SECTION V CAPITAL BUDGET

The Capital Improvement Program is the District's plan for the construction, rehabilitation, and modernization of District-owned and operated infrastructure. It includes plans to protect Lake Michigan from pollution, to clean up approximately 532 miles of rivers and streams within the District's jurisdiction to meet federal and state standards, and to reduce the level of flooding which has persistently plagued many municipalities within the District's jurisdiction.

The Capital Budget includes the Construction Fund and the Capital Improvements Bond Fund. To understand the Capital Budget, it is necessary to visualize existing facilities as well as the program for the next year and the long-term plan.

The type of funding for each fund corresponds to the estimated useful life of the project and statutory restrictions on bond sales. The Tax Cap Law imposes restrictions on the non-referendum bonding authority of the District. There are exceptions in the Tax Cap Law to allow non-referendum bonds to be sold to finance certain District projects. Bonds or long-term debt are only utilized to finance projects with useful lives beyond 20 years. Capital projects not eligible for bond financing, or with shorter useful lives, are funded on a pay-as-you-go basis and financed primarily by property taxes. The Capital Improvements Bond Fund receives most of its resources from bond sales, State Revolving Fund loans, and federal and state grants. It provides for major plant and sewer construction, flood control facilities, and land acquisition. The Construction Fund is financed primarily through a property tax levy and provides for much of the District's infrastructure rehabilitation and modernization.

The narrative discussion of the District's 2025 Capital Improvement Program places the 2025 program within the context of our long-range plan. Information is provided on the levels of funding in 2025 and in the future. The graphs, charts, figures, and descriptions of the Construction Fund and Capital Improvements Bond Fund Program within this section aid the reader in understanding this component of the Budget. The impact on operating costs associated with capital projects scheduled for award in 2025 is presented in the Capital Improvement Program narrative.

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Metropolitan Water Reclamation District of Greater Chicago

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BOARD OF COMMISSIONERS

September 10, 2024

Mr. Brian A. Perkovich Executive Director OFFICE

Dear Sir:

Subject: 2025 Program for the Capital Funds

The Capital Funds' program for 2025, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the District's 2025 Capital Plan initiatives in alignment with and in support of the Strategic Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative by fund provides a summary of the 2025 major initiatives and challenges and 2024 accomplishments. Supporting schedules of objectives and performance present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Capital Funds budget for 2025.

Respectfully submitted,

Cattornic G. O'Comor

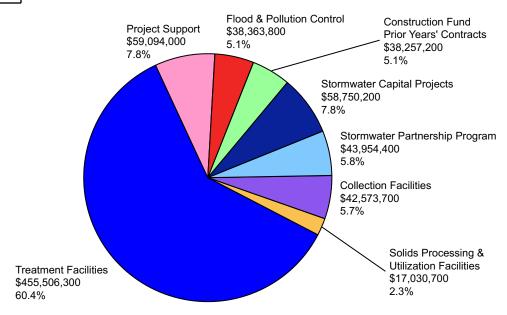
Catherine A. O'Connor Director of Engineering

John P. Murray
Director of Maintenance & Operations

Edward W. Podczerwinski Director of Monitoring & Research

CAPITAL IMPROVEMENT PROGRAM PROGRAMS

2025	\$753,530,300
2024	\$495,448,600
Increase	\$258,081,700



The District utilizes the Construction, Stormwater Management, and Capital Improvements Bond Funds for the Capital Improvement Program. Capital improvements comprise all new facilities and projects that preserve the useful life of District facilities or increase the capacity or efficiency of these facilities. The project support activities of the Construction, Stormwater Management, and Capital Improvements Bond Funds consist of planning, designing, and constructing District infrastructure, acting as a liaison to the United States Environmental Protection Agency and the Illinois Environmental Protection Agency. Funding for capital projects includes pay-as-you-go funding in the Construction and Stormwater Management Funds, federal and state grants, state revolving loan programs for wastewater and stormwater, and alternate revenue and general obligation bonds.

Budget Highlights

The 2025 appropriation for the Capital Improvement Program is \$753,530,300, an increase of \$258,081,700, or 52.1 percent, from 2024 due to the timing of project awards scheduled for 2025. A total of 187 projects funded by the Construction, Stormwater Management, or Capital Improvements Bond Funds will be under planning, design, or construction in 2025.

The mission of the Capital Improvement Program is to plan, develop, and implement projects for new facilities, preserve the useful life of facilities, or increase the capacity or efficiency of facilities to ensure that the District complies with our statutory responsibilities in the areas of sewage treatment and pollution control.

Capital Improvement Program Policy

The District's Capital Improvement Program consists of those projects identified as necessary to ensure safe and uninterrupted operation of our facilities, meet existing and new statutory and regulatory requirements, and maintain efficiency in a cost-effective manner. Projects are identified based on asset management audits, Governmental Accounting Standards Board Statement 34 inspections, and need, such as regulatory requirements or long-term strategic planning. Following identification, projects must be justified and vetted by an interdepartmental review panel. Projects are prioritized using an evaluation and scoring system that values preservation of infrastructure, improvements to environmental quality, and commitment to community. Projects are added to the Capital Improvement Program and scheduled for award according to priority and resource availability after they have been through the review panel.

Governmental Accounting Standards Board Statement 34 became effective in 2003. By adopting the modified approach for reporting infrastructure assets, the District agrees to perform condition assessments of our facilities, establish service levels for our infrastructure, and appropriate funds to maintain these high standards, thus protecting the environment and avoiding the detrimental impacts of deferred maintenance. The results of these assessments are reported in the Annual Comprehensive Financial Report.

Beneficial Impacts of Capital Projects

Through proper operation, maintenance, rehabilitation, and replacement of equipment and facilities, the District ensures continuous efficient and reliable service, protects our investment and infrastructure, and meets National Pollutant Discharge Elimination System permit requirements. The Capital Improvement Program identifies and prioritizes projects to upgrade and modernize obsolete equipment and facilities.

Program Funding

Sources of funding for the Capital Improvement Program consist of capital improvements bond sales, general property tax revenues, State Revolving Fund (SRF) loans, and federal grants and reimbursements. The District is also evaluating additional low-cost funding options including financing through the United States Environmental Protection Agency (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) loan program. The table below shows the anticipated method of financing for projects scheduled to be awarded in fiscal years 2025-2029.

Method of Financing for I	rojects Scheduled to be Aw	arded in Fiscal Years 2025-20	29 (in thousands)

	State Revolving	General Obligation	Army Corps	Grants &	Pay-As-You-	
	Fund Loans	Bonds	of Engineers	Reimbursements	Go	Total
Tunnel and Reservoir Plan	\$ —	\$ 99,037	\$ 17,109	\$ —	\$ 11,510 \$	127,656
Water Reclamation Plant Expansion and Improvements	472,018	66,033		_	30,762	568,813
Solids Management	_	97,300	_	_	18,100	115,400
Collection Facilities	_	126,750	_	_	28,550	155,300
Replacement of Facilities		213,000	_	_	87,354	300,354
Stormwater				17,025	124,531	141,556
Total	\$ 472,018	\$ 602,120	\$ 17,109	\$ 17,025	\$ 300,807 \$	1,409,079

Construction Fund

The Construction Fund is a property tax supported, pay-as-you-go capital fund authorized by State Statute, which provides for the acquisition of infrastructure assets or the rehabilitation of existing structures that increase the efficiency or extend the useful life of the structure. The useful life of the improvement is at least 15 years and project values are generally less than \$3.0 million. Section 12 of "An act to create sanitary districts and to remove obstructions in the Des Plaines and Illinois Rivers," approved May 29, 1889, as amended, provides that the Board of Commissioners of the District can levy and collect taxes for construction purposes for the year 1985 and each year thereafter, which shall be at a rate not to exceed 0.10 percent of the assessed valuation of all taxable property within the District as equalized and determined for state and local taxes. In 2025, the Construction Fund has 41 projects scheduled for award and 11 projects already under construction.

Stormwater Management Fund

The Stormwater Management Fund is utilized to plan, implement, and finance stormwater management activities throughout Cook County, including stream maintenance in areas that currently lie outside the District's boundaries. The fund consolidates the District's stormwater management activities and supports the activities outlined in the Cook County Stormwater Management Plan, which serves as a framework for the District's countywide Stormwater Management Program. One of the initial goals of the Stormwater Management Program was to develop detailed watershed plans for each of the watersheds in Cook County. The detailed watershed plans identified and prioritized "regional" stormwater projects based on a benefit to cost ratio. These include streambank stabilization projects, which involve addressing critical active streambank erosion threatening public safety, structures, and/or infrastructure, or flood control projects. The Board of Commissioners has approved over 30 regional projects for design and construction.

Capital Improvements Bond Fund

Section 9.6(a) of "An act to create sanitary districts and to remove obstructions in the Des Plaines and Illinois Rivers," approved May 29, 1889, as amended, provides that the Board of Commissioners of the District is authorized to issue bonds for District purposes. The District issues bonds to provide funds to replace, remodel, complete, alter, construct, and enlarge sewage treatment or flood control facilities, to acquire air pollution control equipment, and to build or acquire sewers. The total allowable bond debt at any given time cannot exceed 3.35 percent of the last known equalized assessed valuation of all taxable property within the District. The ordinance authorizing the issuance of the bonds provides for the levy of a tax on all taxable property within the District adequate to pay principal and interest on the bonds when due, including a provision for loss in the collection of taxes.

Tax Cap laws enacted in Illinois have a significant impact on the funding of the District's Capital Improvement Program through bond sales. Under Public Act 89-0001, the District's non-referendum bond authority is restricted to fund only projects initiated prior to October 1, 1991, which generally covers only Tunnel and Reservoir Plan (TARP) projects. However, Public Act 89-0385 provided additional non-referendum authority to the District by authorizing the issuance of "limited bonds." These "limited bonds" allow the District to issue non-referendum debt for projects initiated after October 1, 1991. "Limited bonds" can be issued up to the debt service extension base established by the Act. This "limited bond" authority was expanded for the District by passage of Public Act 90-0485 in the 1997 legislative session. This Act excludes debt associated with the TARP program from the "limited bond" limitation. The use of general obligation and alternate revenue bonds comprises only a portion of the District's capital project financing.

Loans Programs

For many years, the major sources of funding for District projects were federal grants and the Build Illinois Compliance Grants, both of which were discontinued. Under the grant program, the District received approximately \$1.9 billion between 1973 and 1993, leaving 25 percent of the project cost to be borne by the District. The District continues to aggressively pursue federal and state funding to minimize the impact on our constituency. Low-interest SRF loans are an integral part of the District's capital improvements financing. SRF revenues are based on the award and construction schedule of specific projects, and funding is contingent upon how active other communities are in the program. In recent years, incentives such as principal forgiveness and reduced interest rates for disadvantaged and small communities have expanded participation in the program. Additionally, since 2021, available SRF funding has been reduced due to earmarks appropriated by Congress for projects at the community level. It is estimated that the District will receive approximately \$50.0 million annually in SRF loans for the next several years, which is a decrease from previous years. The District is also evaluating funding options through the EPA's WIFIA loan program to maximize taxpayer value.

Operating Cost Impacts of Capital Improvement Projects

The annual maintenance and/or operating costs associated with new capital projects provide an important part of the decision-making process for the selection of capital projects. The operating cost impacts of proposed capital projects are analyzed by design personnel, as well as operating staff, in order to implement a Capital Improvement Program that meets operating needs in the most cost-effective manner. For example, the Mainstream TARP pump rehabilitation project, currently under construction and scheduled for completion in 2027, will increase energy efficiency. This project includes the rehabilitation of Mainstream TARP Pumps 1, 3, and 5, initially placed into service in 1985, including the rehabilitation of associated motors and discharge cone valves and actuators. Capital projects also serve as opportunities to evaluate new technology at one location and assess whether implementing that technology will reduce operating costs at other locations throughout the District. For example, in 2024 the District began installation of a biogas combined heat and power (CHP) system at the Egan Water Reclamation Plant (WRP), which will maximize the utilization of biogas throughout the year. Currently, the District uses biogas for heating, but during warmer months biogas is not fully utilized. The CHP project will provide an opportunity for assessment of the technology and its viability for production of electricity, analysis of options for pre-digestion treatment to increase biogas production, and a review of the financial return on investment, carbon offsets, and market risks. Although this is only a trial project, the technology could potentially be installed at other WRPs. It is anticipated that running one CHP unit will save

approximately \$44,000 annually and running two CHP units will save approximately \$100,000 annually. Operating impacts for each project are included on the individual project fact sheets.

Phosphorus Removal Projects

In the coming years, the District will be required to comply with more stringent phosphorus effluent limits prescribed by the National Pollutant Discharge Elimination System permits for each of the water reclamation plants. Table 1 below provides planned project awards for the fiscal years 2024-2029 which will be necessary to comply with the phosphorus effluent limits as shown in Table 3. There are currently no projects scheduled for award in 2026, 2027, and 2029. Table 2 below provides planned project awards which will also be necessary to comply with the phosphorus effluent limits, but are planned for award beyond the five-year forecast period. There are currently two projects scheduled for award during this period, in 2031 and 2033.

The District's approach to compliance with phosphorus effluent limits has been to maximize phosphorus uptake in the biological process and, where appropriate, within the existing plant footprint. The District's commitment to pursuing the biological process first provides environmental benefits - the phosphorus remains biologically available for future use as a fertilizer and in biosolids, which would not occur with chemical precipitation where the phosphorus is not readily available.

Table 1: Planned Phosphorus Removal Project Awards for the Fiscal Years 2024-2029 (in thousands)

Project Name	Project Number	2024	2025	2026	2027	2028	2029
Battery A Improvements and Battery B Installation of Mechanical Mixers, SWRP	08-174-3D	\$ 54,500					
Overburden Removal at Location of Battery E, OWRP	23-098-3P	7,384					
Phosphorus Removal, KWRP	19-375-3P		\$ 10,300				
Chemical Phosphorus Removal, OWRP	20-087-3P		14,000				
Battery E Activated Sludge Facility, OWRP	21-092-3P		367,751				
Plant Improvements, HPWRP	18-540-3P					\$ 20,000	
Phosphorus Removal, EWRP	19-415-3P					30,000	
Fermentation and Ancillary Facilities for Biological Phosphorus Removal Phase I, OWRP	20-085-3P					100,000	
· ·	Total	\$ 61,884	\$392,051	\$ <u> </u>	\$ —	\$150,000	\$ —

Table 2: Planned Phosphorus Removal Project Awards Beyond the Five-Year Forecast (in thousands)

Project Name	Project Number	2030	0	2031	2032	2033	2034	1 2	035
Fermentation and Ancillary Facilities for Biological Phosphorus Removal Phase II, OWRP	20-086-3P		\$	30,000					
Fermentation and Ancillary Facilities for Biological Phosphorus Removal, CWRP	12-245-3P					\$ 6,000			
	Total	\$	— \$	30,000	\$	\$ 6,000	\$	— \$	_

Phosphorus removal efforts at the Stickney WRP have been underway since 2011 with research, pilot testing, and subsequent infrastructure improvements. With past construction projects and favorable influent conditions, biological efforts to remove phosphorus have been extremely successful using existing infrastructure. No plant expansion was necessary to meet the effluent limits for phosphorus. To manage occasional biological phosphorus removal challenges, a temporary chemical dosing system was constructed and placed in service in 2021. Mechanical mixers were installed in Batteries A, C, and D, and a construction project to install mechanical mixers in Battery B will begin in 2024. The Ostara® Nutrient Recovery Facility produces a phosphorus and nitrogen-rich fertilizer. This process, while returning a limited resource to the economy, also helps to stabilize the biological process to remove phosphorus, thereby contributing to WRP compliance. However, in order to ensure permit compliance under all foreseeable conditions, a permanent chemical addition backup system is also being installed. Construction on this backup system began in 2022 and is scheduled to be completed in 2025.

Phosphorus removal efforts at the Calumet WRP have shown that either additional carbon to supplement the biological process or chemical addition is necessary. The construction of a chemical phosphorus removal facility began in 2022 in order to meet the Calumet WRP's effluent phosphorus limit of 1.0 mg/L which took affect in 2024. The chemical cost to remove phosphorus at the Calumet WRP is estimated to be \$12.2 million annually. The District remains committed to pursuing biological means to

remove phosphorus. The District completed a successful pilot of sidestream enhanced biological phosphorus removal in January 2022 and is now performing an engineering evaluation based on the data collected to determine what modifications can be installed to most sustainably remove phosphorus from the effluent flows. In the longer term, the District intends to use source control to reduce the phosphorus loads at the Calumet WRP which would make biological phosphorus removal more feasible, and we therefore anticipate a future project for fermentation and ancillary facilities to aid the biological process.

At the O'Brien WRP, there are several projects in planning and/or design necessary to meet the upcoming phosphorus limits, as well as upgrades to the aeration batteries that originally commenced service in 1928. The first scheduled project, Phosphorus Removal Modifications to Battery D, OWRP, will install infrastructure and reconfigure flow through the battery to implement sidestream enhanced biological phosphorus removal, and began construction in 2023. The results of this project will help to inform the design of biological phosphorus removal in the remaining batteries. In simultaneous, phased projects, the remaining aeration batteries will be upgraded to support biological phosphorus removal beginning in 2028. Phase I upgrades to Battery C includes similar biological phosphorus removal infrastructure, as well as influent gate replacement, removal of the center walls, installation of a new aeration system and improved sludge returning to increase efficiency, and replacement of deteriorating century old concrete. Phase II of this project will mimic the Battery C improvements in either Battery A or B. In addition to modernizing the existing batteries, design of a new aeration battery, Battery E, with biological phosphorus removal capability has also begun, with construction scheduled to begin in 2025. This additional battery will replace treatment capacity for the plant at the times the existing batteries are retrofitted with the implementation of the biological phosphorus removal processes. To prepare for the construction of Battery E, a project has been awarded in 2024 to remove the overburden from the site, which should shorten the construction time for Battery E. The Phase I and II battery upgrade projects will begin after the construction of Battery E has been completed, to minimize disruptions at the plant and maintain treatment capacity, with construction anticipated to begin in 2028 and 2031, respectively. Finally, the installation of a chemical backup system, scheduled to be awarded in 2025, will ensure permit compliance when the phosphorus level of the effluent will be 1.0 mg/L or lower by August 2027 and 0.5 mg/L by January 2030.

Table 3: Effluent Phosphorus Permit Schedule

Water Reclamation Plant	Effluent Phosphorus Limit	Permit Timeframe
Stickney WRP	1.0 mg/L 0.5 mg/L	2021 (Permit active) January 2030
Calumet WRP	1.0 mg/L 0.5 mg/L	2024 (Permit active) January 2030
O'Brien WRP	1.0 mg/L 0.5 mg/L	August 2027 January 2030
Kirie WRP	1.0 mg/L 0.5 mg/L	August 2026 January 2030
Egan WRP	1.0 mg/L	January 2031 or 2032 depending on method
Hanover Park WRP	1.0 mg/L	May 2031 or 2032 depending on method
Lemont WRP	1.0 mg/L 0.5 mg/L	To be determined January 2030

The Kirie WRP has successfully implemented biological phosphorus removal through the use of existing infrastructure and temporary measures such as baffle walls and return sludge pumps. While the Kirie WRP is currently removing phosphorus, a more permanent system is still required in order to ensure continued permit compliance, and is scheduled for construction in 2025. This project will install large bubble mixers and baffles to enhance the stability of the biological phosphorus removal process and also install a backup chemical system. As a participant in the DuPage River Salt Creek Watershed workgroup, the new phosphorus permit limit for the Egan and Hanover Park WRPs is further in the future. The District, however, is prepared to construct the necessary phosphorus removal facilities for the Egan and Hanover Park WRPs and complete the modernization and reconfiguration of the last aeration battery at the O'Brien WRP in the coming years. Small scale pilots are currently underway at the Egan and Hanover Park WRPs to assist with determining the best methods to achieve permit required phosphorus reductions. Depending on the outcome of these pilots, a temporary configuration may be constructed at one or both WRPs and information learned from these studies will guide decisions on the required modifications to the facilities. Projects for phosphorus removal modifications at the Hanover Park and Egan WRPs are anticipated to begin in 2031.

Overall Capital Improvement Program Costs

The District's 2025 Capital Improvement Program includes 2025 project awards, program support, and projects under construction at award value with a total estimated cost of approximately \$1,476.3 million. A breakdown of these projects (in millions of dollars) is as follows:

	2025 project awards	\$	722.4
	2025 program support (project support and land)		59.1
	Projects currently under construction (award value)		694.8
	Total	\$ 1	,476.3
♦	A breakdown of projects scheduled for 2025 award by fund is as follows:		
	Construction Fund projects	\$	117.7
	Capital Improvements Bond Fund projects		512.9
	Stormwater Management Fund projects		91.8
	Total	\$	722.4
♦	A breakdown of projects under construction (award value) by fund is as follows:		
	Construction Fund projects	\$	64.0
	Capital Improvements Bond Fund projects		501.4
	Stormwater Management Fund projects		129.4
	Total	\$	694.8

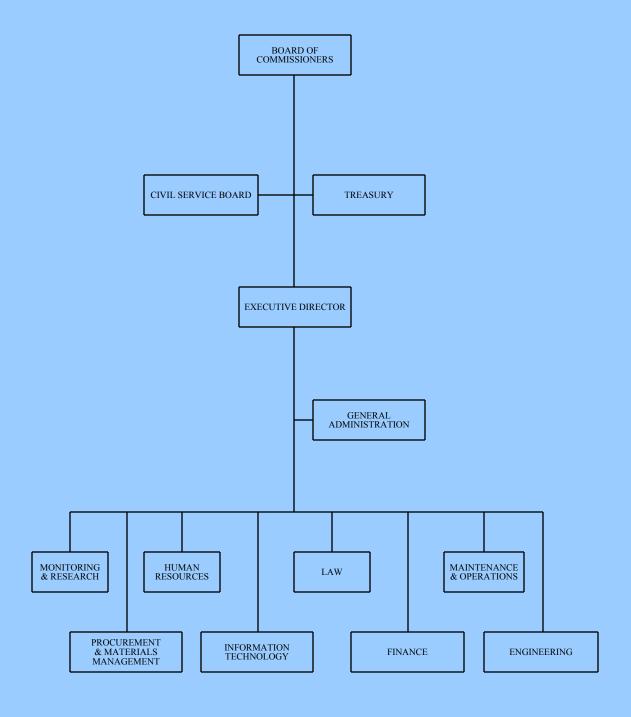
The table on the next page shows the 10-year construction cost projections for the Capital Improvement Program, including Stormwater Management capital projects.

10-YEAR CAPITAL IMPROVEMENT PROGRAM SUMMARY 2020 - 2029 CAPITAL PROJECT CONSTRUCTION COST

	ACTUAL CASH DISBURSEMENTS					ESTIMATED CASH DISBURSEMENTS								7	ΓΟΤΑL					
	_	2020		2021		2022	2023	 2024*	2025 2026		2027		2028		2029		2020-2029			
BY CATEGORY Water Reclamation Plants and Solids Management	\$	52.8	\$	46.2	\$	27.5	\$ 58.3	\$ 50.2	\$	145.7	\$	206.2	\$	262.6	\$	102.4	\$	122.7	\$	1,074.8
Replacement of Facilities	\$	5.3	\$	2.4	\$	4.4	\$ 10.6	\$ 33.5	\$	61.4	\$	57.5	\$	21.8	\$	17.3	\$	28.4	\$	242.4
Collection Facilities	\$	3.8	\$	0.1	\$	0.2	\$ 2.8	\$ 41.4	\$	85.5	\$	46.3	\$	31.1	\$	31.2	\$	28.7	\$	271.3
Stormwater Management	\$	47.2	\$	41.7	\$	30.0	\$ 38.0	\$ 73.2	\$	69.0	\$	57.9	\$	52.7	\$	49.6	\$	48.2	\$	507.4
Tunnel and Reservoir Plan	\$	15.8	\$	7.2	\$	31.3	\$ 17.9	\$ 4.1	\$	14.0	\$	22.1	\$	11.3	\$	13.3	\$	41.3	\$	178.4
TOTAL	\$	124.9	\$	97.5	\$	93.4	\$ 127.7	\$ 202.4	\$	375.5	\$	390.1	\$	379.6	\$	213.8	\$	269.4	\$	2,274.3
BY FUND Stormwater Management Fund	\$	25.8	\$	21.9	\$	23.6	\$ 31.4	\$ 73.2	\$	67.0	\$	57.8	\$	52.5	\$	49.5	\$	48.2	\$	450.8
Construction Fund	\$	7.7	\$	7.2	\$	6.5	\$ 21.9	\$ 26.4	\$	40.5	\$	32.3	\$	34.0	\$	27.9	\$	25.6	\$	230.2
Capital Improvements Bond Fund	\$	91.5	\$	68.3	\$	63.3	\$ 74.4	\$ 102.8	\$	268.0	\$	299.9	\$	293.0	\$	136.4	\$	195.6	\$	1,593.2
TOTAL	\$	124.9	\$	97.5	\$	93.4	\$ 127.7	\$ 202.4	\$	375.5	\$	390.1	\$	379.6	\$	213.8	\$	269.4	\$	2,274.3

- Notes: 1. All project costs are in millions of dollars.
 - 2. Summary includes project construction costs.
 - 3. Information regarding the distribution of funds between the sub-items in the Construction and Capital Improvements Bond Funds can be found in the Five-Year Financial Forecast.
 - 4. Amounts are rounded.

