



Financial Services Audit Committee Communication

Date: February 21, 2019

To: Great Lakes Water Authority Audit Committee

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

Re: FY 2020 Q1 Construction Work-in-Progress Report through September 30, 2019
(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 Q1 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 September 30, 2019

For questions, please contact:

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Table of Contents

Introduction.....	1
Water system	3
Executive Summary	3
Construction Work-in-Progress Rollforward.....	4
FY 2020 Spending Plan Amendment Summary.....	14
Wastewater system	16
Executive Summary	16
Construction Work-in-Progress Rollforward.....	17
FY 2020 Spending Plan Amendment Summary.....	23

February 21, 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 September 30, 2019. The information in this report presents a detailed snapshot and is important as we track the execution of the FY 2020–2024 Capital Improvement Plan (CIP) and look to inform decision makers as we finalize the FY 2021–2025 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.

Spending Plan Amendment Summary: The award of CIP contracts and the related execution thereof may result in deviations from the amount and timing of planned spend. Spending plan 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 planned spend 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, 2019. 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.
- ✓ The CIP "budget" for the same biennial budget period above is based on the first two years of the CIP. Funding for these projects are established in the financial plan through a combination of bond proceeds and Improvement & Extension fund reserves
- ✓ 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.

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 September 30, 2019 is 28.6% of the FY 2020 prorated board approved CIP spend and 32.1% of the FY 2020 amended spend. Detailed analysis behind the reasons and projects for which planned spend is amended from \$143,247,000 to \$ 127,758,856 is provided in the subsequent Spending Plan Amendment Summary section of this report.

Water System Projects	FY 2019 Planned Spend	FY 2019 Activity	FY 2019 as a Percentage of Planned Spend	FY 2020 Planned Spend	FY 2020 Prorated (Three Months)	FY 2020 Activity (Unaudited)	FY 2020 as a Percent of Planned Spend (Unaudited)
FY 2019 Board Approved CIP Plan	\$ 66,038,000	\$ 61,583,574	93.3%				
FY 2019 Amended Spend Plan	72,348,044	61,583,574	85.1%				
FY 2020 Board Approved CIP Plan				\$ 143,247,000	\$ 35,811,750	\$ 10,247,260	28.6%
FY 2020 Amended Spend Plan				127,758,856	31,939,714	10,247,260	32.1%

It should be noted that these interim reports have been prepared on a modified cash basis. This means that expenses may lag in vendor invoice receipt and posting. Known expenses, material in nature, have been accrued.

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 cost occurred in the FY 2020 1st quarter, but the following projects are targeted for the FY 2020 2nd quarter:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
112002	CON-215a	Low Lift Pump Plant Caisson Rehab NEWTP
122001	WS-681	42-Inch Parallel Water Main

\$185.3 million is in CWIP as of September 30, 2019 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.

