



Financial Services Audit Committee Communication

Date: December 17, 2021

To: Great Lakes Water Authority Audit Committee

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

Re: FY 2022 Q1 Construction Work-in-Progress Report through September 30, 2021
(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 2022 Q1 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 September 30, 2021

For questions, please contact:

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Issued 12.10.2021

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December 17, 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 September 30, 2021. 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 evaluate the draft 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.

Summary Construction Work-in-Progress Rollforward by Jurisdiction: This table provides a summary of the planned and actual project activity by the jurisdictions identified within the FY 2022 – 2026 Board Approved CIP Plan.

Detailed Construction Work-in-Progress Rollforward: This table provides a detailed 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 September 30, 2021. 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 2022-2026 and related CIP Plan for FY 2022 were based on anticipation of FY 2022 activity resulting in 75% of planned spend. The Water System spend for the period ending September 30, 2021, is 85.3% of the FY 2021 board approved CIP, 85.0% of the FY 2022 board approved CIP with project amendments, and 113.8% of the FY 2022 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2022 Board Approved CIP was amended from \$179,210,481 to \$179,978,933 is provided in the subsequent Project Amendment Summary section of this report.

Water System Projects	FY 2021	FY 2021 Activity	FY 2021 Percentage	FY 2022	FY 2022 Prorated (Three Months)	FY 2022 Activity (Unaudited)	FY 2022 Percentage
FY 2021 Board Approved CIP	\$ 147,564,000	\$ 131,687,819	89.2%				
FY 2021 Board Approved CIP With Project Amendments	149,084,720	131,687,819	88.3%				
FY 2021 Capital Spend Rate Assumption (SRA)	110,673,000	131,687,819	119.0%				
 FY 2022 Board Approved CIP				\$ 179,210,481	\$ 44,802,620	\$ 38,236,664	85.3%
FY 2022 Board Approved CIP With Project Amendments				179,978,933	\$ 44,994,733	38,236,664	85.0%
FY 2022 Capital Spend Rate Assumption (SRA)				134,407,861	\$ 33,601,965	38,236,664	113.8%

Construction Work-in-Progress Rollforward Summary By Jurisdiction

The purpose of the construction work-in-progress (CWIP) summary rollforward by jurisdiction is to provide a high-level overview of the financial status of the projects identified within the current board approved CIP by their jurisdiction. Within the FY 2022 – 2026 Board Approved CIP Plan, projects are identified and categorized as either City of Detroit, Wayne County - Outside Detroit, Lapeer County, Macomb County, Oakland County, Saint Clair County or Multiple Counties and reflected accordingly in this report.

\$235.9 million is in CWIP as of September 30, 2021 as shown in the table beginning on the next page.

The order of the report on the subsequent page is in ascending by jurisdiction alphabetically.

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2022 Rollforward Summary By Jurisdiction
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Jurisdiction	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance September 30, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	CWIP Balance September 30, 2021
City of Detroit	\$ 603,366,840	\$ 58,438,128	\$ 37,084,101	\$ 37,571,302	\$ 15,706,332	\$ 74,144,461
Lapeer County	5,937,124	1,154,458	3,962,267	3,962,267	104,827	1,259,285
Mutiple Counties	386,207,886	40,301,434	17,176,543	15,617,734	3,414,978	36,531,557
Oakland County	276,954,686	19,579,122	55,618,942	55,810,594	4,106,575	23,685,696
Saint Clair County	199,416,920	13,545,671	10,660,756	11,633,756	1,002,196	14,547,867
Wayne County - Outside Detroit	881,825,559	71,834,216	54,707,871	55,383,279	13,901,756	85,735,972
Grand Total	\$ 2,353,709,015	\$ 204,853,029	\$ 179,210,481	\$ 179,978,933	\$ 38,236,664	\$ 235,904,837

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 2022 1st quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
170801	1900744	Reservoir Inspection, Design and Rehabilitation

