



Financial Services Audit Committee Communication

Date: June 19, 2020

To: Great Lakes Water Authority Audit Committee

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

Re: FY 2020 Q3 Construction Work-in-Progress Report through March 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 2020 Q3 CWIP activity 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 March 31, 2020

For questions, please contact:

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June 19, 2020**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 March 31, 2020. The information in this report presents a detailed snapshot and is important as we track the execution of the FY 2021–2025 Capital Improvement Plan (CIP) and look to inform decision makers as we draft the FY 2022–2026 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 March 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 2020-2024 and related CIP Plan for FY 2020 were based on anticipation of FY 2020 activity resulting in 75% of planned spend. The Water System spend for the period ending March 31, 2020 is 45.4% of the FY 2020 prorated board approved CIP, 52.1% of the FY 2020 prorated board approved CIP with project amendments, and 60.5% of the FY 2020 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2020 Board Approved CIP was amended from \$143,247,000 to \$ 124,739,357 is provided in the subsequent Project Amendment Summary section of this report.

Water System Projects		FY 2019 CIP	FY 2019 Activity	FY 2019 Percentage	FY 2020 CIP	FY 2020 Prorated (Nine Months)	FY 2020 Activity (Unaudited)	FY 2020 Percentage
FY 2019 Board Approved CIP	\$	66,038,000	\$	61,583,574	93.3%			
FY 2019 Board Approved CIP With Project Amendments		72,348,044		61,583,574	85.1%			
FY 2020 Board Approved CIP					\$ 143,247,000	\$ 107,435,250	\$ 48,728,298	45.4%
FY 2020 Board Approved CIP With Project Amendments					124,739,357	93,554,518	48,728,298	52.1%
FY 2020 Capital Spend Rate Assumption (SRA)					107,435,250	80,576,438	48,728,298	60.5%

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 2020 3rd quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
122012	WS-684	36-inch Water Main in Telegraph Road
171501	1803483	Roof Replacement - Var Facilities Program

\$188.9 million is in CWIP as of March 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 March 31, 2020

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
111001	Energy Management: Lake Huron Water Treatment Plant Low Lift Pumping Improvements	\$ 55,090,000	\$ 14,083	\$ 401,000	\$ 493,500	\$ 24,311	\$ -	\$ 38,395	\$ 38,395	0%
111002	LHWTP Backflow Replacement	9,004,000	6,836,980	1,882,000	1,882,000	1,679,335	155,348	8,516,315	8,671,663	96%
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP	4,136,000	2,768,607	4,296,000	1,275,214	1,123,692	-	3,892,299	3,892,299	94%
111006	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake	16,626,000	777,960	3,333,000	3,533,468	268,372	-	1,046,332	1,046,332	6%
111007	Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements	8,937,000	639,986	4,660,000	4,230,554	3,288,935	-	3,928,921	3,928,921	44%
111008	LHWTP Architectural Programming - Lab	1,299,000	-	-	-	110	-	110	110	0%
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	29,226,000	35,864	9,030,000	9,030,000	66,023	-	101,887	101,887	0%
111010	Lake Huron Water Treatment Plant -Filtration	5,632,000	-	-	-	-	-	-	-	0%
111011	Lake Huron WTP Pilot Plant	1,794,000	-	-	-	-	-	-	-	0%
112002	Low Lift Pumping Plant Caisson Rehabilitation at Northeast WTP	1,345,000	1,134,767	203,000	203,000	35,195	1,169,962	-	1,169,962	87%
112003	NE WTP High Lift Pumping Electrical	57,565,000	-	-	-	-	-	-	-	0%
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits	1,393,000	13,356	166,000	310,000	167,787	-	181,143	181,143	13%
112006	Northeast Water Treatment Plant Flocculator Replacements	7,111,000	2,891	1,356,000	1,356,000	125,595	-	128,486	128,486	2%
113001	Southwest Water Treatment Plant, Sludge Tre: High Lift Pump Discharge Valve Actuators	-	-	-	-	3,876	-	3,876	3,876	100%
113002	Replacement at Southwest WTP	5,886,000	2,479,490	2,876,000	3,028,000	2,142,788	-	4,622,279	4,622,279	79%
113003	Replacement of Butterfly Valves	14,314,000	-	-	-	110	-	110	110	0%
113004	Residual Handling Facility's Decant Flow Modifications at Southwest WTP	822,000	-	380,000	380,000	1,822	853,219	1,822	855,041	104%
113006	SW WTP Chloring Scrubber	4,753,000	-	-	-	5,428	-	5,428	5,428	0%
113007	Architectural and Building Mechanical	98,000	-	-	-	-	-	-	-	0%
114001	Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities	101,968,000	73,955,623	-	1,255,609	3,322,302	22,738,455	77,277,925	100,016,380	98%
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	174,835,000	2,080,861	5,985,000	6,308,877	1,770,374	-	3,851,236	3,851,236	2%
114003	Water Production Flow Metering Improvements at NE, SW, and SPW WTP	8,482,000	6,331,921	80,000	713,282	1,496,601	-	7,828,521	7,828,521	92%
114005	Springwells WTP Admin Building Improvements	8,696,000	10,555	413,000	527,664	845,337	-	855,893	855,893	10%
114006	Replacement of Rapid Mix Units at Springwells WTP 1958 Process Train	1,031,000	0	61,000	61,000	9,390	1,021,039	9,390	1,030,429	100%
114007	Powder Activated Carbon Systems	4,188,000	-	-	-	-	-	-	-	0%
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP	14,241,000	195,644	4,153,000	2,185,000	1,700,900	-	1,896,544	1,896,544	13%