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
111001	Energy Management: Lake Huron Water Treatment Plant Low Lift Pumping Improvements	\$ 52,388,000	\$ 14,083	\$ 401,000	\$ 401,000	\$ 13,891	\$ 27,974	\$ -	\$ 27,974	0%
111002	LHWTP Backflow Replacement	8,324,000	6,836,980	1,882,000	1,882,000	882,018	7,718,998	155,348	7,874,346	95%
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP	4,749,000	2,768,607	4,296,000	1,275,214	664,229	3,432,837	-	3,432,837	72%
111006	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake	10,789,000	777,960	3,333,000	3,333,000	156,616	934,576	-	934,576	9%
111007	Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements	9,799,000	639,986	4,660,000	3,738,368	37,205	677,191	-	677,191	7%
111008	LHWTP Architectural Programming - Lab	300,000	-	-	-	110	110	-	110	0%
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	26,106,000	35,864	9,030,000	9,030,000	38,463	74,327	-	74,327	0%
112002	Low Lift Pumping Plant Caisson Rehabilitation at Northeast WTP	1,565,000	1,134,767	203,000	203,000	9,528	1,144,296	-	1,144,296	73%
112003	NE WTP High Lift Pumping Electrical	62,234,000	-	-	-	-	-	-	-	0%
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits	813,000	13,356	166,000	306,000	1,231	14,587	-	14,587	2%
112006	Northeast Water Treatment Plant Flocculator Replacements	2,718,000	2,891	1,356,000	1,356,000	3,076	5,968	-	5,968	0%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
113002	High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP	5,432,000	2,479,490	2,876,000	3,028,000	1,428,737	3,908,228	-	3,908,228	72%
113003	Replacement of Butterfly Valves Residual Handling Facility's Decant Flow Modifications at Southwest WTP	148,286,000	-	-	-	110	110	-	110	0%
113004	SW WTP Chloring Scrubber	898,000	-	380,000	380,000	-	-	853,219	853,219	95%
113006	Architectural and Building Mechanical	7,032,000	-	-	-	-	-	-	-	0%
113007		37,336,000	-	-	-	-	-	-	-	0%
114001	Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities	97,288,000	73,955,623	-	1,255,609	1,293,602	75,249,225	22,738,455	97,987,680	101%
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	114,816,000	2,080,861	5,985,000	6,308,877	477,133	2,557,994	-	2,557,994	2%
114003	Water Production Flow Metering Improvements at NE, SW, and SPW WTP	7,105,000	6,331,921	80,000	713,282	418,866	6,750,787	-	6,750,787	95%
114005	Springwells WTP Admin Building Improvements	8,125,000	10,555	413,000	527,664	10,794	21,350	-	21,350	0%
114006	Replacement of Rapid Mix Units at Springwells WTP 1958 Process Train	1,124,000	0	61,000	61,000	-	0	1,021,039	1,021,039	91%
114007	Powder Activated Carbon Systems	3,938,000	-	-	-	-	-	-	-	0%
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP	17,125,000	195,644	4,153,000	2,185,000	296,851	492,495	-	492,495	3%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
114009	Springwells Water Treatment Plant Service Area Redundancy Study	311,000	-	-	-	-	-	-	-	0%
114010	Yard Piping Improvements	110,650,000	3,947	-	-	5,427	9,374	-	9,374	0%
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP	24,989,000	2,373,087	5,392,000	5,453,373	1,926,136	4,299,223	-	4,299,223	17%
114012	Springwells Water Treatment Plant 1930 Filter Building-Roof Replacement	3,912,000	-	-	-	-	-	3,911,148	3,911,148	100%
114013	Springwells Reservoir Fill Line Improvements	4,732,000	2,829,864	1,551,000	1,551,000	236,835	3,066,699	-	3,066,699	65%
114015	Emergency Grating Replacement at Springwells WTP	3,466,000	-	-	-	-	-	3,365,903	3,365,903	97%
114016	Springwells Water Treatment Plant 1958 Settled Water Conduits Concrete Pavement Replacement	862,000	802	206,000	206,000	74	875	-	875	0%
114017	Springwells Water Treatment Plant Flocculator Drive Replacement	2,328,000	-	-	-	-	-	-	-	0%
115001	Yard Piping, Valves and Venturi Meters Replacement at Waterworks Park	53,580,000	1,758,683	17,333,000	17,333,000	258,665	2,017,348	-	2,017,348	4%
115003	Comprehensive Condition Assessment at Waterworks Park WTP	855,000	513,538	153,000	153,000	688	514,227	-	514,227	60%
115004	Waterworks Park WTP Chlorine System Upgrade	8,771,000	6,685,754	2,047,000	2,047,000	101,785	6,787,539	-	6,787,539	77%

