



04

FINANCE

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4.1 INTRODUCTION

The intersection of the CIP and the GLWA's overall financial plan balances several objectives to support the Authority's mission. Those objectives include the following:

- Transparency in the development of the financial plan
- Collaboration internally and externally
- Ensure sustainability
- Reduce the inherited high debt burden
- Charges stability by smoothing of annual adjustments to service charges
- Improve the Authority's financial position

4.2. FUNDING SOURCES AND USES

Accounting for CIP Activity: To ensure proper accountability of funding sources and uses, the Authority utilizes two funds for its capital program activity for each system: the Construction Fund and the Improvement & Extension (I&E) Fund.

Construction Fund: This fund is used to account for constructed assets that will be capitalized and depreciated over time. This fund may also include non-depreciable assets such as land acquired for capital projects. Revenues, or incoming resources for this fund, include bond proceeds and related interest earnings as well as transfers in from the Improvement & Extension Fund for "pay as go" financing. A blended use of bond funds and I&E funds is designed to lower the cost of capital improvements.

Improvement & Extension (I&E) Fund: The I&E Fund is defined by the Authority's Master Bond Ordinance (MBO) as the "fund used for improvements, enlargements, extensions or betterment" of the System. Cash receipts of the Authority are transferred into the I&E Fund

pursuant to a flow of funds after commitments are met for a monthly allocation of operations and maintenance expense, debt service, pension, Water Residential Assistance Program, (WRAP), budget stabilization fund, and extraordinary repair and replacement fund as administered by a trustee. It should be noted that capital outlay items are also funded with I&E Funds. Capital outlay are items that are generally purchased (rather than constructed) and with an estimated useful life of less than 20 years.

The basis of accounting for the CIP spending is the accrual basis. Under this basis of accounting, revenues are recognized when earned and measurable regardless of when collected; and expenses are recorded, or accrued, on a matching basis when incurred. Accrued expenses are expected to be paid in a subsequent accounting period. For purposes of this CIP, the terms expenses, spend, and expenditures are used interchangeably.

Quarterly, the Financial Services Area publishes a "Construction Work in Progress Report" that discloses CIP activity by project.

The Authority draws upon five sources of funding for its CIP:

Bond Proceeds: The Authority uses an incremental method of funding long-lived capital projects through a bond financing program. The Authority issues revenue bonds pursuant to Michigan Public Act 94 of 1933 (the Revenue Bond Act). The Act provides a pledge of "net revenues" for the payment of the bond principal and interest. "Net revenues" is calculated as the revenues of the system remaining after deducting the reasonable expenses of administration, operation, and maintenance of the system.

Revenue Financed Capital: A portion of the revenue requirement from charges is set aside for subsequent years' CIP spending.

Federal and State Loan Programs: The Authority's sources of funding include lower cost financing programs including the State Clean Revolving Fund (CWRFF) Loan Program and the Drinking Water Revolving Fund (DWRFF) Loan Program.

Grants: The Authority pursues grants opportunities through federal, state, university and other sources.

Contribution in Aid of Construction: Periodically, the Authority has the opportunity to partner with other public and private entities for the design and construction or improvement of an asset. Depending on the nature of the shared financing strategy, the Authority may offset the cost of System expansion or improvements with direct or indirect capital from that partner.

Budgeting for CIP Activity: There are three companion budgets presented to the Board. The first is the annual operating budget, known as the "revenue requirement" basis for establishing customer charges. Included in that calculation are operations and maintenance expense, debt service, Master Bond Ordinance (MBO) reserve requirements, system lease requirements, revenue financed capital targets, water residential assistance program commitments, and legacy obligations. The second is the Construction Fund budget which provides inflows (bond proceeds and investment income) and outflows (CIP spend). The third is the I&E Fund which provides inflows (transfers in from revenue collected) and outflows (CIP spend and capital outlay). The I&E Fund is managed to achieve a minimum cash balance to ensure stable

funding between bond transactions and provide for cashflow stability.

4.3. FINANCIAL MANAGEMENT OF THE CIP

This CIP is being prepared at the most economically challenging time in over 40 years. Last year, on November 17, 2022, the GLWA Board of Directors received the Phase I report from the Economic Outlook Task Force (EOTF) formed by GLWA to better understand, adapt to, and prepare for the rapid cost escalation playing out in calendar year 2022 and going into 2023. The challenges span construction cost increases, as well as availability of, materials and equipment as a result of national and global supply chain issues. This is exacerbated by significant increases in operations and maintenance (O&M) expenses such as chemicals, utilities, and labor that began in 2020 and continued to worsen. The greater the need for financial resources for mandatory O&M funding means that there are less resources available for CIP execution and any related debt service to fund the CIP.