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

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
114009	Springwells Water Treatment Plant Service Area Redundancy Study	311,000	-	-	-	-	-	-	-	0%
114010	Yard Piping Improvements	112,613,000	3,947	-	-	22,681	-	26,628	26,628	0%
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP	23,898,000	2,373,087	5,392,000	5,453,373	5,623,057	-	7,996,144	7,996,144	33%
114012	Springwells Water Treatment Plant 1930 Filter Building-Roof Replacement	3,911,000	-	-	-	-	3,911,148	-	3,911,148	100%
114013	Springwells Reservoir Fill Line Improvements	4,821,000	2,829,864	1,551,000	1,551,000	678,514	-	3,508,378	3,508,378	73%
114015	Emergency Grating Replacement at Springwells WTP	3,366,000	-	-	-	-	3,365,903	-	3,365,903	100%
114016	Springwells Water Treatment Plant 1958 Settled Water Conduits Concrete Pavement Replacement	1,764,000	802	206,000	206,000	12,454	-	13,256	13,256	1%
114017	Springwells Water Treatment Plant Flocculator Drive Replacement	9,296,000	-	-	-	-	-	-	-	0%
114018	Springwells Water Treatment Plant - Service Building Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	1,508,000	-	-	-	-	-	-	-	0%
115001	Comprehensive Condition Assessment at Waterworks Park WTP	72,019,000	1,758,683	17,333,000	17,464,500	609,622	-	2,368,305	2,368,305	3%
115003	Waterworks Park WTP Chlorine System Upgrade	582,000	513,538	153,000	-	-	-	513,538	513,538	88%
115004	WWP WTP Building Ventilation Improvements	7,440,000	6,685,754	2,047,000	2,068,500	215,345	-	6,901,099	6,901,099	93%
115005	Water Works Park Site/Civil Improvements	10,141,000	-	507,000	507,000	1,034	-	1,034	1,034	0%
115006		5,643,000	-	-	-	-	-	-	-	0%
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements based on	61,245,000	10,200,085	5,467,000	5,467,000	594,651	-	10,794,736	10,794,736	18%
122001	Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road	33,246,000	33,241,721	-	-	-	33,241,721	-	33,241,721	100%
122002	Replacement of Five (5) PRV Pits of Treated Water Transmission System	2,790,000	-	-	-	-	2,785,001	-	2,785,001	100%
122003	New Waterworks Park to Northeast Transmission Main	157,526,000	2,615,193	871,000	658,233	1,503,872	-	4,119,065	4,119,065	3%
122004	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	144,871,000	1,787,389	5,000,000	2,314,936	25,440	-	1,812,829	1,812,829	1%
122005	Replacement Schoolcraft Watermain	18,106,000	141,171	8,100,000	2,328,644	777,545	-	918,716	918,716	5%
122006	Transmission System Water Main Work-Wick Road Parallel Water Main	22,338,000	416,882	18,028,000	8,401,361	2,999,729	-	3,416,611	3,416,611	15%
122007	Design and Construction of a new Newburgh Road 24" Main along Newburgh Road between Ch	21,457,000	783	-	-	1,022	-	1,805	1,805	0%
122009	Water System Improvements in Joy Road from Southfield Road to Trinity	149,000	106,881	-	-	-	106,881	-	106,881	72%
122011	Park-Merriman Water Main-Final Phase	7,625,000	986,024	4,737,000	3,937,000	1,778,346	-	2,764,370	2,764,370	36%

