



Enterprise Funds

City of Waukegan Proposed Budget

Fiscal Year May 1, 2020 to April 30, 2021

Introduction

The City of Waukegan serves its water customers and provides wholesale water service to the municipalities of Park City, Beach Park, and Green Oaks. The water plant system receives its water from Lake Michigan, with treatment and transmission handled by the City's waterworks staff. While the City is responsible for transmission of sewerage, either Lake County Public Works or North Shore Water Reclamation District, depending on geography, handles sewage treatment. Additionally, the City operates and maintains metered street parking, several surface parking lots, and one covered parking garage. The City accounts for the water and sewer, and the parking system in Enterprise Funds. These Funds are used to report business-type functions that are intended to recover all or a significant portion of their costs through user fees and charges.

Overview

The Fiscal Year May 1, 2020 to April 30, 2021 (FY21) Enterprise Funds proposed budget calls for \$32.1 million in revenues, \$32.76 million in expenses, transfers-in of \$3.65 million, and transfers-out of \$3 million for a net result of zero.

<i>Revenues</i>	32,108,000
<i>Expenses</i>	(32,758,000)
<i>Surplus / (Deficit) before transfers</i>	(650,000)
<i>Transfers in</i>	3,650,000
<i>Transfers (out)</i>	(3,000,000)
<i>Surplus / (Deficit) after transfers</i>	0

Discussion

Total revenues are estimated to reach \$32.1 million for FY21. This includes a \$16 million inflow of proceeds from a Water & Sewer Bond issue planned in the fall to further the City's objective of continued upgrades and improvements to the water treatment and distribution system. The rates to support this new bond issue are already built-in to the City's water and sewer rates dictated by City of Waukegan Code of Ordinances. Water sale revenues were overstated in the FY20 budget projection, and therefore the FY21 assumption uses actual results coupled with the aforementioned Code rate schedule. Other notable variances in revenue projections include permit fees and interest earned. The City expects continued growth in permits from commercial development along the City's southwest corridor, as that area prospers. Interest earned is anticipated to increase because of the increase in cash balances from the bonds to be issued in the fall.

Personnel services and benefits are largely dictated by collective bargaining agreements, with a combined increase just under 2% from the FY20 to FY21 budgets. Contractual services include bonded debt service and lease payments, driving this category up significantly from the prior year. In addition to the Water & Sewer Bond issue already discussed, the City plans to replace its outdated point-of-sale systems at the multi-level garage, paid lots, and street meters. This will be done through a five-year lease. Commodities are mostly attributed to chemicals required to maintain a safe and reliable water delivery system. Capital outlay and improvements reflect the continued investment in improving the City's water and sewer delivery systems, including water main replacements, Water Plant upgrades, and informational technology upgrades. Please see the appendix for more details about the capital projects planned. Note that due to Governmental Accounting Standard Board (GASB) requirements, capital expenditures are reclassified at fiscal year-end in order to be properly capitalized and depreciated, hence the variances between "actual" and "budget" in the capital and non-cash expense categories reported herein.

Three-million dollars of the transfers-in / out account for moving 2018 Water & Sewer bond remaining funds from Fund 555 Water & Sewer Fund to the newly established Fund 556 Water & Sewer Capital Fund. This new fund will take effect May 1, 2020 to keep better track of capital spending and ease in calculating depreciation as part of the fiscal year-end close process. The remaining \$650 thousand transfer-in reflects the proposed transfer from 2018 General Obligation Bond monies held in the Capital Project Funds to the Motor Vehicle Parking Fund to complete parking lot improvements during FY21.

Actual revenues, expenses, and transfers are included in the following chart along with the FY20 adjusted budget and FY21 proposal. Line item detail for the FY21 budget proposal is in the attached Appendix.

