



## **Financial Services Audit Committee Communication**

**Date:** March 26, 2021

**To:** Great Lakes Water Authority Audit Committee

**From:** Andrew Sosnoski, Manager, Construction Accounting & Financial Reporting

**Re:** FY 2021 Q2 Construction Work-in-Progress Report through December 31, 2020  
(Unaudited)

**Background:** The quarterly construction work-in-progress (CWIP) provides information and analysis related to the execution of the Great Lakes Water Authority capital improvement program (CIP).

**Analysis:** The attached documents summarize the FY 2021 Q2 CWIP positions and provides a detailed snapshot to inform decision makers and stakeholders.

**Proposed Action:** Receive and file this report.



**Construction Work-in-Progress Quarterly Report  
(Unaudited)**

**As of December 31, 2020**

**For questions, please contact:**

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**March 26, 2021****To Our Stakeholders:**

The contents of this report represent the financial presentation of construction work-in-progress activity for the Great Lakes Water Authority (GLWA) as of December 31, 2020. The information in this report presents a detailed snapshot and is important as we track the execution of the FY 2022–2026 Capital Improvement Plan (CIP) and look to inform decision makers as we draft the FY 2023–2027 CIP.

As we continue to refine this report to better communicate pertinent information to inform decision makers and stakeholders, content and formatting may be changed. With the summary of active projects now regularly being reported to the Capital Planning Committee the project highlights previously being reported have been removed from this report.

**Report Contents and Organization**

This report is divided into two sections: one for the Water System and one for the Wastewater System as identified in the table of contents. Each section includes analysis and reporting of the following:

*Executive Summary:* Presentation of spend information is necessary to report our progress on CIP projects.

*Construction Work-in-Progress Rollforward:* This table provides a list of all projects in the CIP along with financial activity. This table may be used to revisit priorities, workload, and phasing.

*Project Amendment Summary:* The award of CIP contracts and the related execution thereof may result in deviations from the amount and timing of project activity. Project amendments are prepared to fund the related increase or decrease with either an adjustment to Capital Reserve or Program / Allowance accounts to amend the board approved fiscal year CIP accordingly and to inform decision makers in the development of future Capital Improvement Plans.

## Financial Information

All project amounts are unaudited. This means that direct contractor costs are generally included in these totals with most pay estimates entered through December 31, 2020. There may, however, be some pay estimates that lag. The totals do not include indirect overhead.

## Budget vs. Plan

Generally, GLWA's CIP projects span two or more fiscal years. The GLWA Board of Directors adopts a biennial "budget" and a five-year capital improvement "plan".

- ✓ The adopted **budget** relates to operations and maintenance expense, annual fixed commitments such as debt service, and incremental adjustments to reserves. The budget provides authority to spend within defined amounts. The budget is also referred to as the "revenue requirement" for the utility.
- ✓ After contracts are awarded at amounts variant from the CIP plan and more reliable anticipated spend data becomes available, the amended budget for the current fiscal year may increase or decrease by way of "Capital Reserve" budget amendments.
- ✓ The five-year capital improvement **plan** is a rolling plan that is updated at an administrative tracking level as projects move from estimated to actual bid numbers. An updated mid-cycle CIP would be presented to the Board for approval if the prioritization strategy was revised and/or the plan was in need of material revisions.
- ✓ In addition, the Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established.

## WATER SYSTEM

### Executive Summary

The rate of spend is a key performance indicator. The development of the FY 2021-2025 and related CIP Plan for FY 2021 were based on anticipation of FY 2021 activity resulting in 75% of planned spend. The Water System spend for the period ending December 31, 2020 is 80.4% of the FY 2021 pro-rated board approved CIP, 79.4% of the pro-rated FY 2021 board approved CIP with project amendments, and 107.3% of the FY 2021 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2021 Board Approved CIP was amended from \$147,564,000 to \$149,542,001 is provided in the subsequent Project Amendment Summary section of this report.

Water System Projects		FY 2020	FY 2020 Activity	FY 2020 Percentage	FY 2021	FY 2021 Prorated (Six Months)	FY 2021 Activity (Unaudited)	FY 2021 Percentage
FY 2020 Board Approved CIP	\$	143,247,000	\$	76,542,465	53.4%			
FY 2020 Board Approved CIP With Project Amendments		124,916,757		76,542,465	61.3%			
FY 2020 Capital Spend Rate Assumption (SRA)		107,435,250		76,542,465	71.2%			
FY 2021 Board Approved CIP					\$ 147,564,000	\$ 73,782,000	\$ 59,348,762	80.4%
FY 2021 Board Approved CIP With Project Amendments					149,542,001	74,771,000	59,348,762	79.4%
FY 2021 Capital Spend Rate Assumption (SRA)					110,673,000	55,336,500	59,348,762	107.3%

## Construction Work-in-Progress Rollforward

The purpose of the construction work-in-progress (CWIP) rollforward is to analyze the current year activity for each project in relation to the overall capital improvement program as well as the project portfolio overall.