^{*} PROJECTED CASH DISBURSEMENTS



CONSTRUCTION FUND

Fund Summary

The Construction Fund provides for the acquisition of infrastructure assets or the rehabilitation of existing structures that increase the efficiency or extend the useful life of the structure. The useful life of the improvement is at least 15 years and the values are generally less than \$3.0 million. The Construction Fund is a pay-as-you-go capital fund and is funded primarily by property taxes. Recognizing the need to invest in modernizing aging infrastructure, the District allocated \$25.0 million in Personal Property Replacement Tax revenue to the Construction Fund in 2023 and 2024 and plans to allocate \$18.0 million in 2025 and \$15.0 million each year from 2026 to 2029 to finance smaller capital projects on a pay-as-you-go basis.

Summary of 2024 Major Accomplishments

- Completed the installation of a new aeration diffuser system in the North Aeration Battery at the Egan WRP. A study of the aeration system will be performed to identify operational and maintenance improvements;
- Completed the multi-year study that entailed formulating conceptual plans aimed at achieving energy neutrality at one
 WRP by 2030 and District-wide by 2035. Items from the plan need to be reviewed further to ensure feasibility and to
 determine how best to incorporate into the District's overall Capital Improvement Plan to embed resiliency throughout the
 organization;
- Awarded a contract to assist the District with modernizing the biosolids management facilities for the Stickney WRP. The
 contract will explore opportunities to recover, reuse, and monetize resources from the District's biosolids operations;
- Completed the construction of a phosphorus removal facility at the Calumet WRP. The facility will enable the WRP to meet the permit limit for phosphorus removal (1.0 mg/L), which became effective in 2024. Achieving 100 percent permit compliance is a key element of the Strategic Plan Goal of Resource Management;
- Removed failed hydraulic gates at the Stickney WRP for improved control of the influent flow to the Stickney WRP and the Mainstream Tunnel from the Tunnel and Reservoir Plan;
- Continued to invest in new HVAC equipment and systems. These systems are essential to keeping critical equipment, such as laboratory assets, operating continuously and reliably and maintaining air quality and temperatures at acceptable levels. A contract for the Calumet and Stickney Service Areas at an estimated cost of approximately \$19.0 million dollars is scheduled for award in December. A separate contract, also managed by the M&O Department's Asset Management Section, which includes HVAC improvements for the North Service Area at an estimated cost of approximately \$9.0 million dollars for the HVAC component, is scheduled to be advertised in late 2024 and awarded in early 2025;
- Prepared a contract to install new truck scales and all appurtenances at the Stickney WRP and biosolids management sites. The scales, needed to weigh incoming and outgoing biosolids, are critical assets of the biosolids management program;
- Began a multi-phase project to regrade the lagoons at the Calumet Solids Management Area, which are used for storing biosolids. The restoration of the lagoons will increase storage capacity, which is important to effectively managing the flow of incoming and outgoing biosolids;
- Initiated a major project to implement mechanical process improvements in the North and Stickney Service Areas. The
 resulting modifications and improvements should reduce equipment failures, downtime, and maintenance costs, hallmarks
 of a strong asset management program;
- Rehabilitated digester covers in the North Service Area. Digesters, used to treat wastewater solids, are subject to the deterioration that occurs in a harsh operating environment;
- Began a District-wide effort to replace failing roof systems and pavement. Maintaining critical infrastructure, like roofs and roads, contributes to organizational resiliency;
- Restored the exterior facade of the Walters Road Pumping Station in the North Service Area, which was commissioned in 1963. The work eliminated structural deficiencies while modernizing the look of the building to better integrate with the architecture and design of the surrounding residential neighborhood. Projects like these demonstrate the District's commitment to acting as an accountable and responsive neighbor;
- Rehabilitated the Nicholas J. Melas Centennial Fountain, a Chicago landmark, that was built in 1989 to commemorate the 100th anniversary of the District. The fountain serves as a reminder of the District's longstanding environmental advocacy;
- Installed harmonic filters at the tunnel access pump stations, West Side primary tanks, and the aerated grit facility at the Stickney WRP. The filters will improve power quality, prevent damage to equipment, and reduce operational downtime;
- Completed the project to upgrade fire detection systems at various locations, which included removing obsolete equipment and installing new programmable field devices. Fire safety is a fundamental mandate for all District facilities;
- Completed a machine learning study and statistical evaluation to inform a conceptual plan to reduce odors and organic solids in the Thornton Composite Reservoir.

2025 Appropriation

The 2025 appropriation for the Construction Fund is \$81,080,900, an increase of \$6,482,100, or 8.7 percent, from 2024. For the 2025 budget, in addition to the tax levy and existing assets appropriable, which are generally the primary sources of funding, an additional \$18.0 million will be allocated from the Personal Property Replacement Tax. The 2025 value of the Construction Fund Program includes \$38,257,200 for projects under construction and \$37,500,000 for projects scheduled for award in 2025. An additional \$5,323,700 is appropriated for purposes not specifically associated with listed project costs, such as professional engineering services for capital project design and programs and initiatives in connection with biosolids management, energy conservation and neutrality, and process master planning. There are no staff positions budgeted in the Construction Fund.

2025 Budget Highlights

The following budget highlights support the District's Strategic Plan Goal of Resource Management, defined as maintaining a high level of performance while fulfilling the District's core mission of protecting the public health and area waterways and pursuing opportunities to recover and reuse resources. The initiatives described below exemplify the District's goal of maintaining and operating its facilities and assets to provide that high level of service.

Design and maintain a Capital Improvement Program that emphasizes preserving and improving assets for optimal performance, long-term sustainability, and equitable and consistent service delivery

- Design and implement projects with the purpose of providing valuable equipment redundancies, preventing system failures, and maximizing equipment uptime for permit compliance;
- Carefully assess outside forces and influences, such as stakeholder concerns and perceptions and environmental and economic forecasts and conditions, when planning for capital infrastructure needs;
- Continue to build an Asset Management Program that is sustainable, optimizes the life cycle of critical assets, and considers the long-term environmental and financial implications of all plans and activities;
- Allocate resources to ensure that the operating capacity of the District's assets is maintained at a high level. In 2025, the
 District will oversee 41 new and 11 existing Construction Fund projects related to the core programs and functions of
 collection, treatment, solids processing and utilization, and flood and pollution control. An additional 25 projects are under
 development and should be awarded over the five-year planning cycle;
- Provide funding for several major, multi-year projects managed by the Maintenance & Operations Department's Asset Management Section, including mechanical process improvements in the North and Stickney Service Areas, HVAC improvements in the Calumet, North, and Stickney Service Areas, building management system improvements at the Egan WRP, aeration blower improvements at the Stickney WRP, post-digestion centrifuge rehabilitation at the Stickney WRP, gas monitoring system replacements in the North and Stickney Service Areas, installation of shaftless screw conveyors at the Calumet WRP and mechanical equipment improvements for the Tunnel and Reservoir Plan in the Calumet Service Area:
- Upgrade the building automation system infrastructure at operations facilities at the Calumet and Egan WRPs. The building
 management systems manage and monitor the electrical and mechanical equipment, which control the heating, ventilation,
 and air conditioning. The precise control of the systems that manage the ambient environment is critical to the safety of the
 individuals who work with the welding, cutting, and torching equipment and operate the heavy equipment, trucks, and
 machines in the those areas. The upgraded systems will also incorporate improved technologies;
- Update the controls of the Ostara reactors, which are the core of the Ostara nutrient recovery process at the Stickney WRP. To assist with the enhanced biological phosphorus removal (EBPR) process (implemented to meet stricter discharge permit limits), the phosphorus from the post-digestion centrifuge recycle stream is reclaimed using Ostara nutrient recovery technologies. Without the Ostara system, the untreated phosphorus rich recycle stream would circle back to the main treatment process, add to the incoming phosphorus load, and potentially interfere with the stability of the EBPR process. The Ostara system has proven to help stabilize mainstream EBPR performance and reduce the need for polishing chemicals that are used under certain conditions to boost the process. Another major benefit of the Ostara system is its ability to remove phosphorus and nitrogen from the feed water and convert them into a high-value fertilizer and soil conditioner used by a variety of industries;
- Continue to pursue research programs focused on addressing impending or anticipated future regulatory actions, achieving
 energy savings and resource recovery, and driving innovation, all of which are success measures of Resource Management.

The following budget highlights support the District's Strategic Plan Goal of Community Engagement. The initiative described below illustrates the District's determination to serve as a critical community asset, a responsive neighbor, and an inclusive business partner.

Collaborate with similarly motivated agencies and organizations to advance the mission and goals of the District and improve the communities in which they operate

• Maintain membership in the DuPage River Salt Creek Workgroup (DRSCW), which is a non-profit organization formed by local communities, water reclamation plants, and environmental organizations to address water quality issues at the watershed level. The District recently funded and managed a project to remove the Graue Mill Dam to stabilize banks and enhance the surrounding habitat. The project, which is substantially complete, fulfills the District's commitment to support capital improvement projects along the waterway and complies with the Egan and Hanover Park WRPs' National Pollutant Discharge Elimination System provisions to support such waterway improvements in lieu of establishing additional nutrient removal facilities at the WRPs. The total cost of the project is approximately \$9.3 million cost of which the District will pay \$6,010,000. The remainder will be paid by the DRSCW as a reimbursement to the District.

Act as a good neighbor by funding projects designed to preserve and improve the appearance and safety of District properties and facilities and generate community goodwill

• Continue the second phase of a project to replace the fence that borders the Hanover Park WRP and the adjacent elementary school with one that is more secure, durable, and aesthetically pleasing.

The following budget highlight supports the District's Strategic Plan Goal of Resource Management. The initiative described below reflects the District's dedication to establishing resource management practices that strengthen the District's operational position, resulting in reliable and cost-effective services.

Pursue resource recovery opportunities to increase sustainability, recover costs, and improve functionality in the face of a changing environment

• Install a biogas combined heat and power system at the Egan WRP, which will provide a first-hand opportunity to assess and examine the technology and its potential for electricity generation, analyze options for pre-digestion treatment to increase biogas production, and evaluate the return on investment, carbon offsets, and market risks. The biogas-to-energy system is an efficient approach to generating electricity from biogas (a byproduct of the wastewater treatment process) at the point of use. Instead of flaring the biogas and wasting its energy potential, it will be used to recover heat and produce electricity. Extracting the value from biogas is a prime example of what can be recovered and ultimately achieved with a wastewater treatment process that incorporates smart designs and systems.

Construction Fund Program

Awards in 2025					
		Est. Construction		Duration	Est. Award
Project Name	Project Number	Cost	Appropriation	(days)	Date
Upper Des Plaines Dropshafts 1/1A and 5 Rehabilitation and Calumet Dropshaft 34 Modification, NSA and CSA	23-378-38	\$ 6,500	\$ 4,923	458	Jan 2025
Fox River Water Reclamation District (FRWRD) Plantwide Electrical Improvements	23-IGA-36	9,049	943	1,001	Jan 2025
Construction Trailer and Modifications of Supports for Raw Sewage Pump Discharge Pipes, KWRP	22-377-2D	5,215	1,137	730	Feb 2025
Kirie - Egan Solids Pipeline Rehabilitation Section No. 1, NSA	23-416-2S	4,800	2,083	464	Feb 2025
Fox River Water Reclamation District (FRWRD) Albin D. Pagorski WRP Bar Screens	23-IGA-35	625	272	616	Feb 2025
Replace Gas Monitoring Systems, Various Locations	23-635-21	2,000	250	670	Mar 2025
Aeration Blower Improvements, SWRP	24-901-21	5,100	1,500	1,401	Mar 2025
Rehabilitate Aeration Blowers, SWRP	24-908-21	3,600	2,100	670	Mar 2025
Specialized Railroad Car Rehabilitation, SSA	25-922-21	1,800	900	670	Mar 2025
Modify Air Vent Elevation, DS-M13, SSA	J66679-002	350	350	305	Mar 2025
Lockport Powerhouse Buoy Barrier, SSA	25-605-21	235	235	274	Apr 2025
Roof Rehabilitation, Various Locations	25-612-21	4,000	3,000	639	Apr 2025
Remove and Replace Pavement, Various Locations	25-651-21	4,000	3,000	639	Apr 2025
Calumet Union Ditch Wing Wall and Bank Restoration, CSA	J66634-03	150	150	274	Apr 2025
SEPA No. 3 Paver Walkway Improvement, CSA	J66679-05	200	200	274	Apr 2025
Roof Replacement of Building 29, CWRP	J68843-033	324	324	90	Apr 2025
Lagoons 4 and 6 Slope Regrade, CALSMA	J68850-003	500	500	61	Apr 2025
HVAC Improvements to UV Building and Switchgear Building, OWRP	22-093-2M	3,000	581	501	May 2025
Permeable Paver Restoration, EWRP	25-721-21	150	150	60	May 2025
Fence Installation Phase 2, HPWRP	25-724-21	300	300	60	May 2025
Rehabilitation of Algae Removal System, KWRP	25-725-21	270	270	213	May 2025
Rehabilitate Roads and Floor at the Gloria Alitto Majewski Reservoir, KWRP	J67783-47	300	300	91	May 2025
Access Platform Installation, KWRP	J67785-09	200	200	183	May 2025
Replace Epoxy Floor, KWRP	J67785-10	250	250	183	May 2025
Exhaust Fan System Replacements, NSA	J67795-016	300	300	122	May 2025
Pump and Blower Building Floor Modifications, CWRP	J68843-032	370	370	91	May 2025
Fox River Water Reclamation District (FRWRD) Operations and Maintenance Building Replacement	21-IGA-21	416	23	399	Jun 2025
Underground Storage Tank Improvements, Various Locations	22-602-21	900	150	943	Jun 2025
TARP Mechanical Equipment Improvements, CWRP	23-801-21	14,500	1,750	943	Jun 2025

Awards in 2025 (continued)						
Project Name	Project Number	Со	Est. nstruction Cost	2025 Appropriation	Duration (days)	Est. Award Date
Centrifuge Rehabilitation, SWRP	24-902-21	\$	3,900	\$ 1,300	943	Jun 2025
Building Management System Improvements, CWRP and EWRP	25-629-21		6,000	3,500	578	Jun 2025
Roof Rehabilitation, EWRP	25-727-21		2,300	2,300	121	Jun 2025
Replace Ostara Process Controls, SWRP	25-929-21		1,200	1,200	152	Aug 2025
Low Voltage Pump and Blower Switchgear and Aerated Grit Motor Control Center Replacement, SWRP	19-156-2E		6,750	379	492	Sep 2025
HVAC and Sludge Pump Improvements, Various Locations	25-624-21		15,500	500	1,217	Sep 2025
Installation of Shaftless Screw Conveyors in the Aerated Grit Tanks, CWRP	25-821-21		8,200	200	790	Sep 2025
Remove and Replace One 23XL Chiller, Main Office Building	22-404-21		700	350	180	Oct 2025
Trash Rake Improvements, MSPS	25-923-21		2,200	200	456	Oct 2025
Rehabilitate One Electric Motor, SWRP	25-926-21		600	100	608	Oct 2025
Centennial Fountain Stair Restoration, SSA	J66631-26		210	210	91	Oct 2025
Railroad Track Improvements, SSA	20-907-21		750	750	365	Nov 2025
Total 2025 Awards		\$	117,714	\$ 37,500		

Projects Under Construction						
		Co	Est.	2025	Duration	
Project Name	Project Number		Cost	Appropriation	(days)	Award Date
Biogas Combined Heat and Power System, EWRP	20-415-2S	\$	10,596	\$ 6,096	848	Jan 2024
Rehabilitate Digester Covers, Various Locations	23-684-22D		751	500	699	Feb 2024
Biosolids Management Strategy, SWRP	23-RFP-19		1,500	950	903	Jul 2024
Replacement of Telemetry, Various Locations	20-861-2E		3,154	2,964	353	Sep 2024
Remove and Replace Pavement, Various Locations	24-651-21		1,076	1,076	437	Sep 2024
Mechanical Process Improvements, Various Locations	24-601-21		18,000	10,500	790	Nov 2024
HVAC System Replacement, Various Locations	24-638-21		19,144	9,442	1,155	Nov 2024
Centrifuge Improvements at Post-Digestion Centrifuge Facility, SWRP	22-903-21		5,400	2,400	760	Dec 2024
Bathroom Renovation, SWRP	24-110-21		380	350	360	Dec 2024
Roof Rehabilitation, Various Locations	24-612-22		2,400	2,400	360	Dec 2024
Truck Scale Replacements, Various Locations	24-695-22		1,579	1,579	377	Dec 2024
Total Projects Under Construction		\$	63,979	\$ 38,257	•	

Projects Under Development

		Co	Est.	2025	Duration	Est. Award
Project Name	Project Number		Cost	Appropriation	(days)	Date
Furnish, Deliver, and Install Turbo Blowers, EWRP and KWRP	23-704-21	\$	2,500	\$ —	364	Jan 2026
Fire Suppression System for Generators, LPH	26-607-21		150	_	333	Feb 2026
Lighting Improvements, CSA	J68823-003		500		333	Feb 2026
Elevator Upgrades, KWRP and OWRP	21-701-21		4,000		1,036	Mar 2026
Lockport Turbine Generator Rehabilitation, SSA	25-601-21		4,200	_	670	Mar 2026
Building Splash Guard, LPH	26-610-21		2,000		305	Mar 2026
Expand Building Automation System, Main Office Building	J15090-082		1,500	_	670	Mar 2026
Furnish, Deliver, and Install 480V Power Feeds to Aeration Batteries A, B, and C, CWRP	J68823-001		250	_	365	Mar 2026
Edelweiss Slope Restoration, CSA	J66679-06		200		274	Apr 2026
6th Street Construction and Utility Tunnel Rehabilitation and Various Roof Replacements, CWRP	19-257-2D		5,000	_	426	May 2026
Discharge Valve Rehabilitation on Main Sewage Pumps 1-4, SWRP	25-921-21		1,000	_	609	May 2026
Primary Tank Improvements, SWRP	25-924-21		250	_	578	Jun 2026
Furnish, Deliver, and Install Protective Relays, LPH	25-621-21		100	_	548	Jul 2026
Rehabilitation of the Overhead Bridge Crane in the Discharge Valve Chamber, MSPS	21-903-21		1,100	_	456	Oct 2026
Replace Coarse Screens, OWRP	22-702-21		7,800	_	456	Oct 2026
Rehabilitation of Gates and Actuators for Wheel Gates G3 and G4, MSPS	23-903-21		4,000	_	1,187	Oct 2026
Gate Control Equipment Upgrade at TARP Control Structures, KWRP, NSA	06-358-2M		3,000	_	515	Dec 2026
Furnish, Deliver, and Install AC Drives for South Post-Digestion Centrifuges, SWRP	25-925-21		1,050	_	699	Feb 2027
Transformer Fire Barrier, LPH	J66634-04		175		305	Mar 2027
Low-Water Crossing Removal, LPH	27-615-21		800		274	Apr 2027
Digester Rehabilitation, HPWRP	19-541-2P		6,000		512	Jun 2027
Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-129-2D		3,000	_	513	Sep 2027
Replacement of Locomotive Terminal Building, SWRP	18-143-2D		8,000	_	532	Dec 2027
Stickney Effluent Reuse Line, SSA	14-107-2S		1,100		192	Apr 2028
Fox River Water Reclamation District (FRWRD) Biosolids Gas Utilization	21-IGA-20		887	_	589	Sep 2028
Total Future Awards		\$	58,562	•		
Cumulative 2025 Awards, Projects Under Construction, and Future Awards		\$	240,256	•		

Note: All cost figures are in thousands of dollars.

<u>CAPITAL PROJECTS LISTED BY SERVICE AREA - CONSTRUCTION FUND</u>

The following is a list of capital projects within the District's three major service areas. They are presented by their association with a water reclamation plant (WRP) and by their completion status: projects for 2025 award, under construction, or under development.

> **STICKNEY SERVICE** AREA (SSA)



Stickney Water Reclamation Plant (SWRP)

Projects for 2025 Award		Estimate Substanti Completion	ial	Estimated Construction Cost	
•		Completion			
19-156-2E	Low Voltage Pump and Blower Switchgear and Aerated Grit Motor Control Center Replacement, SWRP		\$	6,750,000	
20-907-21	Railroad Track Improvements, SSA			750,000	
22-404-21	Remove and Replace One 23XL Chiller, Main Office Building			700,000	
22-602-21	Underground Storage Tank Improvements, Various Locations			900,000	
24-901-21	Aeration Blower Improvements, SWRP			5,100,000	
24-902-21	Centrifuge Rehabilitation, SWRP			3,900,000	
24-908-21	Rehabilitate Aeration Blowers, SWRP			3,600,000	
25-605-21	Lockport Powerhouse Buoy Barrier, SSA			235,000	
25-612-21	Roof Rehabilitation, Various Locations			4,000,000	
25-651-21	Remove and Replace Pavement, Various Locations			4,000,000	
25-922-21	Specialized Railroad Car Rehabilitation, SSA			1,800,000	
25-923-21	Trash Rake Improvements, MSPS			2,200,000	
25-926-21	Rehabilitate One Electric Motor, SWRP			600,000	
25-929-21	Replace Ostara Process Controls, SWRP			1,200,000	
J66631-26	Centennial Fountain Stair Restoration, SSA			210,000	
J66679-002	Modify Air Vent Elevation, DS-M13, SSA			350,000	
			Total \$	36,295,000	
Projects Under Const	ruction				
22-903-21	Centrifuge Improvements at Post-Digestion Centrifuge Facility, SWRP	12/26	\$	5,400,000	
23-RFP-19	Biosolids Management Strategy, SWRP	12/26		1,500,000	
24-110-21	Bathroom Renovation, SWRP	11/25		380,000	
24-612-22	Roof Rehabilitation, Various Locations	11/25		2,400,000	
24-638-21	HVAC System Replacement, Various Locations	12/27		19,144,000	
24-651-21	Remove and Replace Pavement, Various Locations	11/25		1,076,000	
24-695-22	Truck Scale Replacements, Various Locations	12/25		1,579,000	
			Total \$	31,479,000	

Projects Under Develo	onment	Estimated Substantial Completion Date		Estimated Construction Cost
14-107-2S	Stickney Effluent Reuse Line, SSA	Completion Date	\$	1,100,000
16-129-2D	Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP		*	3,000,000
18-143-2D	Replacement of Locomotive Terminal Building, SWRP			8,000,000
21-903-21	Rehabilitation of the Overhead Bridge Crane in the Discharge Valve Chamber, MSPS			1,100,000
23-903-21	Rehabilitation of Gates and Actuators for Wheel Gates G3 and G4, MSPS			4,000,000
25-601-21	Lockport Turbine Generator Rehabilitation, SSA			4,200,000
25-621-21	Furnish, Deliver, and Install Protective Relays, LPH			100,000
25-921-21	Discharge Valve Rehabilitation on Main Sewage Pumps 1-4, SWRP			1,000,000
25-924-21	Primary Tank Improvements, SWRP			250,000
25-925-21	Furnish, Deliver, and Install AC Drives for South Post- Digestion Centrifuges, SWRP			1,050,000
26-607-21	Fire Suppression System for Generators, LPH			150,000
26-610-21	Building Splash Guard, LPH			2,000,000
27-615-21	Low-Water Crossing Removal, LPH			800,000
J15090-082	Expand Building Automation System, Main Office Building			1,500,000
J66634-04	Transformer Fire Barrier, LPH			175,000
		Total	\$	28,425,000
	Stickney Service	e Area Grand Total	\$	96,199,000

NORTH SERVICE AREA (NSA)



Terrence J. O'Brien Water Reclamation Plant (OWRP) John E. Egan Water Reclamation Plant (EWRP) James C. Kirie Water Reclamation Plant (KWRP) Hanover Park Water Reclamation Plant (HPWRP)

		Estimated Substantial	Estimated Construction
Projects for 2025 Aw	ard	Completion Date	Cost
21-IGA-21	Fox River Water Reclamation District (FRWRD) Operations and Maintenance Building Replacement		\$ 416,300
22-093-2M	HVAC Improvements to UV Building and Switchgear Building, OWRP		3,000,000
22-377-2D	Construction Trailer and Modifications of Supports for Raw Sewage Pump Discharge Pipes, KWRP		5,215,000
23-378-3S	Upper Des Plaines Dropshafts 1/1A and 5 Rehabilitation and Calumet Dropshaft 34 Modification, NSA and CSA		6,500,000
23-416-2S	Kirie - Egan Solids Pipeline Rehabilitation Section No. 1, NSA		4,800,000
23-635-21	Replace Gas Monitoring Systems, Various Locations		2,000,000
23-IGA-35	Fox River Water Reclamation District (FRWRD) Albin D. Pagorski WRP Bar Screens		624,500
23-IGA-36	Fox River Water Reclamation District (FRWRD) Plantwide Electrical Improvements		9,049,300
25-624-21	HVAC and Sludge Pump Improvements, Various Locations		15,500,000
25-629-21	Building Management System Improvements, CWRP and EWRP		6,000,000
25-721-21	Permeable Paver Restoration, EWRP		150,000
25-724-21	Fence Installation Phase 2, HPWRP		300,000
25-725-21	Rehabilitation of Algae Removal System, KWRP		270,000
25-727-21	Roof Rehabilitation, EWRP		2,300,000
J67783-47	Rehabilitate Roads and Floor at the Gloria Alitto Majewski Reservoir, KWRP		300,000
J67785-09	Access Platform Installation, KWRP		200,000
J67785-10	Replace Epoxy Floor, KWRP		250,000
J67795-016	Exhaust Fan System Replacements, NSA		300,000
		Total	\$ 57,175,100

Projects Under Cons	truction	Estimated Substantial Completion Date	Estimated Construction Cost
20-415-2S	Biogas Combined Heat and Power System, EWRP	5/26	\$ 10,595,800
24-601-21	Mechanical Process Improvements, Various Locations	12/26	18,000,000
		Total	\$ 28,595,800
Projects Under Deve	lopment		
06-358-2M	Gate Control Equipment Upgrade at TARP Control Structures, KWRP, NSA		\$ 3,000,000
19-541-2P	Digester Rehabilitation, HPWRP		6,000,000
21-701-21	Elevator Upgrades, KWRP and OWRP		4,000,000
21-IGA-20	Fox River Water Reclamation District (FRWRD) Biosolids Gas Utilization		887,000
22-702-21	Replace Coarse Screens, OWRP		7,800,000
23-704-21	Furnish, Deliver, and Install Turbo Blowers, EWRP and KWRP		2,500,000
		Total	\$ 24,187,000
	North Service	e Area Grand Total	\$ 109,957,900

CALUMET SERVICE AREA (CSA)



Calumet Water Reclamation Plant (CWRP) Lemont Water Reclamation Plant (LWRP)

Projects for 2025 Award	Estimated Substantial Completion Date		Estimated Construction Cost
23-801-21 TARP Mechanical Equipment Improvements, CWRP		\$	14,500,000
25-821-21 Installation of Shaftless Screw Conveyors in the Aerated Grit Tanks, CWRP			8,200,000
J66634-03 Calumet Union Ditch Wing Wall and Bank Restoration, CSA			150,000
J66679-05 SEPA No. 3 Paver Walkway Improvement, CSA			200,000
J68843-032 Pump and Blower Building Floor Modifications, CWRP			370,000
J68843-033 Roof Replacement of Building 29, CWRP			324,000
J68850-003 Lagoons 4 and 6 Slope Regrade, CALSMA			500,000
	Total	\$	24,244,000
Projects Under Construction			
20-861-2E Replacement of Telemetry, Various Locations	8/25	\$	3,153,600
23-684-22D Rehabilitate Digester Covers, Various Locations	12/25		751,000
	Total	\$	3,904,600
Projects Under Development			
19-257-2D 6th Street Construction and Utility Tunnel Rehabilitation and Various Roof Replacements, CWRP		\$	5,000,000
J66679-06 Edelweiss Slope Restoration, CSA			200,000
J68823-001 Furnish, Deliver, and Install 480V Power Feeds to Aeration Batteries A, B, and C, CWRP			250,000
J68823-003 Lighting Improvements, CSA			500,000
	Total	\$	5,950,000
Calumet Service	e Area Grand Total	\$	34,098,600
Capital Projects Grand Total - All Service Areas			240,255,500

Low Voltage Pump and Blower Switchgear and Aerated Grit Motor Control Center Replacement, SWRP

Project Number 19-156-2E

Stickney Service Area

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$6,750,000

Contract Award Date

September 2025

Substantial **Completion Date** January 2027

Project Description This project will replace low voltage switchgear and motor control centers.

