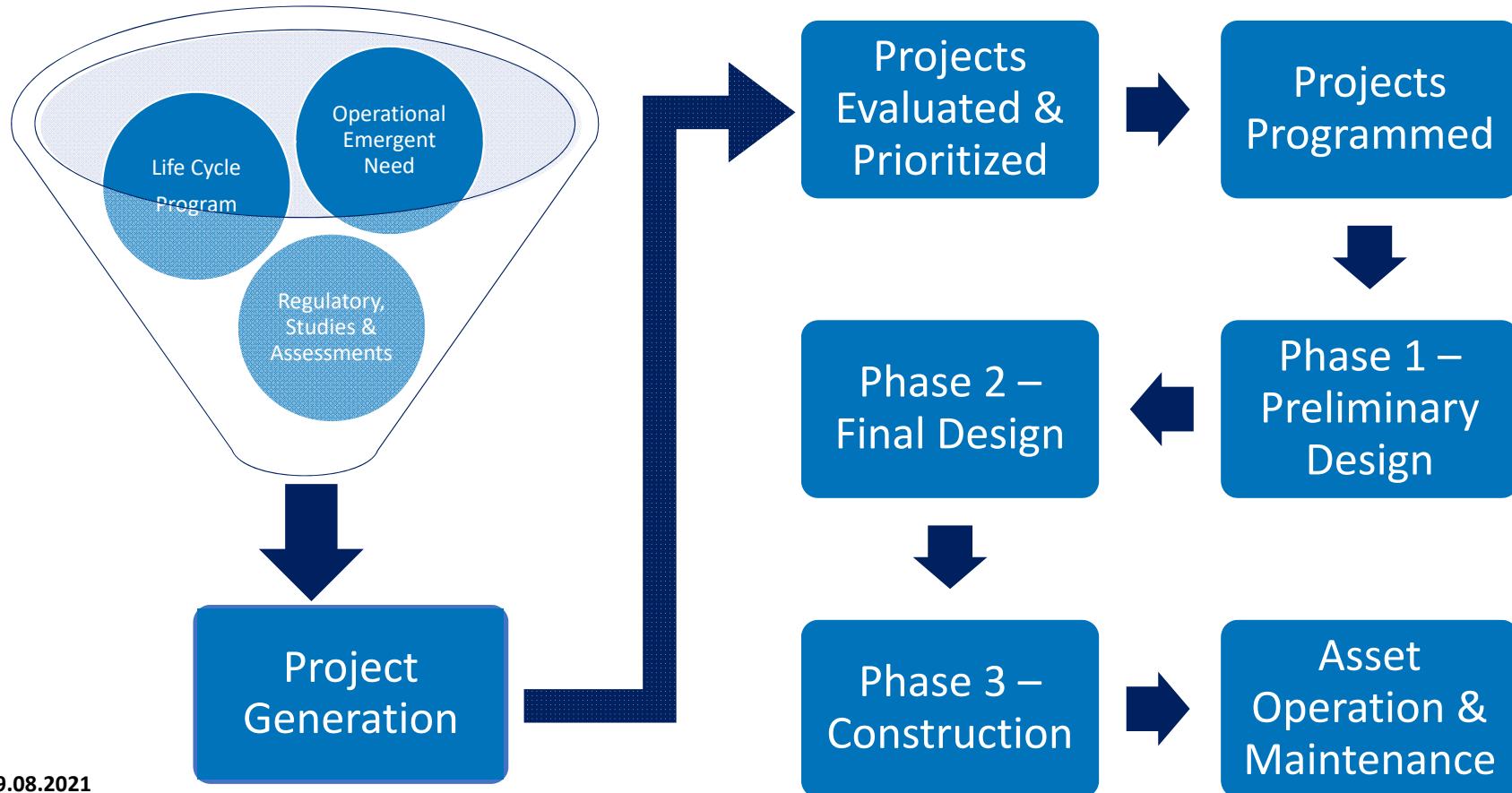
CIP Development

Program Priorities

- ✓ **Meet regulatory requirements**
- ✓ **Maximize life of existing assets**
- ✓ **Recapitalize existing capacity**
- ✓ **Meet tomorrow's capacity demands**
- ✓ **Meet goals of County Strategic Plan**



CIP Development Programming Process



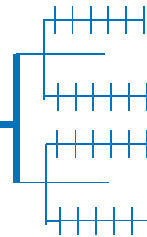
CIP Development

Program Investment Categories

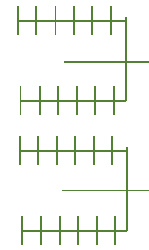
Water
Production &
Storage



Water
Distribution



Wastewater
Collection



Wastewater
Reclamation
Facilities



Other Support Facilities &
Equipment



FY2021 CIP

Investments From Adopted Budget



- Water Production & Storage - \$1.1 M
- Water Distribution - \$4.6 M
- Wastewater Collection - \$8.7 M
- Wastewater Reclamation Facilities - \$2.1 M
- Other Support Facilities & Equipment - \$0.9 M