As part of our project life cycle review the CA&FR team identifies when it is appropriate for projects to be capitalized. Projects are to be capitalized when they have been completed in totality or are inclusive of identifiable assets that have been placed in service. Capitalization of project cost occurred in the FY 2021 2<sup>nd</sup> quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
111002	CON-212	LHWTP Backflow Replacement
171501	1803483	Roof Replacements - Var Facilities Program
341001	SOQ-135a	Security Infrastructure Improvements

**\$172.9** million is in CWIP as of December 31, 2020 as shown in the table beginning on the next page.

The order of the report on the subsequent pages is in ascending order by CIP project number.

**Great Lakes Water Authority**  
**Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

**Water System**  
**Construction Work-in-Progress Quarterly Report**  
 As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
111001	Energy Management: Lake Huron Water Treatment Plant Low Lift Pumping Improvements	\$ 57,178,250	\$ 212,034	\$ 1,636,000	\$ 1,636,000	\$ 810,118	\$ -	\$ 1,022,152	\$ 1,022,152	2%
111002	LHWTP Backflow Replacement	8,705,313	8,529,804	41,000	41,000	32,616	8,717,768	-	8,717,768	100%
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP	3,892,689	390	-	-	(390)	3,892,299	-	3,892,299	100%
111006	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake	16,789,745	1,073,466	235,000	235,000	137,286	-	1,210,751	1,210,751	7%
111007	Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements	9,181,107	5,887,651	3,392,000	3,392,000	1,705,161	-	7,592,812	7,592,812	83%
111008	LHWTP Architectural Programming - Lab	1,196,283	110	-	-	(110)	-	-	-	0%
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	30,480,734	116,755	1,856,000	1,142,460	11,437	-	128,192	128,192	0%
111010	Lake Huron Water Treatment Plant -Filtration and Pretreatment Improvements	42,206,783	-	-	-	-	-	-	-	0%
111011	Lake Huron WTP Pilot Plant	3,247,998	-	-	2,200,000	-	-	-	-	0%
111012	LHWTP-Flocculation Improvements	26,538,016	-	-	-	-	-	-	-	0%
112002	Low Lift Pumping Plant Caisson Rehabilitation at Northeast WTP	1,172,880	2,918	-	-	(2,918)	1,169,962	-	1,169,962	100%
112003	NE WTP High Lift Pumping Electrical	71,545,621	5,785	-	-	60,087	-	65,871	65,871	0%
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits	1,088,655	438,463	1,096,000	1,096,000	165,560	-	604,023	604,023	55%
112006	Northeast Water Treatment Plant Flocculator Replacements	11,316,013	186,274	2,773,000	2,773,000	52,476	-	238,750	238,750	2%
113001	Southwest Water Treatment Plant, Sludge Treatment & Waste Wash water Treatment Facilit	-	341,324	-	-	-	-	341,324	341,324	100%
113002	High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP	6,728,375	5,272,232	1,094,000	1,094,000	462,104	-	5,734,336	5,734,336	85%
113003	Replacement of Butterfly Valves	21,811,953	110	-	-	-	-	110	110	0%
113004	Residual Handling Facility's Decant Flow Modifications at Southwest WTP	-	1,822	-	-	-	853,219	1,822	855,041	100%
113006	SW WTP Chloring Scrubber	7,330,660	129,973	260,000	260,000	43,730	-	173,704	173,704	2%
113007	Architectural and Building Mechanical	3,167,022	-	-	-	-	-	-	-	0%
114001	Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities	80,828,071	-	-	-	(0)	99,764,892	(0)	99,764,892	123%
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	224,221,541	5,496,115	7,113,000	8,087,759	3,555,635	-	9,051,750	9,051,750	4%
114003	Water Production Flow Metering Improvements at NE, SW, and SPW WTP	8,155,919	8,185,528	-	-	21,488	-	8,207,016	8,207,016	101%
114005	Springwells WTP Admin Building Improvements	9,259,571	943,973	2,302,000	2,302,000	138,139	-	1,082,112	1,082,112	12%
114006	Replacement of Rapid Mix Units at Springwells WTP 1958 Process Train	-	9,390	-	-	-	1,021,039	9,390	1,030,429	100%
114007	Powder Activated Carbon Systems	4,020,591	-	-	-	-	-	-	-	0%