A key outcome of the EOTF's Phase I report was development a set of planning scenarios for a baseline, optimistic, and pessimistic set of assumptions. We continue to quarterly monitor this economic planning framework that informs both the ten-year financial plan and this CIP. A full update was presented to the Board of Directors in September 2023.

Close financial management by all team members of the CIP is critical in addressing the cost escalations within constrained resources – particularly as the increasing costs and supply chain issues cause scopes and timing of projects to be reconsidered. Some key topics are outlined below.

CIP is a Plan and Not a Budget: It is important to note that while the GLWA Board of Directors approves the CIP, the authority to spend does not occur until additional project review processes are completed prior to the procurement process. Traditionally, depending on the scope and dollar amount of the project, final approval to proceed may include customer engagement, Chief Executive Officer review, and GLWA Board Operations & Review Committee review and/or GLWA Board action. The rapid cost escalation that began in late 2021, and continues today, requires a new level of proactive management of the CIP to ensure that budgetary limits are observed and that monthly cash flow forecasting inputs from the engineering and CIP teams are reliable. To date, GLWA has successfully preserved flexibility in its CIP and has enjoyed a low level of regulatory mandated CIP projects. Preserving flexibility and staying ahead of regulatory compliance will require increased expanded effort by all involved in the CIP process.

Cashflow Forecasting: Given that GLWA's CIP is funded as a program rather than individual projects, accurate forecasting of project cashflows is critical to the managing debt and use of cash reserves. In 2022, a new process was launched where the financial services and engineering teams work through monthly short term cash flow forecasts for the largest projects underway. In addition, the financial services and CIP team meet monthly to review the CIP portal's cashflow forecasts which spans multiple years and is based on data entered by the engineering teams. This collaboration among has been essential to timely communication about cost shifts and addressing unprecedented economic challenges that come with delivering a CIP of

GLWA's magnitude.

Commitment to Ten Year Financial Planning: The Authority publishes updates to its ten-year financial plans at least twice per year. First, as a planning tool when closing out the prior fiscal year and to assist in planning for future years. Second, after the Board adopts the biennial budget and charges. To the outside observer, the changes are modest and incremental. GLWA is, however, a dynamic organization that strives for affordability, proactive operating practices, asset management, planning, engineering, and an overall holistic approach to managing the systems. This means that the CIP is not in a vacuum, but also aligns with other organizational priorities.

The 4% Promise: Affordability was a primary concern in establishing the regional water authority. The mechanism to address those concerns was the "4% Promise" as established in the foundational documents for GLWA for the first ten years of the Authority's existence. FY 2025 is the tenth year. The 4% Promise requires that the annual revenue requirement does not increase by more than 4% in any one year. The revenue requirement includes operations and maintenance (O&M) expense, debt service, system lease payments, legacy pension, funding for capital program cash reserves (via the Improvement & Extension Fund contributions, and other legal commitments). The logic was that if the revenue requirement budget was held at a 4% increase ceiling, the system charge adjustment would inherently be less than 4% due to other offsetting revenue such as investment income. With a strong commitment to affordability, GLWA has stayed well under that promise with an average annual system charge adjustment to water of 2.2% and sewer of 0.9% over the

course of the past seven years from FY 2018 through FY 2024.

Vendor Community Engagement: The CIP is managed by GLWA and executed through a network of engineering firms, construction contractors, suppliers, and other business stakeholders. Their problem solving is invaluable as we work through these economic challenges. GLWA is committed to transparency of the shifts in priorities with our vendor partners and provides one-on-one meetings as well as outreach and engagement with the vendor community via the CIP Workgroup as well as other public and group meetings.

Bond Ratings & Debt Service Coverage: Given that there is a direct link between CIP decisions and GLWA's new debt issuances, a discussion related to the CIP also encompasses a discussion related to bond ratings. As it relates to bond ratings, there is one key measure that identifies overall financial health of the organization that is often referenced. That measure is debt service coverage (DSC). A higher DSC reflects a better outcome in balancing revenues, expenses, debt, and ultimately increases in cash reserves. The feasibility business case forecast for forming regional authority was DSC of 1.5 for water and 1.6 for sewer to be achieved by FY 2020. Given the rapid economic challenges, the DSC is presently below those targets. An outcome of the ten year plan is, however, a roadmap to reach and exceed those targets.