Project Justification The electrical equipment is over 30 years old and is in poor condition. To avoid failure and ensure the

appropriate level of service, the equipment must be replaced.

Project Status Planning



Biogas Combined Heat and Power System, EWRP

Project Number 20-415-2S

North Service Area

Egan WRP Location

Engineering Consultant

Baxter & Woodman/Boller Construction, LLC

Engineering Contractor

Baxter & Woodman/Boller Construction, LLC

Estimated Construction Cost \$10,595,800

Contract Award Date

January 2024

Substantial **Completion Date** May 2026

This project entails the installation of a biogas combined heat and power (CHP) system. **Project Description**

Project Justification This project will utilize biogas from the CHP system, which is typically flared, to produce electricity

and recover the heat from the engine for beneficial reuse (hot water heat recovery). The biogas, a byproduct of wastewater treatment, will be beneficially reused. It is anticipated that running one CHP unit will save approximately \$44,000 annually and running two CHP units will save approximately \$100,000 annually.

Project Status Construction



Replacement of Telemetry, Various Locations

Project Number 20-861-2E

Service Area Calumet, North, and Stickney

Location District-wide

Engineering Consultant

In-house design

Engineering Contractor

Connelly Electric Co.

Estimated Construction Cost \$3,153,600

Contract Award Date

September 2024

Substantial Completion Date August 2025

Project Description

This project is to furnish, deliver, and install replacement communications equipment and services for the existing copper phone lines that provide visibility and control of various District remote sites from their respective supervisory plants. The equipment selected will provide secure, bidirectional, periodic commands and readings over cellular radio link to the telecommunications provider's network, as well as the ability to retrieve diagnostic data of the networking equipment itself. The contractor will provide turnkey installation from the Supervisory Control and Data Acquisition interface to the complete field installation.

Project Justification The existing point-to-point copper telemetry lines have been labeled as obsolete by AT&T, which is the District's current service provider. Through this project, these obsolete telemetry lines will be replaced with AT&T fiber connection as the primary interface and cellular as the secondary fail-over service that will communicate between the field and their supervisory plants. It is expected that the new communication system and its associated operating costs will realize actual savings of more than 30 percent.

Project Status Construction

Railroad Track Improvements, SSA

Project Number 20-907-21

Service Area Stickney

Location Stickney Service Area

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$750,000

Contract Award Date

November 2025

Substantial **Completion Date** November 2026

Project Description

This project entails removing and replacing two railroad grade crossings, providing for track drainage improvements, and rehabilitating eight retaining walls. The grade crossings are located outside and to the west of the Stickney WRP.

Project Justification Improvements are necessary to ensure the integrity of the track gauge and prevent derailments. The existing grade crossing under Interstate 55 has noticeably degraded. At other locations outside the Stickney WRP, heavy traffic loads have degraded the crossing and it must be replaced to restore its integrity. There are numerous locations along the track system where poor track drainage causes the track ballast to become fouled with dirt and sediments. Rainwater carries ballast away from the track bed, and existing underdrain piping has been damaged or is no longer at an elevation sufficient to provide effective drainage. At certain locations, the surrounding terrain drains onto the track bed instead of away from it. These conditions keep the wood crossties saturated for extended periods of time and deposit significant amounts of dirt onto the ballast, which in turn impairs the ability of the ballast to retain the rail in place and results in increased maintenance. During more extreme wet weather events at the most susceptible locations, track flooding can reach the top of the rail, forcing the shutdown of the railroad until the floodwaters subside. Retaining walls in the area are in various stages of dilapidation, and some have completely failed, allowing the previously retained material to gradually migrate onto the track bed and interfere with the wheel flanges of the locomotives and dump cars.

Project Status Planning

Fox River Water Reclamation District (FRWRD) Operations and Maintenance Building Replacement

Project Number 21-IGA-21

Service Area North

Location Albin D. Pagorski WRP

Engineering Consultant

Not applicable

Engineering Contractor

Not applicable

Estimated Construction Cost

\$416,300

Contract Award Date

June 2025

Substantial Completion Date July 2026

Project Description This project will replace the operations and maintenance facility with new construction. All the current

facilities will be replaced and updated, and new processes incorporated as needed.

Project Justification This project will replace the operations and maintenance facility, which is past its useful life. A

modern facility is needed to support updated and new processes at the facility.

Project Status Negotiation / Evaluation

HVAC Improvements to UV Building and Switchgear Building, OWRP

Project Number 22-093-2M

Service Area North

O'Brien WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$3,000,000

Contract Award Date

May 2025

Substantial Completion Date October 2026

Project Description The project entails installing new heating, ventilation, and air conditioning rooftop units in the ultraviolet building and new air handling rooftop units in the switchgear building. The existing

equipment is unreliable and ineffective.

Project Justification The existing heat exchangers are not functioning as intended and the dehumidifiers are not necessary.

Project Status Design

Construction Trailer and Modifications of Supports for Raw Sewage Pump Discharge Pipes, KWRP

Project Number 22-377-2D

Service Area North

Location Kirie WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$5,215,000

Contract Award Date

February 2025

Substantial Completion Date

February 2027

Project Description This project will provide a new modular building for use by construction staff and also modify the

pipe supports for the raw sewage pump discharge risers.

Project Justification The modification of pipe supports is required to strengthen structural supports and accommodate

thermal movements. Modifying the supports will restore capacity, extend their service life, and prevent

damage to the pipes. A modular building is required for use by Construction Division staff.

Project Status Design

Remove and Replace One 23XL Chiller, Main Office Building

Project Number 22-404-21

Service Area Stickney

Location Main Office Building

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$700,000

Contract Award Date

October 2025

Substantial Completion Date March 2026

Project Description

The project entails removing and replacing one 23XL Carrier chiller unit at the Main Office Building. The new unit must be energy efficient, use less harmful refrigerant, and be tied into the building automation system.

Project Justification The chiller was installed in 1997. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers' standard for useful life of centrifugal chillers is 23 years. This chiller has now been operational for 24 years. Failure of either existing chiller could have adverse effects on the working conditions of all employees in the Main Office Building due to the inability to regulate the temperature during the summer months. The current unit is also expensive to recharge and uses R-22 refrigerant, an ozone-depleting chemical. Water and electrical energy usage levels are expected to decrease significantly due to the new model's higher efficiency and the automated controls.

Project Status Planning

Underground Storage Tank Improvements, Various Locations

Project Number 22-602-21

Service Area North and Stickney

Location North and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$900,000

Contract Award Date

June 2025

Substantial Completion Date

December 2027

Project Description This project entails improving the District's underground storage tanks, which are used for fleet fueling

operations, by installing containment sumps on the submersible turbine pumps and fuel dispensers.

Project Justification By 2028, regulations issued by the Illinois Office of the State Fire Marshal will require that all submarsible turbing number and find dispensers have containment sumps installed

submersible turbine pumps and fuel dispensers have containment sumps installed.

Project Status Planning



Centrifuge Improvements at Post-Digestion Centrifuge Facility, SWRP

Project Number 22-903-21

Service Area Stickney

Stickney WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$5,400,000

Contract Award Date

December 2024

Substantial Completion Date December 2026

Project Description

The Post-Digestion Centrifuge Facility at the Stickney WRP is currently operated by obsolete equipment. This project entails upgrading and replacing the old equipment. A fiber optic network/ backbone will also be installed to enable the new equipment to communicate seamlessly with the existing network.

Project Justification The current controllers and input/output modules are part of a line of hardware that was discontinued in 2017. Procuring hardware, software, and technical support has become increasingly difficult and costly due to the equipment's obsolescence. The project upgrading to a new system will make the facility's network more reliable and sustainable.

Project Status

Planning

341

Upper Des Plaines Dropshafts 1/1A and 5 Rehabilitation and Calumet Dropshaft 34 Modification, NSA and CSA

Project Number 23-378-3S

Service Area North and Calumet

Location Chicago, Des Plaines and Mount Prospect, IL

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$6,500,000

Contract Award Date

January 2025

Substantial Completion Date April 2026

Project Description

This project will include rehabilitation work at the Upper Des Plaines Dropshaft 5 by means of slip lining or form and pour, repairing 100 feet of 108-inch pipe by either cured-in-place pipe lining or geopolymer lining, repairing 100 feet of the dropshaft exit conduit with geopolymer, replacing deteriorated louvers and grating, abandonment of an existing odor control structure, installing a suppression weir in the Upper Des Plaines Tunnel near Dropshaft 1/1A, installation of new timber backflow gates in Calumet Dropshaft 34, and other necessary work.

Project Justification This project will reduce events of geysering and restore the structural integrity of existing structures.

Project Status Design

Kirie - Egan Solids Pipeline Rehabilitation Section No. 1, NSA

Project Number 23-416-2S

Service Area North

Egan WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$4,800,000

Contract Award Date

February 2025

Substantial Completion Date June 2026

Project Description

This project will consist of the rehabilitation of 2,705 feet of 18-inch sewer by flexible fabric reinforced pipe lining process between stations 0+00 and 27+05. Four manholes will be rehabilitated with spray-on epoxy products and by carbon fiber reinforced polymer lining system.

Project Justification There have been a total of four breaks along the existing 18-inch solids pipeline between stations 0+00 and 27+05 as reported by the Maintenance & Operations Department. The subject contract will rehabilitate the existing pipeline between these stations to address the aforementioned critical areas.

Project Status Design



Replace Gas Monitoring Systems, Various Locations

Project Number 23-635-21

Service Area North and Stickney

Location North Service Area and Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$2,000,000

Contract Award Date

March 2025

Substantial Completion Date

December 2026

Project Description This project will replace gas monitoring systems at the Egan, Hanover Park, O'Brien, and Stickney

WRPs and the North Branch Pumping Station.

Project Justification The current gas monitoring systems are aging and becoming unreliable due to the obsolescence and

unavailability of repair parts. The new systems will provide reliable service and provide more efficient

communication technology, which will result in a safer work environment.

Project Status Planning

Rehabilitate Digester Covers, Various Locations

Project Number 23-684-22D

Service Area Calumet and North

Calumet and Hanover Park WRPs Location

Engineering Consultant

In-house design

Engineering Contractor

Era Valdivia Contractors, Inc.

Estimated Construction Cost \$751,000

Contract Award Date

February 2024

Substantial Completion Date December 2025

Project Description

The rehabilitation of six digester covers each at the Calumet and Hanover Park WRPs will be achieved through surface restoration and the application of a protective coating to reverse the deterioration that occurs in the harsh environment of a wastewater treatment plant. The project will result in the extension of the equipment life cycle.

Project Justification The current condition of the digester covers includes surface deterioration, rust, and foaming sludge buildup. These factors compound the rate of corrosion over time and must be mitigated to prolong the life of the digesters.

Construction **Project Status**



TARP Mechanical Equipment Improvements, CWRP

Project Number 23-801-21

Calumet Service Area

Calumet WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$14,500,000

Contract Award Date

June 2025

Substantial Completion Date December 2027

Project Description

The project entails rehabilitating the suction and discharge valves in the main sewage pumps at the Calumet Tunnel and Reservoir Plan (TARP), integrating the medium voltage drive auxiliary chillers into the house-chilled water system, balancing and aligning rotating assemblies, and upgrading obsolete prime-mover vibration and temperature monitoring systems. Improvements will also be made to the West TARP seal water and compressed air feed systems.

Project Justification The suction and discharge valves are original to the pump station (circa 1985). The valves leak and do not hold a seal which requires the entire pump house to be dewatered and taken out of service to isolate the pumps for routine service. The medium voltage drive auxiliary chillers have proven to be a reliability risk, thus reducing the availability of the pumps.

Project Status Planning

Fox River Water Reclamation District (FRWRD) Albin D. Pagorski WRP Bar Screens

Project Number 23-IGA-35

Service Area North

Location Albin D. Pagorski WRP

Engineering Consultant

Not applicable

Engineering Contractor Not applicable

Estimated Construction Cost

\$624,500

Contract Award Date

February 2025

Substantial Completion Date

October 2026

Project DescriptionThis project is for the replacement of outdated bar screens at the Fox River Water Reclamation District's Albin D. Pagorski WRP. The new screens will be selected for their improved ability to

capture debris. The preliminary design will determine the hydraulic profile.

Project Justification The bar screens are past their useful life. New screens are required to capture more debris to protect

the process facilities.

Project Status Negotiation / Evaluation

Fox River Water Reclamation District (FRWRD) Plantwide Electrical Improvements

Project Number 23-IGA-36

Service Area North

Location Albin D. Pagorski, WRP

Engineering Consultant

Not applicable

Engineering Contractor

Not applicable

Estimated Construction Cost

\$9,049,300

Contract Award Date

January 2025

Substantial Completion Date

October 2027

Project Description This project is for the replacement and updating of electrical systems at the Fox River Water

Reclamation District's Albin D. Pagorski WRP.

Project Justification The electrical systems needs to be replaced to support new facilities and ensure safety.

Project Status Negotiation / Evaluation



Biosolids Management Strategy, SWRP

Project Number 23-RFP-19

Service Area Stickney

Location Stickney WRP

Engineering Consultant

Black & Veatch Corporation

Engineering Contractor

To be determined

Estimated Construction Cost

\$1,500,000

Contract Award Date

July 2024

Substantial Completion Date December 2026

Project Description This project will provide an evaluation of biosolids processing options, perform preliminary engineering for a biosolids processing facility, and prepare a contract for constructing the facility.

engineering for a biosonus processing facility, and prepare a contract for constructing the facility.

Project Justification A new biosolids management facility to process the biosolids from the Stickney WRP is needed to

replace the existing pelletizing facility when it reaches the end of its useful life.

Project Status Awarded



Bathroom Renovation, SWRP

Project Number 24-110-21

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$380,000

Contract Award Date

December 2024

Substantial Completion Date

November 2025

Project Description This project entails demolishing and completely renovating two (2) bathrooms/locker rooms at the SWRP Laboratory building to conform with current Americans with Disabilities Act (ADA) standards.

Project Justification The men's and women's bathroom and locker room areas are original to the building (circa 1960) and not ADA compliant. Many of the fixtures are beyond repair and refurbishment. The upgrades will

improve the functionality of the locker rooms and conform to ADA accessibility standards.



Mechanical Process Improvements, Various Locations

Project Number 24-601-21

Service Area North and Stickney

Location North and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated **Construction Cost** \$18,000,000

Contract Award Date

November 2024

Substantial **Completion Date** December 2026

Project Description

This project entails improving and replacing various mechanical systems and assets in the North and Stickney Service Areas. At the O'Brien and Hanover Park WRPs, launder covers will be installed to prevent undesirable algae growth. Additional improvements to the mechanical systems at the O'Brien WRP include the installation of 18 slide gates with actuators for final settling tanks 15-18 located in Batteries A, B, and C, the installation of a second sodium hypochlorite tank in the grit building, the installation of fabricated drives with precision bearings on primary tanks 9-16, the installation of underground piping, which runs from the final tanks to the scum concentration building, the installation of a rotating slotted pipe system made of non-corrosive materials to remove scum from the primary tank, and the rehabilitation of eight primary tank influent gate actuators and three splitter gate actuators. Additional improvements at the Hanover Park WRP include the rehabilitation of the actuators and valves on the aeration tanks. Other improvements to the mechanical systems in the North Service Area include the installation of upgraded drive shafts made of carbon fiber and reinforced polymer on raw sewage pumps 2 and 4 at the Kirie WRP, the installation of new dewatering pumps at the O'Hare Reservoir, the installation of an insulated heating blanket on the bisulfite tank at the Egan WRP, and the replacement of the seal water break tank and piping at the North Branch Pumping Station. At the Stickney WRP, two final tank drives will be replaced, and six final tank drives will have torque limiters installed to reduce damage in case of rake arm jamming. In all cases, the new equipment is superior to the existing equipment and will improve process performance and reduce equipment failures, downtime, and maintenance costs.

Project Justification The project will result in mechanical systems and assets that perform better due to process modifications and improvements and require less maintenance due to their new or like-new condition.

Roof Rehabilitation, Various Locations

Project Number 24-612-22

Service Area Calumet, North, and Stickney

Location Calumet, North, and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$2,400,000

Contract Award Date

December 2024

Substantial Completion Date November 2025

Project Description

This project entails the rehabilitation of existing roofs at various locations, which are showing signs of significant wear. The scope of work covers localized roof deck restoration including slope remediation, full roofing membrane and insulation replacement, full masonry, and flashing repairs at roof parapets to eliminate water infiltration.

Project Justification Rehabilitation of roofs extends the overall life of the roofs and prevents damage or further degradation to building structures. The need for rehabilitation is based on age, life expectancy, and reliability. The project will minimize future maintenance costs and protect the District's assets. Failure of existing roofs could have adverse effects on vulnerable and sensitive equipment housed in various buildings, which would be extremely costly to replace or repair and could adversely affect District operations. Many roofs have exceeded their expected useful life of 20 years and are no longer under warranty. Rehabilitation of District roofs also ensures a safe working environment for District employees.

HVAC System Replacement, Various Locations

Project Number 24-638-21

Service Area Calumet and Stickney

Location Calumet Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$19,144,000

Contract Award Date

November 2024

Substantial Completion Date December 2027

Project Description

This project entails replacing and improving heating, ventilating, and air conditioning systems at various locations. At the Calumet WRP, a cross-connection between cooling towers will be installed for the Tunnel and Reservoir Plan, the old chiller and cooling towers will be removed at the Pump and Blower Building, and gas and water lines will be installed in the Heavy Equipment Building. At the 95th Street Pumping Station, ventilation improvements will be made in the Screenings Room. At the Stickney WRP, the heating, ventilation, and air conditioning (HVAC) system and two chillers will be replaced, the building management system controls will be upgraded in the Engineering Building, two heat exchangers will be replaced in the Monitoring and Research Building.

Project Justification The need for replacement is based on age, life expectancy, and reliability. The equipment being replaced has experienced chronic failures due to equipment corrosion and leaking coils and piping. The project will minimize future maintenance costs and ensure increased reliability to protect District assets, improve air quality, and provide a safe working environment





Remove and Replace Pavement, Various Locations

24-651-21 **Project Number**

Service Area Calumet, North, and Stickney

Location Calumet, North, and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

K-Five Construction Corporation and McGill

Construction Company

Estimated Construction Cost \$1,076,000

Contract Award Date

September 2024

Substantial Completion Date November 2025

Project Description

This project entails the removal and replacement of deteriorating pavement. The scope of work includes clearing and excavating existing pavement, saw cutting, installing Illinois Department of Transportation type B patch, replacing curbs and gutters, cleaning and sealing cracks, incorporating proper sloping and grading, and resurfacing asphalt pavement in the North, Stickney, and Calumet

Service Areas.

Project Justification Roadway and parking lot pavements in the Calumet, North, and Stickney Service Areas show signs of significant deterioration, which create potential driving and pedestrian hazards. Cracks as wide as six inches and potholes are noted at various facilities at numerous locations. Asphalt cold patch has been applied every year in the past but will not last. The poor condition of the pavement has a negative impact on District vehicles as well as employees' and visitors' vehicles. This project will extend the useful life of the roadways and parking lots and provide safe driving conditions in the WRPs.

Project Status Construction



Truck Scale Replacements, Various Locations

Project Number 24-695-22

Service Area Calumet and Stickney

Location Calumet and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$1,579,000

Contract Award Date

December 2024

Substantial Completion Date

December 2025

Project Description This project is for the installation of new truck scales and all appurtenances at the Stickney WRP,

Calumet East, Calumet West, Marathon, and Vulcan biosolids management sites.

Project Justification The existing truck scales are more than 25 years old and in need of replacement.



Aeration Blower Improvements, SWRP

Project Number 24-901-21

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$5,100,000

Contract Award Date

March 2025

Substantial Completion Date

December 2028

Project Description The Aeration Blower Facility at the Stickney WRP is currently operated by obsolete equipment. This project entails upgrading and replacing the old equipment.

Project Justification The current controllers and input/output modules are part of a line of hardware that was discontinued

in 2017. Procuring hardware, software, and technical support has become increasingly difficult and costly due to the equipment's obsolescence. Upgrading to a new system will make the facility's equipment more reliable and sustainable. In addition to the upgraded temperature and vibration monitor system field devices, the aeration blowers will be outfitted with enhanced fast acting blower

blow-off valves and actuators.



Centrifuge Rehabilitation, SWRP

Project Number 24-902-21

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

Alfa Laval, Inc.

Estimated Construction Cost \$3,900,000

Contract Award Date

June 2025

Substantial Completion Date December 2027

Project Description

This project entails inspecting, rehabilitating, and overhauling 16 thickening (pre-digestion) and 21 dewatering (post-digestion) centrifuges at the Stickney WRP. All work will be performed by the sole source vendor.

Project Justification The current configuration of the Stickney WRP includes 16 pre-digestion centrifuges and 21 postdigestion centrifuges. The project will provide for the full rehabilitation of both styles of centrifuges to ensure that there is adequate machine capacity available to dewater biosolids for processing and eventual beneficial reuse at the Pelletizer Facility and at other outlets, such as farms, golf courses, and public works projects.



Rehabilitate Aeration Blowers, SWRP

Project Number 24-908-21

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

Siemens Energy, Inc.

Estimated Construction Cost

\$3,600,000

Contract Award Date

March 2025

Substantial Completion Date

December 2026

Project Description This project entails inspecting, rehabilitating, and overhauling four blowers at the Stickney WRP.

Project Justification Four axial flow blowers (Nos. 4 through 7) at the Stickney WRP are used to provide air to the aeration tanks and airlifts. Blower No. 7's guide vane stator has sustained damage, preventing it from moving.

The stator is critical as it is used to adjust the air flow based on the WRP's need. The stator on blower No. 4 also needs to be replaced. The blowers are due for an overhaul (every eight years is recommended). The project will include the inspection, rehabilitation, balancing, and replacement of

worn parts for blowers Nos. 4 and 6.



Lockport Powerhouse Buoy Barrier, LPH

Project Number 25-605-21

Service Area Stickney

Location Lockport Powerhouse

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$235,000

Contract Award Date

April 2025

Substantial Completion Date

December 2025

Project Description This project entails installing a public safety boat barrier at the tailrace of the Lockport Powerhouse to

prevent and protect boaters from traveling or drifting dangerously close to the powerhouse during

generator and pit gate operations.

Project Justification Recreational boaters and fishermen are often dangerously close to the tailrace of the powerhouse

despite warning signs. The installation of a barrier will keep them at a safe distance.