ENTERPRISE FUNDS	FY17 ACTUAL	FY18 ACTUAL	FY19 ACTUAL	FY20 ADJ BUDGET	FY21 PROP BUDGET	CHG FY21 VS. FY20 BUDGET	
Revenues							
Sub 3000 Tax Collection	-119,893	-167,552	-313,008	-487,000	-500,000	3%	-13,000
Sub 3200 Permits	-262,935	-518,661	-119,396	-95,000	-250,000	163%	-155,000
Sub 3400 Fees	-711,571	-796,565	-649,854	-635,000	-670,000	6%	-35,000
Sub 4600 Interest Earned	-36,102	-51,884	-238,362	-110,000	-510,000	364%	-400,000
Sub 4800 Miscellaneous Revenue	-100		-95,320	-111,000	-110,000	-1%	1,000
Sub 4900 Other Financing Sources	-165,004	-138,382	-18,674,197		-16,000,000	N/A	-16,000,000
Sub 5200 Sewer and Water Sales		-63,273	-13,240,233	-15,277,000	-13,568,000	-11%	1,709,000
Sub 5500 Sewer and Water Charges	-12,301,179	-12,439,107	-207,392	-195,000	-200,000	3%	-5,000
Sub 5700 Charges-Late Payment/Penalt	-380,242	-277,254	-332,760	-300,000	-300,000	0%	0
Total Revenues	-13,977,026	-14,452,678	-33,870,522	-17,210,000	-32,108,000	87%	-14,898,000
Expenses							
Sub 2100 Personnel Services	3,283,903	3,223,402	2,917,705	3,302,000	3,522,500	7%	220,500
Sub 2200 Personnel Benefits	3,608,062	1,811,218	1,524,193	2,047,000	1,916,700	-6%	-130,300
Sub 2400 Contractual Services	2,311,489	2,408,015	3,284,390	5,473,585	6,377,000	17%	903,415
Sub 2500 Commodities	620,516	756,819	776,734	772,415	897,000	16%	124,585
Sub 2600 Capital Outlay	104,285	38,448	-30	800,000	3,100,000	288%	2,300,000
Sub 2700 Capital Improvements	61,378	37,175	44,479	13,390,000	16,944,800	27%	3,554,800
Sub 2800 Non-Cash Expense	2,901,639	2,746,533	19,068,923			N/A	0
Total Expenses	12,891,272	11,021,610	27,616,394	25,785,000	32,758,000	27%	6,973,000
Transfers							
Sub 6300 Transfers From			-428,706	-220,000	-3,650,000		
Sub 6800 Transfers To					3,000,000		
Total -Surplus / Deficit	-1,085,754	-3,431,068	-6,682,834	8,355,000	0		

Headcount from FY17 to the proposed FY21 is shown below. The proposed headcount for FY21 is 52 full-time equivalents (FTE) for the Enterprise Funds. This is a reduction of one position as the laboratory supervisor position is eliminated effective FY21 as those functions were successfully outsourced during FY20.

Enterprise Funds Police Department						
	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021 Proposed</u>	<u>Change</u>
Maintenance Worker	-	1.00	1.00	1.00	1.00	-
Parking Supervisor	-	1.00	1.00	1.00	1.00	-
	-	2.00	2.00	2.00	2.00	-

Enterprise Funds Central Services						
	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021 Proposed</u>	<u>Change</u>
City Collector - W/S	1.00	-	-	-	-	-
Clerical Tech - Motor Veh	1.00	-	-	-	-	-
Clerical Tech - W/S	6.50	4.50	4.00	3.00	3.00	-
Deputy Clerk - Motor Veh.	1.00	-	-	-	-	-
Finance Coordinator - W/S	-	1.00	-	1.00	1.00	-
Maintenance Worker - Motor Veh.	1.00	-	-	-	-	-
Office Supervisor - W/S	1.00	-	1.00	-	-	-
Senior Accountant - W/S	-	1.00	1.00	1.00	1.00	-
Staff Accountant - W/S	1.00	1.00	1.00	2.00	2.00	-
	12.50	7.50	7.00	7.00	7.00	-

Enterprise Funds Public Works						
	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021 Proposed</u>	<u>Change</u>
Admin Asst - WS	1.00	2.00	1.00	1.00	1.00	-
Utility Manager - WS	-	-	1.00	1.00	1.00	-
Backflow Coordinator - WS	1.00	1.00	1.00	1.00	1.00	-
Laboratory Supervisor - WS	1.00	1.00	1.00	1.00	-	(1.00)
Laborer - WS	10.00	9.00	9.00	9.00	9.00	-
Maintenance Worker - WS	23.00	20.00	20.00	20.00	20.00	-
Mechanic / Welder - WS	1.00	1.00	1.00	1.00	1.00	-
Office Supervisor - WS	-	-	-	1.00	1.00	-
Public Works Supervisor - WS	4.00	4.00	4.00	4.00	4.00	-
Water Operator - WS	5.00	4.00	5.00	4.00	4.00	-
Water Plant Superintendent - WS	1.00	1.00	1.00	1.00	1.00	-
	47.00	43.00	44.00	44.00	43.00	(1.00)

