04
FINANCE

FINANCE

4.1 INTRODUCTION

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

- Provide transparency in the development of the financial plan
- Support collaboration internally and externally
- Ensure sustainability
- Reduce the inherited high debt burden
- Maintain 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. 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) for each system 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 (accrued) 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) and is further defined by the GLWA Master Bond Ordinance. 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 less transfers to the Operations and Maintenance Fund.

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 such as the Clean Water State Revolving Fund (CWSRF) Loan Program and the Drinking Water State Revolving Fund (DWSRF) Loan Program.

Grants: The Authority pursues grant 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 pension 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 budget which provides inflows (transfers in from revenue collected) and outflows (CIP spend and capital outlay). The I&E Fund is managed to maintain a minimum cash balance to ensure stable funding between bond transactions and provide for cash flow stability.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 budget which provides inflows (transfers in from revenue collected) and outflows (CIP spend and capital outlay). The I&E Fund is managed to maintain a minimum cash balance to ensure stable funding between bond transactions and provide for cashflow stability.

4.3. FINANCIAL MANAGEMENT OF THE CIP

GLWA is preparing this CIP at the most

FINANCE
4.3. FINANCIAL MANAGEMENT OF THE CIP

economically challenging time in over 40 years. 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 continuing 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. Many of those cost increases have occurred over the past eighteen months. The greater 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.

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

Other key financial management topics are outlined below.

CIP is a Roadmap 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 seen in 2022, however, 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 delivery teams are reliable. To date, GLWA has successfully preserved flexibility in its CIP and has experienced a low level of regulatory mandated CIP projects. Preserving flexibility and staying ahead of regulatory compliance will require expanded effort by all involved in the CIP delivery process.

Cash flow Forecasting: Given that GLWA's CIP is funded as a program rather than individual projects, accurate forecasting of project cash flows is critical to the managing debt and use of cash reserves. Recently, 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 cash flow forecasts which span multiple years and are based on data entered by the engineering teams. This collaboration among CIP delivery teams has been essential to timely communication about cost shifts and addressing unprecedented economic challenges that come with delivering a CIP of this 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 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 does not exist in a vacuum, but also aligns with other organizational priorities.

The 4% Promise: Affordability was a primary concern when establishing the regional water authority. The mechanism to address those concerns was the "4% Promise" as established in the foundational documents for GLWA. The 4% Promise requires that the annual revenue requirement does not increase by more than 4% in any one year for the first ten years of the Authority's existence. The revenue requirement includes operations and maintenance (O&M) expense, debt service, system lease payments, legacy pension, funding for WRAP, funding for the capital program via the Improvement & Extension Fund contributions, and any other expenditure or funding as required by the MBOs. The logic was that if the revenue requirement budget was held at a 4% annual 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 revenue requirement adjustment to water of 1.6% and sewer of 1.1% over the course of the first full seven years of operations from FY 2017 through FY 2023.

Vendor Community Engagement: The CIP is managed by GLWA and executed through a large number of engineering firms, construction contractors, suppliers, and many other business stakeholders. Their problem solving capability 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, 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 the regional authority was DSC of 1.5 for water and 1.6 for sewer to be achieved by FY 2020. Given the recent rapid economic challenges, and continued focus on affordability, a recently updated draft financial plan forecasts that those levels may be achieved in five years.

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 2022, the actual spend on CIP was materially less than what was presented in the CIP. As shown in the Plan vs. Actual CIP Spend Table, in earlier years, the actual CIP spend was less than 50%. More recent years are closer to 80% or more. The years with a material underspend occurred for a number of 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 current budget was amended to provide for a CSR of 100%. A similar percentage is contemplated in the ten-year financial plan for future years.

PLAN VS ACTUAL CIP SPEND

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

	Water		Wastewater		Total GLWA		Achievement Percentage		
Fiscal Year	Plan (a)	Actual (b)	Plan (a)	Actual (b)	Plan (a)	Actual (b)	Water	Waste-water	Total
2017	$129,582	$39,663	$128,973	$57,328	$258,555	$96,991	31%	44%	38%
2018	$137,655	$36,599	$160,746	$71,000	$298,401	$107,599	27%	44%	36%
2019	$66,038	$61,532	$105,183	$82,134	$171,221	$143,665	93%	78%	84%
2020	$143,247	$76,312	$161,480	$73,827	$304,727	$150,138	53%	46%	49%
2021	$147,564	$129,836	$110,638	$81,509	$258,202	$211,344	88%	74%	82%
2022	$179,210	$158,706	$106,050	$67,449	$285,260	$226,155	89%	64%	79%
2023 (c)	*$48,594*	*$44,093*	*$31,483*	*$15,989*	*$80,077*	*$60,082*	*91%*	*51%*	*75%*

(a) Reflects total projected capital expenditures in approved Capital Improvement Plan (CIP).