Water System

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Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
115005	WWP WTP Building Ventilation Improvements	5,071,000	-	507,000	507,000	-	-	-	-	0%
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements based on Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road	30,090,000	10,200,085	5,467,000	5,467,000	86,565	10,286,650	-	10,286,650	34%
122001	Replacement of Five (5) PRV Pits of Treated Water Transmission System	33,566,000	33,241,721	-	-	-	33,241,721	-	33,241,721	99%
122002	New Waterworks Park to Northeast Transmission Main	2,648,000	-	-	-	-	-	2,785,001	2,785,001	105%
122003	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	133,272,000	2,615,193	871,000	658,233	38,505	2,653,697	-	2,653,697	2%
122004	Replacement Schoolcraft Watermain	132,666,000	1,787,389	5,000,000	5,000,000	4,312	1,791,701	-	1,791,701	1%
122005	Transmission System Water Main Work-Wick Road Parallel Water Main	18,062,000	141,171	8,100,000	2,328,644	3,420	144,591	-	144,591	1%
122006	Design and Construction of a new Newburgh Road 24" Main along Newburgh Road between Ch	31,918,000	416,882	18,028,000	8,401,361	9,344	426,225	-	426,225	1%
122007	Water System Improvements in Joy Road from Southfield Road to Trinity	5,239,000	783	-	-	581	1,365	-	1,365	0%
122009		107,000	106,881	-	-	-	106,881	-	106,881	100%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
122011	Park-Merriman Water Main-Final Phase	8,203,000	986,024	4,737,000	3,937,000	98,664	1,084,688	-	1,084,688	13%
122012	36-inch Water Main in Telegraph Road	9,573,000	-	-	-	-	-	9,986,284	9,986,284	104%
122013	Lyon Township Transmission Main Extension Project	54,426,000	637,635	751,000	2,628,978	642,310	1,279,945	-	1,279,945	2%
122016	Downriver Transmission Loop	37,197,000	24,251	297,000	820,965	3,866	28,117	-	28,117	0%
122017	7 Mile/Nevada Transmission Main Rehab and Carrie/Nevada Flow Control Station	20,500,000	-	1,040,000	1,040,000	-	-	-	-	0%
132001	Wick Road Station Rehabilitation	165,000	135,073	-	-	-	135,073	-	135,073	82%
132003	Isolation Gate Valves for Line Pumps for West Service Center Pumping Station	1,814,000	247,754	490,000	1,522,316	41,126	288,880	-	288,880	16%
132004	Hydraulic Surge Control for North Service Center Pumping Station	215,000	214,771	-	-	-	214,771	-	214,771	100%
132006	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica	2,929,000	289,594	2,515,000	2,399,138	33,185	322,779	-	322,779	11%
132007	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	2,160,000	97,185	592,000	592,000	7,945	105,130	-	105,130	5%
132008	Needs Assessment Study for all Water Booster Pumping Stations	1,677,000	1,838,406	-	-	-	1,838,406	-	1,838,406	110%
132010	West Service Center/Duval Rd Division Valve Upgrades	37,136,000	607,504	2,620,000	2,620,000	4,578	612,082	-	612,082	2%
132012	Ypsilanti PS Improvements	9,861,000	20,539	585,000	585,000	1,974	22,513	-	22,513	0%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
132014	Adams Road Booster Pumping Improvements	5,674,000	-	-	-	-	-	-	-	0%
132015	Newburgh BPS	12,169,000	2,811	16,000	458,245	1,496	4,307	-	4,307	0%
132016	North Service Center BPS Improvements	24,920,000	-	-	-	-	-	-	-	0%
132017	North Service Center BPS - On-Site & Off	5,076,000	-	6,000	6,000	-	-	-	-	0%
132018	Schoolcraft BPS	10,564,000	-	-	-	-	-	-	-	0%
132019	Wick Road BPS - Switchgear	5,569,000	-	-	-	-	-	-	-	0%
132020	Franklin BPS - Isolation Gate Valves	10,109,000	-	-	-	-	-	-	-	0%
132021	Imlay BPS - Replace VFDs, Pumps & Motors	12,109,000	-	-	-	-	-	-	-	0%
132022	Joy Road BPS - Replace Reservoir Pumps	6,109,000	-	-	-	-	-	-	-	0%
132025	Northwest Booster Station Yard Piping Improvements	5,500,000	971	-	-	-	971	-	971	0%
170100	Allowance: WTP/Pump Station	39,811,000	-	3,000,000	3,000,000	-	-	-	-	0%
170102	Water Production Plant Flow Metering Improvements at NE, SP & SW WTP	-	359,259	-	-	2,360	361,619	-	361,619	100%
170103	Belle Isle Water Supply Intake and Ice Boom Improvements	-	3,278	-	-	-	3,278	286,596	289,874	100%
170104	Orion and Newburgh Pumping Stations Improvements	-	170,664	-	-	7,104	177,768	1,907,825	2,085,593	100%
170109	Inspection of Raw Water Intakes and Tunnels	-	3,102,765	-	-	12,401	3,115,166	-	3,115,166	100%
170110	Raw Water Sampling Improvements	-	2,926	-	-	-	2,926	-	2,926	100%
170121	Franklin PS Valve Rehab	-	38,681	-	-	56,922	95,603	-	95,603	100%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
170122	Meter Pit at Brownstown Township	-	133,306	-	-	71,090	204,396	-	204,396	100%
170200	As Needed Construction Materials, Environmental Media and Special Allowance	1,618,000	-	572,000	572,000	-	-	-	-	0%
170201	Construction & Environmental Testing	-	63,443	-	-	(33,749)	29,694	-	29,694	100%
170300	Water Treatment Plant Automation Program	7,740,000	-	1,561,000	1,561,000	-	-	-	-	0%
170301	Water Plant Automation	-	1,657,645	-	-	-	1,657,645	-	1,657,645	100%
170400	Water Transmission Improvement Program	110,656,000	-	1,500,000	1,500,000	-	-	-	-	0%
170401	Emergency Bypass Around Ypsilanti Station	-	1,643,165	-	-	11,250	1,654,415	-	1,654,415	100%
170500	Transmission System Valve Assessment and Rehabilitation/Replacement Program	36,704,000	-	4,000,000	4,000,000	-	-	-	-	0%
170502	Transmission System Valve Assessment and Rehabilitation/Replacement	-	0	-	-	787,887	787,887	6,029,544	6,817,431	100%
170600	Water Transmission Main Asset Assessment Program	48,500,000	-	3,000,000	3,000,000	-	-	-	-	0%
170800	Reservoir Inspection, Design and Rehabilitation Program	59,164,000	-	5,128,000	632,000	-	-	-	-	0%
170801	Reservoir Inspection, Design and Rehabilitation	-	456,574	-	4,513,500	63,007	519,581	-	519,581	100%
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	43,797,000	-	4,000,000	925,000	-	-	-	-	0%