\$235.9 million is in CWIP as of September 30, 2021, 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 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance September 30, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity Through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
111002	LHWTP Backflow Replacement	\$ 8,705,313	\$ -	\$ -	\$ -	\$ -	\$ 8,717,768	\$ -	\$ 8,717,768	100%
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP	3,892,689	-	-	-	-	3,892,299	-	3,892,299	100%
111006	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements	16,789,745	1,273,880	5,196,046	5,196,046	3,279	-	1,277,159	1,277,159	8%
111007	LHWTP Architectural Programming - Lab	1,196,283	-	-	-	-	-	-	-	0%
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	30,480,734	1,726,061	1,061,103	1,061,103	115,548	-	1,841,610	1,841,610	6%
111010	Lake Huron Water Treatment Plant - Filtration and Pretreatment Improvements	42,206,783	-	-	-	-	-	-	-	0%
111011	Lake Huron WTP Pilot Plant	3,247,998	198,694	1,719,487	1,719,487	114,747	-	313,441	313,441	10%
112002	Low Lift Pumping Plant Caisson Rehabilitation at Northeast WTP	1,172,880	-	-	-	-	1,169,962	-	1,169,962	100%
112003	NE WTP High Lift Pumping Electrical	71,545,621	223,875	173,058	173,058	71,246	-	295,120	295,120	0%
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits	1,088,655	937,879	4,892	4,892	-	-	937,879	937,879	86%
112006	Northeast Water Treatment Plant Flocculator Replacements	11,316,013	254,450	2,521,861	2,521,861	5,246	-	259,695	259,695	2%
113002	High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP	6,728,375	-	501,031	501,031	-	5,798,535	-	5,798,535	86%
113003	Replacement of Butterfly Valves	21,811,953	110	-	-	-	-	110	110	0%
113007	Architectural and Building Mechanical	3,167,022	-	-	-	-	-	-	-	0%
114001	Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities	80,828,071	-	-	-	-	99,764,892	-	99,764,892	123%
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	224,221,541	12,944,042	16,546,006	16,546,006	1,930,839	-	14,874,880	14,874,880	7%

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance September 30, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity Through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
114003	Water Production Flow Metering Improvements at NE, SW, and SPW WTP	8,155,919	0	-	-	1,048	8,167,884	1,048	8,168,932	100%
114005	Springwells WTP Admin Building Improvements	9,259,571	1,178,639	3,660,252	3,660,252	6,971	-	1,185,609	1,185,609	13%
114006	Replacement of Rapid Mix Units at Springwells WTP 1958 Process Train	-	10,674	-	-	-	1,021,039	10,674	1,031,712	0%
114007	Powder Activated Carbon Systems	4,020,591	-	-	-	-	-	-	-	0%
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP	13,923,254	11,142,286	2,484,952	2,484,952	34,815	-	11,177,101	11,177,101	80%
114010	Yard Piping Improvements	200,471,687	531,529	1,568,415	1,568,415	239,790	-	771,318	771,318	0%
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP	25,540,354	18,464,648	5,373,516	5,373,516	2,822,502	-	21,287,149	21,287,149	83%
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	-	-	-	-	4,706,751	-	4,706,751	96%
114017	Springwells Water Treatment Plant Flocculator Drive Replacement	12,358,115	189,943	370,545	370,545	135,437	-	325,380	325,380	3%
114018	Springwells Water Treatment Plant - Service Building Electrical Substation and Miscellaneous Improvements	1,544,706	-	80,013	80,013	-	-	-	-	0%
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	563,444	522,778	522,778	137,447	-	700,891	700,891	14%
115006	Water Works Park Site/Civil Improvements	5,881,718	-	-	-	-	-	-	-	0%
115007	Water Works Park High Lift Pumping Station Modernization	88,946,247	-	280,105	280,105	-	-	-	-	0%