Fnd 555 SEWER & WATER FUND

555 32030	Permits - Solar	-50,000	
555 32050	Permits - Sanitary Connection	-15,000	
555 32055	Permits - Water Connectin	-60,000	
555 32060	Permits - Water Meter	-100,000	
555 32067	Permits - Water Shed Development	-15,000	
555 32068	Permits - Sewer Repair	-10,000	
555 34038	Fees - Parkway Openings	-5,000	
555 34052	Fees - Storm Sewer Connection	-5,000	
555 46100	Interest Earned	-500,000	
555 52020	Sales-Metered Special Rate	-13,000	
555 52040	Sales - Metered Water	-188,000	
555 52045	Sales - Met. Water Out of City	-1,809,000	
555 52050	Sales - Metered Water & Sewer	-11,528,000	
555 52060	Sales - Service Billings	-11,000	
555 52070	Sales - Sewer Only	-7,000	
555 52080	Sales - 72 Hr. Rental	-2,000	
555 52100	Sales - Hydrant Rental	-10,000	
555 55201	Closing Letter Fee	-100,000	
555 55500	Water Shut-Off Fees	-100,000	
555 57000	Charges-Late Penalties	-300,000	
		-----	-14,828,000
555 915921110	Clerical Technician	150,000	
555 913021200	Laborer	92,000	
555 915021200	Laborer	99,000	
555 915421200	Laborer	45,000	
555 915521200	Laborer	135,000	
555 915721200	Laborer	45,000	
555 913021211	Maintenance Worker	193,000	
555 915021211	Maintenance Worker	318,000	
555 915421211	Maintenance Worker	586,000	
555 915721211	Maintenance Worker	200,000	
555 913021212	Maintenance Worker	70,000	
555 915521213	Back Flow Coordinator	86,000	
555 915721220	Water Operator	241,000	
555 913021399	Earned Sick Leave Cash Out	1,000	
555 915021399	Earned Sick Leave Cash Out	100	
555 915421399	Earned Sick Leave Cash Out	100	
555 915721399	Earned Sick Leave Cash Out	4,400	
555 915921399	Earned Sick Leave Cash Out	300	
555 913021400	Overtime	22,800	
555 915021400	Overtime	6,300	
555 915421400	Overtime	35,800	
555 915521400	Overtime	4,100	
555 915721400	Overtime	33,800	
555 915921400	Overtime	100	

555 913021401	Double-Time	9,700
555 915021401	Double-Time	2,800
555 915421401	Double-Time	14,100
555 915521401	Double-Time	6,900
555 915721401	Double-Time	55,100
555 915021403	Female Search/Double Back Pay	200
555 915521403	Female Search/Double Back Pay	400
555 915721403	Female Search/Double Back Pay	1,400
555 913021404	On-Call Pay	16,000
555 915021404	On-Call Pay	7,700
555 915421404	On-Call Pay	9,200
555 915521404	On-Call Pay	2,500
555 915721404	On-Call Pay	7,900
555 913021413	Tool Allowance	900
555 915021413	Tool Allowance	500
555 915421413	Tool Allowance	800
555 915521413	Tool Allowance	100
555 915721413	Tool Allowance	1,100
555 915521721	Office Supervisor	70,000
555 915921730	Staff Accountant	133,000
555 913021749	Public Works Supervisor	78,000
555 915021749	Public Works Supervisor	79,000
555 915521749	Public Works Supervisor	146,000
555 915521760	Water Plant Superintendent	99,000
555 915921776	Senior Accountant	76,000
555 915021796	Administrative Assistant	62,000
555 915521803	Comm/Utilities Manager	75,000
555 915921862	Finance Coordinator	52,000
555 913022456	Hospitalization	112,000
555 915022456	Hospitalization	144,000
555 915422456	Hospitalization	160,000
555 915522456	Hospitalization	144,000
555 915722456	Hospitalization	128,000
555 915922456	Hospitalization	112,000
555 915522457	Workmen's Compensation	150,000
555 915922457	Workmen's Compensation	2,000
555 915522458	Liability Insurance	150,000
555 915922458	Liability Insurance	2,000
555 913022461	Employer Portion OASDI	30,200
555 915022461	Employer Portion OASDI	36,000
555 915422461	Employer Portion OASDI	43,200
555 915522461	Employer Portion OASDI	39,100
555 915722461	Employer Portion OASDI	36,900
555 915922461	Employer Portion OASDI	25,700
555 913022462	Employer Portion Medicare	7,000
555 915022462	Employer Portion Medicare	8,300