**Great Lakes Water Authority**  
**Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

**Water System**  
**Construction Work-in-Progress Quarterly Report**  
 As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP	13,923,254	3,381,909	10,327,000	10,327,000	4,387,827	-	7,769,736	7,769,736	56%
114010	Yard Piping Improvements	200,471,687	241,135	1,000	1,000	90,111	-	331,247	331,247	0%
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP	25,540,354	10,083,734	6,932,000	6,932,000	5,623,362	-	15,707,096	15,707,096	61%
114012	Springwells Water Treatment Plant 1930 Filter Building-Roof Replacement	3,911,148	-	-	-	-	3,911,148	-	3,911,148	100%
114013	Springwells Reservoir Fill Line Improvements	4,923,914	3,586,056	-	-	363,635	-	3,949,691	3,949,691	80%
114016	Springwells Water Treatment Plant 1958 Settled Water Conduits Concrete Pavement Replacement	2,280,781	94,862	1,663,000	1,663,000	22,633	-	117,496	117,496	5%
114017	Springwells Water Treatment Plant Flocculator Drive Replacement	12,358,115	1,071	315,000	456,782	12,344	-	13,415	13,415	0%
114018	Springwells Water Treatment Plant - Service Building Electrical Substation and Miscellaneous Improvements	1,544,706	-	-	-	2,154	-	2,154	2,154	0%
115001	Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	54,815,232	2,839,127	5,462,000	4,837,000	834,340	-	3,673,467	3,673,467	7%
115003	Comprehensive Condition Assessment at Waterworks Park WTP	514,004	-	-	-	-	-	-	-	0%
115004	Water Works Park WTP Chlorine System Upgrade	6,892,656	-	-	-	9,563	6,957,032	9,563	6,966,596	101%
115005	WWP WTP Building Ventilation Improvements	4,923,595	1,126	1,999,000	1,999,000	88,289	-	89,415	89,415	2%
115006	Water Works Park Site/Civil Improvements	5,881,718	-	-	-	-	-	-	-	0%
115007	Water Works Park High Lift Pumping Station Modernization	88,946,247	-	-	-	-	-	-	-	0%
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements based on	94,880,203	18,513,669	14,138,000	14,138,000	3,441,096	-	21,954,765	21,954,765	23%
116005	Belle Isle Seawall Rehabilitation	1,831,677	-	-	-	-	-	-	-	0%
116006	Belle Isle Intake System Rehabilitation and Improvements	350,000	-	-	-	-	-	-	-	0%
122003	New Waterworks Park to Northeast Transmission Main	143,217,044	5,190,146	11,703,000	11,703,000	5,684,966	-	10,875,111	10,875,111	8%
122004	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	144,852,077	1,816,305	5,267,000	5,267,000	4,058,472	-	5,874,777	5,874,777	4%
122005	Replacement Schoolcraft Watermain	15,325,893	1,381,778	13,141,000	13,141,000	1,901,316	-	3,283,094	3,283,094	21%
122006	Transmission System Water Main Work-Wick Road Parallel Water Main	22,419,614	5,902,921	9,975,000	9,975,000	7,883,240	-	13,786,161	13,786,161	61%
122007	Design and Construction of a new Newburgh Road 24" Main along Newburgh Road between Ch	22,154,359	1,805	-	-	-	-	1,805	1,805	0%

**Great Lakes Water Authority**  
**Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

**Water System**  
**Construction Work-in-Progress Quarterly Report**  
As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
122011	Park-Merriman Water Main-Final Phase	9,600,066	5,221,921	2,163,000	2,163,000	2,236,562	-	7,458,482	7,458,482	78%
122012	36-inch Water Main in Telegraph Road	9,870,398	-	-	-	-	9,986,284	-	9,986,284	101%
122013	Lyon Township Transmission Main Extension Project	105,180,009	3,642,904	1,194,000	1,194,000	3,750,449	-	7,393,354	7,393,354	7%
122016	Downriver Transmission Loop	37,067,100	224,909	1,748,000	1,748,000	797,489	-	1,022,398	1,022,398	3%
122017	7 Mile/Nevada Transmission Main Rehab and Carrie/Nevada Flow Control Station	60,188,759	3,414	1,794,000	1,794,000	5,879	-	9,293	9,293	0%
122018	Garland, Hurlbut, Bewick Water Transmission System Rehabilitation	54,102,536	-	1,717,000	1,717,000	-	-	-	-	0%
132003	Isolation Gate Valves for Line Pumps for West Service Center Pumping Station	1,961,708	1,712	65,000	65,000	35,823	1,742,479	37,535	1,780,014	91%
132006	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica	3,363,699	1,883,902	987,000	987,000	644,029	-	2,527,931	2,527,931	75%
132007	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	5,187,314	167,665	4,211,000	4,211,000	282,987	-	450,653	450,653	9%
132008	Needs Assessment Study for all Water Booster Pumping Stations	1,675,441	-	-	-	-	-	-	-	0%
132010	West Service Center/Duval Rd Division Valve Upgrades	45,142,158	2,460,032	4,323,000	4,323,000	1,179,942	-	3,639,974	3,639,974	8%
132012	Ypsilanti PS Improvements	35,393,046	333,589	846,000	846,000	330,284	-	663,874	663,874	2%
132014	Adams Road Booster Pumping Improvements	52,864,694	83,262	-	-	-	-	83,262	83,262	0%
132015	Newburgh BPS	45,044,000	350,454	973,000	973,000	68,791	-	419,245	419,245	1%
132016	North Service Center BPS Improvements	68,255,116	266,392	-	-	80,002	-	346,394	346,394	1%
132018	Schoolcraft BPS	47,317	47,317	-	-	-	-	47,317	47,317	100%
132019	Wick Road BPS - Switchgear	9,358,231	56,912	-	-	-	-	56,912	56,912	1%
132020	Franklin BPS - Isolation Gate Valves	2,544,535	93,160	-	-	-	-	93,160	93,160	4%
132021	Imlay BPS - Replace VFDs, Pumps & Motors	749,810	227,346	-	-	-	-	227,346	227,346	30%
132022	Joy Road BPS - Replace Reservoir Pumps	39,613,214	71,380	-	-	-	-	71,380	71,380	0%
132025	Northwest Booster Station Yard Piping Improvements	-	20,155	-	-	152	-	20,306	20,306	100%
132026	Franklin Pumping Station Valve Replacement	1,006,467	821,090	613,000	613,000	158,953	-	980,043	980,043	97%
170100	Allowance: WTP/Pump Station	-	-	1,499,000	1,499,000	-	-	-	-	100%
170102	Water Production Plant Flow Metering Improvements at NE, SP & SW WTP	372,374	372,374	-	-	1,266	-	373,640	373,640	100%
170103	Belle Isle Water Supply Intake and Ice Boom Improvements	-	3,278	-	-	-	286,596	3,278	289,874	100%
170109	Inspection of Raw Water Intakes and Tunnels	1,656,069	-	-	-	-	-	-	-	0%
170120	Phosphoric Acid Feed System Improvements at Southwest WTP	1,625	-	-	-	-	634,509	-	634,509	39047%
170122	Meter Pit at Brownstown Township	-	133,306	-	-	-	-	133,306	133,306	100%
170200	As Needed Construction Materials, Environmental Media and Special Allowance	1,427,227	-	685,000	685,000	-	-	-	-	0%