Roof Rehabilitation, Various Locations

Project Number 25-612-21

Service Area Calumet, North, and Stickney

Location Calumet, North, and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$4,000.000

Contract Award Date

April 2025

Substantial **Completion Date** December 2026

Project Description

This project entails the replacement and rehabilitation of existing roofs at various locations, which are showing signs of wear, to extend their service life. The scope of work includes the complete removal of the existing roofing systems, including base, flashings, felts, toppings, insulation, gravel, roof accessories, expansion joints, etc. Reinstallation may include a new vapor barrier, new insulation to enable positive drainage and all associated perimeter and penetration metal details and counter flashings. Rehabilitation work can include localized roof deck restoration including slope remediation, full roofing membrane and insulation replacement, masonry, and flashing repairs at roof parapet to eliminate water infiltration.

Project Justification Replacement and rehabilitation of roofs extends the overall life of the roofs and prevents damage or further degradation to building structures. The need for rehabilitation is based on age, life expectancy and reliability. The project will minimize future maintenance costs and protect the District's assets. Failure of existing roofs could have adverse effects on vulnerable and sensitive equipment housed in various buildings, which would be extremely costly to replace or repair and could adversely affect District operations. Many roofs have exceeded their expected useful life of 20 years and are no longer under warranty. Rehabilitating District roofs also ensures a safe working environment for District Employees.

> This project is part of a large-scale undertaking to rehabilitate roofing systems across the three service areas. The first stage of work will be completed under 24-612-22, Roof Rehabilitation, Various Locations.

HVAC and Sludge Pump Improvements, Various Locations

Project Number 25-624-21

Service Area Calumet and North

Location Calumet, Kirie, Egan, and O'Brien WRPs

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$15,500,000

Contract Award Date

September 2025

Substantial **Completion Date** December 2028

Project Description

This project entails replacing and improving heating, ventilating, and air conditioning systems at various locations. At the Egan WRP, upgrades will be made to the chilled water system by replacing chillers, cooling towers, and chilled water pumps. HVAC upgrades at the O'Brien WRP include replacing the air handling unit and upgrading controls at the Pump and Blower House. At the Kirie WRP, two chillers will be replaced, and the HVAC building management system will be upgraded by converting the controls from pneumatic to electric. The project also incorporates sludge pump improvements. At the Egan WRP, the digester transfer pumps will also be upgraded to pump waste sludge directly to the O'Brien WRP. At the Calumet WRP, five recessed impeller scum pumps will be replaced with chopper pumps, and four screw type impeller primary sludge pumps will be replaced with non-clog pumps.

Project Justification The need for replacement is based on age, life expectancy, and reliability. The equipment being replaced has experienced chronic failures due to equipment corrosion and leaking coils and piping. The project will minimize future maintenance costs and ensure increased reliability to protect District assets, improve air quality, and provide a safe working environment.

Building Management System Improvements, CWRP and EWRP

Project Number 25-629-21

Service Area Calumet and North

Calumet and Egan WRPs Location

Engineering Consultant

In-house design

Engineering Contractor

Johnson Controls, Inc.

Estimated Construction Cost \$6,000,000

Contract Award Date

June 2025

Substantial Completion Date December 2026

Project Description

The sole source vendor shall provide all necessary services, including labor, supervision, transportation, tools, parts, materials, instruments, insurance, management, expertise, and equipment to replace building management systems at the Calumet WRP's high-level pump station and aerated grit facility and the Egan WRP. The building management system manages and monitors the electrical and mechanical equipment, which control the heating, ventilation, and air conditioning systems.

Project Justification The precise control of the ventilation system is critical to the safety of the individuals who work with the welding, cutting, and torching equipment and operate the heavy equipment, trucks, and machines in those areas. The existing systems are obsolete and prone to malfunction, and parts are no longer available from the manufacturer. The expected useful life of the replacement panels is 25 years.

Remove and Replace Pavement, Various Locations

25-651-21 **Project Number**

Service Area Calumet, North, and Stickney

Location Calumet, North, and Stickney Service Areas

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$4,000.000

Contract Award Date

April 2025

Substantial **Completion Date** December 2026

Project Description

This project entails the removal and replacement of deteriorating pavement. Scope of work includes clearing and excavation of existing concrete pavement, saw cutting, doweling, sealing, stripping, curb and gutter removal and replacement, cleaning and sealing of cracks, proper sloping and grading and asphalt pavement resurfacing in the North, Stickney, and Calumet Service Areas.

Project Justification Roadway and parking lot pavements show signs of deterioration, developing many potholes, thus creating driving and pedestrian hazards at the North, Stickney, and Calumet Service Areas. Cracks are as wide as six inches and potholes are noted at numerous locations in various facilities. Asphalt cold patch has been applied every year in the past but is not a permanent solution. The poor condition of pavement has a negative impact on District vehicles as well as employees' and visitors' vehicles. This project will extend the useful life of the roadways and parking lots, provide safe driving conditions in the plants, and protect vehicles.

> This project is part of a large-scale undertaking to rehabilitate pavement across the three service areas. The first stage of work will be completed under 24-651-21, Remove and Replace Pavement, Various Locations.

Project Status

Planning

Permeable Paver Restoration, EWRP

Project Number 25-721-21

Service Area North

Egan WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$150,000

Contract Award Date

May 2025

Substantial Completion Date June 2025

Project Description

Restore the permeable pavement parking lot at the Egan WRP, which includes replacing stone joint material, cracked or damaged pavers, and leveling as needed.

Project Justification The permeable pavement parking lot at the Egan WRP naturally diverts stormwater and includes an underdrain system to help alleviate flooding while safeguarding our rivers and natural water resources from pollutants during large rain events. Rehabilitation, including the releveling and replacement, as needed, of the pavers that top this system is required to ensure the drainage system continues to work effectively.

Project Status

Planning



Fence Installation Phase 2, HPWRP

Project Number 25-724-21

North Service Area

Hanover Park WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$300,000

Contract Award Date

May 2025

Substantial Completion Date June 2025

Project Description

This project includes removing the barbed-wire, chain-link fence, which is adjacent to an elementary school, and replacing it with an eight-foot vinyl fence from the eastern edge of the school property to the farm access road.

Project Justification The original barbed-wire and chain-link fencing is functional but visually unappealing. The area of the Hanover Park WRP that contains the digesters borders an elementary school property, along which runs a narrow 2000-foot-long walkway. An upgrade to vinyl fencing will provide better screening and improve the overall aesthetics of the area.



Rehabilitation of Algae Removal System, KWRP

Project Number 25-725-21

Service Area North

Kirie WRP Location

Engineering Consultant

In-house design

Engineering Contractor

Ford Hall Company, Inc.

Estimated Construction Cost \$270,000

Contract Award Date

May 2025

Substantial Completion Date November 2025

Project Description

Rehabilitation and replacement of brushes and mechanical components for the Weir Wolf (trademark), Algae Sweep Automation (trademark) equipment systems. The work will be performed by the sole source vendor.

Project Justification The Algae Sweep Automation system prevents algae growth, reducing suspended solids during the treatment process. Worn and malfunctioning parts fail to prevent excess algae growth. This growth adds solid volume to the treatment process which inhibits the effectiveness of the treatment and can negatively affect turbidity levels required by permit.

Project Status

Planning



Roof Rehabilitation, EWRP

Project Number 25-727-21

Service Area North

Location Egan WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$2,300,000

Contract Award Date

June 2025

Substantial Completion Date September 2025

Project Description

This project entails replacing the roofing systems of the maintenance, thickener, and pre-treatment buildings at the Egan WRP. The project scope includes the complete tear off and replacement of approximately 78,000 square feet of existing foam roofing systems and the replacement of obsolete roof top equipment and all necessary flashing.

Project Justification The roofs have reached the end of their useful lives and must be replaced. Failure to replace the roofing systems could result in interior and structural damage to the buildings.



Installation of Shaftless Screw Conveyors in the Aerated Grit Tanks, CWRP

Project Number 25-821-21

Service Area Calumet

Location Calumet WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$8,200,000

Contract Award Date

September 2025

Substantial Completion Date October 2027

Project Description

This project entails the demolition of eight traveling bridges and the installation of seven shaftless screw conveyors and eight tank covers/ E-fans.

Project Justification The Calumet WRP Grit Building has eight traveling bridge grit tanks which were installed nine years ago. There have been seven bridge misalignment issues in four years. The festoon rollers have been replaced at a cost of approximately \$4,500 per tank. There have also been numerous problems with proximity and limit switches. The District has investigated putting the bridges on rails to eliminate misalignments. The cost of parts alone is \$177,880. A grit conveyor was installed on Grit Tank #2 for \$405,000. Screw conveyors are less complex than the traveling bridges because they have fewer moving parts. Electrical components on the traveling bridges are prone to failure due to hydrogen sulfide. The screw conveyors will be controlled through a distributed control system, so very few electrical components will be exposed to hydrogen sulfide. The grit tanks will be covered and connected to the existing exhaust fans to reduce hydrogen sulfide in the building.

Project Status

Planning

Specialized Railroad Car Rehabilitation, SSA

Project Number 25-922-21

Service Area Stickney

Stickney WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$1,800,000

Contract Award Date

March 2025

Substantial Completion Date December 2026

Project Description

The purpose of this project is to rehabilitate rail mounted dump cars use to transport biosolids cake from the Stickney WRP's Post Digestion facility to the Harlem Avenue, Lawndale Avenue, and Vulcan biosolids drying sites. Dump cars will be transported out to the service provider's shop and returned via the Canadian National Railroad network system.

Project Justification A comprehensive rehabilitation of the rail-mounted biosolids dump cars is required to ensure the continuity and reliability of the critical biosolids operation in the Stickney Service Area.

Project Status

Planning

Trash Rake Improvements, MSPS

Project Number 25-923-21

Service Area Stickney

Location Mainstream Pumping Station

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$2,200,000

Contract Award Date

October 2025

Substantial Completion Date December 2026

Project Description

The trash rake facility at the Mainstream Pumping Station is currently operated by obsolete control equipment. This project entails upgrading and replacing the programmable logic controller, input/ output, and human machine interface graphic communication hardware and software for the east and west trash rakes and clamshell which service the north and south pump houses. The trash rakes help clean the screens and trash rakes to ensure water continues to flow unimpeded into the plant.

Project Justification The current controllers and input/output modules are part of a line of hardware that was discontinued in 2017. Procuring hardware, software, and technical support has become increasingly difficult and costly due to the equipment's obsolescence. Upgrading to a new system will make the facility's network more reliable and sustainable.

Rehabilitate One Electric Motor, SWRP

Project Number 25-926-21

Service Area Stickney

Location Pump and Blower Facility, Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$600,000

Contract Award Date

October 2025

Substantial Completion Date

June 2027

Project Description This project entails rewinding the motor stator and refurbishing the rotor on aeration blower motor No.

7 at the Stickney WRP.

Project Justification Overhaul testing revealed that the stator windings are nearing the end of their useful life. To restore the

blower to operation, the motor stator must be rewound, and new temperature monitoring devices

installed. The rotor will be tested and refurbished.

Replace Ostara Process Controls, SWRP

Project Number 25-929-21

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$1,200.000

Contract Award Date

August 2025

Substantial Completion Date December 2025

Project Description

This project entails the removal and replacement of process control hardware and software for the Ostara Phosphorus Recovery System at Stickney WRP. The Ostara process recovers phosphorus from the centrifuge centrate and removes it from the process stream. The phosphorus recovery, in addition to the enhanced biological nutrient removal occurring at the Stickney WRP, lowers the District's effluent phosphorus concentration and returns the phosphorus back to the supply chain. Scope of work includes installation of new hardware, including power supplies and inputs/outputs, installation of redundant processors, new operator human machine interface (HMI) and restoration and testing of the operating system once the upgrades are complete.

Project Justification The hardware for the Ostara operating system that is presently installed is no longer supported by the manufacturer. Parts availability has significantly decreased in the last several years and the ability to perform repairs will become even more limited. The Phosphorus Recovery System is integral to the District's long term sustainable goals and ensuring its continued operation into the future is important. This project will safeguard the availability of the equipment and provide increased redundancy and reliability to operations.

Project Status

Planning

Centennial Fountain Stair Restoration, SSA

Project Number J66631-26

Service Area Stickney

Location Nicholas J. Melas Centennial Fountain

Engineering Consultant

In-house design

Engineering Contractor

Anchor Mechanical, Inc.

Estimated Construction Cost

\$210,000

Contract Award Date

October 2025

Substantial Completion Date

December 2025

Project Description This project entails removing failing and deteriorated caulking material from the cascading water stairs

at Centennial Fountain.

Project Justification Leakage from the pools directly above the cascading water stairs has deteriorated and pushed out

caulking material between the granite stairs. Replacing the caulking material will reseal the joints between the cascading stairs and improve the aesthetics of the fountain. Replacing the caulking

material will also eliminate remnant amounts of asbestos containing material.

Calumet Union Ditch Wing Wall and Bank Restoration, CSA

Project Number J66634-03

Service Area Calumet

Location Hazel Crest, Illinois

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost

\$150,000

Contract Award Date

April 2025

Substantial Completion Date

December 2025

Project Description This project entails replacing and installing a new outfall concrete wing wall and restoring the eroded

bank of the Calumet Union Ditch Pool No. 5.

Project Justification Replacing the wing wall and restoring the bank will prevent erosion occurrences and the deterioration

of Pool No. 5 in the overall reservoir system.

Modify Air Vent Elevation, DS-M13, SSA

Project Number J66679-002

Service Area Stickney

Dropshaft M13 Location

Engineering Consultant

In-house design

Engineering Contractor

Anchor Mechanical, Inc.

Estimated Construction Cost \$350,000

Contract Award Date

March 2025

Substantial Completion Date December 2025

Project Description

This project will raise the elevation of Tunnel and Reservoir Plan (TARP) Dropshaft M13 air vent by eight feet. The work will include removing the existing steel grating and beams, extending the existing air vent shaft core with reinforced concrete, and installing new steel girders and new 72-inch diameter grating.

Project Justification During severe rain events, the dropshaft air vent experiences stormwater geysering, causing the steel grating to lift and shift from the structure. The air vent is the first point of pressure relief. Extending the structure eight feet above the current ground elevation and above the dropshaft will safely contain the geysering effect. This solution was implemented within the Mainstream TARP system and has proven to be reliable.

Project Status

Planning



SEPA No. 3 Paver Walkway Improvement, CSA

Project Number J66679-05

Service Area Calumet

Blue Island, Illinois Location

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost \$200,000

Contract Award Date

April 2025

Substantial Completion Date December 2025

Project Description

This project entails removing, salvaging, re-leveling, and re-installing pavers to create a walkway surface that is substantially compliant with recommendations articulated in the Americans with

Disabilities Act.

Project Justification Area residents with disabilities find it challenging to traverse the existing paver walkways around and through Sidestream Elevated Pool Aeration Station No. 3 due to the uneven surface caused by tree roots, failing base material, etc. The existing pavers will be removed and salvaged, deficient areas repaired and re-leveled, and pavers re-reinstalled to make it easier for all residents to visit the station.



Rehabilitate Roads and Floor at the Gloria Alitto Majewski Reservoir, KWRP

Project Number J67783-47

Service Area North

Kirie WRP Location

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc

Estimated Construction Cost \$300,000

Contract Award Date

May 2025

Substantial Completion Date July 2025

Project Description

The concrete road located on the outer rim of the Gloria Alitto Majewski Reservoir provides access to the reservoir floor. It is original to the facility and has failing concrete sections that require rehabilitation and reinforcement. The floor of the reservoir, also concrete, requires full cut, removal, and replacement of concrete slabs.

Project Justification The concrete road is utilized by trucks to plow the bottom of the reservoir for odor control. It also provides access for inspections by the U.S. Army Corps of Engineers. Concrete reinforcement and replacement are necessary to provide safe and reliable access to this area.



Access Platform Installation, KWRP

Project Number J67785-09

Service Area North

Kirie WRP Location

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost \$200,000

Contract Award Date

May 2025

Substantial Completion Date October 2025

Project Description

Contractor will design, furnish, and install permanent access elevated walkways in the grit garage of the pre-treatment building at the Kirie WRP. Materials include platform walk grates and stair treads constructed of galvanized bar grate to be mechanically fastened at all corners.

Project Justification The walkways are necessary to provide safe access and egress around four dumpster locations while the dumpsters are loading with grit and staff are raking the fine screens.



Replace Epoxy Floor, KWRP

Project Number J67785-10

Service Area North

Location Kirie WRP

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost

\$250,000

Contract Award Date

May 2025

Substantial Completion Date

October 2025

Project Description This project entails removing and replacing the epoxy flooring at Building 3, the pre-treatment

building at the Kirie WRP.

Project Justification The existing epoxy flooring is original to the building and has chipped away creating a tripping hazard

for personnel. The uneven floor surface is also hard to clean and leaves areas that cannot be properly

disinfected.



Exhaust Fan System Replacements, NSA

Project Number J67795-016

Service Area North

Egan, Hanover Park, Kirie, and O'Brien WRPs Location

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost \$300,000

Contract Award Date

May 2025

Substantial Completion Date August 2025

Project Description

The project entails removing and replacing existing exhaust fan networks in various areas of the Egan, Hanover Park, Kirie, and O'Brien WRPs. Many of the existing exhaust systems are more than 40 years old and original to the buildings.

Project Justification Exhaust systems are crucial to the safety and design of these facilities. Fumes from processing sludge, if allowed to concentrate, are combustible and hazardous when inhaled. The prioritized replacement of exhaust systems ensures the safety of District employees and the protection of its facilities. Newer systems also provide an energy efficiency over models produced when these systems were first installed.



Pump and Blower Building Floor Modifications, CWRP

Project Number J68843-032

Service Area Calumet

Calumet WRP Location

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost \$370,000

Contract Award Date

May 2025

Substantial **Completion Date** July 2025

Project Description

Replace the existing Pump and Blower Building floor beams and install in-fills. The work includes the saw cut of misaligned concrete edges and the installation of steel with concrete decking to match the finished floor. The contractor will lower the beams/in-fills 1" or as needed to accommodate the new matching finished floor.

Project Justification Five blowers were removed from the Pump and Blower Building at the Calumet WRP, leaving behind five large holes in the concrete flooring. Three holes remain; they are located two stories above the subfloor. The structural modifications will provide for safe egress. This project also provides an opportunity to repurpose the space for the expansion of the machine shop.



Roof Replacement of Building 29, CWRP

Project Number J68843-033

Service Area Calumet

Location Calumet WRP

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost

\$324,000

Contract Award Date

April 2025

Substantial Completion Date June 2025

Project Description

Replace Section 1 of the Building 29 roof. The roof specification shall be the District standard Styrene-Butadiene-Styrene (SBS) modified bituminous roofing system. The area of roof work is 6,200 square feet at a height of 16 Feet and is located on the northeast side of building.

Project Justification

Replacing the roof is necessary to stop water leakage into the storage room office spaces and lunchroom where personnel detected ceiling damage and mold growth on walls.



Lagoons 4 and 6 Slope Regrade, CALSMA

Project Number J68850-003

Service Area Calumet

Location Calumet Solids Management Area

Engineering Consultant

In-house design

Engineering Contractor

McDonagh Demolition, Inc.

Estimated Construction Cost \$500,000

Contract Award Date

April 2025

Substantial Completion Date June 2025

Project Description

Many of the biosolids lagoons at the Calumet WRP still have the original clay-lined bottoms that over time have been compromised due to the use of heavy equipment to remove and process the biosolids for beneficial reuse. Services are required to restore the lagoons to their original slope. This project will provide restoration that includes regrading and adding material.

Project Justification The lagoons cannot be emptied in their entirety due to the compromised state of the slope, which, when properly graded allows solids to drain to draw off boxes at the low end of the lagoons. The project will provide restoration that will add to the useful life of the lagoons and ensure all space is efficiently emptied and available for future operations.

Project Status Planning

50000 CONSTRUCTION FUND

OBJECTIVES AND PROGRAM SUMMARY

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OBJECTIVES BY PRIORITY:	Cost	Percent
COLLECTION FACILITIES: Pursue projects, such as the replacement of Tunnel and Reservoir Plan equipment at the Calumet WRP, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 7,823,700	9.7 %
2. TREATMENT FACILITIES: Pursue projects, such as the replacement of heating, ventilation, and air conditioning systems, District-wide and the rehabilitation of centrifuges at the Stickney WRP, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 28,955,500	35.7 %
3. SOLIDS PROCESSING AND UTILIZATION FACILITIES: Pursue projects, such as the rehabilitation of the railroad tracks used to transport biosolids in the Stickney Service Area, which will reduce costs and/or provide facility improvements.	\$ 3,030,700	3.7 %
4. FLOOD AND POLLUTION CONTROL: Provide funding for construction projects addressing flood control.	\$ 763,800	0.9 %
5. CONSTRUCTION FUND PROJECT COST: Provide funding for contracts awarded prior to 2025.	\$ 38,257,200	47.2 %
6. PROJECT SUPPORT: Development, design, and administration of current and future contracts, funding support, construction materials, and utility support services.	\$ 2,250,000	2.8 %
	Totals \$81,080,900	100.0 %

PROGR <i>A</i>	AMS BY PRIORITY:	2023		Budgeted	Chan	ige
Number	Name	Actual	'	FTEs Dollars	Dollars	Percent
1700	Collection System Design	\$ —	2025 2024	- \$ 117,700 - \$ -	\$ 117,700	100.0
1800	Collection Construction	\$ 814,770	2025 2024	\$10,670,400\$11,704,400		(8.8)
2800	Treatment Construction	\$16,074,588	2025 2024	\$52,873,500\$33,184,700	1 ' '	59.3
3700	Solids Processing Design	\$ —	2025 2024	\$ 350,900\$ 1,710,900	\$(1,360,000)	(79.5)
3800	Solids Processing Construction	\$ 125,789	2025 2024	— \$ 9,925,600 — \$ 9,104,100	1	9.0
1207	Centennial Fountain	\$ 19,291	2025 2024	— \$ 210,000 — \$ 3,722,300	\$(3,512,300)	(94.4)
1600	Monitoring	\$ 2,396,901	2025 2024	— \$ 1,900,000 — \$ 1,500,000	\$ 400,000	26.7
1800	Flood and Pollution Control Construction	\$ 1,557,343	2025 2024	\$ 1,853,800 \$ 9,864,900	1 ` ′ ′ ′	(81.2)
5800	Solids Utilization Construction	\$ 926,813	2025 2024	- \$ 2,829,000 - \$ 2,707,500	1	4.5
7460	Main Office Building Complex Services	\$ —	2025 2024	- \$ 350,000 - \$ 1,100,000	1 ' '	(68.2)
		Totals \$21,915,495	2025 2024	— \$81,080,900 — \$74,598,800	\$ 6,482,100	8.7 %

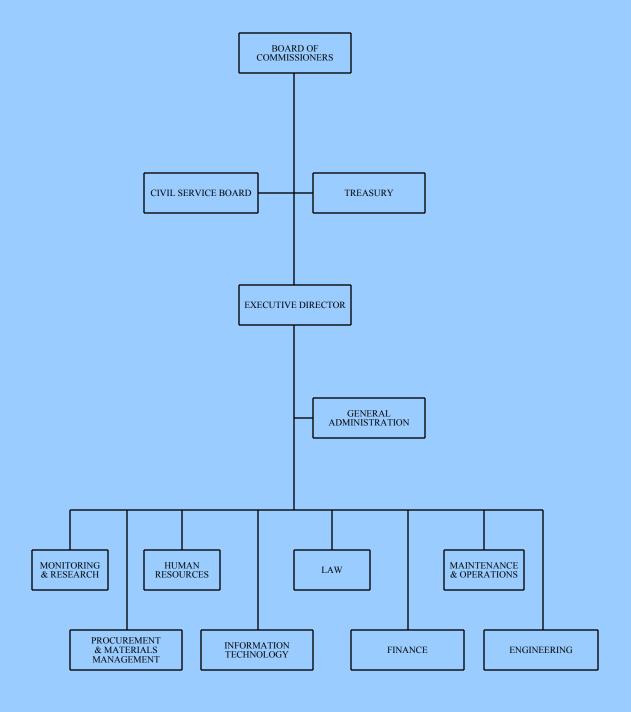
Projects budgeted in the Construction Fund, a pay-as-you-go capital fund, are prioritized based on operational needs, design time frames, and available funding. Year-over-year variances in program area budgets are the result of project timing within the five-year capital planning cycle.

201	Fund: Construction	LINE ITEM ANALYSIS						
50000	Department: Engineering							
		2023		20	24		20	25
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/24	Expenditure (Committed Budget plus Disbursement) 09/30/24	Estimated Expenditure 12/31/24	Proposed by Executive Director	Recommended by Committee on Budget and Employment
612240	Testing and Inspection Services	\$ 178,433	\$ 366,000	\$ 366,000	\$ 336,867	\$ 262,000	\$ 448,500	s —
612400	Intergovernmental Agreements	1,789,772	10,657,700	10,657,700	7,268,149	6,210,900	2,206,700	_
612430	Payments for Professional Services	555,858	850,000	850,000	572,813	572,900	1,450,000	_
612440	Preliminary Engineering Reports and Studies	_	_	_	_	_	117,700	_
612450	Professional Engineering Services for Construction Projects	432,007	3,338,300	3,338,300	2,007,519	1,410,000	987,900	_
200	TOTAL CONTRACTUAL SERVICES	2,956,070	15,212,000	15,212,000	10,185,348	8,455,800	5,210,800	_
645620	Waterway Facilities Structures	_	_	_	_	_	235,000	_
645650	Process Facilities Structures	14,161,405	11,682,600	11,682,600	11,281,686	7,362,600	6,675,600	_
645680	Buildings	739,613	2,643,400	2,643,400	737,306	1,023,200	2,071,200	_
645700	Preservation of Collection Facility Structures	362,707	12,164,400	12,164,400	5,142,896	2,161,200	11,170,400	_
645720	Preservation of Waterway Facility Structures	19,291	3,908,400	3,908,400	2,077,905	2,000,000	560,000	_
645750	Preservation of Process Facility Structures	1,374,750	15,186,300	15,186,300	3,932,230	1,904,000	30,010,600	_
645780	Preservation of Buildings	1,374,845	11,544,200	11,544,200	3,224,677	2,764,900	22,847,300	_
645790	Preservation of Capital Projects, N.O.C.	926,813	2,257,500	2,257,500	845,671	767,500	2,300,000	_
500	TOTAL CAPITAL PROJECTS	18,959,425	59,386,800	59,386,800	27,242,371	17,983,400	75,870,100	_
TOTAL (CONSTRUCTION FUND	\$ 21,915,495	\$ 74,598,800	\$ 74,598,800	\$ 37,427,719	\$ 26,439,200	\$ 81,080,900	\$

NOTES: 1. Amounts may not add up due to rounding.