555 915422462	Employer Portion Medicare	10,000
555 915522462	Employer Portion Medicare	9,100
555 915722462	Employer Portion Medicare	8,600
555 915922462	Employer Portion Medicare	6,000
555 913022467	Life Insurance	1,500
555 915022467	Life Insurance	1,700
555 915422467	Life Insurance	2,100
555 915522467	Life Insurance	1,900
555 915722467	Life Insurance	1,800
555 915922467	Life Insurance	1,200
555 913022610	Employer IMRF	67,700
555 915022610	Employer IMRF	80,600
555 915422610	Employer IMRF	96,700
555 915522610	Employer IMRF	87,500
555 915722610	Employer IMRF	82,600
555 915922610	Employer IMRF	57,600
555 916124014	Bond Issuance Expense	250,000
555 916124075	Principal Retirement	644,000
555 916124076	Lease Payments	625,000
555 916124404	Bond Interest Expense	887,000
555 916124405	Bond Service Fees	7,500
555 915524407	Bank Service Charges	2,000
555 915924407	Bank Service Charges	95,000
555 913024412	Equipment Maint.	6,000
555 915524412	Equipment Maint.	3,000
555 915924412	Equipment Maint.	71,300
555 915524423	Telephone	16,000
555 915924423	Telephone	1,000
555 915524424	Real Estate Tax	6,000
555 913024426	Utilities	32,000
555 915724426	Utilities	700,000
555 915924428	Rental/Lease Purchase	2,000
555 915524429	Conference & Travel	3,000
555 915924429	Conference & Travel	3,500
555 915924431	Training & Schooling	6,000
555 915524432	Postage	1,000
555 915924432	Postage	102,000
555 915924434	Printing	28,000
555 915524436	Consultant Services	120,000
555 913024438	Other Professional Serv.	33,000
555 915524438	Other Professional Serv.	120,000
555 915924438	Other Professional Serv.	45,000
555 913024439	Laundry Service	3,600
555 915524439	Laundry Service	12,000
555 915524443	Membership Dues	8,000
555 915924443	Membership Dues	800

555 916324450	Services Provided by the General Fund	632,800	
555 915524454	Labor Relations	1,000	
555 915924476	Municipal Audit	21,000	
555 915524490	Risk Premiums	110,000	
555 913024491	Employee Physical	500	
555 915424491	Employee Physical	500	
555 915524491	Employee Physical	500	
555 915724491	Employee Physical	500	
555 915924491	Employee Physical	100	
555 915524801	IT Serv Software	134,600	
555 915924801	IT Serv Software	95,600	
555 915524802	IT Serv Hardware	134,600	
555 915924802	IT Serv Hardware	95,600	
555 915524803	IT Serv Utilities	67,300	
555 915924803	IT Serv Utilities	47,800	
555 915525464	Chemical Supplies	150,000	
555 915925465	Office Supplies	1,100	
555 913025466	Gasoline & Oil	31,000	
555 915525466	Gasoline & Oil	10,000	
555 913025468	Operating Supplies	26,000	
555 915425468	Operating Supplies	200,000	
555 915525468	Operating Supplies	350,000	
555 915925468	Operating Supplies	900	
555 915525478	Computer Supplies	4,000	
555 915525480	Miscellaneous Expenses	50,000	
555 915925480	Miscellaneous Expenses	500	
555 915925484	Credit Card Fee	500	
555 915525493	Hydrants Operations	60,000	
555 916027018	Water Filtration Plant Improvements	4,000,000	
555 916027043	Water Main Replacements	700,000	
555 916027082	Storm Sewer Improvements	500,000	
555 916027085	Sanitary Sewer Improvements	900,000	
555 916027090	Booster Station Repairs	650,000	
555 916027691	Lift Station Repairs	650,000	
		-----	18,683,200
555 68556	Transfers to Fund 556	3,000,000	
		-----	3,000,000
Fnd 556 SEWER & WATER CAPITAL FUND			
556 49310	Bond Proceeds	-15,000,000	
		-----	-15,000,000
556 63555	Transfers From Fund 555	-3,000,000	
		-----	-3,000,000
556 916024435	Engineering Services	100,000	
556 916024438	Other Professional Servc.	100,000	
556 916024505	Adelphi Landfill	50,000	