Great Lakes Water Authority  
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward  
Unaudited Activity For the Fiscal Quarter Ended December 31, 2020

Water System  
Construction Work-in-Progress Quarterly Report  
As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
170300	Water Treatment Plant Automation Program	13,249,000	-	5,440,000	4,254,000	-	-	-	-	0%
170301	Water Plant Automation	-	1,755,142	-	-	-	-	1,755,142	1,755,142	100%
170302	SW WTP SCADA Improvements	9,000,000	-	-	-	53,343	-	53,343	53,343	1%
170303	WWP WTP Power Monitoring Installation	1,700,000	-	-	1,186,000	18,035	-	18,035	18,035	1%
170400	Water Transmission Improvement Program	33,171,211	-	1,776,000	1,776,000	-	-	-	-	0%
170401	Emergency Bypass Around Ypsilanti Station	1,661,231	1,662,615	-	-	200	-	1,662,815	1,662,815	100%
170500	Transmission System Valve Assessment and Rehabilitation/Replacement Program	5,350,164	-	1,177,000	1,177,000	-	-	-	-	0%
170502	Transmission System Valve Assessment and Rehabilitation/Replacement A	-	2,051,843	-	-	152,256	6,363,896	2,204,099	8,567,995	100%
170503	Transmission System Valve Assessment and Rehabilitation/Replacement B	10,071,663	393,559	-	-	1,293,936	-	1,687,495	1,687,495	17%
170600	Water Transmission Main Asset Assessment Program	8,438,215	-	54,000	54,000	-	-	-	-	0%
170800	Reservoir Inspection, Design and Rehabilitation Program	23,827,344	-	6,087,000	6,087,000	-	-	-	-	0%
170801	Reservoir Inspection, Design and Rehabilitation	15,090,049	2,615,570	-	-	3,489,827	-	6,105,398	6,105,398	40%
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	40,718,957	-	2,535,000	2,535,000	-	-	-	-	0%
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	10,616,499	4,529,883	-	-	1,393,425	-	5,923,308	5,923,308	56%
170902	Brownstown Meter Pit Rehabilitation	1,245,254	76,390	-	-	-	-	76,390	76,390	6%
171500	Roof Replacement - Var Facilities Program	22,710,989	-	173,000	173,000	-	-	-	-	0%
171501	Roof Replacements - Var Facilities Program	3,484,352	2,772,205	-	-	222,208	3,354,843	-	3,354,843	96%
331003	Masonry Replacement and Rehabilitation	25,000,000	-	-	-	-	-	-	-	0%
341001	Security Infrastructure Improvements	9,169,807	3,977,412	4,018,000	4,018,000	1,557,159	1,138,691	4,395,879	5,534,570	60%
351001	Water Facility Lighting Renovations	699,523	6,667	50,000	50,000	-	-	6,667	6,667	1%
380600	General Engineering Services Allowance	55,126	-	-	-	-	-	-	-	0%
380700	As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services Allowance	2,130,722	-	715,000	715,000	-	-	-	-	0%
381000	Energy Management: Electric Metering Improvement Program	2,623,926	-	-	-	-	-	-	-	0%
Grand Total		\$ 2,353,709,015	\$ 126,197,522	\$ 147,564,000	\$ 149,542,001	\$ 59,348,762	\$ 223,336,298	\$ 172,850,760	\$ 396,187,057	17%
Project Amendments					\$ 1,978,001					

## **FY 2021 Project Amendment Summary**

The purpose of the Project Amendment Summary is to illustrate the amendments to the current fiscal year board approved CIP for each project with an amendment resulting from the use of allowance and program funding for a specific amount necessitated by contract award.