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
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116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements based on	94,880,203	25,947,664	8,359,585	8,359,585	5,334,359	4,685,231	31,282,023	35,967,254	38%
116005	Belle Isle Seawall Rehabilitation	1,831,677	-	318,843	318,843	-	-	-	-	0%
116006	Belle Isle Intake System Rehabilitation and Improvements	350,000	-	-	-	-	-	-	-	0%
122003	New Waterworks Park to Northeast Transmission Main	143,217,044	21,324,515	14,593,187	14,593,187	5,949,746	-	27,274,261	27,274,261	19%
122004	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	144,852,077	9,673,781	2,576,909	2,576,909	998,259	-	10,672,039	10,672,039	7%
122005	Replacement Schoolcraft Watermain	15,325,893	6,260,526	7,606,560	7,606,560	5,295,132	-	11,555,657	11,555,657	75%
122007	Design and Construction of a new Newburgh Road 24" Main along Newburgh Road between Ch	22,154,359	1,805	26,909	26,909	-	-	1,805	1,805	0%
122011	Park-Merriman Water Main-Final Phase	9,600,066	295,202	7,836	7,836	24,956	6,435,948	320,157	6,756,105	70%
122012	36-inch Water Main in Telegraph Road	9,870,398	-	-	-	-	9,986,284	-	9,986,284	101%
122016	Downriver Transmission Loop	37,067,100	1,620,310	664,877	664,877	233,187	-	1,853,497	1,853,497	5%
122017	7 Mile/Nevada Transmission Main Rehab and Carrie/Nevada Flow Control Station	60,188,759	1,454,251	1,943,731	1,943,731	1,384,612	-	2,838,863	2,838,863	5%
122018	Garland, Hurlbut, Bewick Water Transmission System Rehabilitation	54,102,536	-	1,530,061	1,530,061	-	-	-	-	0%
132003	Isolation Gate Valves for Line Pumps for West Service Center Pumping Station	1,961,708	-	-	-	-	1,742,479	-	1,742,479	89%
132006	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica	3,363,699	-	-	-	1,731	3,226,045	1,731	3,227,776	96%
132007	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	5,187,314	927,112	3,962,267	3,962,267	104,827	-	1,031,940	1,031,940	20%
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	9,058,202	17,149,461	17,149,461	3,408,846	-	12,467,048	12,467,048	28%
132012	Ypsilanti PS Improvements	35,393,046	515,125	584,384	584,384	50,398	-	565,523	565,523	2%

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

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132014	Adams Road Booster Pumping Improvements	52,864,694	83,262	203,019	203,019	-	-	83,262	83,262	0%
132015	Newburgh BPS	45,044,000	444,073	733,037	733,037	184	-	444,257	444,257	1%
132016	North Service Center BPS Improvements	68,255,116	363,478	673,058	673,058	4,519	-	367,997	367,997	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	276,909	276,909	-	-	71,380	71,380	0%
132025	Northwest Booster Station Yard Piping Improvements	-	20,306	-	-	-	-	20,306	20,306	0%
132026	Franklin Pumping Station Valve Replacement	1,006,467	-	-	-	-	975,327	-	975,327	97%
170102	Water Production Plant Flow Metering Improvements at NE, SP & SW WTP	372,374	373,640	-	-	-	-	373,640	373,640	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%
170200	As Needed Construction Materials, Environmental Media and Special Allowance	1,427,227	-	146	146	-	-	-	-	0%
170301	Water Plant Automation	-	1,755,142	-	-	-	-	1,755,142	1,755,142	0%
170303	WWP WTP Power Monitoring Installation	1,700,000	203,628	514,474	514,474	366,246	-	569,874	569,874	34%
170304	WWP WTP SCADA Upgrade	-	13,947	-	-	20,650	-	34,596	34,596	0%
170400	Water Transmission Improvement Program	33,171,211	-	1,033,961	1,033,961	-	-	-	-	0%
170401	Emergency Bypass Around Ypsilanti Station	1,661,231	-	-	-	-	2,633,282	-	2,633,282	159%
170502	Transmission System Valve Assessment and Rehabilitation/Replacement A	-	-	-	-	123	7,689,584	123	7,689,707	0%
170503	Transmission System Valve Assessment	10,071,663	2,110,241	1,304,975	1,304,975	32,525	-	2,142,766	2,142,766	21%

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance September 30, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity Through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
170504	Repair of WTM, Valves, & Priority Repair	-	-	-	190,000	-	-	-	-	0%
170600	Water Transmission Main Asset	8,438,215	-	24,218	24,218	-	-	-	-	0%
170800	Reservoir Inspection, Design and Rehabilitation Program	23,827,344	-	321,527	321,527	-	-	-	-	0%
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	40,718,957	-	1,159,000	1,159,000	-	-	-	-	0%
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	10,616,499	8,531,114	2,838,297	2,838,297	527,705	-	9,058,819	9,058,819	85%
170902	Brownstown Meter Pit Rehabilitation	1,245,254	219,873	593,887	593,887	-	-	219,873	219,873	18%
171500	Roof Replacement - Var Facilities Program	22,710,989	-	10,764	10,764	-	-	-	-	0%
171501	Roof Replacements - Var Facilities Program	3,484,352	-	-	-	-	3,354,843	-	3,354,843	96%
331003	Masonry Replacement and Rehabilitation	25,000,000	-	-	-	-	-	-	-	0%
341001	Security Infrastructure Improvements	9,169,807	8,139,352	567,392	567,392	646,088	1,138,691	8,785,440	9,924,131	108%
351001	Water Facility Lighting Renovations	699,523	6,667	37,632	37,632	-	-	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	-	455,655	455,655	-	-	-	-	0%
381000	Energy Management: Electric Metering Improvement Program	2,623,926	-	-	-	-	-	-	-	0%
Grand Total		\$ 2,353,709,015	\$ 204,853,029	\$ 179,210,481	\$ 179,978,933	\$ 38,236,664	\$ 194,152,195	\$ 235,904,837	\$ 430,057,033	21%
					Project Amendments: \$ 768,453					