^{2.} Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

NOTE PAGE



CAPITAL IMPROVEMENTS BOND FUND

Fund Summary

The Capital Improvements Bond Fund is used when acquiring an asset that meets the definition of a capital asset: the cost typically exceeds \$500,000 and generally, the useful life will be at least 20 years. Capital projects pursued by the Engineering Department are: (a) preservation/rehabilitation of existing infrastructure to maintain service levels, (b) improvement of environmental quality, or (c) commitment to community through process optimization. The Capital Improvements Bond Fund is funded by the sale of bonds and receipt of loans from the Illinois Environmental Protection Agency and State Revolving Loan Fund. The use of these funds is governed by state statutes and federal guidelines.

Summary of 2024 Major Accomplishments

- In support of the Strategic Plan initiative of maintaining a high level of permit compliance as requirements evolve, the District awarded contracts including:
 - 08-174-3D, Battery A Improvements and Battery B Installation of Mechanical Mixers, SWRP;
 - 23-098-3P, Overburden Removal at Location of Battery E, OWRP.
- In support of the Strategic Plan initiative of managing assets to maintain optimal performance and long-term sustainability, the District awarded contracts for the rehabilitation of intercepting sewers and other collection system improvements, including:
 - 01-103-AS, 39th Street Conduit Rehabilitation Phase II, SSA;
 - 10-047-3S, North Shore 1 Rehabilitation, NSA;
 - 20-161-3S, Salt Creek Intercepting Sewer No. 3 Rehabilitation, SSA.
- Continuing its efforts to perform condition assessments of roofs, pumping stations, roads, and concrete structures located at treatment plants and to prepare contracts for rehabilitation as required, the District awarded contracts including:
 - 19-083-3P, Upgrade Wilmette Lift Station, NSA;
 - 22-094-3D, Rehabilitation of Elevated Deck and Boat Dock at North Branch Pumping Station, NSA.
- Continuing its efforts to add value and be a good neighbor, the District awarded the following contract:
 - 17-273-4P, Furnish and Install Odor Control System at Thornton Reservoir.

2025 Appropriation

The 2025 appropriation for the Capital Improvements Bond Fund is \$560,924,500, an increase of \$252,645,900, or 82.0 percent, from 2024. There are no staff positions budgeted in the Capital Improvements Bond Fund. The 2025 appropriation includes construction costs for capital projects to be awarded in 2025 in the amount of \$512.9 million. The remaining \$48.0 million includes funding for the acquisition of easements, bond issuance costs, allowances for contract change orders, and legal and other support services relating to capital projects.

2025 Budget Highlights

The following budget highlights support the District's Strategic Plan Goal of Resource Management. The initiatives highlighted below illustrate how the District is maintaining a high level of performance on the core mission of protecting the public health and area waterways while pursuing opportunities to recover, reuse, and monetize resources.

Maintain a high level of permit compliance as requirements evolve

- To comply with the requirements of the National Pollutant Discharge Elimination System permit for the Kirie and O'Brien WRPs, the District will award three contracts with an estimated construction cost of \$392.1 million:
 - 19-375-3P, Phosphorus Removal, KWRP;
 - 20-087-3P, Chemical Phosphorus Removal, OWRP;
 - 21-092-3P, Battery E Activated Sludge Facility, OWRP.

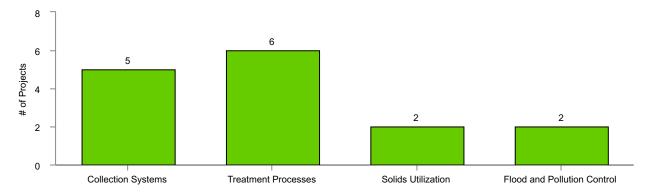
Manage assets to maintain optimal performance and long-term sustainability

- Award four contracts for the rehabilitation of intercepting sewers and other collection system work, with an estimated construction cost of \$35.4 million:
 - 12-369-3S, Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA;
 - 20-160-4H, TARP Mainstream Dropshaft DS-M73E at Armitage Avenue, SSA;
 - 20-162-3S, West Side Intercepting Sewer No. 2 Rehabilitation, SSA;
 - 23-173-3S, Southwest Side Intercepting Sewer No. 15, 16, and 17B Rehabilitation, SSA.
- Award three contracts for improvements to process facilities and mechanical equipment, with an estimated construction cost of \$32.0 million:
 - 19-255-3D, Rehabilitation of Pump and Blower House, CWRP;
 - 24-098-3S, North Side Sludge Pipeline Replacement Section 2, OWRP;
 - 24-269-3P, Install Pipe Casing and Utilities Under Rail Road Tracks to Dewatering Facility, CWRP.

- Award two contracts for the modernization of power distribution and control systems, with an estimated construction cost of \$37.0 million:
 - 19-856-3E, TARP Control System Replacement, CSA, NSA, SSA;
 - 23-379-3E, Switchgear and Motor Control Center Replacement, KWRP.
- Continue the Engineering Department's 30-year program to rehabilitate concrete structures, roofs, pumps, roads, and outlying stations to ensure the continued reliability and longevity of its facilities for the next 100 years. Three contracts will be awarded in support of this program, with an estimated construction cost of \$16.5 million:
 - 19-154-3E, Low Voltage Switchgear Replacement, MSPS;
 - 24-176-3H, North and South Guard Valve Chambers Shotcrete Lining Rehabilitation, MSPS;
 - 24-384-3D, Rehabilitation of Service Tunnel Expansion Joints and Replacement of Road E, KWRP.

In 2025, there are 15 projects scheduled for award in the Capital Improvements Bond Fund. The breakdown by program is displayed in the exhibit below.

Capital Improvements Bond Fund Projects Scheduled for 2025 Award



Capital Improvements Bond Fund Program

Awards in 2025				
Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Chemical Phosphorus Removal, OWRP	20-087-3P	\$ 14,000	684	Jan 2025
Switchgear and Motor Control Center Replacement, KWRP	23-379-3E	12,000	355	Jan 2025
Rehabilitation of Service Tunnel Expansion Joints and Replacement of Road E, KWRP	24-384-3D	4,500	970	Feb 2025
Phosphorus Removal, KWRP	19-375-3P	10,300	316	Mar 2025
Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S	7,750	402	Apr 2025
TARP Mainstream Dropshaft DS-M73E at Armitage Avenue, SSA	20-160-4Н	12,600	347	Apr 2025
Rehabilitation of Pump and Blower House, CWRP	19-255-3D	18,000	692	May 2025
North Side Sludge Pipeline Replacement - Section 2, OWRP	24-098-3S	2,000	352	May 2025
Battery E Activated Sludge Facility, OWRP	21-092-3P	367,751	981	Jun 2025
Low Voltage Switchgear Replacement, MSPS	19-154-3E	9,000	682	Sep 2025
North and South Guard Valve Chambers Shotcrete Lining Rehabilitation, MSPS	24-176-3H	3,000	704	Sep 2025
TARP Control System Replacement, CSA, NSA, SSA	19-856-3E	25,000	503	Oct 2025
West Side Intercepting Sewer No. 2 Rehabilitation, SSA	20-162-3S	3,000	492	Oct 2025
Southwest Side Intercepting Sewer No. 15, 16, and 17B Rehabilitation, SSA	23-173-3S	12,000	564	Oct 2025
Install Pipe Casing and Utilities Under Rail Road Tracks to Dewatering Facility, CWRP	24-269-3P	12,000	443	Oct 2025
Total 2025 Awards		\$ 512,901		

Projects Under Construction

Projects under construction in the Capital Improvements Bond Fund were appropriated in prior years using the full encumbrance (obligation) method of budgetary accounting. The construction contract award amount and the full project duration are provided in this table.

	D : .	Est.	D (A 1
Project Name	Project Number	Construction Cost	Duration (days)	Award Date
Mainstream TARP Pumps Rehabilitation at the Stickney Water Reclamation Plant	18-144-3M	\$ 23,558	2,124	Apr 2021
Furnish, Deliver, and Install Coarse Screens, SWRP	20-903-31	4,188	1,411	May 2021
Central Boiler Facility and Electrical Updates, Hanover Park Water Reclamation Plant, Rebid	19-542-3MR	14,046	1,412	Nov 2021
Chemical Addition Backup System, Stickney Water Reclamation Plant	19-159-3P	8,777	1,102	Feb 2022
Furnish, Deliver, and Install Disc Filters at the Egan Water Reclamation Plant	18-702-31	9,143	1,043	Mar 2022
Rehabilitation of Steel Spandrel Beams of Pump and Blower House, O'Brien Water Reclamation Plant	15-069-3D	22,324	1,518	Apr 2022
Sludge Pumping Improvements, Various Locations	21-603-31	8,595	1,108	Apr 2022
North Side Sludge Pipeline Replacement - Section 1, NSA, Rebid	07-027-3SR	27,897	1,173	Jun 2022
Roof Replacement of the Lue-Hing M&R Complex, Stickney Water Reclamation Plant	17-135-3V	11,379	844	Dec 2022
Calumet 18E Relief Connecting Structure and Sewer Work, CSA	21-262-3S	3,108	857	Dec 2022
A/B and C/D Service Tunnel Rehabilitation - Phase Three, Stickney Water Reclamation Plant, Rebid	16-127-3DR	28,993	1,056	Feb 2023
Boilers 3, 4, 5, and MCC Replacement, Stickney Water Reclamation Plant, Rebid	19-155-3MR	21,884	1,284	May 2023
Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA, Rebid	06-360-3SR	36,112	1,015	Jun 2023
Phosphorus Removal Modifications to Battery D, O'Brien Water Reclamation Plant	21-091-3P	15,311	752	Jun 2023
Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S	8,416	499	Sep 2023
Digester Rehabilitation and Gas Piping Replacement - Phase II, Stickney Water Reclamation Plant	18-148-3P	52,358	2,245	Nov 2023
Westchester Pumping Station Relief Sewer, SSA	21-168-3S	6,777	565	Dec 2023
North Shore 1 Rehabilitation, NSA	10-047-3S	44,991	967	Jan 2024
Upgrade Wilmette Lift Station, NSA	19-083-3P	1,839	316	Mar 2024
Rehabilitation of Elevated Deck and Boat Dock at North Branch Pumping Station, NSA	22-094-3D	22,594	878	Mar 2024
Overburden Removal at Location of Battery E, OWRP	23-098-3P	7,384	390	Sep 2024
39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS	39,418	663	Oct 2024
Battery A Improvements and Battery B Installation of Mechanical Mixers, SWRP	08-174-3D	54,500	877	Oct 2024
Furnish and Install Odor Control System at Thornton Reservoir	17-273-4P	3,888	322	Nov 2024
Salt Creek Intercepting Sewer No. 3 Rehabilitation, SSA	20-161-3S	17,000	553	Nov 2024
Total Projects Under Construction		\$ 494,480	_	

Projects Under Development

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Kirie - Egan Solids Pipeline Rehabilitation Section No. 2, NSA	23-417-3S	\$ 12,500	275	Apr 2026
Decommissioning of Battery B and C Imhoff Tanks and Skimming Tanks 9-16, SWRP	19-152-3P	10,000	513	Jul 2026
Additional Grit Removal Tank and Construction of New Plant Entrance, LWRP	19-717-3P	6,000	553	Nov 2026
Calumet Intercepting Sewer No. 13 Rehabilitation, CSA	23-264-3S	14,500	65	Nov 2026
Replacement of TARP Coarse Screen Hoist and Installation of Low- Level Interceptor Screen, CWRP	24-278-3M	6,000	445	Dec 2026
Switchgear and Motor Control Center Replacement, CWRP	19-258-3E	23,000	632	Jan 2027
Replacement of Dewatering Facility, CWRP	24-268-3P	65,000	1,453	Jan 2027
Kirie - Egan Solids Pipeline Rehabilitation Section No. 3, NSA	23-418-3S	13,500	562	Jun 2027
Howard Avenue Junction Chamber Modification to Upper Des Plaines Intercepting Sewer No. 6, SSA	24-175-3S	2,000	457	Jun 2027
Harms Road Intercepting Sewer Extension No. 1 Rehabilitation, NSA	23-096-3S	9,000	564	Aug 2027
Gravity Belt Thickener Installation and Building Rehabilitation, CWRP	22-263-3P	20,000	352	Sep 2027
Calumet Intercepting Sewer No. 17K, 19C Relief and 18H Ext. B Rehabilitation, CSA	23-265-3S	6,500	562	Nov 2027
Plant Improvements, HPWRP	18-540-3P	20,000	683	Jan 2028
Gloria Alitto Majewski Reservoir Rehabilitation, NSA	22-376-3P	25,000	353	Mar 2028
Phosphorus Removal, EWRP	19-415-3P	30,000	452	Apr 2028
McCook Reservoir Stage 2 Final Reservoir Preparation, SSA	17-132-4F	24,796	482	May 2028
Switchgear Replacement at HPWRP and Motor Control Center Replacement at Upper DuPage Reservoir, NSA	19-543-3E	9,750	682	May 2028
Rehabilitation of Service Tunnel Expansion Joints, OWRP	24-006-3D	3,500	968	Jun 2028
Install Lagoon and Upgrade Drainage and Riser System at Fisher Farm, HPWRP	24-545-3P	13,300	1,453	Jun 2028
Kirie - Egan Solids Pipeline Rehabilitation Section No. 4, NSA	23-419-3S	12,500	562	Aug 2028
Scum System Improvements, SWRP	24-177-3P	30,000	942	Aug 2028
West Side Intercepting Sewer No. 3-D Rehabilitation, SSA	24-174-3S	19,000	562	Oct 2028
Lemont Intercepting Sewer No. 4 Rehabilitation, CSA	23-266-3S	11,000	562	Nov 2028
Fermentation and Ancillary Facilities for Biological Phosphorus Removal Phase I, OWRP	20-085-3P	100,000	802	Dec 2028
Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-128-3D	20,000	513	Feb 2029
Replacement of Devon Avenue Instream Aeration Station, NSA	24-099-3P	13,000	942	May 2029
Replacement of Scale House, Scale, Shop and Storage Buildings, and City Water with Canal Water Service, LASMA	24-185-3D	3,500	970	Jun 2029
Convert WASSTRIP Tanks to Waste Activated Sludge Thickening Tanks and Install Sludge Screen, SWRP	24-178-3P	15,000	1,194	Jul 2029
Install Drain Tile at Blower Building and Porous Pavement Parking Lot, CWRP	24-270-3P	10,000	956	Jul 2029
Calumet Intercepting Sewer Nos. 2, 3, 4, and 10 Rehabilitation, CSA	24-267-3S	30,000	562	Nov 2029
Total Future Awards		\$ 578,346		
Cumulative 2025 and Future Awards		\$ 1,091,247	•	

Note: All cost figures are in thousands of dollars.

Bold type indicates projects to be financed by "Unlimited Tax Bonds."

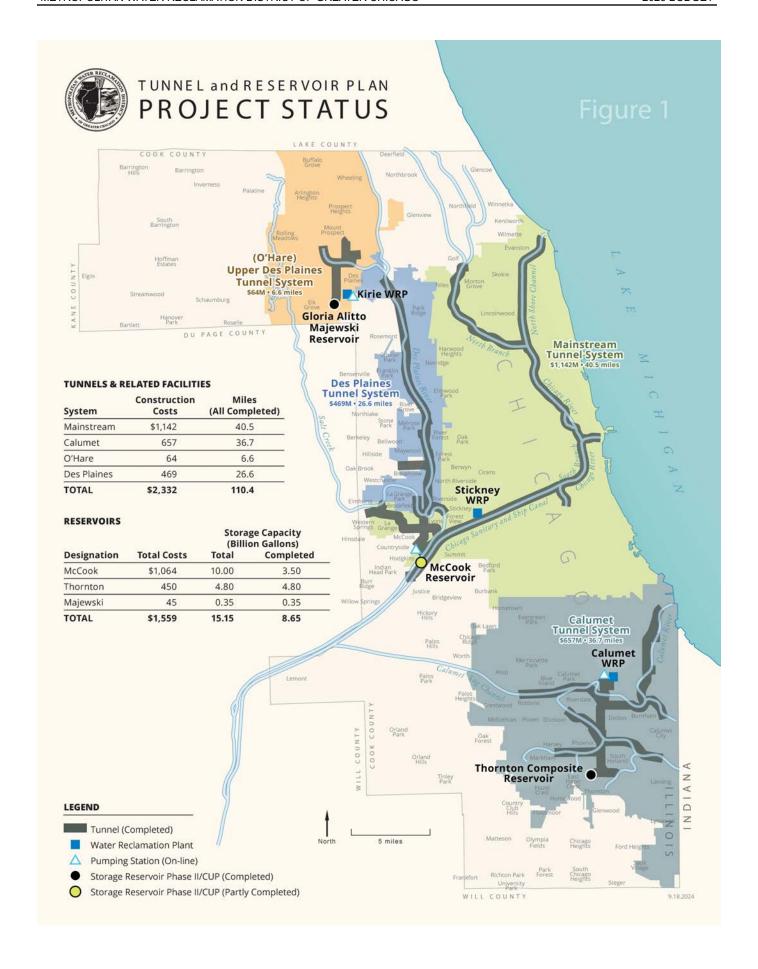
TARP PHASE II PROJECT COSTS

Phase I of TARP was completed in 2006 and two of the Phase II reservoirs, Majewski and Thornton, are now fully operational. Stage 1 of the McCook Reservoir became operational in December 2017 and Stage 2 will continue to be mined with completion scheduled for 2029. Though only partially complete, TARP has already been effective in reducing pollution and flooding. The Phase II Reservoir project costs are shown in the table below.

Project Name	Project Number	Design/Construction Status	Project Costs (4)	Funded by Army Corps of Engineers
Majewski Reservoir	1,411001		20045(1)	2.19.110015
I - Army Corps of Engineers Contracts	73-315-2S	Construction completed in 1998	\$40,819,000	75%
II - Betterments (1)	93-339-2F	Construction completed in 1998	\$3,992,000	No
Thornton Reservoir		1		See Note (3)
I - Vincennes Avenue Relocation	77-235-AF	Construction completed in 2001	\$4,398,000	, ,
II - Transitional Reservoir GW Monitoring Wells	77-235-CF	Construction completed in 2002	\$529,000	
III - Transitional Reservoir (2)	77-235-BF	Construction completed in 2003	\$54,707,000	
IV - Mining, Land, and Corps Costs	77-235-2F	Mining completed in 2013	\$65,210,000	
V - Tollway Dam and Grout Curtain	04-201-4F	Construction completed in 2015	\$80,750,000	
VI - TARP Inlet/Outlet Tunnels and Gates	04-202-4F	Construction completed in 2015	\$147,000,000	
VII - Final Reservoir Preparation	04-203-4F	Construction completed in 2015	\$63,479,000	
VIII - Surface Aeration	04-203-AF	Construction completed in 2017	\$1,921,000	
IX - Decommissioning Thornton Transitional Reservoir	15-266-4H5	Construction completed in 2023	\$26,117,000	
X - Rock Dam Treatment	21-260-4Н	Construction completed in 2023	\$6,101,000	
McCook Reservoir				
I - Stages 1 and 2 - Army Corps of Engineers Contracts	73-161-2H	Reservoir constructed under several contracts	\$615,937,000	75%
II - Site Preparation, Lagoons 1-10	73-161-BH	Construction completed in 2000	\$889,000	\$307,000 Credited
III - 73rd Street Tunnel Relocation	97-156-2H	Construction completed in 2002	\$15,132,000	Credited
IV - Willow Springs Berm	96-249-2P	Construction completed in 2002	\$3,593,000	No
V - Vulcan Primary Crusher Furnish and Deliver	PO3030920	Crusher purchased in 2005	\$1,626,000	No
VI - Conveyance Tunnel	73-161-AH	Construction completed in 2006	\$5,428,000	No
VII - Vulcan Mining Trucks and Loaders	73-161-HH	Vehicles delivered in 2007	\$11,105,000	No
VIII - Vulcan Miscellaneous Mining Vehicles	73-161-GH	Vehicles delivered in 2007 and 2008	\$4,409,000	No
IX - Conveyance System and Maintenance Facilities	73-161-FH	Construction completed in 2008	\$32,381,000	\$1.84M Credited
X - LASMA Overburden Removal	73-161-CH	Construction completed in 2010	\$66,316,000	No
XI - Vulcan Rock Mining Hard Costs Less Royalty	73-161-EH	Mining underway	\$115,370,000	No
XII - Stage 2 Miscellaneous Overburden Removal	73-161-JH	Construction completed in 2012	\$6,510,000	No
XIII - Expanded Stage 2 Overburden Removal	73-161-DH	Construction completed in 2016	\$18,743,000	No
XIV - Des Plaines Inflow Tunnel	13-106-4F	Construction completed in 2022	\$109,906,000	No
XV - Expanded Stage 2 Slope Stabilization	16-125-4F	Construction completed in 2019	\$8,897,000	No
XVI - McCook Reservoir Rock Wall Stabilization and Geotechnical Instrumentation	17-131-4FR	Under Construction	\$22,079,000	53%
XVII - McCook Reservoir Stage 2 Final Reservoir Preparation	17-132-4F	Future	\$24,796,000	69%
XVIII - Professional Services for Geotechnical Work with McCook & Thornton Reservoirs	19-151-4C	Underway	\$1,150,000	75%
		Total Project Cost	\$1,559,290,000	

Notes:

- (1) Betterment includes a control building, reservoir outflow control gates, and monitoring system.
- (2) Cost shown is the total cost of the Transitional Reservoir. Facilities that will be re-used for the Thornton Composite Reservoir account for \$30,337,000 of the cost.
- (3) The District designed and constructed the Thornton Composite Reservoir in anticipation of receiving reimbursement or credits from the Army Corps of Engineers. To date, the District has received reimbursements totaling \$39,200,000.
- (4) Includes land, engineering, and construction costs.



CAPITAL PROJECTS LISTED BY SERVICE AREA - CAPITAL IMPROVEMENTS BOND FUND

The following is a list of capital projects within the District's three major service areas. They are presented by their association with a water reclamation plant (WRP) and by their completion status: projects for 2025 award, under construction, or under development.

Bold Type indicates projects to be financed by "Unlimited Tax Bonds."