The award of CIP contracts and the related execution thereof may result in deviation from the amount and timing of planned spend. Acknowledging the aforementioned deviation, project amendments are prepared to fund the related increase or decrease either to or from the Capital Reserve to amend the current fiscal year board approved Capital Improvement Plan accordingly and to inform decision makers in the development of future Capital Improvement Plans. Similar to the project amendments prepared for the Capital Reserve, project amendments are also prepared for contracts that are planned or funded by way of the CIP Program and Allowance accounts. As additional contracts are awarded and other project information becomes available additional project amendments to and from the Capital Reserve will be prepared to amend the board approved FY 2021 Capital Improvement Plan.

\$1,978,001 of Capital Reserve project amendments have been prepared as of December 31, 2020 as shown in the table on the next page along with project amendments detailing the assignment of funding within Program and Allowance accounts.

The order of the report on the subsequent page is in ascending order by CIP project number.



**Great Lakes Water Authority**  
**Water System Project Amendment Summary**  
**Unaudited Activity For the Fiscal Year Ended December 31, 2020**

**Water System**  
**Construction Work-in-Progress Quarterly Report**  
As of December 31, 2020

Project	Project Name	Program / Allowance	Capital Reserve	Grand Total
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	-	(713,540)	(713,540)
111011	Lake Huron WTP Pilot Plant		2,200,000	
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station		974,759	
114017	Springwells Water Treatment Plant Flocculator Drive Replacement		141,782	
115001	Yard Piping, Valves and Venturi Meters Replacement at Water Works Park		(625,000)	
170300	Water Treatment Plant Automation Program	(1,186,000)		
170303	WWP WTP Power Monitoring Installation	1,186,000		
Grand Total		\$ -	\$ 1,978,001	\$ (713,540)

## WASTEWATER SYSTEM

### Executive Summary

The rate of spend is a key performance indicator. The development of the FY 2021-2025 and related CIP Plan for FY 2021 were based on anticipation of FY 2021 activity resulting in 75% of planned spend. The Wastewater System spend for the period ending December 31, 2020 is 73.8% of the prorated FY 2021 board approved CIP, 72.5% of the prorated FY 2021 board approved CIP with project amendments, and 98.4% of the FY 2021 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2021 Board Approved CIP was amended from \$110,638,000 to \$112,659,582 is provided in the subsequent Project Amendment Summary section of this report.

Wastewater System Projects					FY 2021 Prorated (Six Months)	FY 2021 Activity (Unaudited)	FY 2021	
					FY 2020	FY 2020 Activity	FY 2020 Percentage	FY 2021 Percentage
FY 2020 Board Approved CIP		\$	161,480,000	\$	73,826,521		45.7%	
FY 2020 Board Approved CIP With Project Amendments			156,884,005		73,826,521		47.1%	
FY 2020 Capital Spend Rate Assumption (SRA)			121,110,000		73,826,521		61.0%	
FY 2021 Board Approved CIP				\$	110,638,000	\$	55,319,000	\$ 40,830,425 73.8%
FY 2021 Board Approved CIP With Project Amendments					112,659,582		56,329,791	40,830,425 72.5%
FY 2021 Capital Spend Rate Assumption (SRA)					82,978,500		41,489,250	40,830,425 98.4%

## Construction Work-in-Progress Rollforward

The purpose of the construction work-in-progress (CWIP) rollforward is to analyze the current year activity for each project in relation to the overall capital improvement program as well as the project portfolio overall.

As part of our project life cycle review the CA&FR team identifies when it is appropriate for projects to be capitalized. Projects are to be capitalized when they have been completed in totality or are inclusive of identifiable assets that have been placed in service. Capitalization of project cost occurred in the FY 2021 2<sup>nd</sup> quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
232002	CON-109	Freud and Connor Creek Pump Station Improvements
260601	CON-254	Oakwood Drain Valve Improvements
260616	1901836	Baby Creek CSO Anchor & Wedge Improvements

**\$216** million is in CWIP as of December 31, 2020 as shown in the table beginning on the next page.

The order of the report on the subsequent pages is in ascending order by CIP project number.