Water System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	-	1,237,565	-	3,075,000	19,020	1,256,584	-	1,256,584	100%
171400	Energy Management Program	5,787,000	-	-	-	-	-	-	-	0%
171500	Roof Replacement - Var Water Facilities Program	6,707,000	-	2,657,000	-	-	-	-	-	0%
171501	Roof Replacement - Var Water Facilities	-	119,283	-	3,031,089	3,235	122,518	-	122,518	100%
331001	Roof Replacement - Var Water Facilities	5,425,000	-	-	-	-	-	-	-	0%
341001	Security Infrastructure Improvements	-	962,673	-	-	3,385	966,059	-	966,059	100%
351001	Water Facility Lighting Renovations	500,000	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%
380401	PMA: As Needed CIP Services	-	-	-	-	2,951	2,951	-	2,951	100%
380600	General Engineering Services Allowance	95,000	-	-	-	-	-	-	-	0%
380601	Alfred Benesh:General Engineer	-	674	-	-	-	674	-	674	100%
380700	As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services Allowance	620,000	-	-	-	-	-	-	-	0%
381000	Energy Management: Electric Metering Improvement Program	2,500,000	-	-	-	-	-	-	-	0%

Water System Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Water System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan	CWIP Balance	FY 2020	FY 2020	FY 2020	CWIP Balance	Life to Date		Life to Date
		Estimate From		Board Approved	Amended	Activity through	September 30, 2019	Capitalization		Activity /
		FY 2020 - 2024 CIP	July 1, 2019	CIP Spend Plan	Spend Plan	September 30, 2019	(Unaudited)	Through	Life to Date	Total
								September 30, 2019	September 30, 2019	Project Plan
Grand Total		\$ 1,888,664,000	\$ 175,031,084	\$ 143,247,000	\$ 127,758,856	\$ 10,247,260	\$ 185,278,343	\$ 85,495,597	\$ 270,773,940	14%
		Spending Plan Amendments				(\$15,488,144)				

FY 2020 Spending Plan Amendment Summary

The purpose of the Spending Plan Amendment Summary is to illustrate the amendments to the current fiscal year spend for each project with a spending plan amendment resulting in an amended spend amount or the use of allowance and program funding for a specific project 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, spending plan amendments are prepared to fund the related increase or decrease either to or from the Capital Reserve to amend the board approved fiscal year planned spend accordingly and to inform decision makers in the development of future Capital Improvement Plans. Similar to the spending plan amendments prepared for the Capital Reserve, spending plan 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 spending plan amendments to the Capital Reserve will be prepared to amend the planned spend for FY 2020.