STICKNEY SERVICE AREA (SSA)



Stickney Water Reclamation Plant (SWRP)

			Estimated Substantial	Estimated Construction
Projects for 2	2025		Completion Date	Cost
19-154-3E		Low Voltage Switchgear Replacement, MSPS		\$ 9,000,000
19-856-3E		TARP Control System Replacement, CSA, NSA, SSA		25,000,000
20-160-4Н		TARP Mainstream Dropshaft DS-M73E at Armitage Avenue, SSA		12,600,000
20-162-3S		West Side Intercepting Sewer No. 2 Rehabilitation, SSA		3,000,000
23-173-3S		Southwest Side Intercepting Sewer No. 15, 16, and 17B Rehabilitation, SSA		12,000,000
24-176-3H		North and South Guard Valve Chambers Shotcrete Lining Rehabilitation, MSPS		3,000,000
			Total	\$ 64,600,000
Projects Und	er (Construction		
01-103-AS		39th Street Conduit Rehabilitation - Phase II, SSA	07/26	\$ 39,418,164
08-174-3D		Battery A Improvements and Battery B Installation of Mechanical Mixers, SWRP	03/27	54,500,000
11-187-3F	^*	Addison Creek Channel Improvements, SSA	05/26	5,600,000
13-199-3F	^*	Lyons and McCook Levee Improvements Project	10/25	1,358,335
16-127-3DR		A/B and C/D Service Tunnel Rehabilitation - Phase Three, Stickney Water Reclamation Plant, Rebid	12/25	28,992,841
17-135-3V		Roof Replacement of the Lue-Hing M&R Complex, Stickney Water Reclamation Plant	03/25	11,378,716
18-144-3M		Mainstream TARP Pumps Rehabilitation at the Stickney Water Reclamation Plant	01/27	23,558,151
18-148-3P		Digester Rehabilitation and Gas Piping Replacement - Phase II, Stickney Water Reclamation Plant	01/30	52,358,395
19-155-3MR		Boilers 3, 4, 5, and MCC Replacement, Stickney Water Reclamation Plant, Rebid	11/26	21,883,980
19-159-3P		Chemical Addition Backup System, Stickney Water Reclamation Plant	02/25	8,776,938
20-161-3S		Salt Creek Intercepting Sewer No. 3 Rehabilitation, SSA	05/26	17,000,000
20-903-31		Furnish, Deliver, and Install Coarse Screens, SWRP	03/25	4,188,423

Projects Under	Construction (continued)	Estimated Substantial Completion Date	Estimated Construction Cost
21-168-3S	Westchester Pumping Station Relief Sewer, SSA	07/25	\$ 6,776,716
21-603-31	Sludge Pumping Improvements, Various Locations	04/25	8,594,678
		Total	\$ 284,385,337
Projects Under	Development		
16-128-3D	Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP		\$ 20,000,000
17-132-4F	McCook Reservoir Stage 2 Final Reservoir Preparation, SSA		24,796,187
19-152-3P	Decommissioning of Battery B and C Imhoff Tanks and Skimming Tanks 9-16, SWRP		10,000,000
24-174-3S	West Side Intercepting Sewer No. 3-D Rehabilitation, SSA		19,000,000
24-175-3S	Howard Avenue Junction Chamber Modification to Upper Des Plaines Intercepting Sewer No. 6, SSA		2,000,000
24-177-3P	Scum System Improvements, SWRP		30,000,000
24-178-3P	Convert WASSTRIP Tanks to Waste Activated Sludge Thickening Tanks and Install Sludge Screen, SWRP		15,000,000
24-185-3D	Replacement of Scale House, Scale, Shop and Storage Buildings, and City Water with Canal Water Service, LASMA		3,500,000
		Total	\$ 124,296,187
	Stickney Service	ce Area Grand Total	\$ 473,281,524

Estimated

NORTH SERVICE AREA (NSA)



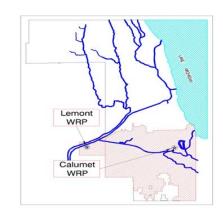
Estimated

Terrence J. O'Brien Water Reclamation Plant (OWRP) John E. Egan Water Reclamation Plant (EWRP) James C. Kirie Water Reclamation Plant (KWRP) Hanover Park Water Reclamation Plant (HPWRP)

Projects for 20	25 Award	Substantial Completion Date	Construction Cost
12-369-3S	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA		\$ 7,750,000
19-375-3P	Phosphorus Removal, KWRP		10,300,000
20-087-3P	Chemical Phosphorus Removal, OWRP		14,000,000
21-092-3P	Battery E Activated Sludge Facility, OWRP		367,750,800
23-379-3E	Switchgear and Motor Control Center Replacement, KWRP		12,000,000
24-098-3S	North Side Sludge Pipeline Replacement - Section 2, OWRP		2,000,000
24-384-3D	Rehabilitation of Service Tunnel Expansion Joints and Replacement of Road E, KWRP		4,500,000
		Total	\$ 418,300,800
Projects Under	Construction		
06-360-3SR	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA, Rebid	03/26	\$ 36,112,121
07-027-3SR	North Side Sludge Pipeline Replacement - Section 1, NSA, Rebid	09/25	27,897,074
10-047-3S	North Shore 1 Rehabilitation, NSA	09/26	44,990,757
11-404-3S	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	01/25	8,416,282
15-069-3D	Rehabilitation of Steel Spandrel Beams of Pump and Blower House, O'Brien Water Reclamation Plant	06/26	22,324,318
18-702-31	Furnish, Deliver, and Install Disc Filters at the Egan Water Reclamation Plant	01/25	9,143,393
19-083-3P	Upgrade Wilmette Lift Station, NSA	01/25	1,839,000
19-542-3MR	Central Boiler Facility and Electrical Updates, Hanover Park Water Reclamation Plant, Rebid	09/25	14,046,353
21-091-3P	Phosphorus Removal Modifications to Battery D, O'Brien Water Reclamation Plant	07/25	15,310,592
22-094-3D	Rehabilitation of Elevated Deck and Boat Dock at North Branch Pumping Station, NSA	08/26	22,593,795
23-098-3P	Overburden Removal at Location of Battery E, OWRP	10/25	7,384,250
		Total	\$ 210,057,935
Projects Under	Development		
18-540-3P	Plant Improvements, HPWRP		\$ 20,000,000
19-415-3P	Phosphorus Removal, EWRP		30,000,000
19-543-3E	Switchgear Replacement at HPWRP and Motor Control Center Replacement at Upper DuPage Reservoir, NSA		9,750,000

		Estimated Substantial	(Estimated Construction
Projects Under	Development (continued)	Completion Date		Cost
20-085-3P	Fermentation and Ancillary Facilities for Biological Phosphorus Removal Phase I, OWRP		\$	100,000,000
22-376-3P	Gloria Alitto Majewski Reservoir Rehabilitation, NSA			25,000,000
23-096-3S	Harms Road Intercepting Sewer Extension No. 1 Rehabilitation, NSA			9,000,000
23-417-3S	Kirie - Egan Solids Pipeline Rehabilitation Section No. 2, NSA			12,500,000
23-418-3S	Kirie - Egan Solids Pipeline Rehabilitation Section No. 3, NSA			13,500,000
23-419-3S	Kirie - Egan Solids Pipeline Rehabilitation Section No. 4, NSA			12,500,000
24-006-3D	Rehabilitation of Service Tunnel Expansion Joints, OWRP			3,500,000
24-099-3P	Replacement of Devon Avenue Instream Aeration Station, NSA			13,000,000
24-545-3P	Install Lagoon and Upgrade Drainage and Riser System at Fisher Farm, HPWRP			13,300,000
		Total	\$	262,050,000
	North Service	e Area Grand Total	\$	890,408,735

CALUMET SERVICE AREA (CSA)



Calumet Water Reclamation Plant (CWRP) Lemont Water Reclamation Plant (LWRP)

D : 4 6 202		Estimated Substantial		Estimated Construction
Projects for 2025		Completion Date	Ф	Cost
19-255-3D	Rehabilitation of Pump and Blower House, CWRP		\$	18,000,000
24-269-3P	Install Pipe Casing and Utilities Under Rail Road Tracks to Dewatering Facility, CWRP			12,000,000
		Total	\$	30,000,000
Projects Under	Construction			
17-273-4P	Furnish and Install Odor Control System at Thornton Reservoir	10/25	\$	3,887,890
21-262-3S	Calumet 18E Relief Connecting Structure and Sewer Work, CSA	04/25		3,108,314
		Total	\$	6,996,204
Projects Under	Development			
19-258-3E	Switchgear and Motor Control Center Replacement, CWRP		\$	23,000,000
19-717-3P	Additional Grit Removal Tank and Construction of New Plant Entrance, LWRP			6,000,000
22-263-3P	Gravity Belt Thickener Installation and Building Rehabilitation, CWRP			20,000,000
23-264-3S	Calumet Intercepting Sewer No. 13 Rehabilitation, CSA			14,500,000
23-265-38	Calumet Intercepting Sewer No. 17K, 19C Relief and 18H Ext. B Rehabilitation, CSA			6,500,000
23-266-3S	Lemont Intercepting Sewer No. 4 Rehabilitation, CSA			11,000,000
24-267-38	Calumet Intercepting Sewer Nos. 2, 3, 4, and 10 Rehabilitation, CSA			30,000,000
24-268-3P	Replacement of Dewatering Facility, CWRP			65,000,000
24-270-3P	Install Drain Tile at Blower Building and Porous Pavement Parking Lot, CWRP			10,000,000
24-278-3M	Replacement of TARP Coarse Screen Hoist and Installation of Low-Level Interceptor Screen, CWRP			6,000,000
		Total	\$	192,000,000
	Calumet Service	e Area Grand Total	\$	228,996,204
	Capital Projects Grand Total	- All Service Areas	\$ 1	1,592,686,463

[^] These projects are part of the Stormwater Management Program. Detailed information about this fund and these project fact sheets appear in Section VI of this budget document.

^{*} These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

39th Street Conduit Rehabilitation - Phase II, SSA

01-103-AS **Project Number**

Service Area Stickney

Location Chicago, IL

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$39,418,164

Contract Award Date

October 2024

Substantial **Completion Date** July 2026

Project Description

This project will rehabilitate a portion of the 100+ year-old conduit lying under 39th Street (Pershing Road), stretching from a former pumping station near Lake Michigan to its discharge at the Racine Avenue Pumping Station (RAPS). The project includes approximately 3,280 feet of concrete intercepting sewer rehabilitation from Halsted Street to RAPS, as well as associated manholes and connecting structures.

The 39th Street conduit consists of the following three segments:

- 1. The first segment is a 22'0" x 23'0" horseshoe constructed of reinforced concrete that extended the conduit westward approximately 2,466 feet from Halsted Street to east of Racine Avenue.
- 2. The second segment is a 24'0" x 27'0" horseshoe constructed of reinforced concrete that runs northwest for approximately 367 feet and drops into the double-barrel sewer connecting to RAPS.
- 3. The third segment is the 16'0" x 12'0" RAPS double-barrel rectangular reinforced concrete connecting sewer, with invert elevation approximately 10-feet lower than the invert of the rest of the 39th Street conduit. This runs west approximately 447 feet and curves into RAPS.

Project Justification The 39th Street conduit is approximately 110 years old. The conduit receives combined sewage from a service area of approximately nine square miles on the southeast side of Chicago. Video inspection of this conduit indicates severe deterioration, including loss of bricks, infiltrating joints, and mineral deposits at a number of places, which could eventually lead to a collapse. Under Phase I of the project, a bypass tunnel was constructed to allow for the rehabilitation of the 39th Street conduit. Rehabilitation of the conduit will ensure long-term drainage for over 145,000 people in its service

Project Status Design

Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA, Rebid

Project Number 06-360-3SR

Service Area North

Location Wheeling, IL

Engineering Consultant

In-house design

Engineering Contractor

Michels Trenchless, Inc.

Estimated Construction Cost \$36,112,121

Contract Award Date

June 2023

Substantial Completion Date March 2026

Project Description

This project entails rehabilitating 2,888 feet of 48-inch diameter sewer and 11,908 feet of 69-inch diameter sewer by cured-in-place pipe lining and/or the slip lining method, rehabilitating 28 manholes/ structures and the abandonment of one offset manhole.

Project Justification The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video inspection tapes show cracks (circular and longitudinal), sewage solids deposits, sags, offset joints, root intrusion, infiltration, and concrete erosion. Physical inspection of the manholes revealed cracks and holes in the walls and bases of the manholes and in one offset manhole, which is part of a control structure, and 85 feet of 3'6" x 4'6" pipe.

Construction **Project Status**



North Side Sludge Pipeline Replacement - Section 1, NSA, Rebid

Project Number 07-027-3SR

Service Area North

Location Chicago, Lincolnwood, and Skokie, IL

Engineering Consultant

In-house design

Engineering Contractor

Joel Kennedy Constructing Corp.

Estimated Construction Cost \$27,897,074

Contract Award Date

June 2022

Substantial **Completion Date** September 2025

Project Description

This project will replace Section 1 of the existing North Side Sludge Pipeline with 19,000 feet of 20inch diameter force main, construct air relief, blow off and clean out structures, and rehabilitate 43 existing structures located in the City of Chicago and the Villages of Lincolnwood and Skokie.

Project Justification Due to external corrosion and damage caused by construction activities of others in the area, the pipeline developed numerous holes over the years resulting in sludge overflowing into the North Shore Channel. In order to increase the reliability of sludge conveyance, the pipeline needs to be rehabilitated and/or replaced. The structures were inspected by the Maintenance & Operations Department in January 2008 with a closed-circuit television inspection system and by physical inspection. The video inspection shows that the piping and valves inside the structures have corroded. Due to the importance of the North Side Sludge Pipeline, the piping and valves in the 43 structures will be removed and replaced. New automatic air release valves will be installed in the remaining existing structures to preserve the useful life of those structures.

Project Status

Construction

Battery A Improvements and Battery B Installation of Mechanical Mixers, SWRP

Project Number 08-174-3D

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$54,500,000

Contract Award Date

October 2024

Substantial **Completion Date** March 2027

Project Description

This project entails concrete rehabilitation and the installation of railing at the Battery A final settling tanks and influent channels, air piping replacement in the Battery A aeration tanks, and the installation of mechanical mixers in the Battery B aeration tanks at the Stickney WRP. This project also includes the installation of a transfer slab below "F" Street to protect the Battery A main effluent conduit below and allow heavy traffic over the road.

Project Justification This project will rehabilitate the 80-year-old concrete in the Battery A final settling tanks, which is severely deteriorated in some locations and falling into the tanks. The addition of railing around final settling tanks and along the mixed liquor channel will safeguard against employees, contractors, and/or visitors falling into the tanks and channels. The addition of safety davit sleeves will allow for the use of portable davit hoists, making any necessary emergency retrieval of injured person(s) from tanks safer and quicker. In addition, this project will replace the air drops in the Battery A aeration tanks which are corroded and broken in multiple locations, resulting in inefficient aeration. Mechanical mixers will be installed in the Battery B aeration tanks, which is required to properly mix the anaerobic zones in the biological phosphorus removal process. Lastly, the installation of a load transfer slab over the main effluent conduit will permit the replacement of "F" Street to allow heavy truck and construction traffic. Historically, traffic on this street has been limited to light single axle vehicles. Increasing the road capacity will improve construction access and facilitate improvements in the future.

Project Status

Design

North Shore 1 Rehabilitation, NSA

Project Number 10-047-3S

Service Area North

Evanston, Kenilworth, Wilmette, and Winnetka, Location

Engineering Consultant

In-house design

Engineering Contractor

Inliner Solutions, LLC

Estimated Construction Cost \$44,990,757

Contract Award Date

January 2024

Substantial **Completion Date** September 2026

Project Description

This project will rehabilitate a 10,108-foot long 6'0" x 9'0" sewer, a 4,264-foot long 6'0" x 8'0" sewer, a 520-foot long 15-inch sewer, and 23 manhole structures in Kenilworth, Wilmette, and Winnetka. The project will also construct three manholes on the Evanston Intercepting Sewer No. 1 and modify DS-M105E in Evanston.

Project Justification The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The manholes and structures exhibit similar signs of deterioration and also need to be rehabilitated. Construction of new manholes along the Evanston intercepting sewer is necessary to provide access to the sewer at pipe bends and longer segments. Modifications to DS-M105E will disconnect a City of Evanston storm sewer from the combined sewer system. The storm sewer will be reconnected to an outfall to discharge stormwater to the nearest waterway.

Project Status Construction

Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA

Project Number 11-404-3S

Service Area North

Location Palatine Township, IL

Engineering Consultant

In-house design

Engineering Contractor

Benchmark Construction Co., Inc.

Estimated Construction Cost

\$8,416,282

Contract Award Date

September 2023

Substantial Completion Date January 2025

Project Description This project entails the rehabilitation of 10,828 linear feet of 36-inch sewer pipe, 24 manholes, and one connecting structure in Arlington Heights, Palatine, and Rolling Meadows.

Project Justification The sewers were inspected by the Maintenance & Operations Department with a closed-circuit

television inspection system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The manholes and structures exhibit similar signs of deterioration and also need to be

rehabilitated.

Project Status Construction



Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA

Project Number 12-369-3S

Service Area North

Elk Grove Village and Mount Prospect, IL Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$7,750,000

Contract Award Date

April 2025

Substantial Completion Date May 2026

Project Description

This project entails the rehabilitation of 13,460 feet of 36-inch sewer and 1,089 feet of 54-inch sewer by cured-in-place pipe lining and the rehabilitation of 42 manholes by spray-on products.

Project Justification The sewer was inspected by a closed-circuit television system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. The manholes and structures exhibit similar signs of deterioration. In order to restore the hydraulic and structural integrity of the sewer and manholes/structure, they need to be rehabilitated.

Project Status Design



Rehabilitation of Steel Spandrel Beams of Pump and Blower House, O'Brien Water **Reclamation Plant**

Project Number 15-069-3D

Service Area North

Location O'Brien WRP

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$22,324,318

Contract Award Date

April 2022

Substantial **Completion Date** June 2026

Project Description

This project consists of rehabilitating the Pump and Blower House building roof and facade components at the O'Brien WRP. Besides protecting, rehabilitating, and structurally strengthening steel frame beams and columns embedded in the masonry wall, the scope of work includes localized roof deck rehabilitation including roof slope remediation, full roofing membrane and insulation replacement, full masonry and flashing rehabilitation at roof parapet walls, localized windows and exterior doors rehabilitation, localized tuckpointing, and other miscellaneous rehabilitation work associated or incidental to a facade/roof rehabilitation project. The District's Structural/Architectural Design Section will be working with RME, Inc., a Chicago-based consulting company. District staff will manage the rehabilitation design process, review, and approve all submitted rehabilitation documents, administer the contract, and oversee the construction. In addition, the District will manage the contract budget and payments. The project goal is to rehabilitate the Pump and Blower House roof and facade and extend the building life span for another 50 to 90 years.

Project Justification The Pump and Blower House has not undergone major structural rehabilitation since it was built in 1926. During its 90 years of service, the building has undergone general maintenance including reroofing, window repair, and tuckpointing. In 2013, a portion of the south parapet wall collapsed due to corrosion of the steel spandrel beams that frame the upper roof and support the parapet walls. The steel roof beams that are part of the building's vertical (gravity) and lateral (wind/seismic) loads resisting system were compromised by water infiltration. Subsequent inspection openings were made to examine the embedded steel framing, and similar damage was found around the perimeter of the building. Reinforcing the existing steel framing will extend the useful service life of the structure and prevent further damage to the existing masonry and limestone.

Project Status Construction

A/B and C/D Service Tunnel Rehabilitation - Phase Three, Stickney Water Reclamation Plant, Rebid

Project Number 16-127-3DR

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$28,992,841

Contract Award Date

February 2023

Substantial **Completion Date** December 2025

This project will rehabilitate approximately 1,000 feet of the A/B Service Tunnel north of column line 31 and approximately 1,000 feet of the C/D Service Tunnel north of column line 37. This project **Project Description**

continues the scope of work from contracts 04-131-2D and 04-132-3D.

Project Justification This project will address significant structural deterioration that has occurred since the tunnels were

constructed approximately 80 years ago. Rehabilitating the tunnels will restore capacity, extend their

service life, and prevent further damage to the utilities inside the tunnels.

Project Status Construction



Roof Replacement of the Lue-Hing M&R Complex, Stickney Water Reclamation Plant

Project Number 17-135-3V

Service Area Stickney

Stickney WRP Location

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$11,378,716

Contract Award Date

December 2022

Substantial Completion Date March 2025

Project Description

This project will replace roof areas 1, 2, 3, 5, and 6 of the Monitoring & Research Department's laboratory at the Stickney WRP. The project scope includes a complete tear off of the existing roof membrane in the specified areas, replacement of the rooftop equipment that has exceeded its useful life, removal of obsolete rooftop equipment, and additional work associated with the Monitoring & Research Department's east addition at the Stickney WRP.

Project Justification The roof has reached the end of its useful life and needs to be replaced. In addition, old, disconnected, and no longer used equipment will be removed for safety considerations.

Construction **Project Status**

Furnish and Install Odor Control System at Thornton Reservoir

Project Number 17-273-4P

Service Area Calumet

Location Thornton Reservoir

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost

\$3,887,890

Contract Award Date

November 2024

Substantial Completion Date

October 2025

Project Description

This project entails installing a carbon filter odor control system to treat exhaust from two dropshafts located northeast of the Thornton Reservoir at Indiana Avenue and State Street.

Project Justification This project will reduce the odor emissions that affect the District's neighbors and staff.

Project Status Design



Mainstream TARP Pumps Rehabilitation at the Stickney Water Reclamation Plant

Project Number 18-144-3M

Service Area Stickney

Location Mainstream Pumping Station

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$23,558,151

Contract Award Date

April 2021

Substantial Completion Date January 2027

Project Description

This project will completely overhaul Tunnel and Reservoir Plan Pumps 1 and 3 in the South Pump House and Pump 5 in the North Pump House of the Mainstream Pumping Station, including the associated motors and discharge cone valves and actuators, in order to restore capacity and reliability. The complete overhaul of the pump and motor involves the furnishing and installing of new parts, refurbishing existing salvageable parts, replacing motor exciter panels, and upgrading pump control components.

Project Justification This project will reduce the maintenance labor required, allow for better pump and motor monitoring, and improve reliability. Once the overhaul is complete, there will be a reduction in the electrical energy usage to power pumps, as the pump will operate more efficiently by being able to pump more fluid in less time. The overhaul will also extend the useful life of the pumps and motors, which have been in service since May 1985.

Project Status

Construction

Digester Rehabilitation and Gas Piping Replacement - Phase II, Stickney Water Reclamation Plant

Project Number 18-148-3P

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost

\$52,358,395

Contract Award Date

November 2023

Substantial Completion Date

January 2030

Project Description

This project entails the replacement of digester gas piping in which recent work uncovered extensive fouling and iron sulfide buildup. Replacement of gas piping is required to ensure safety of operations and adequate capacity to convey the additional digester gas expended from the conversion of the Imhoff Tanks to primary settling tanks. Rehabilitation and replacement of the gas mixing piping within the digesters will allow for installation of the final mixing system under a separate contract, without the need to drain the digester.

Project Justification Gas piping needs to be replaced to ensure safety of operations and adequate capacity.

Project Status Construction



Furnish, Deliver, and Install Disc Filters at the Egan Water Reclamation Plant

Project Number 18-702-31

Service Area North

Location Egan and Hanover Park WRPs

Engineering Consultant

In-house design

Engineering Contractor

Independent Mechanical Industries, Inc.

Estimated Construction Cost \$9,143,393

Contract Award Date

March 2022

Substantial **Completion Date** January 2025

Project Description

This project will replace three pairs of tertiary filter beds with six disc filters. In addition, the sodium bisulfite tank is being replaced. It is at the end of its useful life. Two raw sewage pumps are being rehabilitated and four raw sewage pump motors are being rehabilitated. Flow meters are being installed on the discharge of the six raw sewage pumps to verify their performance is within specifications. At the Hanover Park WRP a vault which is leaking is being rehabilitated.

Project Justification The designed maximum capacity of the secondary treatment is 50 million gallons per day (MGD). The maximum tertiary capacity is 44 MGD. During a backwash cycle the total tertiary capacity would drop to 34 MGD. The Egan WRP has six pairs of filter beds. Installing disc filters in filter beds 1, 2, and 6 can increase filtering capacity from 34 to 60 MGD with no loss in capacity during a backwash cycle. The disc filters will reduce the filter backwash from eight percent to less than five percent. The enclosed disc filters will reduce the midge flies in the filter building.

Project Status Construction

Upgrade Wilmette Lift Station, NSA

Project Number 19-083-3P

Service Area North

Location Wilmette Lift Station

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost

\$1,839,000

Contract Award Date

March 2024

Substantial Completion Date

January 2025

Project Description This project entails the installation of duplex pumps and the rehabilitation and/or rebuilding of the

existing 20'6" x 12'0" x 18'0" underground structure.

Project Justification During maintenance and repairs of the existing pump, flow is diverted to TARP. An additional pump

is needed to provide continuous operation. The existing underground structure was built in 1937, and

the concrete is in poor condition.

Project Status Construction



Low Voltage Switchgear Replacement, MSPS

Project Number 19-154-3E

Service Area Stickney

Location Mainstream Pumping Station

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$9,000,000

Contract Award Date

September 2025

Substantial Completion Date July 2027

Project Description

This project will replace six double-ended 480V switchgears (Switchgears SG-LV-SSB, SG-LV-NSB, SG-LV-ESS, SG-LV-VS, SG-LV-VN, and SG-LV-TRB) at the Mainstream Pumping Station. Each switchgear lineup consists of two 1,500 kVA, 13.2kV/480-277V transformers which will also be replaced.

Project Justification The electrical equipment is over 30 years old and is in poor condition. In order to avoid failure and ensure the appropriate level of service, the equipment must be replaced.

Project Status Design



Boilers 3, 4, 5, and MCC Replacement, Stickney Water Reclamation Plant, Rebid

Project Number 19-155-3MR

Service Area Stickney

Stickney WRP Location

Engineering Consultant

In-house design

Engineering Contractor

Path Construction Company, Inc.

Estimated Construction Cost \$21,883,980

Contract Award Date

May 2023

Substantial Completion Date November 2026

Project Description

This project will install new replacement boilers that will have co-firing of digester gas and natural gas to maximize the available digester gas. Existing boilers Nos. 3, 4, and 5, and motor control centers (MCCs) are at the end of their useful lives and require excessive maintenance. A deaerator will also be installed to provide for complete redundancy. Upgrades also include the boiler chemical systems and controls, the boiler MCCs, and lighting.

Project Justification This project replaces existing boilers Nos. 3, 4, and 5, and MCCs which are at the end of their useful lives and require excessive maintenance.

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Construction **Project Status**

Chemical Addition Backup System, Stickney Water Reclamation Plant

Project Number 19-159-3P

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$8,776,938

Contract Award Date

February 2022

Substantial **Completion Date** February 2025

Project Description

This project will provide a secondary phosphorus removal system in the event that the biological phosphorus system is interrupted. This will allow the treatment plant to achieve compliance with the National Pollution Discharge Elimination System permit phosphorus effluent limit during any upsets with the biological process. Without a working biological removal process, the annual chemical costs are estimated to be \$11.0 million to meet the 1.0 mg/L effluent phosphorus concentration limit. The District has established a working biological phosphorus removal process at the Stickney WRP. The process has proven to be effective in achieving the 2030 phosphorus effluent requirement of 0.5 mg/L. The District believes that this system will only be used as a back-up system for unforeseen problems with the biological removal process.

Project Justification This project addresses the District's National Pollution Discharge Elimination System permit, which will require a 1.0 ppm effluent limit for phosphorus. The District currently employs enhanced biological phosphorus removal treatment operations and a sidestream phosphorus recovery facility to meet these limitations. At times, the phosphorus loading to the plant can result in exceedances. This new facility will allow chemical polishing to ensure that the limitations are consistently met.