CAPITAL PROGRAM SPEND RATE ASSUMPTION POLICY

Recognizing the difference in scope between the CIP, which has a broader strategic view of system needs versus the tactical financial

plan which models use of cash reserves and future borrowing, GLWA utilizes "capital spend rate assumption policy" to forecast actual CIP execution as compared to the CIP. This policy, presented below, was adopted by the GLWA Board of Directors on November 28, 2018 and was first implemented three years ago with the FY 2020 – 2024 CIP.

Purpose: The Spend Rate Assumption (SRA) policy provides an analytical approach to bridge the total dollar amount of projects in the Capital Improvement Plan (CIP) with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for non-budgetary reasons. Those limitations, whether financial or nonfinancial, necessitate the SRA for budgetary purposes, despite the prioritization established in the CIP. The outcome is a reasoned balance between a desired level of capital investment with financial strategies to manage debt levels and control adjustments to customer charges.

Policy: Annually, a projected spend rate assumption for the financial plan related to the proposed capital improvement plan will be established based upon pertinent factors and data available at that time. Such pertinent factors and data will include the mix of projects and phases in the proposed CIP, interdependency risk, criticality, and other measures provided by the GLWA team members that develop and manage the CIP projects. That spend rate assumption will be presented to the Audit Committee no later than December 31st each year after the GLWA Board, Capital Improvement Planning Committee, and Member Partners have had the opportunity to review the draft capital improvement plan.

Until FY 2021, the actual spend on CIP was materially less than what was presented in the CIP. As shown in the Table– Plan vs. Actual CIP Spend, in earlier years, the actual CIP spend was less than 50%. Recent years have resulted in a spend that is within the expected range for a large CIP. The years with a material underspend occurred for several reasons including project interdependencies, team member resource constraints, and evaluating project design alternatives. Applying the CSR bridges the gap in the dollar amounts from the CIP to the financial plan to prevent over-borrowing. In recent years, the CSR has ranged from 75 to 80 percent meaning that a related fraction of the total CIP is in the financial plan at an amount intended to predict actual spend. As we enter the era of this new CIP with escalating costs, we are also entering an era where the pace of CIP execution is increasing. For that reason, beginning with FY 2023, the ten year financial plan provides for a CSR of 100%.

PLAN VS ACTUAL CIP SPEND

Financial figures are in thousands of dollars (\$1,000's)

FY	Water			Wastewater			Total GLWA		
	Plan (a)	Actual (b)	Percent	Plan (a)	Actual (b)	Percent	Plan (a)	Actual (b)	Percent
2017	\$130,232	\$40,342	31%	\$128,973	\$57,328	44%	\$259,205	\$97,670	38%
2018	\$137,655	\$39,053	28%	\$160,746	\$71,000	44%	\$298,401	\$110,053	37%
2019	\$66,038	\$61,532	93%	\$105,183	\$82,134	78%	\$171,221	\$143,665	84%
2020	\$143,247	\$76,312	53%	\$161,480	\$73,827	46%	\$304,727	\$150,138	49%
2021	\$147,564	\$129,836	88%	\$110,638	\$81,509	74%	\$258,202	\$211,344	82%
2022	\$179,210	\$158,706	89%	\$106,050	\$67,449	64%	\$285,260	\$226,155	79%
2023	\$194,376	\$195,531	101%	\$125,932	\$102,501	81%	\$320,308	\$298,032	93%

(a) Reflects amount financed by plan in support of proposed charges. For years in which the Achievement Percentage was less than 100%, the general impact is to carry over capital funding balances to subsequent years and defer the need for additional financing sources.

(b) As reflected in audited financial statements.

FUNCTIONAL SUMMARY

The table above summarizes CIP costs by major function for both the Water System and the Wastewater System. This summary illustrates how the costs of financing the CIP will ultimately impact individual customer charges for the Authority’s Member Partners, consistent with established cost allocation methodologies. The treatment of the debt service and revenue financed capital revenue requirements in the cost allocation methodologies represents the Authority’s actual investment in fixed assets. The cost of capital improvements, therefore, impacts future fixed asset records and future charges. In other words, the CIP actual spend will impact charges in the long run, planned spend does not.

WATER FUNCTIONS

- Treatment** represents costs associated with improvements to the Authority’s Water Treatment Plants. In the current water cost allocation methodology, costs related to these facilities are allocable to customers based primarily on their contractual max day demands. The other water functions reflect projects related to transmitting water to customers. In the current water cost allocation methodology, costs related to these facilities are allocable to customers based primarily on their contractual peak hour demands. There are other sub-functions that are utilized in the water charge methodology – including the relative distance and elevation associated with each customer’s location.
- Transmission** projects reflect the Authority’s investment in the large transmission mains that deliver water throughout the region. Several of these projects are designed to improve reliability of service in strategic areas of the System.