\$15.5 million of Capital Reserve return spending plan amendments have been prepared as of September 30, 2019 as shown in the table on the next page along with spending plan 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 Budget Amendment Summary
Unaudited Activity For the Quarter Ending September 30, 2019

Project	Project	Program / Allowance	Capital Reserve	Grand Total
111004	Electrical Tunnel Rehabilitation at Lake Huron WTP		(3,020,786)	(3,020,786)
111007	Lake Huron WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements		(921,633)	(921,633)
112005	Northeast Water Treatment Plant - Replacement of Covers for Process Water Conduits		140,000	140,000
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
122003	New Waterworks Park to Northeast Transmission Main		(212,767)	(212,767)
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)
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 Water Facilities Program		(2,657,000)	(2,657,000)
171501	Roof Replacement - Var Water Facilities		3,031,089	3,031,089
Grand Total		\$ -	\$ (15,488,144)	\$ (15,488,144)

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 Wastewater System spend for the period ending September 30, 2019 is 8.9% of the FY 2020 prorated board approved CIP spend and 8.8% of the FY 2020 amended spend. Detailed analysis behind the reasons and projects for which planned spend is amended from \$161,480,000 to \$ 163,038,000 is provided in the subsequent Spending Plan Amendment Summary section of this report.

Wastewater System Projects			FY 2019		FY 2020	FY 2020	FY 2020	
		FY 2019 Planned Spend	FY 2019 Activity	as a Percentage of Planned Spend	Planned Spend	Prorated (Three Months)	Activity (Unaudited)	as a Percent of Planned Spend (Unaudited)
FY 2019 Board Approved CIP Spend	\$	105,183,000	82,133,532	78.1%				
FY 2019 Amended Spend Plan		100,264,934	82,133,532	81.9%				
FY 2020 Board Approved CIP Spend					\$ 161,480,000	40,370,000	14,351,580	8.9%
FY 2020 Amended Spend Plan					163,038,000	40,759,500	14,351,580	8.8%

It should be noted that these interim reports have been prepared on a modified cash basis. This means that expenses may lag in vendor invoice receipt and posting. Known expenses, material in nature, have been accrued.

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 cost occurred in the FY 2020 1st quarter, but the following projects are targeted for the FY 2020 2nd quarter:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
213005	CON-229	Complex I Incineration Heating
331002	1803227	Dewatering Complex II Roof Replacement

\$188 million is in CWIP as of September 30, 2019 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.

Wastewater System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
211001	Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines, Electrical/Mechanical Building and Pipe Gallery	\$ 54,858,000	\$ 45,368,717	\$ 7,982,000	\$ 7,982,000	\$ 2,614,985	\$ 47,983,702	\$ -	\$ 47,983,702	87%
211002	Pump Station No. 2 Pumping Improvements	3,812,000	1,911,850	1,222,000	1,222,000	18,177	1,930,027	-	1,930,027	51%
211004	Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	27,198,000	26,502,582	869,000	869,000	540,785	27,043,367	-	27,043,367	99%
211005	Pump Station No. 2 Improvements	21,599,000	1,002	-	-	525	1,528	-	1,528	0%
211006	Pump Station No. 1 Improvements	22,315,000	6,307	1,803,000	1,803,000	3,815	10,122	-	10,122	0%
211007	Replacement of Bar Racks and Grit Collection System at Pump Station No. 2	17,836,000	628	269,000	269,000	133	761	-	761	0%
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines	10,566,000	200,048	2,950,000	3,950,000	154,078	354,126	-	354,126	3%
211009	Rehabilitation of the Circular Primary Clarifier Scum Removal System	11,394,000	30	-	-	-	30	-	30	0%
212002	Study, Design, & Construction, Management Services for Modified Detroit River Outfall No. 2 - WRRF	-	10,821,153	-	-	(1,853)	10,819,300	-	10,819,300	100%
212003	Aeration System Improvements	16,682,000	16,356,789	-	-	13,451	16,370,239	-	16,370,239	98%
212004	Project Chlorination/Dechlorination Process Equipment Improvements	5,045,000	192,917	2,345,000	2,903,000	1,495	194,412	-	194,412	4%
212006	PC-797 Rouge River Outfall Disinfection and CS-1781 Oversight Consulting Services Contract	48,033,000	41,691,377	4,583,000	4,583,000	165,946	41,857,323	-	41,857,323	87%