FY 2022 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 2022 Capital Improvement Plan.

\$768,482 of Capital Reserve project amendments have been prepared as of September 30, 2021, 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 Quarter Ended September 30, 2021

Water System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

Project	Project Name	Capital Reserve	Program / Allowance	Grand Total
111012	LHWTP-Flocculation Improvements	\$ 973,000		\$ 973,000
113006	SW WTP Chloring Scrubber	(1,877,433)		(1,877,433)
114016	Springwells Water Treatment Plant 1958 Settled Water Conduits Concrete Pavement Replacement	335,000		335,000
115001	Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	487,201		487,201
122006	Transmission System Water Main Work-Wick Road Parallel Water Main	549,032		549,032
122013	Lyon Township Transmission Main Extension Project	191,652		191,652
170300	Water Treatment Plant Automation Program		(1,668,809)	(1,668,809)
170302	SW WTP SCADA Improvements		1,668,809	1,668,809
170500	Transmission System Valve Assessment and Rehabilitation/Replacement Program		(190,000)	(190,000)
170504	Repair of WTM, Valves, & Priority Repair		190,000	190,000
170801	Reservoir Inspection, Design and Rehabilitation	110,000		110,000
Grand Total		\$ 768,452	\$ -	\$ 768,452

WASTEWATER SYSTEM

Executive Summary

The rate of spend is a key performance indicator. The development of the FY 2022-2026 and related CIP Plan for FY 2022 were based on anticipation of FY 2022 activity resulting in 75% of planned spend. The Wastewater System spend for the period ending September 30, 2021, is 58.3% of the prorated FY 2021 board approved CIP, 56.6% of the prorated FY 2022 board approved CIP with project amendments, and 77.8% of the FY 2022 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2022 Board Approved CIP was amended from \$106,050,041 to \$109,223,041 is provided in the subsequent Project Amendment Summary section of this report.

Wastewater System Projects					FY 2021	FY 2021	FY 2021	FY 2022	FY 2022	FY 2022			
					Activity	Percentage	Activity	Prorated	Activity	Percentage			
								(Three Months)	(Unaudited)				
FY 2021 Board Approved CIP					\$	110,638,000	\$	85,051,935		76.9%			
FY 2021 Board Approved CIP With Project Amendments						110,180,582		85,051,935		77.2%			
FY 2021 Capital Spend Rate Assumption (SRA)						82,978,500		85,051,935		102.5%			
FY 2022 Board Approved CIP							\$	106,050,041	\$	26,512,510	\$	15,463,896	58.3%
FY 2022 Board Approved CIP With Project Amendments								109,223,041		27,305,760		15,463,896	56.6%
FY 2022 Capital Spend Rate Assumption (SRA)								79,537,530		19,884,383		15,463,896	77.8%

Construction Work-in-Progress Rollforward Summary By Jurisdiction

The purpose of the construction work-in-progress (CWIP) summary rollforward by jurisdiction is to provide a high-level overview of the financial status of the projects identified within the current board approved CIP by their jurisdiction. Within the FY 2022 – 2026 Board Approved CIP Plan, projects are identified and categorized as either City of Detroit, Wayne County - Outside Detroit, Lapeer County, Macomb County, Oakland County, Saint Clair County or Multiple Counties and reflected accordingly in this report.

\$206.3 million is in CWIP as of September 30, 2021, as shown in the table beginning on the next page.

The order of the report on the subsequent page is in ascending by jurisdiction alphabetically.