**Great Lakes Water Authority**  
**Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

# Wastewater System

## Construction Work-in-Progress Quarterly Report

As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
211001	Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines, Electrical/Mechanical Building and Pipe Gallery	\$ 54,061,159	\$ 52,886,451	\$ 3,775,000	\$ 3,775,000	\$ 1,059,376	\$ -	\$ 53,945,827	\$ 53,945,827	100%
211002	Pump Station No. 2 Pumping Improvments	3,340,152	2,013,956	-	-	13,624	-	2,027,580	2,027,580	61%
211004	Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	23,295,382	27,605,573	-	-	118,998	-	27,724,571	27,724,571	119%
211005	Pump Station No. 2 Improvements	13,797,096	-	-	-	-	-	-	-	0%
211006	Pump Station No. 1 Improvements	68,709,404	1,283,830	645,000	645,000	752,909	-	2,036,739	2,036,739	3%
211007	Replacement of Bar Racks and Grit Collection System at Pump Station No. 2	76,228,576	5,176	3,098,000	3,098,000	82,237	-	87,413	87,413	0%
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines	11,387,944	1,629,677	5,522,000	5,522,000	109,259	-	1,738,935	1,738,935	15%
211009	Rehabilitation of the Circular Primary Clarifier Scum Removal System	13,007,908	2,734	313,000	313,000	25,333	-	28,067	28,067	0%
211010	Rehabilitation of Sludge Processing Complexes A and B	13,934,471	42,231	-	-	50,074	-	92,305	92,305	1%
211011	WRRF PS1 Screening and Grit Improvements	93,303,153	-	-	-	-	-	-	-	0%
212003	Aeration System Improvements	14,643,450	-	-	-	-	16,524,875	-	16,524,875	113%
212004	ProjectChlorination/Dechlorination Process Equipment Improvements	5,742,203	3,803,140	1,850,000	1,850,000	1,593,124	-	5,396,264	5,396,264	94%
212006	PC-797 Rouge River Outfall Disinfection and CS-1781 Oversight Consulting Services Contract	43,788,731	-	-	-	-	43,788,731	-	43,788,731	100%
212007	Rehabilitation of the Secondary Clarifiers	49,871,040	330	-	-	1,312	-	1,642	1,642	0%
212008	WRRF Rehabilitation of Intermediate Lift	81,931,310	16,175	4,612,000	4,612,000	259,243	-	275,418	275,418	0%
212009	WRRF Aeration Improvements 3 and 4	73,588,564	-	-	-	-	-	-	-	0%
212010	WRRF Conversion of Disinfection of all Flow to Sodium Hypochlorite and Sodium Bisulfite	5,765,452	-	-	-	-	-	-	-	0%
213006	Improvements to Sludge Feed Pumps at Dewatering Facilities	4,489,934	5,750	174,000	174,000	31,713	-	37,463	37,463	1%
213007	Construction of the Improved Sludge Conveyance and Lighting System at the WWTP	22,162,273	16,878,502	2,258,000	2,258,000	1,147,513	-	18,026,015	18,026,015	81%
213008	Rehabilitation of the Wet and Dry Ash Handling Systems	8,432,039	111,335	1,338,000	1,338,000	38,514	-	149,850	149,850	2%
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations	12,651,082	8,301,788	1,331,000	1,581,000	4,121,428	2,282,260	12,423,216	14,705,476	116%
216004	Rehabilitation of Various Sampling Sites and PS#2 Ferric Chloride System at WWTP	6,645,397	1,637,516	1,300,000	2,882,302	299,602	-	1,937,118	1,937,118	29%
216006	Rehabilitation of the Screened Final Effluent (SFE) Pump Station and Secondary Water System	23,874,377	73,474	4,291,000	4,291,000	34,747	-	108,221	108,221	0%
216007	DTE Primary Electric 3rd Feed Supply Line to the WRRF	4,544,429	2,354,996	1,296,000	1,296,000	629,214	543,500	2,984,209	3,527,709	78%