3. **Storage** projects are related to improvements to the reservoirs in the System, which are primarily designed to store water to be delivered in peak use conditions.
4. **Pumps** refers to projects to improve the System’s 18 Water Booster Stations. These facilities pump water through the transmission system.

WASTEWATER FUNCTIONS

1. **Conveyance/Pumps** summarizes projects in the CIP designed to make improvements to the System’s major interceptors and lift stations. These facilities collect and deliver wastewater to the System’s Water Resource Recovery Facility (WRRF).
2. **CSO** projects in the CIP reflect improvements to the System’s existing combined sewer overflow treatment and conveyance facilities, including Retention Basins (RTB) and Screening and Disinfection Facilities (SDF).
3. **Treatment** projects are those designed to make improvements to facilities at the WRRF.

The Wastewater cost allocation methodology generally follows the functions shown in the table below. In general, costs associated with Conveyance facilities are allocable to customers based on their contribution of total wastewater volumes and costs associated with Treatment facilities are allocable to customers based on their contribution of sanitary and total volumes. Costs associated with certain CSO facilities are allocated based upon terms of service agreements with the Authority’s

customers. The agreements assign 83% of costs related to these specifically designated facilities to City of Detroit customers and 17% to other customers.

Discussions continue regarding Master Plan strategies and alignment with the Authority’s service agreements with Wastewater customers and the associated Wastewater Charge Methodology. The assignment to Wastewater Function in **Table– Function** below should not be interpreted as a definitive assignment for cost allocation purposes.

FUNCTION

Financial figures are in thousands of dollars (\$1,000's)

Function	FY 25	FY 26	FY 27	FY 28	FY 29	FY 25-29 CIP Total	Total FY 25-34	% of 5-Year Total
Water								
Pumps	\$4,056	\$19,311	\$36,133	\$34,932	\$32,675	\$127,106	\$503,759	5.93%
Storage	\$9,903	\$10,505	\$13,303	\$21,231	\$12,268	\$67,209	\$126,777	3.14%
Transmission	\$96,878	\$93,283	\$69,823	\$71,231	\$34,513	\$365,728	\$486,043	17.06%
Treatment	\$96,496	\$86,653	\$108,565	\$108,937	\$111,095	\$511,745	\$1,063,880	23.87%
Water Total	\$207,333	\$209,752	\$227,824	\$236,331	\$190,551	\$1,071,788	\$2,180,459	50.00%
Wastewater								
Conveyance/ Pumps	\$79,956	\$111,575	\$99,254	\$93,828	\$74,090	\$458,704	\$712,902	23.34%
CSO	\$16,454	\$9,271	\$26,602	\$23,952	\$20,078	\$96,356	\$195,612	4.90%
Treatment	\$72,779	\$91,847	\$90,375	\$84,215	\$88,248	\$427,465	\$913,925	21.75%
Wastewater Total	\$169,189	\$212,693	\$216,231	\$201,995	\$182,416	\$982,525	\$1,822,439	50.00%
Grand Total	\$376,522	\$422,445	\$444,055	\$438,326	\$372,967	\$2,054,313	\$4,002,898	100.00%

CIP FUNDING BASED ON ESTIMATED USEFUL LIFE

The long-term financial plan differentiates between appropriate uses of long-term debt versus revenue financed capital in the Improvement & Extension (I&E) Fund as defined in the MBO. As a general rule, assets with a life of less than 20 years are funded with I&E Funds. An example of an exception to the rule is some plant improvements. Otherwise, assets with a life greater than 20 years are funded with a blend of debt and I&E Funds. Building I&E Funds over time allows GLWA to position itself to further reduce reliance on debt. Exceptions to that plan may be to take advantage of lower cost borrowings from the revolving fund loan programs or a revision of the plan to optimize refunding savings.

As shown in **Table - Useful Life**, most of the CIP projects are longer-lived assets, defined as greater than a 20-year estimated useful life. Shorter-lived assets scheduled for acquisition or replacement are identified in the five-year capital outlay plan provided in the GLWA Biennial Budget and Five-Year Plan document.