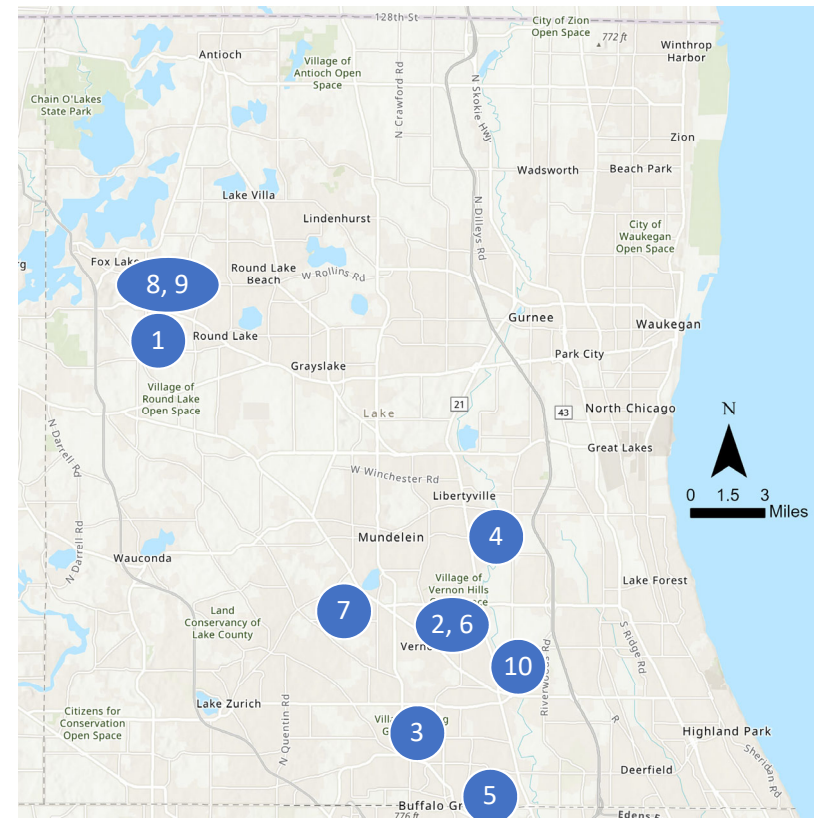
FY2021 CIP Adopted Budget Total = \$17.4 M

FY2021 CIP

New Construction Starts



1. Brooks Farm Water Tower Rehabilitation
2. Hawthorn Hills Square Water Main Rehabilitation
3. IL Route 83 Force Main Realignment
4. Southeast Central Interceptor Sewer Rehabilitation
5. Park West Townhome Water Main Rehabilitation
6. Townline Commons Water Main Rehabilitation
7. Oak Terrace / West Oak Middle School Test Well
8. Wilson Rd & Rollins Rd Drop Chamber Improvement & Sewer Lining
9. Lift Station Electrical Rehabilitation
10. Vernon Hills - Lincolnshire Water Interconnect (anticipated 2021 start)
11. SCADA Phase 3 Improvements (anticipated 2021 start) - not mapped - various locations throughout the County