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

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
122012	36-inch Water Main in Telegraph Road	9,959,000	-	-	-	(0)	9,986,284	(0)	9,986,284	100%
122013	Lyon Township Transmission Main Extension	73,941,000	637,635	751,000	2,628,978	2,482,029	-	3,119,665	3,119,665	4%
122016	Downriver Transmission Loop	37,744,000	24,251	297,000	820,965	13,401	-	37,652	37,652	0%
122017	7 Mile/Nevada Transmission Main Rehab and	60,577,000	-	1,040,000	1,040,000	1,517	-	1,517	1,517	0%
122018	Carrie/Nevada Flow Control Station	44,577,000	-	-	-	-	-	-	-	0%
132001	Garland, Hurlbut, Bewick Water Transmission	135,000	135,073	-	-	-	-	135,073	135,073	100%
132003	Wick Road Station Rehabilitation	1,979,000	247,754	490,000	1,522,316	1,430,319	-	1,678,073	1,678,073	85%
132004	Isolation Gate Valves for Line Pumps for West Service Center Pumping Station	215,000	214,771	-	-	-	-	214,771	214,771	100%
132006	Hydraulic Surge Control for North Service Center Pumping Station	3,279,000	289,594	2,515,000	2,399,138	847,257	-	1,136,851	1,136,851	35%
132007	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica	5,199,000	97,185	592,000	472,742	24,020	-	121,206	121,206	2%
132008	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	1,838,000	1,838,406	-	-	(162,965)	-	1,675,441	1,675,441	91%
132010	Needs Assessment Study for all Water Booster Pumping Stations	37,705,000	607,504	2,620,000	600,000	17,053	-	624,557	624,557	2%
132012	West Service Center/Duval Rd Division Valve Upgrades	31,617,000	20,539	585,000	510,490	122,016	-	142,556	142,556	0%
132014	Ypsilanti PS Improvements	27,536,000	-	-	-	-	-	-	-	0%
132015	Adams Road Booster Pumping Improvements	30,677,000	2,811	16,000	458,245	104,284	-	107,095	107,095	0%
132016	Newburgh BPS	45,342,000	-	-	-	2,213	-	2,213	2,213	0%
132017	North Service Center BPS Improvements	-	-	6,000	6,000	-	-	-	-	100%
132019	North Service Center BPS - On-Site & Off	2,940,000	-	-	-	-	-	-	-	0%
132020	Wick Road BPS - Switchgear	2,442,000	-	-	-	-	-	-	-	0%
132021	Franklin BPS - Isolation Gate Valves	13,000	-	-	-	-	-	-	-	0%
132022	Imlay BPS - Replace VFDs, Pumps & Motors	55,000	-	-	-	-	-	-	-	0%
132025	Joy Road BPS - Replace Reservoir Pumps	1,000	971	-	-	-	-	971	971	97%
132026	Northwest Booster Station Yard Piping Improvements	1,411,000	-	-	-	-	-	-	-	0%
170100	Franklin Pumping Station Valve Replacement	70,164,000	-	3,000,000	3,000,000	-	-	-	-	0%
170102	Allowance: WTP/Pump Station	-	359,259	-	-	9,179	-	368,439	368,439	100%
170103	Water Production Plant Flow Mettering Improvements at NE, SP & SW WTP	-	3,278	-	-	-	286,596	3,278	289,874	100%
170104	Belle Isle Water Supply Intake and Ice Boom Improvements	-	170,664	-	-	7,846	1,907,825	178,510	2,086,335	100%
170109	Orion and Newburgh Pumping Stations Improvements	-	3,102,765	-	-	43,676	-	3,146,441	3,146,441	100%
170110	Inspection of Raw Water Intakes and Tunnels	-	2,926	-	-	(2,926)	-	-	-	100%
170121	Raw Water Sampling Improvements	-	38,681	-	-	772,241	-	810,922	810,922	100%
170122	Franklin PS Valve Rehab	-	133,306	-	-	71,090	-	204,396	204,396	100%
	Meter Pit at Brownstown Township	-								