USEFUL LIFE

Financial figures are in thousands of dollars (\$1,000's)

Asset Life Range	FY 25	FY 26	FY 27	FY 28	FY 29	FY 25-29 CIP Total	% of 5-Year Total
Water							
Useful Life < 20 Years	\$20,041	\$11,365	\$16,202	\$14,420	\$30,363	\$92,390	4.3%
Useful Life > 20 Years	\$187,292	\$198,387	\$211,621	\$221,911	\$160,188	\$979,399	45.7%
Water Total	\$207,333	\$209,752	\$227,823	\$236,331	\$190,551	\$1,071,789	50.0%
Wastewater							
Useful Life < 20 Years	\$9,270	\$14,785	\$17,968	\$15,613	\$12,952	\$70,588	3.6%
Useful Life > 20 Years	\$159,919	\$197,908	\$198,262	\$186,382	\$169,465	\$911,937	46.4%
Wastewater Total	\$169,189	\$212,693	\$216,230	\$201,995	\$182,417	\$982,525	50.0%
Grand Total	\$376,522	\$422,445	\$444,053	\$438,326	\$372,968	\$2,054,314	100.0%

PROJECT STATUS ANALYSIS

As outlined in Section 2.2. PROJECT STATUS, a status is assigned to each project or program within the CIP. The project status designation provides a high-level understanding of the progress of the project or program. While there are subcategories for project status, in general, active projects are in pre-procurement/procurement phase; project execution projects have an executed design and/or construction contract; and future planned projects are largely planned for execution in year five or later. For understanding the level of flexibility in the CIP, **Table- Project Status**, notes that nearly 42% of the water system CIP costs are in projection execution phase and 62% in project execution for the sewer system CIP costs.

PROJECT STATUS

Financial figures are in thousands of dollars (\$1,000's)

CIP Budget	FY 25	FY 26	FY 27	FY 28	FY 29	FY 25-29 CIP Total	% of 5-Year Total
Water							
Active (Pre-Procurement & Procurement)	\$29,950	\$28,509	\$19,227	\$24,663	\$12,913	\$115,262	5.6%
Future Planned	\$8,292	\$20,544	\$31,498	\$51,282	\$75,657	\$187,273	9.1%
Project Execution	\$169,090	\$160,699	\$177,098	\$160,385	\$101,981	\$769,253	37.4%
Water Total	\$207,332.0	\$209,752.0	\$227,823.0	\$236,330.0	\$190,551.0	\$1,071,788.0	52.2%
Wastewater							
Active (Pre-Procurement & Procurement)	\$14,865	\$33,321	\$30,965	\$27,165	\$26,540	\$132,856	6.5%
Future Planned	\$0	\$226	\$3,170	\$8,413	\$15,758	\$27,567	1.3%
Project Execution	\$154,324	\$179,146	\$182,096	\$166,416	\$140,118	\$822,100	40.0%
Wastewater Total	\$169,189	\$212,693	\$216,231	\$201,994	\$182,416	\$982,523	47.8%
Grand Total	\$376,521	\$422,445	\$444,054	\$438,324	\$372,967	\$2,054,311	100.00%

SPEND CATEGORY ANALYSIS

The amount of internal costs in the CIP compared to external costs and related level of effort by the vendor community. Given the large percentage of CIP spend, as shown in **Table– Spend Category**, GLWA is important to the regional economy and has a vested interest in the success of our vendor community partners.

SPEND CATEGORY ANALYSIS

Financial figures are in thousands of dollars (\$1,000's)

Project Category	FY 25	FY 26	FY 27	FY 28	FY 29	FY 25-29 CIP Total	% of 5-Year Total
Water							
Construction	\$180,904	\$182,361	\$205,276	\$209,980	\$167,326	\$945,846	44.12%
Design	\$23,042	\$25,139	\$20,657	\$24,201	\$21,396	\$114,434	5.34%
GLWA Salary	\$3,259	\$2,179	\$1,861	\$2,150	\$1,829	\$11,278	0.53%
Professional Services	\$128	\$73	\$29	\$0	\$0	\$230	0.01%
Water Total	\$207,333	\$209,752	\$227,823	\$236,331	\$190,551	\$1,071,788	50.00%
Wastewater							
Construction	\$145,782	\$197,789	\$196,698	\$181,325	\$166,709	\$888,304	45.21%
Design	\$16,112	\$11,501	\$16,624	\$18,582	\$13,779	\$76,598	3.90%
GLWA Salary	\$3,488	\$2,724	\$2,344	\$1,972	\$1,924	\$12,452	0.63%
Professional Services	\$3,807	\$679	\$565	\$116	\$4	\$5,171	0.26%
Wastewater Total	\$169,189	\$212,693	\$216,231	\$201,995	\$182,416	\$982,525	50.00%
Grand Total	\$376,522	\$422,445	\$444,054	\$438,326	\$372,967	\$2,054,313	100.00%

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