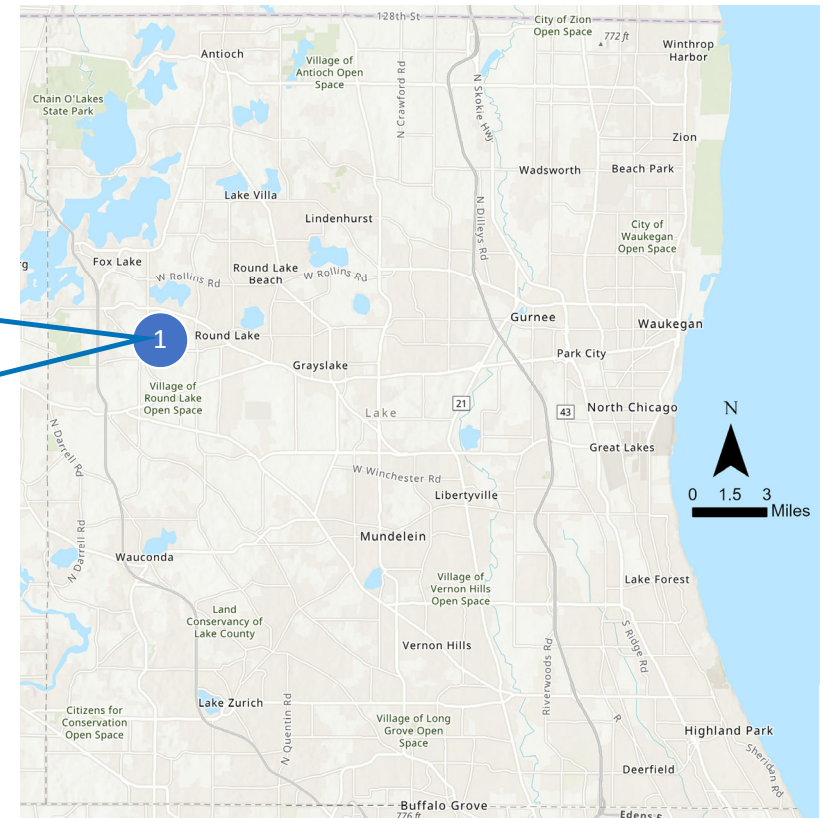


FY2021 CIP

Construction Project Highlight



Brooks Farm Water Tower Rehabilitation

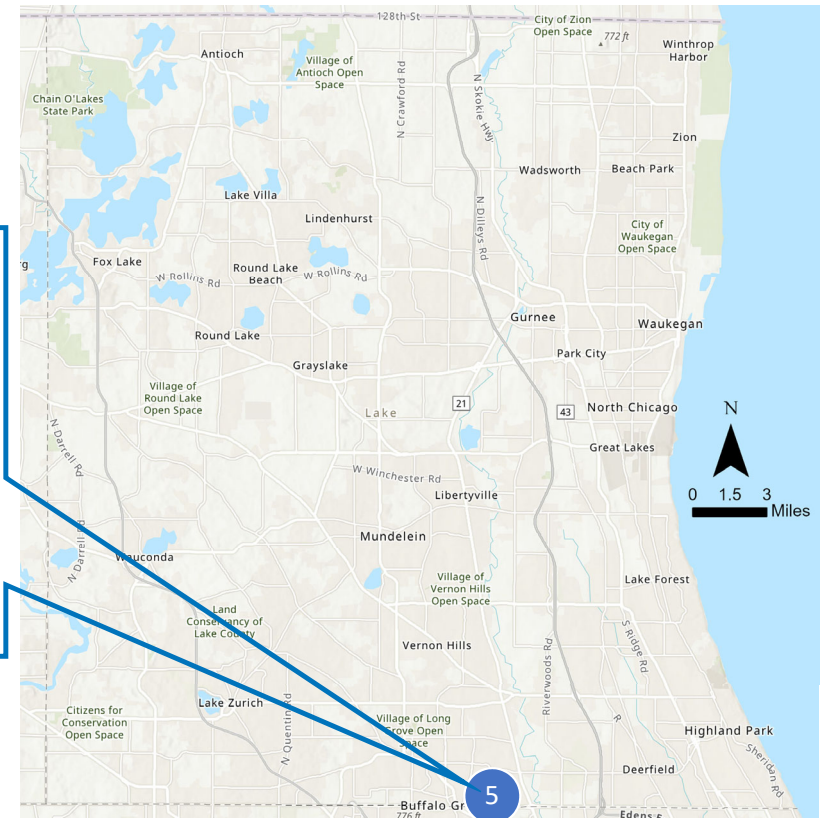


FY2021 CIP

Construction Project Highlight



Park West Townhome (Pekara System) Water Main Rehabilitation



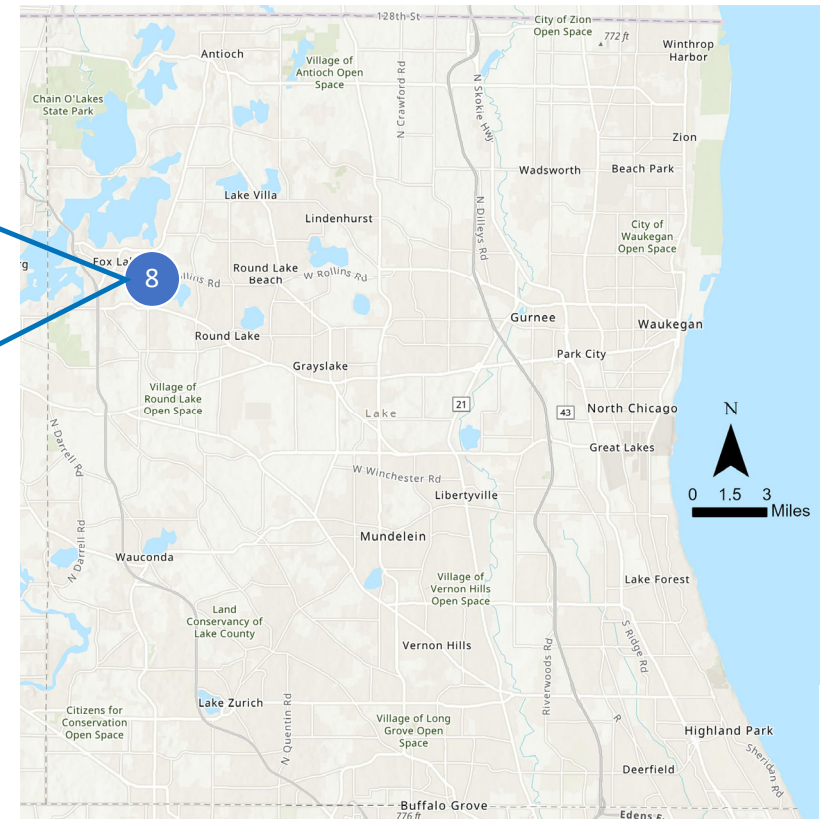
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FY2021 CIP