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2022 Rollforward Summary By Jurisdiction
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Jurisdiction	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance September 30, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	CWIP Balance September 30, 2021
City of Detroit	\$ 1,311,840,369	\$ 165,620,802	\$ 73,893,106	\$ 78,066,106	\$ 11,841,931	\$ 177,461,804
Mutiple Counties	422,491,975	24,943,729	32,156,934	31,156,934	3,605,629	28,233,811
Wayne County - Outside Detroit	47,820,767	555,754	-	-	16,335	572,089
Grand Total	\$ 1,782,153,110	\$ 191,120,285	\$ 106,050,041	\$ 109,223,041	\$ 15,463,896	\$ 206,267,703

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. No capitalization of project costs occurred in the FY 2022 1st quarter.

\$206.3 million is in CWIP as of September 30, 2021, 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 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Wastewater System
Construction Work-in-Progress Quarterly Report
As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance July 1, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense Through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity through September 30, 2021	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	\$ -	\$ -	\$ -	\$ -	\$ 54,748,738	\$ -	\$ 54,748,738	101%
211002	Pump Station No. 2 Pumping Improvements	3,340,152	2,517,234	-	-	15,428	-	2,532,662	2,532,662	76%
211004	Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	23,295,382	27,865,682	-	-	10,384	-	27,876,066	27,876,066	120%
211005	Pump Station No. 2 Improvements	13,797,096	2,176	-	-	-	-	2,176	2,176	0%
211006	Pump Station No. 1 Improvements	68,709,404	3,491,519	3,060,848	3,060,848	198,357	-	3,689,876	3,689,876	5%
211007	Replacement of Bar Racks and Grit Collection System at Pump Station No. 2	76,228,576	1,509,443	2,303,172	2,303,172	448,017	-	1,957,460	1,957,460	3%
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines	11,387,944	1,870,766	5,358,083	7,431,083	765,511	-	2,636,276	2,636,276	23%
211009	Rehabilitation of the Circular Primary Clarifier Scum Removal System	13,007,908	39,674	476,043	476,043	-	-	39,674	39,674	0%
211010	Rehabilitation of Sludge Processing Complexes A and B	13,934,471	94,270	-	-	-	-	94,270	94,270	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	5,642,328	-	-	747	-	5,643,076	5,643,076	98%
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	2,247	9,900	9,900	-	-	2,247	2,247	0%
212008	WRRF Rehabilitation of Intermediate Lift	81,931,310	583,363	2,566,737	2,566,737	92,223	-	675,586	675,586	1%
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	194,357	342,468	342,468	27,541	-	221,898	221,898	5%

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Wastewater System
Construction Work-in-Progress Quarterly Report
 As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance July 1, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense Through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
213007	Construction of the Improved Sludge Conveyance and Lighting System at the WWTP	22,162,273	20,120,012	2,499,064	2,499,064	345,315	-	20,465,327	20,465,327	92%
213008	Rehabilitation of the Wet and Dry Ash Handling Systems	8,432,039	151,058	295,324	295,324	-	-	151,058	151,058	2%
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations	12,651,082	11,949,799	-	-	61,125	2,282,260	12,010,925	14,293,184	113%
216004	Rehabilitation of Various Sampling Sites and PS# 2 Ferric Chloride System at WWTP	6,645,397	3,070,854	75,940	75,940	615,585	-	3,686,440	3,686,440	55%
216006	Rehabilitation of the Screened Final Effluent (SFE) Pump Station and Secondary Water System	23,874,377	1,038,944	558,406	558,406	825,320	-	1,864,264	1,864,264	8%
216007	DTE Primary Electric 3rd Feed Supply Line to the WRRF	4,544,429	3,380,783	393,514	393,514	-	543,500	3,380,783	3,924,283	86%
216008	Rehabilitation of Screened Final Effluent (SFE) Pump Station	40,820,651	262,035	906,386	906,386	637,141	-	899,176	899,176	2%
216009	Logistics & Material Facility	164,904	-	-	-	-	-	-	-	0%
216010	WRRF Facility Optimization	10,270,771	-	57,420	57,420	-	-	-	-	0%
216011	WRRF Structural Improvements	12,333,080	-	2,051,568	2,051,568	-	-	-	-	0%
216012	WRRF Research Facility	-	-	-	-	930	930	-	930	0%
222001	Intercommunity Relief Sewer Modifications in Detroit Oakwood District	53,397,144	475,416	790,559	790,559	410,861	-	886,277	886,277	2%
222002	Detroit River Interceptor Evaluation and Rehabilitation	72,775,106	37,097,586	11,191,618	11,191,618	1,431,238	-	38,528,824	38,528,824	53%
222004	Collection System Valve Remote Operation Structures Improvements	-	4,246	-	-	-	-	4,246	4,246	0%
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	40,073,406	30,371,550	12,781,009	12,781,009	3,370,342	-	33,741,891	33,741,891	84%
232002	Freud and Connor Creek Pump Station Improvements	229,278,758	4,582,109	3,357,420	3,357,420	1,423,001	5,977,827	6,005,109	11,982,937	5%
232004	CONDITION ASSESSMENT AT BLUE HILL PUMP STATION	257,420	-	-	-	-	-	-	-	0%
233003	Rouge River In-system Storage Devices	46,317,488	-	-	-	-	-	-	-	0%
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	53,748,897	-	-	-	-	-	-	-	0%
260201	Conveyance System Interceptor Rehab	32,282,349	10,587,039	1,479,167	1,479,167	1,123,012	18,542,127	11,710,051	30,252,178	94%