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

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
170200	As Needed Construction Materials, Environmental Media and Special Allowance	1,815,000	-	572,000	572,000	-	-	-	-	0%
170201	Construction & Environmental Testing	-	63,443	-	-	(22,324)	-	41,119	41,119	100%
170300	Water Treatment Plant Automation Program	18,728,000	-	1,561,000	1,561,000	-	-	-	-	0%
170301	Water Plant Automation	-	1,657,645	-	-	97,497	-	1,755,142	1,755,142	100%
170400	Water Transmission Improvement Program	28,157,000	-	1,500,000	1,500,000	-	-	-	-	0%
170401	Emergency Bypass Around Ypsilanti Station Transmission System Valve Assessment and Rehabilitation/Replacement Program	-	1,643,165	-	-	15,800	-	1,658,965	1,658,965	100%
170500	Transmission System Valve Assessment and Rehabilitation/Replacement Program	26,469,000	-	4,000,000	4,000,000	-	-	-	-	0%
170502	Transmission System Valve Assessment and Rehabilitation/Replacement Program	-	0	-	-	1,957,691	6,029,544	1,957,691	7,987,235	100%
170600	Water Transmission Main Asset Assessment Program	30,753,000	-	3,000,000	3,000,000	-	-	-	-	0%
170800	Reservoir Inspection, Design and Rehabilitation Program	59,076,000	-	5,128,000	632,000	-	-	-	-	0%
170801	Reservoir Inspection, Design and Rehabilitation	-	456,574	-	4,513,500	1,298,340	-	1,754,914	1,754,914	100%
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	10,301,000	-	4,000,000	925,000	-	-	-	-	0%
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	-	1,237,565	-	3,075,000	2,636,770	-	3,874,335	3,874,335	100%
171500	Roof Replacement - Var Facilities Program	23,673,000	-	2,657,000	-	-	-	-	-	0%
171501	Roof Replacements - Var Facilities Program	0	119283.4	0	2948089	1913096.7	360429.59	1671950.51	2032380.1	100%
341001	Security Infrastructure Improvements	10,650,000	962,673	-	1,173,179	2,127,799	-	3,090,472	3,090,472	29%
351001	Water Facility Lighting Renovations	556,000	6,211	250,000	250,000	457	-	6,667	6,667	1%
361002	Data Center Reliability/Availability Improvements	-	16,080	-	-	-	-	16,080	16,080	100%
380600	General Engineering Services Allowance	56,000	-	-	-	-	-	-	-	0%
380601	General Engineering Services Allowance	-	674	-	-	(674)	-	-	-	100%
380700	As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services Allowance	2,130,000	-	-	-	-	-	-	-	0%
381000	Energy Management: Electric Metering Improvement Program	3,435,000	-	-	-	-	-	-	-	0%
Grand Total		\$ 1,970,283,000	\$ 175,031,084	\$ 143,247,000	\$ 124,739,357	\$ 48,728,298	\$ 120,374,591	\$ 188,880,388	\$ 309,254,979	16%
		Project Amendments \$ (18,507,643)								

FY 2020 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 2020 Capital Improvement Plan.

\$18.5 million of Capital Reserve project amendments have been prepared as of March 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 March 31, 2020

Project	Project	Program / Allowance	Capital Reserve	Grand Total
111001	Energy Management: Lake Huron Water Treatment Plant Low Lift Pumping Improvements		\$ 92,500	\$ 92,500
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP		(3,020,786)	(3,020,786)
111006	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake	\$	200,468	\$ 200,468
111007	Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements		(429,446)	(429,446)
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits		144,000	144,000
113002	High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP		152,000	152,000
114001	Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities		1,255,609	1,255,609
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station		323,877	323,877
114003	Water Production Flow Metering Improvements at NE, SW, and SPW WTP		633,282	633,282
114005	Springwells WTP Admin Building Improvements		114,664	114,664
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP		(1,968,000)	(1,968,000)
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP		61,373	61,373
115001	Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	\$ 131,500		\$ 131,500
115003	Comprehensive Condition Assessment at Waterworks Park WTP	\$ (153,000)		\$ (153,000)
115004	Water Works Park WTP Chlorine System Upgrade	\$ 21,500		\$ 21,500
122003	New Waterworks Park to Northeast Transmission Main		(212,767)	(212,767)
122004	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	\$	(2,685,064)	\$ (2,685,064)
122005	Replacement Schoolcraft Watermain		(5,771,356)	(5,771,356)
122006	Transmission System Water Main Work-Wick Road Parallel Water Main	\$	(9,626,639)	\$ (9,626,639)
122011	Park-Merriman Water Main-Final Phase		(800,000)	(800,000)
122013	Lyon Township Transmission Main Extension Project		1,877,978	1,877,978
122016	Downriver Transmission Loop		523,965	523,965
132003	Isolation Gate Valves for Line Pumps for West Service Center Pumping Station		1,032,316	1,032,316
132006	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica		(115,862)	(115,862)
132007	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	\$	(119,258)	\$ (119,258)
132010	West Service Center/Duval Rd Division Valve Upgrades	\$	(2,020,000)	\$ (2,020,000)
132012	Ypsilanti PS Improvements	\$	(74,510)	\$ (74,510)