Construction Project Highlight



Wilson Road & Rollins Road Drop Chamber Improvement & Sewer Lining

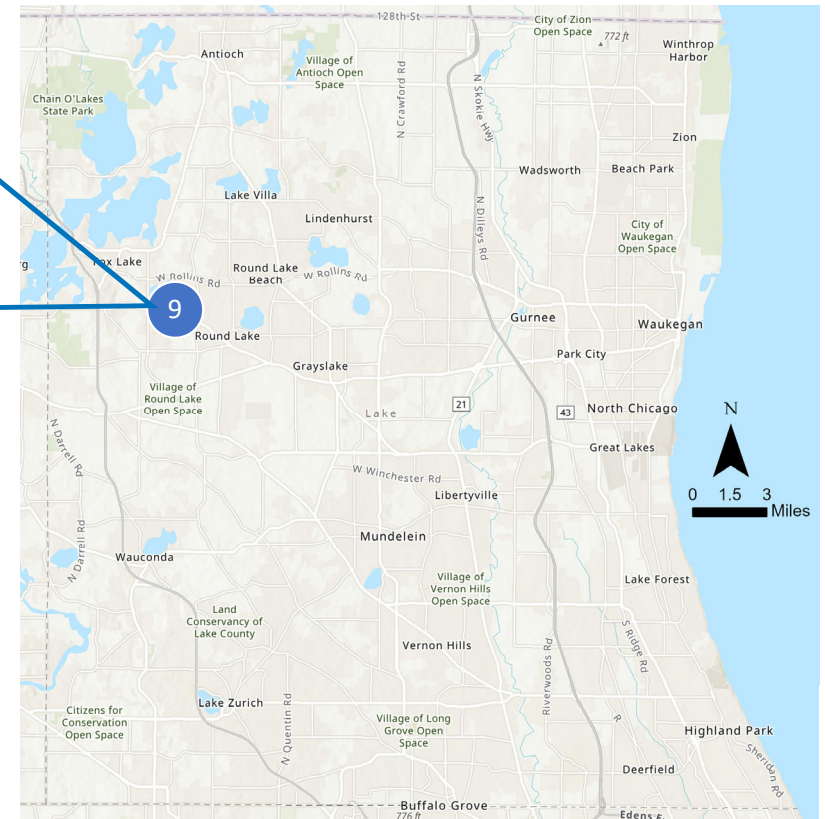


FY2021 CIP

Construction Project Highlight



Lift Station Electrical Rehabilitation at Long Beach & Milwaukee Lift Stations



Proposed FY2022-FY2026 CIP

Project Types

- ◆ **Preservation - higher priority (approximately 70%)**
- ◆ **Modernization - medium priority (approximately 25%)**
- ◆ **Expansion - typically lower priority (approximately 5%)**