Wastewater System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
212007	Rehabilitation of the Secondary Clarifiers	30,118,000	-	-	-	-	-	-	-	0%
212008	WRRF Rehabilitation of Intermediate Lift	20,833,000	-	229,000	229,000	-	-	-	-	0%
213002	Rehabilitation of Central Offload Facility	16,179,000	-	7,696,000	7,696,000	-	-	-	-	0%
213005	Complex I Incinerators Decommissioning and Reusability	4,452,000	369,648	-	-	22	-	369,671	369,671	8%
213006	Improvements to Sludge Feed Pumps at Dewatering Facilities	3,726,000	4,856	-	-	-	4,856	-	4,856	0%
213007	Construction of the Improved Sludge Conveyance and Lighting System at the WWTP	20,049,000	10,809,195	8,711,000	8,711,000	2,816,895	13,626,090	-	13,626,090	68%
213008	Rehabilitation of the Wet and Dry Ash Handling Systems	18,505,000	85	111,000	111,000	87	171	-	171	0%
213009	Phosphorous Recovery Facility at the WWRF	-	(99)	-	-	-	(99)	-	(99)	100%
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations	10,968,000	17,017	7,567,000	7,567,000	3,405	20,422	2,282,260	2,302,682	21%
216004	Rehabilitation of Various Sampling Sites and PS# 2 Ferric Chloride System at WWTP	5,576,000	814,368	3,921,000	3,921,000	207,491	1,021,858	-	1,021,858	18%
216006	Rehabilitation of the Screened Final Effluent (SFE) Pump Station and Secondary Water System	24,853,000	17,581	323,000	323,000	16,951	34,532	-	34,532	0%
216007	DTE Primary Electric 3rd Feed Supply Line to the WRRF	7,447,000	2,194,169	1,381,000	1,381,000	-	2,194,169	543,500	2,737,669	37%

Wastewater System

Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
216008	Rehabilitation of Screened Final Effluent (SFE) Pump Station	24,948,000	-	1,091,000	1,091,000	-	-	-	-	0%
222001	Intercommunity Relief Sewer Modifications in Detroit Oakwood District	38,031,000	-	-	-	-	-	-	-	0%
222002	Detroit River Interceptor Evaluation and Rehabilitation	49,071,000	10,611,644	10,000,000	10,000,000	2,199,622	12,811,266	-	12,811,266	26%
222003	North Interceptor East Arm (NIEA) Evaluation and Rehabilitation	30,000,000	-	15,000,000	15,000,000	-	-	-	-	0%
222004	Collection System Valve Remote Operation Structures Improvements	87,033,000	4,246	3,500,000	3,500,000	351	4,597	-	4,597	0%
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	30,442,000	3,475,448	18,000,000	18,000,000	903,529	4,378,976	-	4,378,976	14%
232002	Freud and Connor Creek Pump Station Improvements	162,429,000	5,573,334	17,029,000	17,029,000	165,622	5,738,956	57,734	5,796,691	4%
232003	Northeast Pump Station Improvements	31,500,000	-	7,000,000	7,000,000	-	-	-	-	0%
233002	Collection System In System Storage Devices (ISDs) Improvements	-	235	-	-	-	235	-	235	100%
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	34,038,000	-	1,100,000	1,100,000	-	-	-	-	0%
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	192,164,000	-	15,000,000	6,550,048	-	-	-	-	0%
260201	Conveyance System Interceptor Rehab	-	4,810,116	-	7,400,000	2,134,892	6,945,008	9,176,553	16,121,560	100%

Wastewater System Construction Work-in-Progress Quarterly Report As of September 30, 2019