**Great Lakes Water Authority**  
**Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

**Wastewater System**  
**Construction Work-in-Progress Quarterly Report**

As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
216008	Rehabilitation of Screened Final Effluent (SFE) Pump Station	40,820,651	5,671	1,362,000	1,362,000	50,600	-	56,271	56,271	0%
216009	Logistics & Material Facility	164,904	164,904	253,000	253,000	(18,498)	-	146,406	146,406	89%
216010	WRRF Facility Optimization	10,270,771	4,312	14,000	14,000	890	-	5,202	5,202	0%
216011	WRRF Structural Improvements	12,333,080	-	-	-	-	-	-	-	0%
216012	WRRF Research Facility	-	-	-	-	36,888	36,888	-	36,888	100%
222001	Intercommunity Relief Sewer Modifications in Detroit Oakwood District	53,397,144	-	975,000	553,502	1,088	-	1,088	1,088	0%
222002	Detroit River Interceptor Evaluation and Rehabilitation	72,775,106	20,151,096	23,634,000	23,634,000	9,616,595	-	29,767,691	29,767,691	41%
222004	Collection System Valve Remote Operation Structures Improvements	-	468,867	2,701,000	2,701,000	541,559	-	1,010,427	1,010,427	100%
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	40,073,406	14,273,606	5,336,000	5,336,000	8,010,671	-	22,284,277	22,284,277	56%
232002	Freud and Connor Creek Pump Station Improvements	229,278,758	7,284,631	6,445,000	6,445,000	1,152,071	67,734	8,426,702	8,494,436	4%
232004	CONDITION ASSESSMENT AT BLUE HILL PUMP STATION	257,420	-	286,000	286,000	-	-	-	-	0%
233002	Collection System In System Storage Devices (ISDs) Improvements	-	235	-	-	-	-	235	235	100%
233003	Rouge River In-system Storage Devices	46,317,488	-	-	-	-	-	-	-	0%
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	53,748,897	-	12,976,000	12,976,000	-	-	-	-	0%
260201	Conveyance System Interceptor Rehab	32,282,349	960,448	-	-	2,440,469	18,542,127	3,400,917	21,943,044	68%
260202	Conveyance System Interceptor Rehab	-	23,871	-	-	1,904	-	25,775	25,775	100%
260204	Energy Services for Rehabilitation of Conveyance Sewer System	52,157,408	912,742	-	-	(592,517)	-	320,225	320,225	1%
260205	NWI Outfall Rehabilitation	10,937,891	79,226	-	-	98,297	-	177,523	177,523	2%
260206	Conveyance System Rehabilitation - Interceptors	47,821,376	-	-	-	-	-	-	-	0%
260207	Rehabilitation of Woodward Sewer System	-	-	-	-	1,065,296	-	1,065,296	1,065,296	100%
260500	CSO Outfall Rehab	5,000,000	-	11,706,000	11,706,000	-	-	-	-	0%
260503	Collection System Backwater Gates	-	760	-	-	(760)	-	(0)	-	100%
260504	Rehabilitation of Outfalls - Phase II	5,051,112	2,202,000	-	-	2,352,682	-	4,554,683	4,554,683	90%
260505	Rehabilitation of Outfalls - Phase IV	5,718,385	1,586,323	-	-	2,036,508	-	3,622,831	3,622,831	63%
260506	Pilot Regulator Orifice Expansion	-	78,641	-	-	-	-	78,641	78,641	100%
260508	B-39 Outfall Rehab	568,620	498	-	-	94,002	-	94,500	94,500	17%
260509	B-40 Outfall Rehab	88,500	66,293	-	-	16,120	-	82,412	82,412	93%
260510	Conveyance System Rehabilitation - Outfalls	48,863,036	-	-	-	-	-	-	-	0%
260600	CSO Facilities Improvements	126,400,000	-	7,492,000	7,492,000	-	-	-	-	0%
260601	Oakwood Drain Valve Improvements	864,218	26,199	-	-	122,939	804,574	-	804,574	93%
260602	CSO Fire Alarm System Improvements	997,619	-	-	-	-	997,619	-	997,619	100%
260603	Conner Creek CSO Basin Rehab	7,898,362	7,056,367	-	-	311,672	-	7,368,039	7,368,039	93%
260606	Puritan Fenkell Roof Replacement	346,540	-	-	-	-	346,540	-	346,540	100%
260607	Lieb SDF Electrical Improvements	1,032,687	179	-	-	(179)	1,032,508	(0)	1,032,508	100%
260608	Seven Mile RTB - Roof Replacement	496,699	-	-	-	-	496,699	-	496,699	100%
260609	Seven Mile RTB - Parking Lot / Sitework	416,597	369,559	-	-	55,221	-	424,779	424,779	102%

**Great Lakes Water Authority**  
**Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward**  
**Unaudited Activity For the Fiscal Quarter Ended December 31, 2020**