Project Status Construction

Rehabilitation of Pump and Blower House, CWRP

Project Number 19-255-3D

Service Area Calumet

Location Calumet WRP

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$18,000,000

Contract Award Date

May 2025

Substantial **Completion Date** April 2027

Project Description

This project consists of rehabilitating the Pump and Blower House building roof and facade components at the Calumet WRP. Besides protecting, rehabilitating, and structurally strengthening steel frame beams and columns embedded in the masonry wall, the scope of work includes roof slope remediation, full roofing membrane and insulation replacement, masonry and flashing rehabilitation at roof parapets, localized tuckpointing, and other miscellaneous rehabilitation work associated or incidental to a facade/roof rehabilitation project. The District's Structural/Architectural Design Section will be working with RME, Inc., a Chicago-based consulting company. District staff will manage the rehabilitation design process, review and approve all submitted rehabilitation documents, administer the contract, and oversee the construction. In addition, the District will manage the contract budget and payments. The project goal is to rehabilitate the Pump and Blower House roof and facade and extend the building life span for another 50 to 90 years.

Project Justification The envelope of the building is in poor condition. Rehabilitation is required to ensure the structural integrity and long-term operation and maintenance requirements of the building.

Project Status Design

Phosphorus Removal, KWRP

Project Number 19-375-3P

Service Area North

Kirie WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$10,300,000

Contract Award Date

March 2025

Substantial **Completion Date** January 2026

Project Description

This project includes the conversion of the six aeration tanks in Battery A to an enhanced biological phosphorus removal process by installing baffle walls, large-bubble mixers, and actuated air valves; a chemical phosphorus removal backup system, including chemical storage tanks, feed pumps, and piping; and odor control for the Coarse Screen Building, including removal of existing fans, installation of new fans, and ductwork.

mm Anaerobic Zone

Dosing Facility

Swing Zone Chemical

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Project Justification The Kirie WRP has a total phosphorus effluent limit of 1.0 mg/L that takes effect within five years of the effective date of the permit as part of the Lower Des Plaines Watershed Workgroup, which is currently scheduled to be in August 2026. Based on the initial results from the phosphorus removal feasibility study, the Kirie WRP will be able to meet the 1.0 mg/L total phosphorus effluent limit at its current average flow with modifications. The odor control work will effectively address the odors currently being exhausted from the Coarse Screen Building.

Central Boiler Facility and Electrical Updates, Hanover Park Water Reclamation Plant, Rebid

Project Number 19-542-3MR

North Service Area

Hanover Park WRP Location

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$14,046,353

Contract Award Date

November 2021

Substantial **Completion Date** September 2025

Project Description

This project will remove two natural gas boilers and provide five new boilers (two natural gas and three digester gas/natural gas) in the Pump and Blower Building. Five digester gas/natural gas boilers will be removed from the Digester Complex. All associated mechanical piping, electrical, control, civil, and structural work needed to provide hot water for process and building heating demands will be completed. Replace digester gas piping and remove and replace all electrical equipment, such as motor control center, motors, conduit, gas alarm system, fire alarm system, lighting, etc., with explosion-proof equipment in the classified areas to meet National Fire Protection Association 820 requirements.

Project Justification This project replaces the boilers in the Digester Complex which are 10 to 20 years old and do not perform properly, as the control systems are not reliable (due to hydrogen sulfide gas-related corrosion) and need to be removed to comply with National Fire Protection Association 820 requirements. Centralized boiler operation will maximize the use of available digester gas. Existing electrical equipment in the Digester Complex does not meet the National Fire Protection Association 820 requirement and needs to be replaced with explosion-proof rated equipment or relocated to an unclassified location. The natural gas boilers in the Pump and Blower Building are more than 35 years old, parts are no longer supported by the original equipment manufacturer, and procuring the replacement parts has been increasingly difficult and costly. Also, the State of Illinois Boiler Inspector recommended the boilers be operated in low fire only, due to their poor conditions.

Project Status Construction

TARP Control System Replacement, CSA, NSA, SSA

Project Number 19-856-3E

Calumet, North, and Stickney Service Area

Calumet, North, and Stickney WRPs Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$25,000,000

Contract Award Date

October 2025

Substantial Completion Date February 2027

Project Description

This project entails the replacement of the communication and control system for TARP control structures throughout the District. Line of sight radio communications are to be replaced with secure cellular network communications. The existing controllers at TARP control structures and reporting sites are to be replaced and reconfigured to communicate with cellular transmission. This project will provide distributed control system upgrades at the Lockport Powerhouse.

Project Justification The control system equipment is no longer available. In order to avoid failure and ensure the appropriate level of service, the equipment must be replaced.

Chemical Phosphorus Removal, OWRP

Project Number 20-087-3P

Service Area North

O'Brien WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$14,000,000

Contract Award Date

January 2025

Substantial **Completion Date** December 2026

Project Description

This project will provide a chemical phosphorus removal system at the O'Brien WRP. Aluminum sulfate (alum) is the chemical that will be used to remove phosphorus from the treatment process. It will be dosed at the influent to the primary tanks and at the effluent channel of aeration tanks in Batteries A, B, C, and D. Once Battery E is constructed, alum will also be dosed to its final tanks. The project will include chemical storage tanks and alum feed pumps as well as piping, instruments, and electrical work. Chemical phosphorus removal will be used as a back-up for the future enhanced biological phosphorus removal process in Batteries A, B, C, D and E.

Project Justification This project addresses the District's National Pollutant Discharge Elimination System (NPDES) permit, which will require a 1.0 mg/L effluent limit for phosphorus by 2027. The chemical removal system will allow the O'Brien WRP to achieve compliance with the NPDES permit phosphorus effluent limit during any upsets with the future enhanced biological phosphorus removal process in Batteries A, B, C, D and in the future Battery E. The process has proven to be effective in achieving the 2030 phosphorus effluent requirement of 0.5 mg/L. This new facility will allow chemical polishing to ensure that the effluent phosphorus limitations in the NPDES permit are consistently met.

TARP Mainstream Dropshaft DS-M73E at Armitage Avenue, SSA

Project Number 20-160-4H

Service Area Stickney

Location Chicago, IL

Engineering Consultant

Stantec Consulting Services, Inc.

Engineering Contractor

To be determined

Estimated Construction Cost \$12,600,000

Contract Award Date

April 2025

Substantial **Completion Date** March 2026

Project Description

This project includes constructing a connecting sewer and TARP dropshaft which will connect to the existing Mainstream Tunnel at approximately Armitage Avenue and the Chicago River. The overflow structure to be built by the City of Chicago on a new sewer will divert stormwater flow to the dropshaft. The new shaft will be constructed within the right-of-way of the proposed extension of Armitage Avenue.

Project Justification Recent modeling has shown that three combined sewer outfalls located on the east bank of the Chicago River between Webster Avenue and McLean Avenue discharge combined sewer overflow into the river in storms exceeding a six-month storm event. Flow from the municipal sewers connected to all three outfalls is conveyed by the West Side Intercepting Sewer 9. The capacity of the West Side Intercepting Sewer 9 is limited in storm events by a siphon under the river. The new dropshaft will convey storm flows to the Mainstream Tunnel upstream of the siphon to minimize combined sewer overflows at these three locations while there is still capacity in TARP.

Salt Creek Intercepting Sewer No. 3 Rehabilitation, SSA

Project Number 20-161-3S

Service Area Stickney

Brookfield and La Grange Park, IL Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$17,000,000

Contract Award Date

November 2024

Substantial Completion Date May 2026

Project Description

This project consists of rehabilitating 10,681 feet of 42-inch by 60-inch diameter concrete sewer pipe, as well as 4,410 feet of 36-inch diameter concrete sewer pipe by the cured-in-place pipe lining and/or the slip lining method, filling large voids and holes in the sewer invert, and rehabilitating 31 manholes.

Project Justification The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system and via man entry. The inspection showed cracks (circular and longitudinal), sewage solid deposits, voids, missing concrete, offset joints, root intrusion, infiltration, and concrete erosion. Physical inspection of the manholes revealed cracks and holes in the walls and bases of the manholes.



West Side Intercepting Sewer No. 2 Rehabilitation, SSA

Project Number 20-162-3S

Service Area Stickney

Chicago, IL Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$3,000,000

Contract Award Date

October 2025

Substantial Completion Date March 2027

Project Description

This project entails the rehabilitation of West Side Intercepting Sewer No. 2 which has been found to have multiple holes. The areas with holes have been identified and quantified using multi-sensor inspection. All of the major defects and the area surrounding the defects will be rehabilitated.

Project Justification West Side Intercepting Sewer No. 2 is a main sewer feed into the Stickney WRP. The sewer also runs under major roadways and the Cook County Department of Corrections facility near 28th Street and South California Avenue in Chicago. Failure of this line could cause significant damage to surrounding areas.

Furnish, Deliver, and Install Coarse Screens, SWRP

Project Number 20-903-31

Service Area Stickney

Location Stickney WRP

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$4,188,423

Contract Award Date

May 2021

Substantial **Completion Date** March 2025

Project Description

This project entails the removal of existing climber-style southwest coarse screens at the Stickney WRP and installation of new chain and sprocket-style coarse screens.

Project Justification The southwest coarse screens at the Stickney WRP protect the main sewage pumps in the Pump and Blower Building from debris in the influent flow. The current climber-style screens have a number of issues. The hydraulic systems for each coarse screen have caused frequent failures and the annual maintenance costs for the screens are exceedingly high. Also, the coarse screens see heavy debris and the bar screen spacing is too fine for this application. Because of this, the screens are frequently "blinded" due to the extended cycle time required for climber screens. This causes additional maintenance costs as well as issues with the operation of the main sewage pumps downstream of the screens. This project will replace the existing southwest coarse screens with more heavy-duty, reliable, chain and sprocket-style screens and significantly reduce maintenance costs and operational issues caused by the current coarse screens.

Project Status

Construction

Phosphorus Removal Modifications to Battery D, O'Brien Water Reclamation Plant

Project Number 21-091-3P

Service Area North

O'Brien WRP Location

Engineering Consultant

In-house design

Engineering Contractor

IHC Construction Companies, LLC

Estimated Construction Cost \$15,310,592

Contract Award Date

June 2023

Substantial **Completion Date** July 2025

Project Description

This project will include pumps (including a new pump building to house return activated sludge pumps), piping, mixers, and baffles to support side stream enhanced biological phosphorus removal in Battery D at the O'Brien WRP.

Project Justification Per the compliance schedule in the National Pollutant Discharge Elimination System permit, the O'Brien WRP must install biological phosphorus removal in all batteries by July 31, 2025 to meet a new total phosphorus effluent limit of 1.0 mg/L beginning August 1, 2027. Side stream enhanced biological phosphorus removal through return activated sludge fermentation will be used to meet these new limits. The fermentation of return activated sludge in this process encourages the growth of phosphorus-accumulating organisms, stabilizes phosphorus removal, and allows for greater phosphorus removal under less favorable influent conditions.

Project Status Construction



Battery E Activated Sludge Facility, OWRP

Project Number 21-092-3P

Service Area North

Location O'Brien WRP

Engineering Consultant

AECOM Technical Services

Engineering Contractor

To be determined

Estimated Construction Cost \$367,750,800

Contract Award Date

June 2025

Substantial **Completion Date** February 2028

Project Description

This project will construct a new activated sludge facility entitled Battery E, which shall consist of an aeration tank battery, return activated sludge fermenter tank, final settling tanks, operating gallery building, influent and effluent conduits, post aeration channel, utility tunnel, and all other supporting infrastructure.

Project Justification Per the National Pollutant Discharge Elimination System permits for the O'Brien WRP, the District must meet a new 1.0 mg/L monthly average total phosphorus effluent limit beginning August 1, 2027, and a 0.5 mg/L annual geometric mean total phosphorus effluent limit by January 1, 2030. Sidestream enhanced biological phosphorus removal through return activated sludge fermentation will be used to meet these new limits. The addition of sidestream enhanced biological phosphorus removal will decrease aeration volume and existing capacity by almost 16 percent by converting existing aeration tankage to return activated sludge fermentation tanks. Therefore, a new activated sludge aeration battery, Battery E, is required to make up for the lost aeration volume. Battery E will also allow for more extensive rehabilitation of existing Batteries A, B, and C, which are nearing 100 years old, to ensure continued operation of the O'Brien WRP for another 100 years.

Project Status

Design

Westchester Pumping Station Relief Sewer, SSA

Project Number 21-168-3S

Service Area Stickney

Location Westchester, IL

Engineering Consultant

In-house design

Engineering Contractor

Rausch Infrastructure, LLC

Estimated Construction Cost \$6,776,716

Contract Award Date

December 2023

Substantial Completion Date July 2025

Project Description

This project entails the installation of a 45-inch diameter sewer in order to provide relief to the Berkley-Hillside Intercepting Sewer and Broadview-Bellwood Intercepting Sewer during wet weather by diverting flow to the Roosevelt Road leg of TARP at DS-D34-AI.

Project Justification The Westchester Pumping Station was constructed in 1951 to provide relief to both the Berkley-Hillside Intercepting Sewer and the Broadview-Bellwood Intercepting Sewer. The Westchester Pumping Station relieves the intercepting sewer by discharging combined sewer overflow into Addison Creek. The construction of the proposed sewer should reduce the frequency of combined sewer overflow events in Addison Creek by diverting the flow to the Roosevelt Road leg of TARP at DS-D34-AI.

Project Status

Construction



Calumet 18E Relief Connecting Structure and Sewer Work, CSA

Project Number 21-262-3S

Service Area Calumet

Location Alsip, IL

Engineering Consultant

In-house design

Engineering Contractor

Rausch Infrastructure, LLC

Estimated Construction Cost

\$3,108,314

Contract Award Date

December 2022

Substantial Completion Date April 2025

Project Description

This project consists of one new connecting structure, 100 linear feet of 48-inch diameter concrete sewer, one new connection to an existing access manhole, and the installation of a louver system in an existing access manhole.

Project Justification This project entails the construction of a 48-inch diameter sewer and connection structure in order to provide relief to the Calumet Intercepting Sewer 18F ext. A, Calumet Intercepting Sewer 18F, Calumet Intercepting Sewer 18E, and the Palos Hills Pumping Station during wet weather by diverting flow to the 78-inch Calumet Intercepting Sewer 20R-2.

Construction **Project Status**

Sludge Pumping Improvements, Various Locations

Project Number 21-603-31

Service Area Calumet, North, and Stickney

Location Calumet, O'Brien, and Stickney WRPs

Engineering Consultant

In-house design

Engineering Contractor

Independent Mechanical Industries, Inc.

Estimated Construction Cost \$8,594,678

Contract Award Date

April 2022

Substantial Completion Date April 2025

Project Description

This project will furnish, deliver, and install non-clog centrifugal pumps to replace existing screwcentrifugal pumps in the waste activated and primary sludge pumping streams at the Stickney WRP, higher capacity sludge pumping systems at the O'Brien WRP, and variable frequency drives for selected pumping systems at the Calumet WRP.

Project Justification The existing sludge pumps at the Stickney WRP do not provide reliable pumping. Installation of various non-clog centrifugal pumps will restore reliable pumping capacity for the separated sludge streams now in place throughout the plant. The pumping systems at the Calumet and O'Brien WRPs require additional variable speed pumping capability.

Project Status Construction



Rehabilitation of Elevated Deck and Boat Dock at North Branch Pumping Station, NSA

Project Number 22-094-3D

Service Area North

Location North Branch Pumping Station

Engineering Consultant

In-house design

Engineering Contractor

Path Construction Company, Inc.

Estimated Construction Cost

\$22,593,795

Contract Award Date

March 2024

Substantial Completion Date August 2026

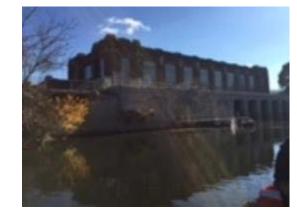
Project Description This project will replace deteriorated exterior concrete decking, stairs, boat dock, and balustrades at the North Propeh Propeh

the North Branch Pumping Station and will also replace flap gates at nearby Dropshaft DS-91.

Project Justification The North Branch Pumping Station is nearly 100 years old and structural rehabilitation is required to

address deterioration of the exterior elevated concrete deck, boat dock, and boat dock stairs. Upon completion of the structural rehabilitation, new cast stone balustrade and light pylons will be installed. The project will also replace the flap gates at the nearby connecting structure to Dropshaft DS-91.

Project Status Construction



Overburden Removal at Location of Battery E, OWRP

Project Number 23-098-3P

Service Area North

O'Brien WRP Location

Engineering Consultant

In-house design

Engineering Contractor

Berger Excavating Contractors, Inc

Estimated Construction Cost \$7,384,250

Contract Award Date

September 2024

Substantial Completion Date October 2025

Project Description

This project will remove the overburden soil pile at the southwest corner of the O'Brien WRP that needs to be removed to prepare the site for construction of a new battery. The soil pile covers approximately 10 acres, and its volume is approximately 120,000 cubic yards. A portion of the soil includes some contamination that will require hauling to a contaminated soil disposal/remediation facility.

Project Justification To meet the upcoming new effluent phosphorus limit, a new Battery E is planned to be constructed at the southwest corner of the O'Brien WRP. There is an overburden soil pile at that site location that needs to be removed prior to construction of the new battery. Removal of the overburden will shorten construction time for Battery E and allow existing soils to be better evaluated for foundation design.

432

Construction **Project Status**

Southwest Side Intercepting Sewer No. 15, 16, and 17B Rehabilitation, SSA

Project Number 23-173-3S

Service Area Stickney

Location Stickney Service Area

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$12,000,000

Contract Award Date

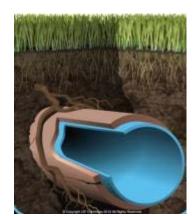
October 2025

Substantial **Completion Date** May 2027

Project Description

This project entails the rehabilitation of Southwest Side No. 15 intercepting sewer for 3,333 linear feet of 27-inch diameter sewer pipe, 182 linear feet of 54-inch diameter sewer pipe and 12 manholes in the Village of Hodgkins and Township of Lyons. This project also entails the rehabilitation of Southwest Side No. 16 intercepting sewer for 5,269 linear feet of 24-inch diameter sewer pipe and 13 manholes in the Village of Hodgkins. Finally, this project entails the rehabilitation of Southwest Side No. 17B intercepting sewer for 2,118 feet of 24-inch diameter sewer pipe, 2,242 feet of 54-inch diameter sewer pipe, 347 feet of 54-inch diameter sewer pipe, and four manholes.

Project Justification The sewers were inspected by the Engineering Department with a closed-circuit television inspection system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The manholes and structures exhibit similar signs of deterioration and also need to be rehabilitated.



Switchgear and Motor Control Center Replacement, KWRP

Project Number 23-379-3E

North Service Area

Kirie WRP Location

Engineering Consultant

Greeley & Hansen

Engineering Contractor

To be determined

Estimated Construction Cost

\$12,000,000

Contract Award Date

January 2025

Substantial Completion Date January 2026

Project Description

This project will replace medium voltage switchgear M11, eight motor control centers and metering for substations and ground fault detectors and arc flash mitigation at the Majewski Reservoir.

Project Justification The electrical equipment is over 30 years old and is in poor condition. In order to avoid failure and ensure the appropriate level of service, the equipment must be replaced. Switchgear M11 will have the ability to transfer buses. Currently, bus transfer can only be done at the Commonwealth Edison-owned transfer switch, which requires costly upkeep.



North Side Sludge Pipeline Replacement - Section 2, OWRP

Project Number 24-098-3S

North Service Area

O'Brien WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$2,000,000

Contract Award Date

May 2025

Substantial Completion Date May 2026

Project Description

This project will make improvements within the O'Brien WRP from the Process Control Building to Structure A, including the demolition of approximately 330 linear feet of existing 18-inch ductile iron force main and approximately 55 linear feet of existing 14-inch ductile iron force main, and the construction of approximately 330 linear feet of 20-inch ductile iron force main and approximately 55 linear feet of 16-inch ductile iron force main.

Project Justification The existing force main pipelines and associated piping, casings, reducers, splices, supports, and process piping from the Process Control Building to Structure A are deteriorated and have reached their designed service life. The existing force main pipelines are in need of upgrades and improvements in order to meet design capacity and daily outputs.

North and South Guard Valve Chambers Shotcrete Lining Rehabilitation, MSPS

Project Number 24-176-3H

Service Area Stickney

Location Mainstream Pumping Station

Engineering Consultant

Stantec Consulting Services, Inc.

Engineering Contractor

To be determined

Estimated Construction Cost \$3,000,000

Contract Award Date

September 2025

Substantial **Completion Date** August 2027

Design

Project Description

This project will rehabilitate shotcrete lining, replace the Dewatering Building metal staircase, and deteriorating utilities within the North and South Guard Valve Galleries and the Distribution Chamber Shaft at the Mainstream Pumping Station.

Project Justification Inspection of the North and South Guard Valve gallery and Distribution Chamber Shaft took place on April 5, 2023. Within the Distribution Chamber Shaft, existing steel plates along the vertical walls are showing signs of corrosion. The steel plates are brittle to the touch and easily sheer off with minor force. Groundwater infiltration was also observed along the shaft walls near the elevator. Within the North and South Guard Valve gallery, existing shotcrete walls are showing signs of cracks and missing sections exposing the natural limestone walls. Existing steel conduits running near the vertical walls are showing signs of corrosion possibly due to water infiltration from the weep holes. Existing HVAC ductwork running along the Gallery ceiling are showing signs of peeling paint throughout. In addition, the Dewatering Building staircase is in disrepair and needs replacement.

Project Status

Install Pipe Casing and Utilities Under Rail Road Tracks to Dewatering Facility, CWRP

Project Number 24-269-3P

Calumet Service Area

Calumet WRP Location

Engineering Consultant

In-house design

Engineering Contractor

To be determined

Estimated Construction Cost \$12,000,000

Contract Award Date

October 2025

Substantial Completion Date January 2027

Project Description

This project will install new pipe casing and utilities, including digested sludge, centrate, city water, effluent water, digester gas, communications, and electrical service from the main Calumet campus to the area of the Centrifuge Dewatering Building. Concrete structures at both ends will allow for future tie-ins at the main campus and dewatering campus.

Project Justification The Chicago Transit Authority (CTA) is extending their Red Line route to 130th Street. CTA tracks will parallel existing South Shore tracks in this location. Existing utilities to the Centrifuge Dewatering Building are in poor condition and cannot be reused. This project should be complete prior to the CTA installing their tracks and equipment. Sludge dewatering will be completed under a separate project.



Rehabilitation of Service Tunnel Expansion Joints and Replacement of Road E, KWRP

Project Number 24-384-3D

Service Area North

Kirie WRP Location

Engineering Consultant

Rubinos and Messia Engineers, Inc.

Engineering Contractor

To be determined

Estimated Construction Cost \$4,500,000

Contract Award Date

February 2025

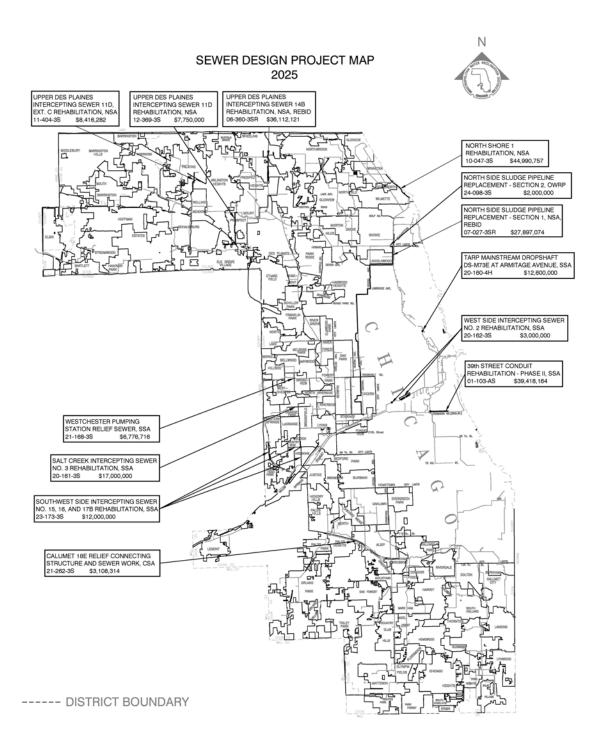
Substantial Completion Date October 2027

Project Description

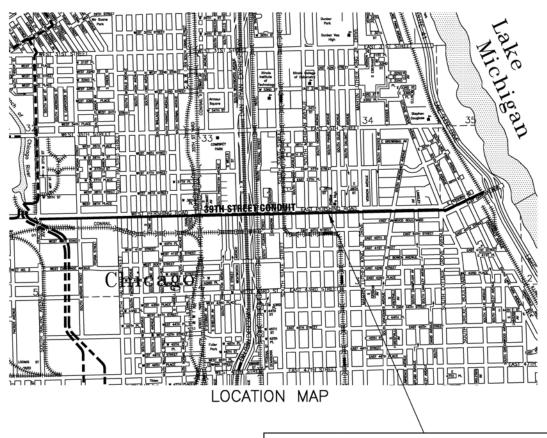
This project will repair deteriorated tunnel expansion joints and provide other concrete repairs in the tunnels. Road "E" will also be removed and replaced.