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
260202	Conveyance System Interceptor Rehab	-	17,031	-	-	2,420	19,451	-	19,451	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	519	652	-	652	100%
260500	CSO Outfall Rehab	89,188,000	-	15,102,000	12,102,000	-	-	-	-	0%
260503	Collection System Backwater Gates	-	760	-	-	-	760	-	760	100%
260504	Rehabilitation of Outfalls - Phase II	-	-	-	3,000,000	-	-	-	-	100%
260600	CSO Facilities Improvements	63,591,000	-	5,604,000	5,604,000	-	-	-	-	0%
260601	Oakwood Drain Valve Improvements	-	539,857	-	-	51,794	591,651	-	591,651	100%
260602	CSO Fire Alarm System Improvements	-	812,407	-	-	167,656	980,063	-	980,063	100%
260603	Conner Creek CSO Basin Rehab	-	4,404,704	-	-	675,015	5,079,720	-	5,079,720	100%
260605	CSO Facilities CA	-	16,914	-	-	(16,914)	-	-	-	100%
260606	Puritan Fenkell Roof Replacement	-	1,944	-	-	333,796	335,740	-	335,740	100%
260607	Lieb SDF Electrical Improvements	-	241,513	-	-	475,617	717,130	-	717,130	100%
260608	Seven Mile RTB - Roof Replacement	-	12,451	-	-	3,328	15,779	-	15,779	100%
260609	Seven Mile RTB - Parking Lot / Sitework	-	23,197	-	-	2,211	25,408	-	25,408	100%
260610	Baby Creek MAU Replacement	-	1,773	-	-	241,884	243,657	-	243,657	100%
260611	HVAC Improvements At Lieb SDF	-	5,283	-	-	8,912	14,195	-	14,195	100%
260613	Baby Creek HVAC Improvements	-	76	-	-	293	369	-	369	100%
260614	CSO Facilities Structural Improvements	-	335,143	-	-	123,843	458,987	-	458,987	100%
260615	PF & Lieb CSO Facilities Site & Drainage Improvements	-	-	-	-	215	215	-	215	100%

Wastewater System Construction Work-in-Progress Quarterly Report

As of September 30, 2019

Great Lakes Water Authority
Wastewater System Construction Work-in-Progress (CWIP) FY 2020 Rollforward
Unaudited Activity For the Fiscal Quarter Ended September 30, 2019

Project	Project Name	Total Project Plan Estimate From FY 2020 - 2024 CIP	CWIP Balance July 1, 2019	FY 2020 Board Approved CIP Spend Plan	FY 2020 Amended Spend Plan	FY 2020 Activity through September 30, 2019	CWIP Balance September 30, 2019 (Unaudited)	Life to Date Capitalization Through September 30, 2019	Life to Date Activity through September 30, 2019	Life to Date Activity / Total Project Plan
331002	Roofing Systems Replacement at GLWA Wastewater Treatment Plant, CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)	9,709,000	802,470	1,092,000	1,092,000	320,586	1,123,056	-	1,123,056	12%
341001	Security Infrastructure Improvements	-	102,924	-	-	-	102,924	-	102,924	100%
380600	General Engineering Services Allowance	1,000	-	-	-	-	-	-	-	0%
380601	Alfred Benesh:General Engineer Energy Management: Electric Metering Improvement	-	632	-	-	-	632	-	632	100%
381000	Program	2,500,000	-	-	-	-	-	-	-	0%
Grand Total		1,246,689,000	\$ 193,716,659	\$ 161,480,000	\$ 163,038,000	\$ 14,351,580	\$ 207,698,568	\$ 188,046,324	\$ 395,744,892	32%
				Spending Plan Amendments		\$ 1,558,000				

FY 2020 Spending Plan Amendment Summary

The purpose of the Spending Plan Amendment Summary is to illustrate the amendments to the current fiscal year spend for each project with a spending plan amendment resulting in an amended spend amount or the use of allowance and program funding for a specific project 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, spending plan amendments are prepared to fund the related increase or decrease either to or from the Capital Reserve to amend the board approved fiscal year planned spend accordingly and to inform decision makers in the development of future Capital Improvement Plans. Similar to the spending plan amendments prepared for the Capital Reserve, spending plan 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 spending plan amendments to the Capital Reserve will be prepared to amend the planned spend for FY 2020.

\$1.6 million of Capital Reserve spending plan amendments have been prepared as of September 30, 2019 as shown in the table on the next page along with spending plan 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.

Wastewater System
Construction Work-in-Progress Quarterly Report
As of September 30, 2019

Great Lakes Water Authority
Wastewater System Budget Amendment Summary
Unaudited Activity For the Quarter Ending September 30, 2019

Project	Project	Program / Allowance	Capital Reserve	Grand Total
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
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	(3,000,000)		(3,000,000)
260504	Rehabilitation of Outfalls - Phase II	3,000,000		3,000,000
Grand Total		\$ -	\$ 1,558,000	\$ 1,558,000