Proposed FY2022-FY2026 CIP

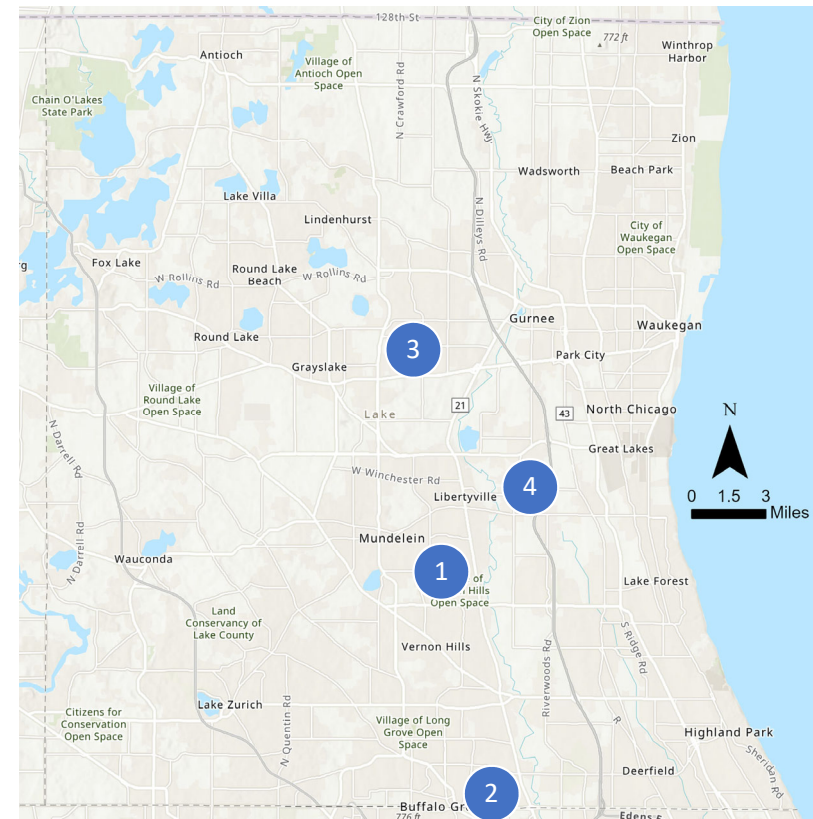
Water Production & Storage



Map Key	Project Description	Project Type	Anticipated Construction Year*
1	Vernon Hills Water System White Deer Run Reservoir	Expansion	2022
2	Pekara Water System Lake Michigan Water Connection	Modernization	2022
3	Wildwood Water System Water Tower	Modernization	2023
4	Vernon Hills Water System - Green Oaks / Waukegan Water Interconnect	Modernization	2023
5**	Annual Tower and Reservoir Maintenance Projects – Various Locations	Preservation	2022-2026

*Dependent upon project readiness and availability of funding

**Annual Tower and Reservoir Maintenance Projects not mapped



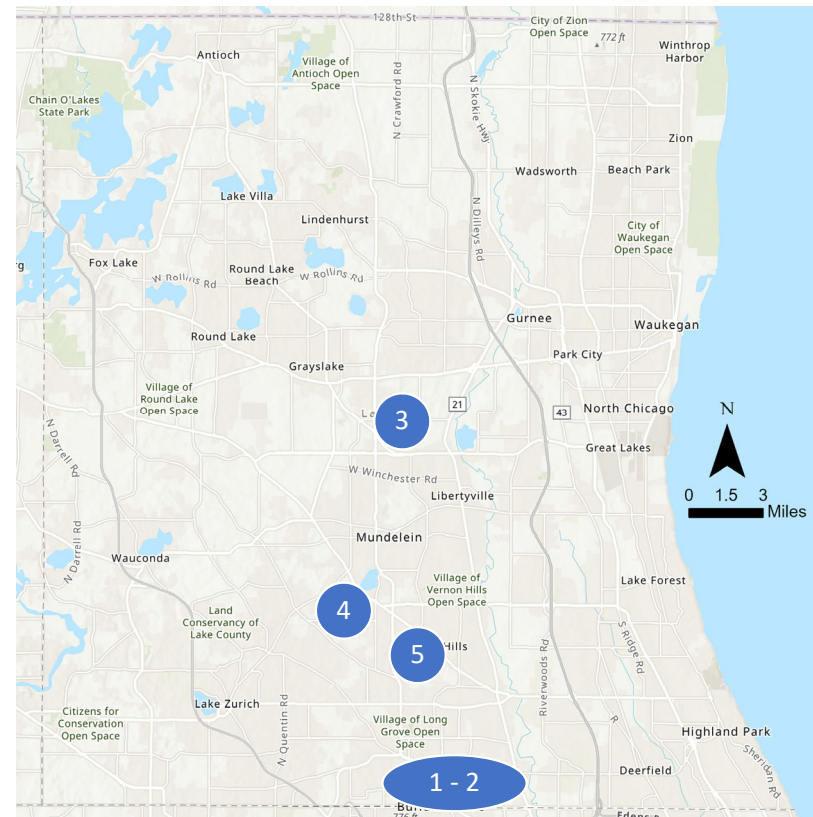
Proposed FY2022-FY2026 CIP

Water Distribution



Map Key	Project Description	Project Type	Anticipated Construction Year*
1	Park West Townhome (Pekara System) Water Main Separation Project	Preservation	2022
2	Pekara Water System Phase 2 Water Main Rehabilitation	Preservation	2025
3	Liberty Acres Water Main Replacement (Wildwood)	Preservation	2022
4	Oak Terrace Water System Replacement	Preservation & Modernization	2022
5	Vernon Hills Oakwood Rd Water Main Replacement	Preservation	2022