556 916026494	Equipment - SCADA	1,000,000	
556 916026495	Computer Hardware - ERP	1,000,000	
556 916027018	Water Filtration Plant Improvements	4,894,800	
556 916027043	Water Main Replacements	1,000,000	
556 916027082	Storm Sewer Improvements	1,000,000	
556 916027085	Sanitary Sewer Improvements	1,000,000	
556 916027090	Booster Station Repairs	500,000	
556 916027691	Lift Station Repairs	500,000	
		-----	11,144,800

Fnd 595 MOTOR VEHICLE PARKING FUND

595 30080	Home Rule Sales Tax	-500,000	
595 34024	Fees - Street Meter Parking	-180,000	
595 34025	Fees - Parking Lot C	-50,000	
595 34030	Fees - Parking Lot Machines	-180,000	
595 34055	Fees - Monthly Parking Passes	-100,000	
595 34059	Fees - Special Events	-150,000	
595 46100	Interest Earned	-10,000	
595 46300	Rental Income - Clayton St.	-10,000	
595 46360	Rental Income - Downtown Lots	-50,000	
595 48900	Miscellaneous Revenue	-50,000	
595 49311	Capital Lease Proceeds	-1,000,000	
		-----	-2,280,000
595 63307	Transfers From	-650,000	
		-----	-650,000
595 459521211	Maintenance Worker	66,000	
595 459521400	Overtime	6,900	
595 459521401	Double-Time	500	
595 459521413	Tool Allowance	1,000	
595 459521711	Parking Lot Supervisor	72,000	
595 459522456	Hospitalization	32,000	
595 459522457	Workmen's Compensation	2,000	
595 459522458	Liability Insurance	2,000	
595 459522461	Employer Portion OASDI	10,000	
595 459522462	Employer Portion Medicare	2,200	
595 459522467	Life Insurance	500	
595 459522610	Employer IMRF	21,000	
595 459524076	Lease Payments	710,000	
595 459524403	Interest Expense	76,000	
595 459524405	Bond Service Fees	5,000	
595 459524407	Bank Service Charges	25,000	
595 459524410	Building & Grounds	2,000	
595 459524412	Equipment Maint.	17,700	
595 459524424	Real Estate Tax	1,000	
595 459524426	Utilities	42,000	

595 459524437	Legal Services	2,000	
595 459524438	Other Profession Serv.	10,000	
595 459524450	Services Provided by the General Fund	25,200	
595 459524476	Municipal Audit	5,000	
595 459524490	Risk Premiums	5,000	
595 459524801	IT Serv Software	10,000	
595 459524802	IT Serv Hardware	10,000	
595 459524803	IT Serv Utilities	5,000	
595 459525466	Gasoline & Oil	1,000	
595 459525468	Operating Supplies	10,000	
595 459525480	Miscellaneous Expense	1,000	
595 459525484	Credit Card Fee	1,000	
595 459526492	Improvements	100,000	
595 459526497	Meter Upgrade Project	1,000,000	
595 459527630	Resurfacing Improvements	650,000	
		-----	2,930,000
		=====	0

Project Name	Enterprise Resource Planning (ERP) System ~ Cayenta upgrade 7.8 to 9.0
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Current Situation	Cayenta recommends an upgrade at least every two years to the most current ERP system in order to stay up to date with technological advancements in the industry in addition to newest features that are layered into the system. Our current system lacks online portals for water customers, ability to provide accurate and timely reporting of information and data, improvement for users of purchasing processes, as well as employee secure portals which are becoming standard in the industry. The last upgrade took place in FY16/17. In addition, this will allow for the most current patches and solutions from Cayenta.
Business Need, Problem or Opportunity Statement	<p>With business becoming increasingly remote, the City's ERP system should complement this change in culture by allowing you to access certain features of the system regardless of your location.</p> <p>In order to have access to the most current Cayenta system features, such as third party integration, as well as the tools and features stated above, we need to be able to upgrade the technology or else it puts the City at risk of being left behind.</p> <p>Finally, as with any software provider, there is only so long they will commit to supporting and updating an outdated version of their software, with them justifiably keen to spend their time developing and supporting the most recent version, and in most instances, the preceding version.</p>
Benefits/Desired Outcomes	Improved security, reduced paper waste, turn-around time shorter, and more robust reporting capabilities, which in turn, improves internal controls and financial transparency.
Timetable and/or Deadlines	This will be a 6 month testing process, with full implementation aimed for January 1, 2021.
Cost Estimates	Implementation costs \$900,000 Additional maintenance (in addition to current) \$100,000 Funding Budget Code 556 916026495