**Wastewater System**  
**Construction Work-in-Progress Quarterly Report**

As of December 31, 2020

Project	Project Name	Total Project Plan Estimate from FY 2022 - 2026 CIP	CWIP Balance July 1, 2020	FY 2021 Board Approved CIP	FY 2021 Board Approved CIP With Project Amendments	FY 2021 Activity through December 31, 2020	Life to date Capitalization/ Expense Through December 31, 2020	CWIP Balance December 31, 2020	Life to date Activity Through December 31, 2020	Life to date Activity / Total Project Plan Estimate
260610	Baby Creek MAU Replacement	275,151	-	-	-	-	275,151	-	275,151	100%
260611	HVAC Improvements At Lieb SDF	395,615	95,887	-	-	211,928	-	307,815	307,815	78%
260613	Baby Creek HVAC Improvements	587,628	51,338	-	-	336,522	-	387,860	387,860	66%
260614	CSO Facilities Structural Improvements	13,794,118	303,795	-	-	1,824	-	305,619	305,619	2%
260615	PF & Lieb CSO Facilities Site & Drainage Improvements	801,140	109,660	-	-	172,510	-	282,170	282,170	35%
260616	Baby Creek SCO Anchor & Wedge Improvements	782,863	666,495	-	-	103,619	770,114	-	770,114	98%
260617	St. Aubin Chemical Disinfection Improvements	6,966,364	250,348	-	-	18,550	-	268,898	268,898	4%
260618	Oakwood HVAC Improvements	3,966,512	75,672	-	-	231,562	-	307,234	307,234	8%
260619	Control System Upgrade At St. Aubin, Lieb and 7 Mile	116,179	61,593	-	-	1,173	-	62,766	62,766	54%
260620	Baby Creek Roof Replacement	640,500	-	-	-	24,919	-	24,919	24,919	4%
260621	Connor Creek Berm Improvements	-	-	-	610,778	103,471	-	103,471	103,471	100%
260700	Sewer System Infrastructure Improvements & Pumping Stations	35,901,492	-	-	-	-	-	-	-	0%
260701	Conveyance System Infrastructure Improvements	4,586,079	-	-	-	-	-	-	-	0%
260702	Pump Station Assets Updates	669,000	-	-	-	-	-	-	-	0%
270001	Pilot CSO Netting Facility	9,573,092	-	20,000	20,000	-	-	-	-	0%
270002	Meldrum Sewer Diversion and VR-15 Improvements	5,839,631	-	-	-	-	-	-	-	0%
270003	Long Term CSO Control Plan	9,267,841	3,545	2,796,000	2,796,000	191,302	189,749	5,098	194,847	2%
274001	Leib Improvements for Meldrum Diversion	10,941,804	-	-	-	-	-	-	-	0%
277001	Baby Creek Outfall Improvements Project	18,825,761	2,283	1,251,000	1,251,000	665,628	663,768	4,143	667,911	4%
278001	Oakwood Improvements for NWI Diversion	10,225,804	-	-	-	-	-	-	-	0%
331002	Roofing Systems Replacement at GLWA Wastewater Treatment Plant, CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)	8,888,476	-	91,000	91,000	-	1,123,056	-	1,123,056	13%
341001	Security Infrastructure Improvements	-	1,033,207	-	-	13,723	-	1,046,930	1,046,930	100%
341002	Security Infrastructure Improvements	3,533,510	-	1,051,000	1,051,000	991,962	-	991,962	991,962	28%
381000	Energy Management: Electric Metering Improvement Program	-	-	446,000	446,000	-	-	-	-	100%
<b>Grand Total</b>		<b>\$ 1,782,153,110</b>	<b>\$ 177,022,887</b>	<b>\$ 110,638,000</b>	<b>\$ 112,659,582</b>	<b>\$ 40,830,425</b>	<b>\$ 280,016,603</b>	<b>\$ 216,033,656</b>	<b>\$ 496,050,258</b>	<b>28%</b>
					<b>Project Amendments \$ 2,021,582</b>					

## **FY 2021 Project Amendment Summary**

The purpose of the Project Amendment Summary is to illustrate the amendments to the current fiscal year board approved CIP for each project with an amendment resulting from the use of allowance and program funding for a specific amount necessitated by contract award.

The award of CIP contracts and the related execution thereof may result in deviation from the amount and timing of planned spend. Acknowledging the aforementioned deviation, project amendments are prepared to fund the related increase or decrease either to or from the Capital Reserve to amend the current fiscal year board approved Capital Improvement Plan accordingly and to inform decision makers in the development of future Capital Improvement Plans. Similar to the project amendments prepared for the Capital Reserve, project amendments are also prepared for contracts that are planned or funded by way of the CIP Program and Allowance accounts. As additional contracts are awarded and other project information becomes available additional project amendments to and from the Capital Reserve will be prepared to amend the board approved FY 2021 Capital Improvement Plan.

\$2,021,582 of Capital Reserve project amendments have been prepared as of December 31, 2020 as shown in the table on the next page along with project amendments detailing the assignment of funding within Program and Allowance accounts.

The order of the report on the subsequent page is in ascending order by CIP project number.

**Great Lakes Water Authority**  
**Wastewater System Project Amendment Summary**  
**Unaudited Activity For the Fiscal Year Ended Deember 31, 2020**

**Wastewater System**  
**Construction Work-in-Progress Quarterly Report**  
As of December 31, 2020

Project	Project Name	Program / Allowance	Capital Reserve	Grand Total
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations		250,000	250,000
216004	Rehabilitation of Various Sampling Sites and PS# 2 Ferric Chloride System at WWTP		1,582,302	1,582,302
222001	Intercommunity Relief Sewer Modifications in Detroit Oakwood District		(421,498)	(421,498)
260621	Connor Creek Berm Improvements		610,778	610,778
<b>Grand Total</b>		<b>\$ -</b>	<b>\$ 2,021,582</b>	<b>\$ 2,021,582</b>