*Dependent upon project readiness and availability of funding



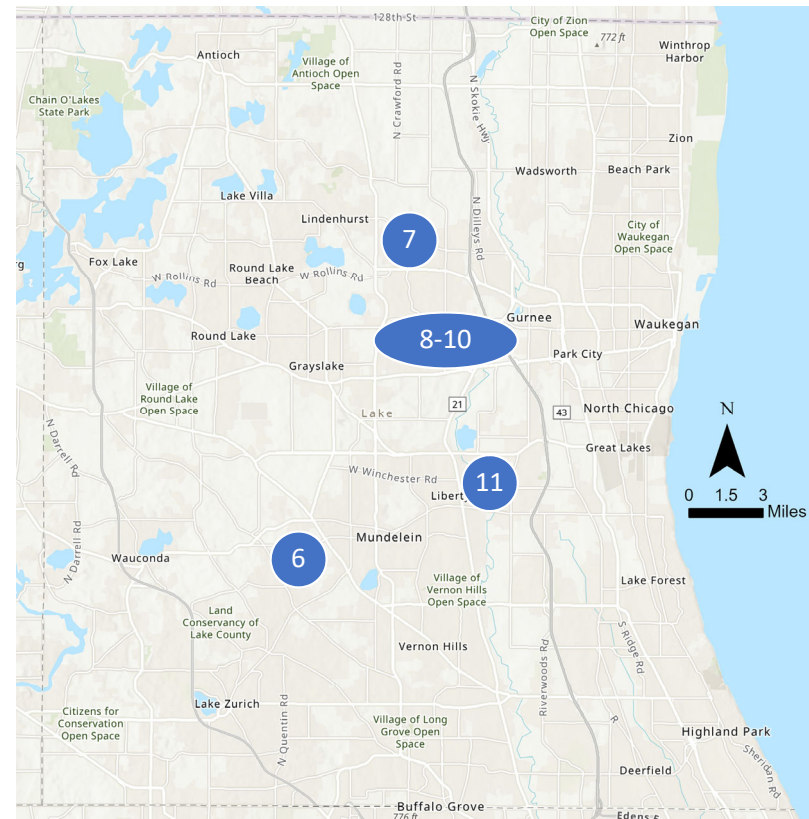
Proposed FY2022-FY2026 CIP

Water Distribution Continued



Map Key	Project Description	Project Type	Anticipated Construction Year*
6	Countryside Lake Water System Improvement	Preservation	2025
7	Grandwood Park Water Main Replacement (Grandwood Dr & Woodland Ter)	Preservation	2024
8	Gages Lake Rd Water Main Improvement	Preservation	2024
9	Wildwood Water Main Replacement (Idlewild/ Daddy Decker area)	Preservation	2026
10	Washington St Water Main Relocation	Preservation	2024 (LCDOT Dependent)
11	Countryside Manor Water Main Replacement	Preservation	2024

*Dependent upon project readiness and availability of funding

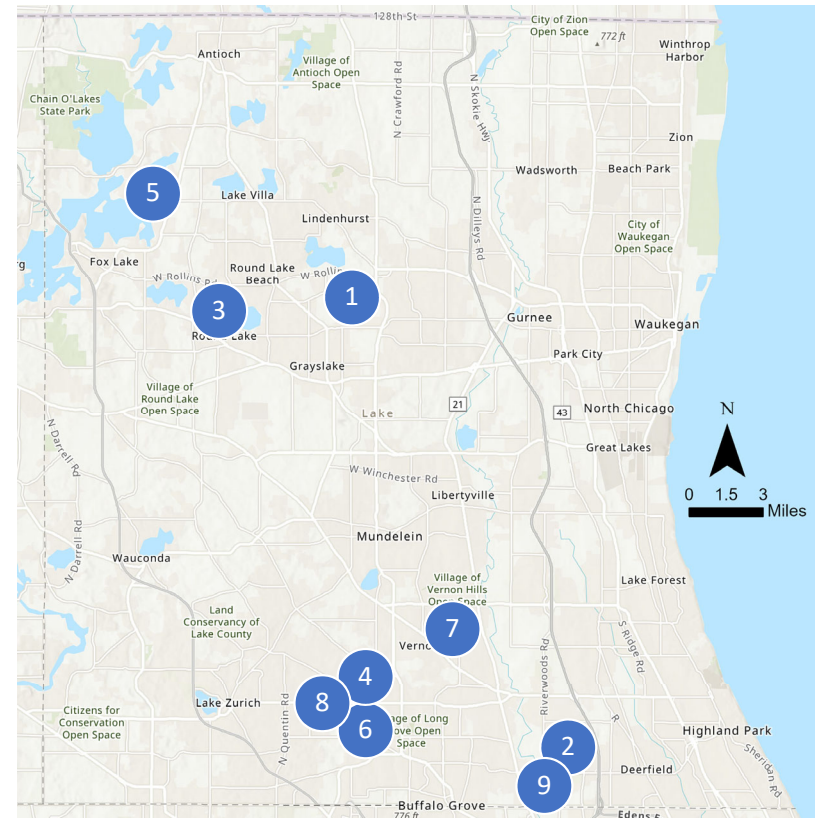


Proposed FY2022-FY2026 CIP

Wastewater Collection



Map Key	Project Description	Project Type	Anticipated Construction Year*
1	Linden Ave Sewer Replacement	Preservation	2022
2	Saunders Rd Lift Station & Sewer Improvements	Preservation & Expansion	2023-2024
3	Sunset Dr Gravity Sewer	Preservation	2026
4	Wellington Dr Force Main Rehabilitation	Preservation	2022
5	South Cedar Crest Dr Force Main Rehabilitation	Preservation	2022
6	Three Lakes Dr Force Main Rehabilitation	Preservation	2022
7	VH West Pump Station Force Main Rehabilitation	Preservation	2025
8	IL Route 22 Sewer Relocation	Preservation	2023 (IDOT Dependent)
9	Deerfield Rd Lift Station Relocation	Modernization	2025 (LCDOT Dependent)