Project Name	Parking Meter, Lot and Garage Point-of-Sale (POS) Modernization
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Current Situation	Currently, the city only accepts coin at the on-street metered parking. The parking lots and garage accept cash or credit cards, and also use in-person cash collections for seasonal and special event parking.
Business Need, Problem or Opportunity Statement	It is the goal of the city's leadership to update and improve the point-of-sale system for parking based on current industry standards. The objective of the improved system will be to enhance the customer experience, improve security and accuracy in revenue collection, and track customer-parking data to allow for better-informed decision-making.
Benefits/Desired Outcomes	Over a period, the new system will increase revenue, reduce user frustration with outdated collection systems (i.e. cash only), increase efficiency in parking compliance, and provide valuable data on # of parkers at various locations and at different times / seasons. This may also eliminate the need to contract for valet parking, as the Theatre or other downtown businesses may use new technology for "reserved" spots, etc.
Timetable and/or Deadlines	12 to 24 months for full implementation
Cost Estimates	\$1 million for implementation, estimated \$50 to \$100 thousand per year in additional costs (credit card processing, etc.). It is anticipated that reduction in currently lost revenues and ramped up compliance will allow for a ROI over a 10-year period. Budget Code 595 459526497

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ Bridge Cranes - Electrical Upgrade
Priority Level	Critical
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

The Water Treatment Plant (WTP) is equipped with three bridge cranes; (1) over the high service pumps; (2) over the newly reconstructed West Bay filter cells; and (3) over the original 1927 East Bay filter cells. One bridge crane was in active usage during the reconstruction of the West Bay filters. The bridge crane serving the high service pump room will need to be used with the major valve replacement project in May-July 2020, and with the High Service Pump #1 and #2 replacement projects in latter 2020. All three cranes are original equipment (93 years old) installed when the WTP was constructed in 1927. All three cranes' electrical wiring is 3 phase/480 volts, and all three of the high voltage electrical wires are unshielded and exposed. This electrical installation no longer meets National Electric Code requirements and is dangerous for WTP operations staff and contractors who use the bridge cranes. It is critical that all three bridge cranes' electrical service wiring be brought up to NEC standards before additional usage of this equipment is needed.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			

Budget Code 556 916027018 **Total** 250,000



Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ Gas Chlorine Scrubber
Priority Level	Normal
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

A major chlorine gas release from the Treatment Plant could have serious (or deadly) consequences for plant staff and the nearby public, especially with the Lake Michigan swimming beach in very close proximity to the plant. The serious consequences of a major chlorine gas leak from the plant (where there are four 1-ton chlorine gas cylinders stored) would be significantly reduced with the installation of a chlorine scrubber unit installed immediately outside the WTP. The scrubber unit would eliminate the health hazards of a release of chlorine gas from the plant. Project includes the furnishing and installation of a chlorine gas scrubber unit (sized for a one ton chlorine gas cylinder) located outside the WTP building adjacent to the Chlorine Storage Room.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			
Budget Code	556 916027018	Total	400,000

Image (photo, map)



Typical chlorine gas scrubber unit installed at a water treatment plant

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ Sump Pumps & Piping
Priority Level	Critical
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

None of the original four sump pumps at the Waukegan WTP are operational. Numerous temporary submersible sump pumps are currently operated continuously in the two sump areas to remove water from the building. The Lake Michigan water level is currently so high that the original 1927 sump pump and piping design can no longer gravity flow the water from the WTP back to the lake as originally designed. The WTP sump pump discharge piping has been valved off to stop the flow of Lake Michigan water into the WTP sumps and flooding the WTP lower floors. This valve was closed in summer 2019 as flooding of the lower WTP floors became a serious concern for WTP operations staff. The temporary continuously operating sump pumps discharge water outside the WTP building onto the ground near the fenceline west of the WTP. This project would eliminate the need for operating temporary sump pumps and discharging the water on the ground outside the WTP building. New permanent sump pumps and required piping to discharge water under pressure into the existing nearby manhole would allow the sump pump water to flow by gravity back to the lake, and eliminate the possibility of flooding of the WTP from the high Lake Michigan water levels.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			