Great Lakes Water Authority

**Wastewater System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021**

**Wastewater System
Construction Work-in-Progress Quarterly Report
As of September 30, 2021**

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance July 1, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense Through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
260202	Conveyance System Interceptor Rehab	-	1,904	-	-	-	-	1,904	1,904	0%
260204	Energy Services for Rehabilitation of Conveyance Sewer System	52,157,408	943,846	11,646,299	11,646,299	205,941	-	1,149,787	1,149,787	2%
260205	NWI Outfall Rehabilitation	10,937,891	267,139	5,045,936	5,045,936	27,157	-	294,296	294,296	3%
260206	Conveyance System Rehabilitation - Interceptors	47,821,376	22,180	7,045,936	7,045,936	8,382	-	30,561	30,561	0%
260207	Rehabilitation of Woodward Sewer System	-	1,229,440	-	-	(65,681)	-	1,163,759	1,163,759	0%
260500	CSO Outfall Rehab	5,000,000	-	832,953	832,953	-	-	-	-	0%
260504	Rehabilitation of Outfalls - Phase II	5,051,112	-	-	-	12,523	4,900,746	12,523	4,913,269	97%
260505	Rehabilitation of Outfalls - Phase IV	5,718,385	4,938,825	640,637	640,637	752,217	-	5,691,043	5,691,043	100%
260506	Pilot Regulator Orifice Expansion	-	78,641	-	-	-	-	78,641	78,641	0%
260508	B-39 Outfall Rehab	568,620	150,000	180,517	4,004,869	1,116	-	151,116	151,116	27%
260509	B-40 Outfall Rehab	88,500	77,621	-	-	636	-	78,257	78,257	88%
260510	Conveyance System Rehabilitation - Outfalls	48,863,036	34,594	7,709,560	3,885,208	211,021	-	245,615	245,615	1%
260600	CSO Facilities Improvements	126,400,000	-	1,000,000	-	-	-	-	-	0%
260601	Oakwood Drain Valve Improvements	864,218	-	-	-	-	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	7,518,411	-	-	19,457	-	7,537,869	7,537,869	95%
260606	Puritan Fenkell Roof Replacement	346,540	-	-	-	-	346,540	-	346,540	100%
260607	Lieb SDF Electrical Improvements	1,032,687	(0)	-	-	-	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	-	-	-	-	429,557	-	429,557	103%
260610	Baby Creek MAU Replacement	275,151	-	-	-	-	275,151	-	275,151	100%
260611	HVAC Improvements At Lieb SDF	395,615	-	-	-	-	412,590	-	412,590	104%
260613	Baby Creek HVAC Improvements	587,628	529,906	-	-	16,048	-	545,954	545,954	93%
260614	CSO Facilities Structural Improvements	13,794,118	2,352,725	4,422,021	4,422,021	600,252	21,255	2,931,722	2,952,977	21%
260615	PF & Lieb CSO Facilities Site & Drainage Improvements	801,140	382,407	199,240	199,240	116,635	-	499,041	499,041	62%
260616	Baby Creek SCO Anchor & Wedge Improvements	782,863	-	-	-	-	770,114	-	770,114	98%
260617	St. Aubin Chemical Disinfection Improvements	6,966,364	417,052	387,420	387,420	153	-	417,206	417,206	6%
260618	Oakwood HVAC Improvements	3,966,512	370,525	3,235,005	5,335,005	230	-	370,755	370,755	9%
260619	Control System Upgrade At St. Aubin, Lieb and 7 Mile	116,179	62,766	-	-	-	-	62,766	62,766	54%