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

Project	Project	Program / Allowance	Capital Reserve	Grand Total
132015	Newburgh BPS		442,245	442,245
170800	Reservoir Inspection, Design and Rehabilitation Program	(4,496,000)		(4,496,000)
170801	Reservoir Inspection, Design and Rehabilitation	4,496,000	17,500	4,513,500
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	(3,075,000)		(3,075,000)
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	3,075,000		3,075,000
171500	Roof Replacement - Var Facilities Program		\$ (2,657,000)	\$ (2,657,000)
171501	Roof Replacements - Var Facilities Program		\$ 2,948,089	\$ 2,948,089
341001	Security Infrastructure Improvements		\$ 1,173,179	\$ 1,173,179
Grand Total		\$ -	\$ (18,507,642)	\$ (18,507,642)

WASTEWATER SYSTEM

Executive Summary

The rate of spend is a key performance indicator. The development of the FY 2020-2024 and related CIP Plan for FY 2020 were based on anticipation of FY 2020 activity resulting in 75% of planned spend. The Water System spend for the period ending March 31, 2020 is 44.4% of the FY 2020 prorated board approved CIP, 46% of the FY 2020 prorated board approved CIP with project amendments, and 59.1% of the FY 2020 Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2020 Board Approved CIP was amended from \$161,480,000 to \$155,792,005 is provided in the subsequent Project Amendment Summary section of this report.

Wastewater System Projects		FY 2019 CIP	FY 2019 Activity	FY 2019 Percentage	FY 2020 CIP	FY 2020 Prorated (Nine Months)	FY 2020 Activity (Unaudited)	FY 2020 Percentage
FY 2019 Board Approved CIP	\$	105,183,000	82,133,532	78.1%				
FY 2019 Board Approved CIP With Project Amendments		100,264,934	82,133,532	81.9%				
FY 2020 Board Approved CIP					\$ 161,480,000	121,110,000	53,719,104	44.4%
FY 2020 Board Approved CIP With Project Amendments					155,792,005	116,844,004	53,719,104	46.0%
FY 2020 Capital Spend Rate Assumption (SRA)					121,110,000	90,832,500	53,719,104	59.1%

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 2020 2nd quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
171501	1803483	Roof Replacement - Var Facilities Program
212003	PC-796	Aeration System Improvements
260602	DB-261	CSO Fire Alarm System Improvements
260607	1802475	Lieb SDF Electrical Improvements

\$226.4 million is in CWIP as of March 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 March 31, 2020