Project Justification The service tunnels at the Kirie WRP are approximately 50 years old and were built as a part of the original plant construction. Over time, a number of tunnel expansion joints have deteriorated and leaking cracks have developed in the tunnel walls and slabs. The tunnels/galleries and associated utilities are essential to each water reclamation plant's functionality and need to remain operational indefinitely. Repairing the deteriorated expansion joints and cracks will eliminate water infiltration, thereby extending the useful life of the tunnels and preventing damage to the utilities. Road "E" will also be removed and replaced.









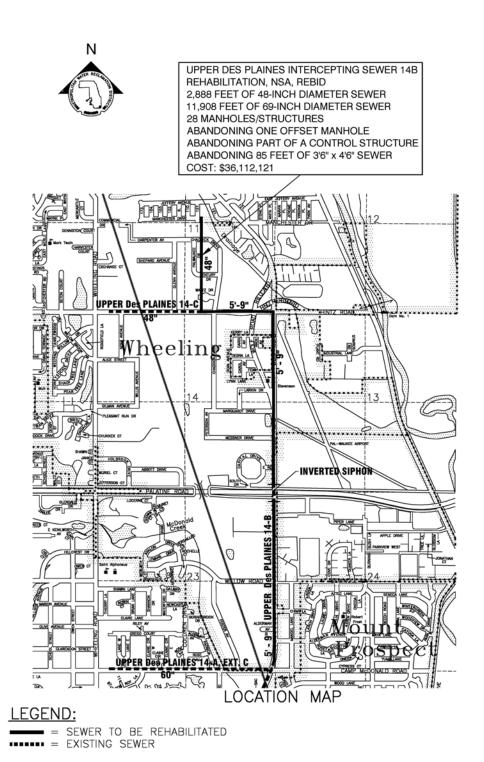
39th STREET CONDUIT REHABILITATION - PHASE II, SSA REHABILITATION OF 367 FEET OF 24' X 27' SEMI-ELLIPTIC CONCRETE SEWER, 2,466 FEET OF 22' X 23' SEMI-ELLIPTIC CONCRETE SEWER, 459 FEET OF 12' X 16' DOUBLE BARREL CONCRETE SEWER, 10 CONNECTING STRUCTURES, AND SIX MANHOLES; AND REPLACEMENT OF A DAMAGED FLAP GATE IN A CONNECTING STRUCTURE COST: \$39,418,164

<u>LEGEND:</u>

= SEWER TO BE REHABILITATED

= EXISTING SEWER

39th STREET CONDUIT REHABILITATION - PHASE II, SSA CONTRACT 01-103-AS

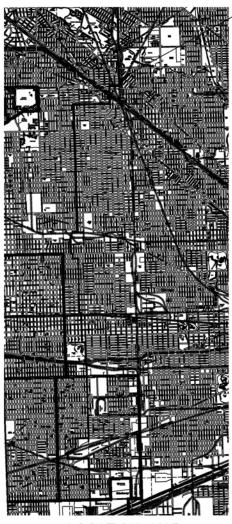


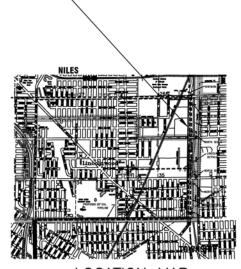
UPPER DES PLAINES INTERCEPTING SEWER 14B REHABILITATION, NSA, REBID CONTRACT 06-360-3SR



NORTH SIDE SLUDGE PIPELINE REPLACEMENT - SECTION 1, NSA, REBID 19,000 FEET OF 20-INCH DIAMETER FORCE MAIN AIR RELIEF, BLOW OFF AND CLEANOUT STRUCTURES **REHABILITATION OF 43 STRUCTURES**

COST: \$27,897,074





LOCATION MAP

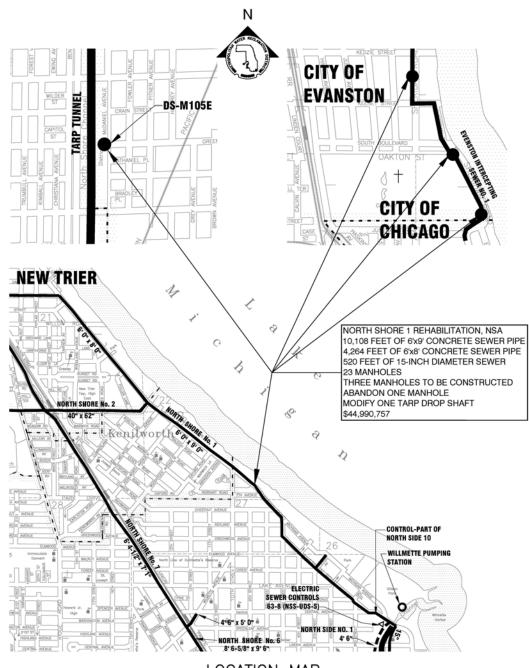
LOCATION MAP

LEGEND:

= SEWER TO BE REHABILITATED

EXISTING SEWER

NORTH SIDE SLUDGE PIPELINE REPLACEMENT - SECTION 1, NSA, REBID **CONTRACT 07-027-3SR**



LOCATION MAP

LEGEND:

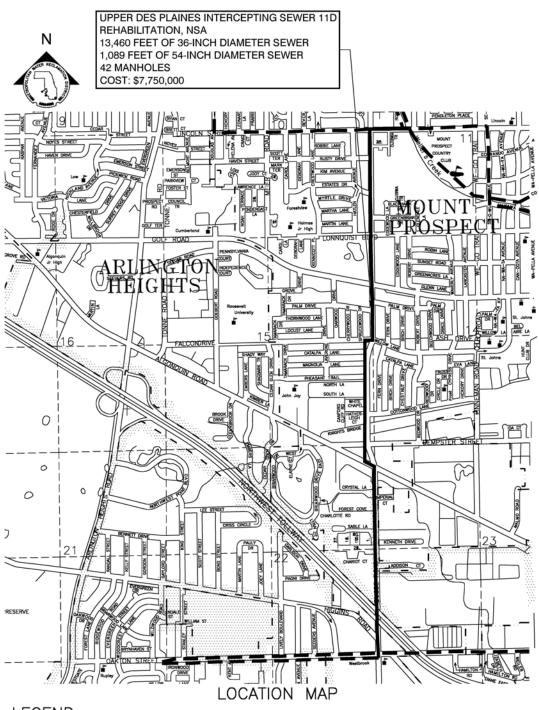
= SEWER TO BE REHABILITATED

••••• = EXISTING SEWER

NORTH SHORE 1 REHABILITATION, NSA CONTRACT 10-047-3S



UPPER DES PLAINES INTERCEPTING SEWER 11D, EXT. C REHABILITATION, NSA CONTRACT 11-404-3S



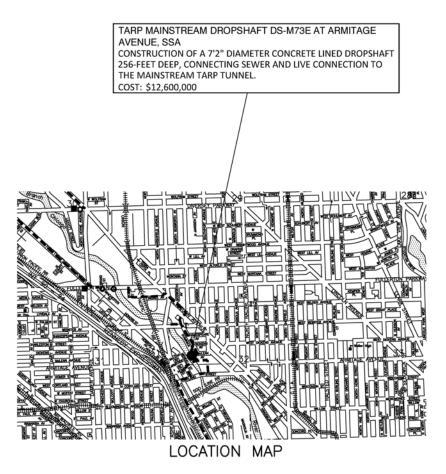
LEGEND:

= SEWER TO BE REHABILITATED

= EXISTING SEWER

UPPER DES PLAINES INTERCEPTING SEWER 11D REHABILITATION, NSA CONTRACT 12-369-3S





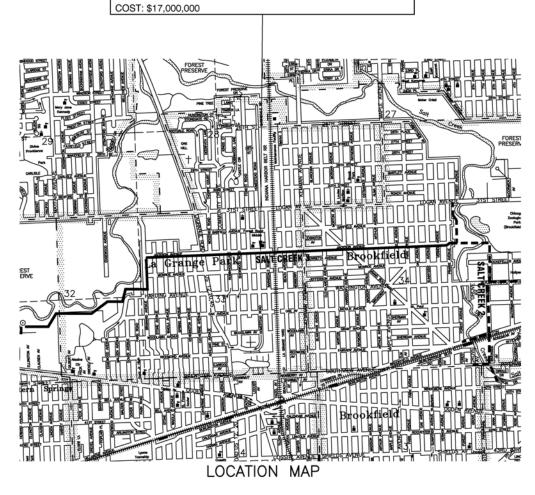
LEGEND:

PROPOSED DROP SHAFT
EXISTING SEWER

TARP MAINSTREAM DROPSHAFT DS-M73E AT ARMITAGE AVENUE, SSA CONTRACT 20-160-4H



SALT CREEK INTERCEPTING SEWER NO. 3 REHABILITATION, SSA 10,681 FEET OF 42"x60" CONCRETE SEWER PIPE 4,410 FEET OF 36-INCH DIAMETER CONCRETE SEWER PIPE 31 MANHOLES FILLING VOIDS IN SEWER INVERT

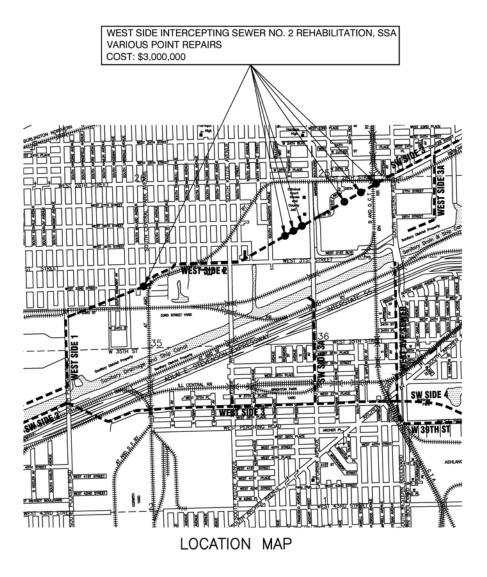


LEGEND:

= SEWER TO BE REHABILITATED

SALT CREEK INTERCEPTING SEWER NO. 3 REHABILITATION, SSA CONTRACT 20-161-3S



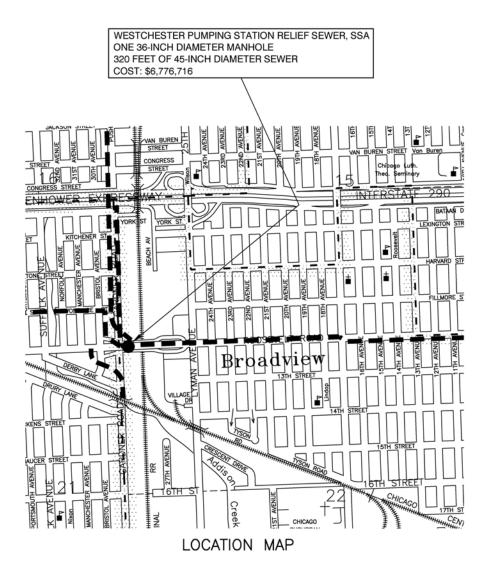


LEGEND:

= LOCATION OF POINT REPAIRS
=== = EXISTING SEWER

WEST SIDE INTERCEPTING SEWER NO. 2 REHABILITATION, SSA CONTRACT 20-162-3S





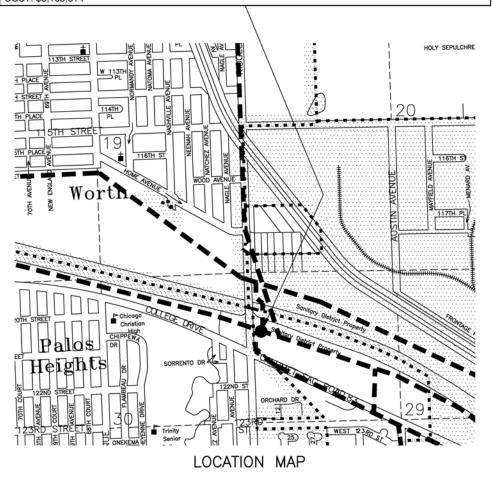
LEGEND:

= LOCATION OF SEWER MODIFICATIONS = EXISTING SEWER

WESTCHESTER PUMPING STATION RELIEF SEWER, SSA CONTRACT 21-168-3S



CALUMET 18E RELIEF CONNECTING STRUCTURE AND SEWER WORK, CSA
1 CONNECTING STRUCTURE
100 FEET OF 48-INCH DIAMETER CONCRETE SEWER PIPE
INSTALLATION OF A LOUVER SYSTEM IN THE CALUMET INTERCEPTING SEWER 20R-2 ACCESS MANHOLE
COST: \$3,108,314



<u>LEGEND:</u>

= LOCATION OF SEWER MODIFICATIONS = EXISTING SEWER

CALUMET 18E RELIEF CONNECTING STRUCTURE AND SEWER WORK, CSA CONTRACT 21-262-3S

SOUTHWEST SIDE INTERCEPTING SEWER NO. 15, 16, AND 17B REHABILITATION, SSA SOUTHWEST SIDE 15

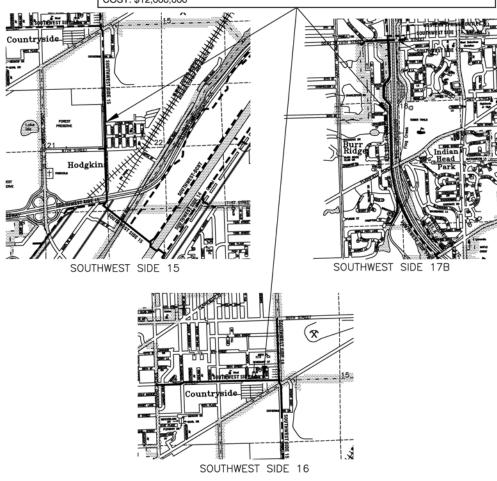
3,333 FEET OF 27-INCH DIAMETER REINFORCED CONCRETE SEWER PIPE 182 FEET OF 54-INCH DIAMETER REINFORCED CONCRETE SEWER PIPE 12 MANHOLES/STRUCTURES

SOUTHWEST SIDE 16

5,269 FEET OF 24-INCH DIAMETER REINFORCED CONCRETE SEWER PIPE 13 MANHOLES/STRUCTURES SOUTHWEST SIDE 17B

2,118 FEET OF 24-INCH DIAMETER REINFORCED CONCRETE SEWER PIPE 2,242 FEET OF 54-INCH x 60-INCH REINFORCED CONCRETE SEWER PIPE 347 FEET OF 54-INCH DIAMETER REINFORCED CONCRETE SEWER PIPE 4 MANHOLES/STRUCTURES

COST: \$12,000,000

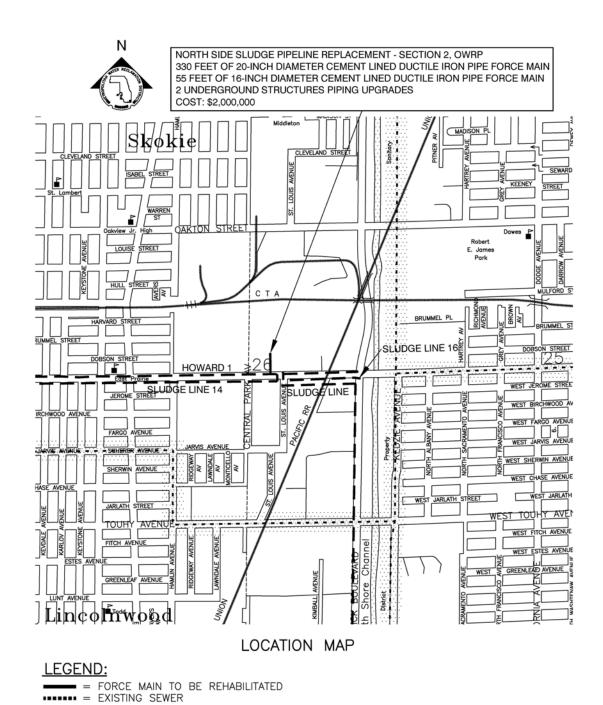


LOCATION MAP

= SEWER TO BE REHABILITATED

********* = EXISTING SEWER

SOUTHWEST SIDE INTERCEPTING SEWER NO. 15, 16, AND 17B REHABILITATION, SSA **CONTRACT 23-173-3S**



NORTH SIDE SLUDGE PIPELINE REPLACEMENT - SECTION 2, OWRP CONTRACT 24-098-3S

Stormwater Management Capital Improvements Bond Fund Program

Projects Under Construction

Projects under construction in the Capital Improvements Bond Fund were appropriated in prior years using the full encumbrance (obligation) method of budgetary accounting. The construction contract award amount and the anticipated project duration are provided in this table.

	Project Name	Project Number	Co	Est. nstruction Cost	Duration (days)	Award Date
*	Lyons and McCook Levee Improvements Project	13-199-3F	\$	1,358	2,605	Sep 2018
*	Addison Creek Channel Improvements, SSA	11-187-3F		5,600	1,026	Jul 2023
L	Total Projects Under Construction		\$	6,958		

^{*} These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

Refer to Section VI Stormwater Management Fund for more information about the Stormwater Management Capital Improvement Program.

Note: All cost figures are in thousands of dollars.

50000 CAPITAL IMPROVEMENTS BOND FUND

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:		Cost	Percent
1. COLLECTION FACILITIES: Award five construction projects: Southwest Side Intercepting Sewer No. 15, 16, and 17B Rehabilitation, SSA, Low Voltage Switchgear Replacement, MSPS, Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA, West Side Intercepting Sewer No. 2 Rehabilitation, SSA, and North and South Guard Valve Chambers Shotcrete Lining Rehabilitation, MSPS.	\$	34,750,000	6.2 %
2. TREATMENT FACILITIES: Award six construction projects: Battery E Activated Sludge Facility, OWRP, Rehabilitation of Pump and Blower House, CWRP, Chemical Phosphorus Removal, OWRP, Switchgear and Motor Control Center Replacement, KWRP, Phosphorus Removal, KWRP, and Rehabilitation of Service Tunnel Expansion Joints and Replacement of Road E, KWRP.	\$	426,550,800	76.0 %
3. SOLIDS PROCESSING AND UTILIZATION FACILITIES: Award two construction projects: Install Pipe Casing and Utilities Under Rail Road Tracks to Dewatering Facility, CWRP and North Side Sludge Pipeline Replacement - Section 2, OWRP.	\$	14,000,000	2.5 %
4. FLOOD AND POLLUTION CONTROL: Award two construction projects: TARP Control System Replacement, CSA, NSA, SSA and TARP Mainstream Dropshaft DS-M73E at Armitage Avenue, SSA.	\$	37,600,000	6.7 %
 LAND AND RIGHT-OF-WAY ACQUISITION COSTS: Acquisition of land for the expansion of reservoir projects and payments for land easements. 	\$	550,000	0.1 %
6. PROJECT SUPPORT: Administration, design, and construction inspection for current and future contracts, funding support, and construction services such as concrete and soil testing.	\$	47,473,700	8.5 %
	Totals \$	560,924,500	100.0 %
	_		

50000 CAPITAL IMPROVEMENTS BOND FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:			2023		Buc	dgeted	Change	
Number	Name		Actual		FTEs	Dollars	Dollars	Percent
1700	Collection Design	\$	223,931	2025	_ \$	_	\$ (900,000)	(100.0)
				2024	— \$	900,000		
		•	2.256.225	2025			¢ (60 40 7 400)	(64.6)
1800	Collection Construction	\$	3,376,335	2025	— \$	· · · · · ·	\$ (69,497,400)	(64.6)
				2024	— \$	107,584,900		
2700	Treatment Design	\$	1,751,810	2025	— \$	3,150,000	\$ 3,066,400	3,667.9
				2024	— \$			ŕ
2800	Treatment Construction	\$	31,063,033	2025			\$ 323,698,400	246.8
				2024	— \$	131,180,000		
3700	Solids Processing Design	\$	2,900,033	2025	_ \$	_	s —	_
7700	Solids Processing Design	Ψ	2,700,033	2024	— \$		y .	
				2024	4			
3800	Solids Processing Construction	\$	23,353,175	2025	_ \$	15,910,000	\$ 15,885,000	63,540.0
				2024	_ \$	25,000		
12.41		•	10.666	2025	a	,	•	
1341	Flood Mitigation Projects Planning and Design	\$	40,666	2025	— \$		\$ —	_
				2024	_ \$	_		
1343	Flood Mitigation Projects Construction	\$	4,810,126	2025	— \$	_	s —	_
				2024	— \$	_		
1700	Flood and Pollution Control Design	\$	7,469	2025	_ \$, ,	\$ (2,000,000)	(28.6)
				2024	— \$	7,000,000		
1800	Flood and Pollution Control Construction	\$	27,010,870	2025	_ \$	41 785 000	\$ (17,755,000)	(29.8)
1000	Trood and Fondion Control Constitution	Ψ	27,010,070	2024	— \$		(17,755,000)	(27.0)
				2021	4	27,510,000		
5800	Solids Utilization Construction	\$	9,379,960	2025	— \$	500,000	s —	_
				2024	_ \$	500,000		
7.601	Control Financia - Program - 10th - P. L. 10	d)		2025	a	1 262 600	e 140.500	10.0
7601	Capital Financing Program and Other Related Costs	\$	-	2025	— \$		\$ 148,500	12.2
				2024	— §	1,215,100		
7740	Land and Easements	\$	102,186	2025	_ \$	250,000	s —	_
		-		2024	— \$			
	Totals	s \$	104,019,594	2025	— §	560,924,500	\$ 252,645,900	82.0 %
			. , ,			308,278,600	, ,	

Projects budgeted in the Capital Improvements Bond Fund are prioritized based on operational needs, design time frames, and available funding. Year-over-year variances in program area budgets are the result of project timing within the five-year capital planning cycle. The Capital Improvements Bond Fund is budgeted on an obligation basis, meaning the projects are budgeted at their full value in the year they are awarded, whether the project expenditures occur in the same budget year or not.

401	Fund: Capital Improvements Bond	LINE ITEM ANALYSIS								
50000	Department: Engineering									
		2023		202	2025					
Account Number	Account Name	Expenditure	Original Appropriation *	Adjusted Appropriation 09/30/24 **	Expenditure (Committed Budget plus Disbursement) 09/30/24	Estimated Expenditure 12/31/24	Proposed by Executive Director	Recommended by Committee on Budget and Employment		
612090	Reprographic Services	\$ —	\$ 10,000	\$ 10,000	\$ —	\$ —	\$ 5,000	\$ —		
612250	Court Reporting Services	_	25,000	25,000	_	_	10,000	_		
612400	Intergovernmental Agreements	_	150,000	150,000	_	50,000	100,000	_		
612430	Payments for Professional Services	287,240	133,600	809,934	676,334	530,300	100,000	_		
612450	Professional Engineering Services for Construction Projects	5,028,676	7,900,000	19,008,553	11,708,262	4,769,400	9,650,000	_		
612470	Personal Services for Post- Award Engineering for Construction Projects	143,096	_	2,461,500	2,461,500	20,000	_	_		
612780	Safety Repairs and Services	_	100,000	100,000	_	_	100,000	_		
200	TOTAL CONTRACTUAL SERVICES	5,459,012	8,318,600	22,564,988	14,846,096	5,369,700	9,965,000	_		
645600	Collection Facilities Structures	2,026,335	500,000	11,862,705	11,512,434	7,050,100	500,000	_		
645620	Waterway Facilities Structures	14,303,544	17,230,000	49,744,409	40,974,286	5,328,400	15,230,000	_		
645630	Army Corps of Engineers Services	10,964,998	_	9,728,082	9,728,082 7,678,699 4,105,		_	_		
645650	Process Facilities Structures	22,846,575	58,025,000	97,298,497	58,891,769	19,419,500	429,253,400	_		
645680	Buildings	_	500,000	1,014,091	_	_	500,000	_		
645700	Preservation of Collection Facility Structures	4,634,638	106,934,900	172,933,666	172,783,491	25,663,800	34,337,500	_		
645720	Preservation of Waterway Facility Structures	3,186,428	42,000,000	54,078,569	27,743,957	3,043,900	26,250,000	_		
645750	Preservation of Process Facility Structures	26,996,598	53,105,000	155,503,271	150,536,543	23,276,500	23,075,000	_		
645780	Preservation of Buildings	9,109,516	19,900,000	47,079,304	24,628,801	10,200,500	19,900,000	_		
500	TOTAL CAPITAL PROJECTS	94,068,632	298,194,900	599,242,594	494,749,980	98,087,800	549,045,900	_		
656010	Land	_	300,000	300,000	_	150,000	300,000	_		
600	TOTAL LAND	_	300,000	300,000	_	150,000	300,000	_		
667340	Payments for Easements	102,186	250,000	250,000	88	150,100	250,000	_		
727102	Principal - Capital Lease	3,297,094	_	22,584,899	22,584,899	3,458,900	_	_		
727112	Interest - Capital Lease	1,092,671	_	3,660,488	3,660,488	930,900	_	- _		
767300	Bond Issuance Costs	_	1,215,100	1,270,953	55,854	15,800	1,363,600	_		
700	TOTAL FIXED AND OTHER CHARGES	4,491,951	1,465,100	27,766,340	26,301,329	4,555,700	1,613,600	_		
TOTAL O	CAPITAL IMPROVEMENTS UND	\$104,019,594	\$ 308,278,600	\$ 649,873,922	\$ 535,897,405	\$108,163,200	\$ 560,924,500	\$ —		

^{*} The Capital Improvements Bond Fund is budgeted and accounted for on an obligation basis.

^{**} The appropriation in the Capital Improvements Bond Fund is adjusted to carry forward open value of contracts from the prior year.

NOTES: 1. Amounts may not add up due to rounding.

^{2.} Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

^{3.} The Capital Improvements Bond Fund appropriation is controlled on the Summary Object level.