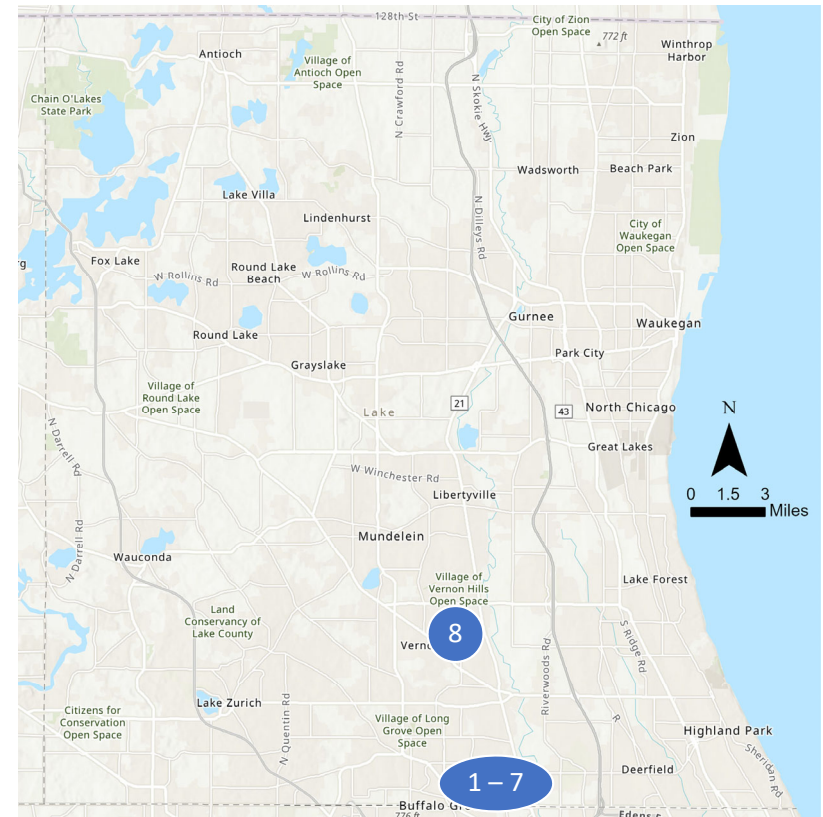
*Dependent upon project readiness and availability of funding

Proposed FY2022-FY2026 CIP

Wastewater Reclamation Facilities (WRF)



Map Key	Project Description	Project Type	Anticipated Construction Year*
1	DPR WRF Improvements (Polymer, Alum, Odor Control, Gas Monitoring Systems)	Preservation	2022
2	DPR WRF Bar Screens Replacement	Preservation	2022
3	DPR WRF - Building 60 conveyor replacement	Preservation	2022
4	DPR WRF Dewatering Improvement	Preservation	2026
5	DPR WRF Upsizing Denitrification Pumps	Modernization	2025
6	DPR WRF High Speed Blowers Replacement	Preservation	2024
7	DPR WRF Automated Gate	Preservation	2025
8	NCT WRF Bar Screens Replacement	Preservation	2022



09.08.2021

*Dependent upon project readiness and availability of funding
DPR = Des Plaines River and NCT = New Century Town

Proposed FY2022-FY2026 CIP

Other Support Facilities and Equipment

Carryover of projects from prior to FY2022:

- 💧 **SCADA Phase 3 implementation**
- 💧 **NLE Levee drainage improvements**



Proposed FY2022-FY2026 CIP

Anticipated Program Costs



Investment Category	FY2022	FY2023	FY2024	FY2025	FY2026
Water Production & Storage	\$6.2M	\$6.0M	\$0.2M	\$0.2M	\$0.2M
Water Distribution	\$3.7M	\$0.4M	\$5.6M	\$3.3M	\$1.3M
Wastewater Collection	\$3.8M	\$8.9M	\$3.4M	\$3.2M	\$0.9M
Wastewater Reclamation	\$4.5M	\$0	\$1.3M	\$3.2M	\$7.7M
Other Support Facilities & Equipment	\$0	\$0	\$0	\$0	\$0
FY TOTALS	\$18.2M	\$15.3M	\$10.5M	\$9.9M	\$10.1M

Proposed FY2022-FY2026 CIP Investments



- Water Production & Storage - \$6.2 M
- Water Distribution - \$3.7 M
- Wastewater Collection - \$3.8 M
- Wastewater Reclamation Facilities - \$4.5 M
- Other Support Facilities & Equipment - \$0 M