Wastewater System Construction Work-in-Progress Quarterly Report

As of March 31, 2020

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
171501	Roof Replacements - Var Facilities Program	\$ -	\$ -	\$ -	\$ 83,000	\$ 83,000	\$ 83,000	\$ -	\$ 83,000	100%
211001	Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines, Electrical/Mechanical Building and Pipe Gallery	55,069,000	45,368,717	7,982,000	7,982,000	6,947,230	-	52,315,947	52,315,947	95%
211002	Pump Station No. 2 Pumping Improvments	3,772,000	1,911,850	1,222,000	1,222,000	91,741	-	2,003,591	2,003,591	53%
211004	Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	28,273,000	26,502,582	869,000	869,000	1,108,591	-	27,611,173	27,611,173	98%
211005	Pump Station No. 2 Improvements	34,050,000	1,002	-	-	(1,002)	-	-	-	0%
211006	Pump Station No. 1 Improvements	26,776,000	6,307	1,803,000	1,803,000	1,138,676	-	1,144,982	1,144,982	4%
211007	Replacement of Bar Racks and Grit Collection System at Pump Station No. 2	76,596,000	628	269,000	269,000	2,066	-	2,694	2,694	0%
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station - 1 and Complex B Sludge Lines	10,825,000	200,048	2,950,000	3,950,000	1,276,973	-	1,477,021	1,477,021	14%
211009	Rehabilitation of the Circular Primary Clarifier Scum Removal System	13,249,000	30	-	-	175	-	204	204	0%
211010	Rehabilitation of Sludge Processing Complexes A and B	14,039,000	-	-	-	-	-	-	-	0%
211011	WRRF PS1 Screening and Grit Improvements	100,747,000	-	-	-	-	-	-	-	0%
212002	Study, Design, & Construction, Management Services for Modified Detroit River Outfall No. 2 - WRRF	-	10,821,153	-	-	(832)	-	10,820,320	10,820,320	100%
212003	Aeration System Improvements	16,492,000	16,356,789	-	-	168,086	16,524,875	-	16,524,875	100%
212004	Project Chlorination/Dechlorination Process Equipment Improvements	5,766,000	192,917	2,345,000	2,903,000	1,000,366	-	1,193,283	1,193,283	21%
212006	PC-797 Rouge River Outfall Disinfection and CS-1781 Oversight Consulting Services Contract	44,440,000	41,691,377	4,583,000	4,731,155	2,011,023	-	43,702,401	43,702,401	98%
212007	Rehabilitation of the Secondary Clarifiers	30,141,000	-	-	-	-	-	-	-	0%
212008	WRRF Rehabilitation of Intermediate Lift	81,514,000	-	229,000	229,000	1,047	-	1,047	1,047	0%
212009	WRRF Aeration Improvements 3 and 4	73,763,000	-	-	-	-	-	-	-	0%

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

Wastewater System Construction Work-in-Progress Quarterly Report

As of March 31, 2020

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
212010	WRRF Conversion of Disinfection of all Flow to Sodium Hypochlorite and Sodium Bisulfite	5,986,000	-	-	-	-	-	-	-	0%
213002	Rehabilitation of Central Offload Facility	-	-	7,696,000	7,696,000	-	-	-	-	100%
213005	Complex I Incinerators Decommissioning and Reusability Improvements to Sludge Feed Pumps at Dewatering Facilities	-	369,648	-	-	22	369,671	-	369,671	100%
213006	Construction of the Improved Sludge Conveyance and Lighting System at the WWTP	4,651,000	4,856	-	-	894	-	5,750	5,750	0%
213007	Rehabilitation of the Wet and Dry Ash Handling Systems	19,946,000	10,809,195	8,711,000	9,011,000	6,062,905	-	16,872,100	16,872,100	85%
213008	Phosphorous Recovery Facility at the WWRF	18,543,000	85	111,000	111,000	43,269	-	43,353	43,353	0%
213009	Relocation of Industrial Waste Division and Analytical Laboratory Operations	-	(99)	-	-	99	-	-	-	100%
214001	Rehabilitation of Various Sampling Sites and PS# 2 Ferric Chloride System at WWTP	14,001,000	17,017	7,567,000	8,367,000	3,978,401	2,282,260	3,995,419	6,277,678	45%
216004	Rehabilitation of the Screened Final Effluent (SFE) Pump Station and Secondary Water System	5,729,000	814,368	3,921,000	3,921,000	672,430	-	1,486,798	1,486,798	26%
216006	DTE Primary Electric 3rd Feed Supply Line to the WRRF	24,512,000	17,581	323,000	323,000	17,703	-	35,284	35,284	0%
216007	Rehabilitation of Screened Final Effluent (SFE) Pump Station	5,823,000	2,194,169	1,381,000	1,381,000	129,827	543,500	2,323,996	2,867,496	49%
216008	Logistics & Material Facility	24,954,000	-	1,091,000	1,091,000	873	-	873	873	0%
216009	WRRF Facility Optimization	2,768,000	-	-	-	114,532	-	114,532	114,532	4%
216010	Intercommunity Relief Sewer Modifications in Detroit Oakwood District	10,338,000	-	-	-	-	-	-	-	0%
222001	Detroit River Interceptor Evaluation and Rehabilitation	53,512,000	-	-	-	-	-	-	-	0%
222002	North Interceptor East Arm (NIEA) Evaluation and Rehabilitation Collection System Valve Remote Operation Structures	81,676,000	10,611,644	10,000,000	4,049,445	8,234,248	-	18,845,892	18,845,892	23%
222003	Improvements	-	-	15,000,000	15,000,000	-	-	-	-	100%
222004	Fairview Pumping Station - Replace Four Sanitary Pumps	41,126,000	4,246	3,500,000	3,500,000	223,465	-	227,710	227,710	1%
232001		37,276,000	3,475,448	18,000,000	16,265,405	8,164,882	-	11,640,330	11,640,330	31%