Budget Code	556 916027018	Total	500,000
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Image (photo, map)



Non-functioning Sump Pumps #1 and #2 in front sump pit at WTP. This area was flooded in Summer 2019 and several temporary sump pumps were used to remove the water. Continued flooding of this area was prevented when a valve on the gravity flow piping between the manhole and Lake Michigan was closed. With this valve closed, the only place to discharge water is outside the WTP on the ground on the west side of the property. A long-term solution to this problem needs to be implemented in 2020.

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ Filter 2-10 Rehab
Priority Level	Critical
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

This project includes refurbishing the five East Bay surface water filters at the Waukegan Water Treatment Plant. All five of the West Bay filters have recently been refurbished and will be brought online in February 2020. The same design-build work that was performed and new equipment that was installed for the West Bay filters in 2019-20 would be performed/installed for the 1927 East Bay filters in 2020-21. This project will include the removal of all 1927 filtration equipment (backwash troughs, inlet gates and appurtenances) that is in contact with the water that has lead-based paint coatings.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			
Budget Code	556 916027018	Total	2,687,000

Image (photo, map)



Existing 1927 East Bay Filters with lead-based paint on backwash troughs and inlet gates.



New West Bay Filters reconstructed 2019-2020

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ Backflow Preventer Replacement
Priority Level	Critical
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

The piping for the drinking water used at the WTP is connected to the treated water piping and is located in the Chlorine Storage Room next to the garage on the WTP east side. This piping includes a code-required backflow preventer that is located in the northeast corner of the Lab Room. The exposed piping in the Chlorine Storage Room (immediately below the Lab Room) is severely corroded and needs replacement. The 4" RPZ backflow is too small and reduces water pressure in the WTP building plumbing from 85 psi to below 55 psi - this lower pressure is inadequate to reliably operate the hydraulic valves for controlling and operating the four large 1967 filters (Filters 11-14). This project will replace the corroded piping in the Chlorine Storage Room, and replace the undersized piping, valves, fittings and backflow preventer in the Lab Room with a 6" RPZ backflow preventer and associated piping. Higher WTP building water pressure will result and allow for reliable operation and control of the four large filters at the WTP. These filters produce 12 million gallons of treated water per day.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			

Budget Code	556 916027018	Total	57,800
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Image (photo, map)



4" valves, piping, fittings and 4" Backflow preventer in Lab Room at WTP to be replaced with 6" piping and backflow preventer.

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Public Works
Category	Water & Sewer
Project Name	WATER PLANT ~ project carryforward and engineering
Priority Level	Critical
Project Timeline	Current / Shovel Ready

Is this project included in an assessment report?

If yes, which one?

Project Description

Three separate contracts were awarded during FY20 to three different engineering firms specialized in water plant and water / sewer distribution systems. These contracts will continue until completion with an estimated carry-forward balance of \$4,000,000. In addition, an allocation of \$1,000,000 in Water Treatment Plant investments is being set aside in FY21 to continue the engineering and implementation of improvements which may include flow meter replacements. Finally, the SCADA system will be improved and upgraded over a series of years, with a \$1,000,000 allocation to begin in earnest during FY21.

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			

Budget Code	555 916027018 \$4 million, 556 916027018 \$1 million, and 556 916026494 \$1 million	Total 6,000,000
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Image (photo, map)



Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Engineering
Category	Water & Sewer
Project Name	FY21 Watermain Maintenance Program
Priority Level	Critical
Project Timeline	Planning Stage

Is this project included in an assessment report?

If yes, which one?

Project Description

At select locations citywide prioritized by the Department of Public Works Water Department. Select projects are also a function of roadway resurfacing locations. The work will include traffic control, sawcutting of pavement, pavement removal, earth excavation/haul-off/disposal, utility removal and replacement, trench backfill, aggregate base materials, full depth pavement construction, pavement markings, accessibility improvements and site restoration. All work shall be procured in accordance with the City of Waukegan Purchasing Ordinance and constructed in accordance with the latest Design and Construction Specifications for Bridge and Highway Construction (issued by the Illinois Department of Transportation).