Great Lakes Water Authority

Wastewater System Construction Work-in-Progress (CWIP) FY 2022 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2021

Wastewater System Construction Work-in-Progress Quarterly Report As of September 30, 2021

Project	Project Name	Total Project Plan Estimate from FY 2022-2026 CIP	CWIP Balance July 1, 2021	FY 2022 Board Approved CIP	FY 2022 Board Approved CIP With Project Amendments	FY 2022 Activity through September 30, 2021	Life to Date Capitalization / Expense Through September 30, 2021	CWIP Balance September 30, 2021	Life to Date Activity through September 30, 2021	Life to Date Activity / Total Project Plan Estimate
260620	Baby Creek Roof Replacement	640,500	25,848	-	-	59	-	25,907	25,907	4%
260621	Connor Creek Berm Improvements	-	284,034	-	-	1,188,385	-	1,472,419	1,472,419	0%
260622	CSO Facilities Emergency Generator Improvements	-	893	-	-	2,817	-	3,710	3,710	0%
260623	Baby Creek Screen Rehabilitation	-	-	-	-	554	-	554	554	0%
260700	Sewer System Infrastructure Improvements & Pumping Stations	35,901,492	-	3,660,745	3,660,745	-	-	-	-	0%
260701	Conveyance System Infrastructure Improvements	4,586,079	1,384,239	1,356,302	1,356,302	61,704	-	1,445,943	1,445,943	32%
260702	Pump Station Assets Updates	669,000	-	-	-	-	-	-	-	0%
260901	Rehab. Hazmat Facility at WRRF	-	131,014	-	-	-	-	131,014	131,014	0%
260902	WRRF Renovation of 4th Floor	-	49,160	-	-	-	-	49,160	49,160	0%
270001	Pilot CSO Netting Facility	9,573,092	235	13,420	13,420	-	-	235	235	0%
270002	Meldrum Sewer Diversion and VR-15 Improvements	5,839,631	-	8,580	8,580	-	-	-	-	0%
270003	Long Term CSO Control Plan	9,267,841	5,596	3,798,606	3,798,606	271,409	277,005	-	277,005	3%
270004	Oakwood Lieb CSO Facility Improvement	-	3,564	-	-	9,291	-	12,855	12,855	0%
273001	Hubbell Southfield CSO Facility Improvement	-	-	-	-	228	-	228	228	0%
274001	Leib Improvements for Meldrum Diversion	10,941,804	-	254,232	254,232	-	-	-	-	0%
277001	Baby Creek Outfall Improvements Project	18,825,761	19,228	1,807,420	1,807,420	19,594	17,287	21,535	38,822	0%
278001	Oakwood Improvements for NWI Diversion	10,225,804	-	251,772	251,772	-	-	-	-	0%
331002	Roofing Systems Replacement at GLWA Wastewater Treatment Plant, CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)	8,888,476	-	1,276,569	1,276,569	-	1,123,056	-	1,123,056	13%
341002	Security Infrastructure Improvements	3,533,510	2,934,004	722,226	722,226	201,689	-	3,135,693	3,135,693	89%
Grand Total		\$ 1,782,153,110	\$ 191,120,285	\$ 106,050,041	\$ 109,223,041	\$ 15,463,896	\$ 154,313,688	\$ 206,267,703	\$ 360,581,391	31%
				Project Amendm		\$ 3,173,000				

FY 2022 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.

\$3,173,000 of Capital Reserve project amendments have been prepared as of September 30, 2021 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 Quarter Ended September 30, 2021**

**Wastewater System
Construction Work-in-Progress Quarterly Report**
As of September 30, 2021

Project	Project Name	Capital Reserve	Program / Allowance	Grand Total
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines	\$ 2,073,000		\$ 2,073,000
260508	B-39 Outfall Rehab		3,824,352	3,824,352
260510	Conveyence System Rehabilitation - Outfalls		(3,824,352)	(3,824,352)
260600	CSO Facilities Improvements		(1,000,000)	(1,000,000)
260618	Oakwood HVAC Improvements	1,100,000	1,000,000	2,100,000
Grand Total		\$ 3,173,000	\$ -	\$ 3,173,000