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

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

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
232002	Freud and Connor Creek Pump Station Improvements	222,099,000	5,573,334	17,029,000	17,229,000	430,012	57,734	6,003,345	6,061,080	3%
232003	Northeast Pump Station Improvements	-	-	7,000,000	7,000,000	-	-	-	-	100%
232004	CONDITION ASSESSMENT AT BLUE HILL PUMP STATION	286,000	-	-	-	-	-	-	-	0%
233002	Collection System In System Storage Devices(ISDs) Improvements	-	235	-	-	-	-	235	235	100%
233003	Rouge River In-system Storage Devices	46,797,000	-	-	-	-	-	-	-	0%
251002	Wastewater System Wide Instrumentation & Controls Software and Hardware Upgrade	-	71	-	-	-	-	71	71	100%
260100	Water Resource Recovery Facility (WRRF), Lift Station & Wastewater Collection System Allowance	-	-	1,100,000	1,100,000	-	-	-	-	100%
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	154,643,000	-	15,000,000	6,550,048	-	-	-	-	0%
260201	Conveyance System Interceptor Rehab	-	4,810,116	-	7,400,000	4,077,255	9,176,553	8,887,371	18,063,924	100%
260202	Conveyance System Interceptor Rehab	-	17,031	-	-	5,344	-	22,375	22,375	100%
260203	Conveyance System Interceptor Rehab	-	4,642,133	-	-	-	-	4,642,133	4,642,133	100%
260204	Energy Services for Rehabilitation of Conveyance Sewer System	-	133	-	1,049,952	755,870	-	756,002	756,002	100%
260500	CSO Outfall Rehab	64,406,000	-	15,102,000	10,302,925	-	-	-	-	0%
260503	Collection System Backwater Gates	-	760	-	-	-	-	760	760	100%
260504	Rehabilitation of Outfalls - Phase II	-	-	-	3,000,000	1,141,388	-	1,141,388	1,141,388	100%
260505	Rehabilitation of Outfalls - Phase IV	-	-	-	1,799,075	627,878	-	627,878	627,878	100%
260506	Pilot Regulator Orifice Expansion	-	-	-	-	75,102	-	75,102	75,102	100%
260600	CSO Facilities Improvements	152,943,000	-	5,604,000	2,940,613	-	-	-	-	0%
260601	Oakwood Drain Valve Improvements	-	539,857	-	33,000	101,842	-	641,699	641,699	100%
260602	CSO Fire Alarm System Improvements	-	812,407	-	-	205,284	997,619	20,072	1,017,691	100%
260603	Conner Creek CSO Basin Rehab	-	4,404,704	-	1,255,387	1,671,917	-	6,076,621	6,076,621	100%
260605	CSO Facilities CA	-	16,914	-	-	(16,914)	-	-	-	100%