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding	Projects rolled over from FY20 are funded via Fund 555; new projects to be funded from Fund 556.		
Budget Code	555 916027043 \$700,000 & 556 916027043 \$1,000,000		Total 1,700,000

Image (photo, map)

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Engineering
Category	Water & Sewer
Project Name	FY21 Storm Sewer Maintenance Program
Priority Level	Critical
Project Timeline	Planning Stage

Is this project included in an assessment report?

If yes, which one?

Project Description
 At select locations citywide prioritized by the Department of Public Works Sewer Department. Select projects are also a function of roadway resurfacing locations. The work will include traffic control, sawcutting of pavement, pavement removal, earth excavation/haul-off/disposal, utility removal and replacement, trench backfill, aggregate base materials, full depth pavement construction, pavement markings, accessibility improvements and site restoration. All work shall be procured in accordance with the City of Waukegan Purchasing Ordinance and constructed in accordance with the latest Design and Construction Specifications for Bridge and Highway Construction (issued by the Illinois Department of Transportation).

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding			

Projects rolled over from FY20 are funded via Fund 555; new projects to be funded from Fund 556.

Budget Code	555 916027082 \$500,000 & 556 916027082 \$1,000,000	Total	1,500,000
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Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Engineering
Category	Water & Sewer
Project Name	FY21 Sanitary Sewer Maintenance Program
Priority Level	Critical
Project Timeline	Planning Stage

Is this project included in an assessment report?

If yes, which one?

Project Description

At select locations citywide prioritized by the Department of Public Works Sewer Department. Select projects are also a function of roadway resurfacing locations. The work will include traffic control, sawcutting of pavement, pavement removal, earth excavation/haul-off/disposal, utility removal and replacement, trench backfill, aggregate base materials, full depth pavement construction, pavement markings, accessibility improvements and site restoration. All work shall be procured in accordance with the City of Waukegan Purchasing Ordinance and constructed in accordance with the latest Design and Construction Specifications for Bridge and Highway Construction (issued by the Illinois Department of Transportation)

Source of Funding	Capital - Bond Proceeds	Useful Life (in years)	50
Notes on Funding	Projects rolled over from FY20 are funded via Fund 555; new projects to be funded from Fund 556.		
Budget Code	555 916027085 \$900,000 & 556 916027085 \$1,000,000		Total 1,900,000

Image (photo, map)

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Water Utility
Category	Water & Sewer
Project Name	FY21 Lift Station Improvements Program
Priority Level	Critical
Project Timeline	Planning Stage

Is this project included in an assessment report?

If yes, which one?

Project Description

Improve performance and longevity of booster & lift station structures and infrastructure.

It is recommended that a Mechanical, Electrical, Plumbing (MEP) be engaged for design and management of these facilities.

Source of Funding	Water & Sewer - Bond Proceeds	Useful Life (in years)	25
Notes on Funding	Projects rolled over from FY20 are funded via Fund 555; new projects to be funded from Fund 556.		

Budget Codes	555 916027090 \$650,000; 556 916027090 \$500,000; 555 916027691 \$650,000; 556 916027691 \$500,000	Total	2,300,000
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Image (photo, map)

Capital Improvement Plan

Project Request Form
 FY 20/21

Agency	Public &/or Water Works
Division	Engineering
Category	Streets & Sidewalks
Project Name	FY21 Municipal Parking Lot Improvements Program
Priority Level	Critical
Project Timeline	Planning Stage

Is this project included in an assessment report?

If yes, which one?

Project Description

Municipal parking lot improvements will be prioritized by use and field condition assessments. The work includes traffic control, pavement sawcutting, demolition and removal of curb/gutter/sidewalk/driveways/asphalt pavement, earth excavation/haul-off/disposal, drainage and utility improvements, aggregate base materials, accessibility improvements, cast in place concrete pavement/sidewalk/curb and gutter, Hot Mixed Asphalt pavement, pavement markings and site restoration. All work shall be procured in accordance with the City of Waukegan Purchasing Ordinance and constructed in accordance with the latest Design and Construction Specifications for Bridge and Highway Construction (issued by the Illinois Department of Transportation).

Source of Funding	Other	Useful Life (in years)	15
Notes on Funding			

Budget Code	595 459527630	Total	650,000
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Image (photo, map)