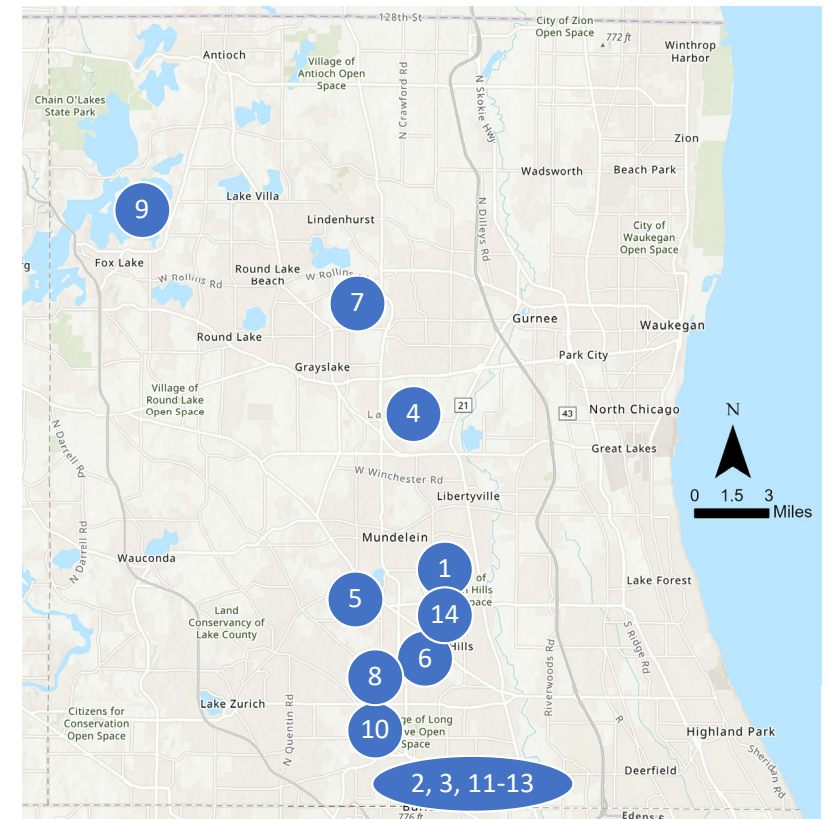
FY 2022 CIP Proposed Total = \$18.2 M

Proposed FY2022-FY2026 CIP

Anticipated FY2022 Construction



1. Vernon Hills Water System White Deer Run Reservoir
2. Pekara Water System Lake Michigan Water Connection
3. Park West Townhome (Pekara System) Water Main Separation Project
4. Liberty Acres (Wildwood) Water Main Replacement
5. Oak Terrace Water System Replacement
6. Vernon Hills Oakwood Rd Water Main Replacement
7. Linden Ave Sewer Replacement
8. Wellington Dr Force Main Rehabilitation
9. S. Cedar Crest Dr Force Main Rehabilitation
10. Three Lakes Dr Force Main Rehabilitation
11. DPR WRF Improvements (Polymer, Alum, Odor Control, Gas Monitoring Systems)
12. DPR WRF Bar Screens Replacement
13. DPR WRF Building 60 Conveyor Replacement
14. NCT Bar Screens Replacement



Proposed FY2022-FY2026 CIP

Anticipated FY2022 Construction Project Summary



Project Description	Project Type	Investment Category	Programmed Construction Year	Programmed Cost (Eng & Con)
Vernon Hills Water System White Deer Run Reservoir	Expansion	Water Production & Storage	2022	\$5M - \$10M
Pekara Water System Lake Michigan Water Connection	Modernization	Water Production & Storage	2022	\$1M - \$5M
Park West Townhome (Pekara System) Water Main Separation Project	Preservation	Water Distribution	2022	<\$1M
Liberty Acres Water Main Replacement (Wildwood)	Preservation	Water Distribution	2022	<\$1M
Oak Terrace Water System Replacement	Preservation & Modernization	Water Distribution	2022	\$1M - \$5M
Vernon Hills Oakwood Rd Water Main Replacement	Preservation	Water Distribution	2022	<\$1M
Linden Ave Sewer Replacement	Preservation	Wastewater Collection	2022	\$1M - \$5M

Proposed FY2022-FY2026 CIP

Anticipated FY2022 Construction Project Summary



Project Description	Project Type	Investment Category	Programmed Construction Year	Programmed Cost (Eng & Con)
Wellington Drive Force Main Rehabilitation	Preservation	Wastewater Collection	2022	<\$1M
South Cedar Crest Drive Force Main Rehabilitation	Preservation	Wastewater Collection	2022	<\$1M
Three Lakes Dr. Force Main Rehabilitation	Preservation	Wastewater Collection	2022	<\$1M
DPR WRF Improvements (Poly, Alum, Odor Control, Gas Monitoring)	Preservation	Wastewater Reclamation	2022	\$1M - \$5M
DPR WRF Bar Screens Replacement	Preservation	Wastewater Reclamation	2022	\$1M - \$5M
DPR WRF - Building 60 conveyor replacement	Preservation	Wastewater Reclamation	2022	<\$1M
NCT WRF Bar Screens Replacement	Preservation	Wastewater Reclamation	2022	\$1M - \$5M

Thank you!

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Questions