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

Wastewater System Construction Work-in-Progress Quarterly Report

As of March 31, 2020

Project	Project Name	Total Project Plan Estimate From FY 2021 - 2025 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP	FY 2020 Board Approved CIP With Project Amendments	FY 2020 Activity through March 31, 2020	Life to Date Capitalization Through March 31, 2020	CWIP Balance March 31, 2020	Life to Date Activity through March 31, 2020	Life to Date Activity / Total Project Plan
260606	Puritan Fenkell Roof Replacement	-	1,944	-	-	344,596	346,540	-	346,540	100%
260607	Lieb SDF Electrical Improvements	-	241,513	-	450,000	791,141	1,032,508	146	1,032,655	100%
260608	Seven Mile RTB - Roof Replacement	-	12,451	-	300,000	484,248	496,699	-	496,699	100%
260609	Seven Mile RTB - Parking Lot / Sitework	-	23,197	-	400,000	87,508	-	110,705	110,705	100%
260610	Baby Creek MAU Replacement	-	1,773	-	-	273,378	-	275,151	275,151	100%
260611	HVAC Improvements At Lieb SDF	-	5,283	-	225,000	19,937	-	25,221	25,221	100%
260613	Baby Creek HVAC Improvements	-	76	-	-	7,377	-	7,453	7,453	100%
260614	CSO Facilities Structural Improvements	-	335,143	-	-	(63,069)	-	272,074	272,074	100%
260615	PF & Lieb CSO Facilities Site & Drainage Improvements	-	-	-	-	7,320	-	7,320	7,320	100%
260616	Baby Creek SCO Anchor & Wedge Improvements	-	-	-	-	648,275	-	648,275	648,275	100%
260617	St. Aubin Chemical Disinfection Improvements	-	-	-	-	131,693	-	131,693	131,693	100%
260618	Oakwood HVAC Improvements	-	-	-	-	17,284	-	17,284	17,284	100%
270001	Pilot CSO Netting Facility	7,769,000	-	-	-	-	-	-	-	0%
270002	Meldrum Sewer Diversion and VR-15 Improvements	6,079,000	-	-	-	-	-	-	-	0%
270003	Long Term CSO Control Plan	5,794,000	-	-	-	94,268	-	94,268	94,268	2%
277001	Baby Creek Outfall Improvements Project	2,237,000	-	-	-	3,686	-	3,686	3,686	0%
331002	Roofing Systems Replacement at GLWA Wastewater Treatment Plant, CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)	9,745,000	802,470	1,092,000	1,092,000	320,586	1,123,056	-	1,123,056	12%
341001	Security Infrastructure Improvements	-	102,924	-	-	5,211	-	108,134	108,134	100%
341002	Security Infrastructure Improvements	2,630,000	-	-	-	-	-	-	-	0%
380600	General Engineering Services Allowance	(51,000)	-	-	-	-	-	-	-	0%
380601	General Engineering Services Allowance	-	632	-	-	-	-	632	632	100%
381000	Energy Management: Electric Metering Improvement Program	3,435,000	-	-	-	-	-	-	-	0%
Grand Total		\$ 1,645,165,000	\$ 193,716,659	\$ 161,480,000	\$ 156,884,005	\$ 53,719,104	\$ 208,650,621	\$ 226,461,795	\$ 435,112,416	26%
		Project Amendments \$ (4,595,995)								

FY 2020 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 2020 Capital Improvement Plan.

\$4.6 million of Capital Reserve project amendments have been prepared as of March 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 March 31, 2020

Project	Project	Program / Allowance	Capital Reserve	Grand Total
171501	Roof Replacements - Var Facilities Program		\$ 83,000	\$ 83,000
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines		1,000,000	1,000,000
212004	Chlorination/Dechlorination Process Equipment Improvements		558,000	558,000
212006	PC-797 Rouge River Outfall Disinfection and CS-1781 Oversight Consulting Services Contract	\$	148,155	\$ 148,155
213007	Construction of the Improved Sludge Conveyance and Lighting System at the WWTP	\$	300,000	\$ 300,000
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations	\$	800,000	\$ 800,000
222002	Detroit River Interceptor Evaluation and Rehabilitation	\$	(5,950,555)	\$ (5,950,555)
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	\$	(1,734,595)	\$ (1,734,595)
232002	Freud and Connor Creek Pump Station Improvements	\$	200,000	\$ 200,000
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	(8,449,952)		(8,449,952)
260201	Conveyance System Interceptor Rehab	7,400,000		7,400,000
260204	Energy Services for Rehabilitation of Conveyance Sewer System	1,049,952		1,049,952
260500	CSO Outfall Rehab	(4,799,075)		(4,799,075)
260504	Rehabilitation of Outfalls - Phase II	3,000,000		3,000,000
260505	Rehabilitation of Outfalls - Phase IV	\$ 1,799,075		\$ 1,799,075
260600	CSO Facilities Improvements	\$ (2,663,387)		\$ (2,663,387)
260601	Oakwood Drain Valve Improvements	\$ 33,000		\$ 33,000
260603	Conner Creek CSO Basin Rehab	\$ 1,255,387		\$ 1,255,387
260607	Lieb SDF Electrical Improvements	\$ 450,000		\$ 450,000
260608	Seven Mile RTB - Roof Replacement	\$ 300,000		\$ 300,000
260609	Seven Mile RTB - Parking Lot / Sitework	\$ 400,000		\$ 400,000
260611	HVAC Improvements At Lieb SDF	\$ 225,000		\$ 225,000
Grand Total		\$ -	\$ (4,595,995)	\$ (4,595,995)