(b) Construction in progress additions as reflected in the capital asset note of the audited financial statements.

(c) FY 2023 figures reflect prorated activity through 3 months.

FUNCTIONAL SUMMARY

The table below 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

1. **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 maximum 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.

2. **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 19 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 Treatment 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 member partners. The agreements assign 83% of costs related to these specifically designated facilities to City of Detroit customers and 17% to other member partners.

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 the Function Table 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 2024	FY 2025	FY 2026	FY 2027	FY 2028	2024-2028 CIP Total	Percent of 5-Year Total
Water	**$239,260**	**$200,423**	**$176,033**	**$165,813**	**$205,087**	**$986,616**	**55%**
Pumps	$10,386	$2,429	$8,498	$17,114	$19,154	$57,580	6%
Storage	$11,862	$10,692	$10,163	$12,961	$18,541	$64,220	7%
Transmission	$141,281	$111,386	$72,972	$53,781	$60,867	$440,287	45%
Treatment	$75,731	$75,916	$84,400	$81,957	$106,525	$424,529	43%
Wastewater	**$199,061**	**$190,158**	**$159,044**	**$133,732**	**$116,181**	**$798,176**	**45%**
Conveyance/Pumps	$114,426	$94,676	$74,313	$45,615	$31,299	$360,330	45%
CSO	$23,340	$13,871	$13,305	$19,410	$29,233	$99,158	12%
Treatment	$61,295	$81,611	$71,426	$68,707	$55,649	$338,688	42%
Grand total	**$438,321**	**$390,581**	**$335,077**	**$299,545**	**$321,268**	**$1,784,792**	**100%**

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 the Useful Life table, 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 2024	FY 2025	FY 2026	FY 2027	FY 2028	2024-2028 CIP Total	Percent of 5-Year Total
Water	**$239,260**	**$200,422**	**$176,033**	**$165,813**	**$205,087**	**$986,616**	**55%**
Useful Life < 20 Years	$14,803	$10,752	$1,462	$150	$133	$27,301	3%
Useful Life > 20 Years	$224,457	$189,670	$174,571	$165,663	$204,954	$959,315	97%
Wastewater	**$199,061**	**$190,159**	**$159,044**	**$133,732**	**$116,180**	**$798,176**	**45%**
Useful Life < 20 Years	$9,641	$9,228	$11,848	$9,751	$13,783	$54,251	7%
Useful Life > 20 Years	$189,420	$180,931	$147,196	$123,981	$102,397	$743,925	93%
Total	**$438,321**	**$390,581**	**$335,077**	**$299,545**	**$321,267**	**$1,784,792**	**100%**

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 within the next five years or later. For understanding the level of flexibility in the CIP, the Project Status Table, notes that 42% of the water system CIP costs are in projection execution phase and 25% in project execution for the sewer system CIP costs.

PROJECT STATUS

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

CIP Budget	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	2024-2028 CIP Total	Percent of 5-Year Total
Water	**$239,260**	**$200,423**	**$176,034**	**$165,812**	**$205,087**	**$986,617**	**55%**
Active	$25,650	$24,209	$37,300	$44,728	$37,111	$168,998	17%
Project Execution	$212,921	$170,147	$132,342	$110,265	$130,742	$756,417	77%
Future Planned	$689	$6,067	$6,392	$10,819	$37,234	$61,202	6%
Wastewater	**$199,061**	**$190,158**	**$159,044**	**$133,732**	**$116,179**	**$798,176**	**45%**
Active	$81,369	$73,304	$54,708	$46,655	$49,567	$305,605	38%
Project Execution	$111,714	$110,439	$95,156	$77,713	$51,179	$446,202	56%
Future Planned	$5,978	$6,415	$9,180	$9,364	$15,433	$46,369	6%
Total	**$438,321**	**$390,581**	**$335,078**	**$299,544**	**$321,266**	**$1,784,793**	**100%**

FINANCE
4.3. FINANCIAL MANAGEMENT OF THE CIP

SPEND CATEGORY ANALYSIS

The amount of internal costs in the CIP is compared to external costs and related level of effort by the vendor community. Given the large percentage of CIP spend, as shown in the Spend Category Table, 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 2024	FY 2025	FY 2026	FY 2027	FY 2028	2024-2028 CIP Total	Percent of 5-Year Total
Water	**$239,259**	**$200,423**	**$176,034**	**$165,813**	**$205,087**	**$986,616**	**55%**
Construction	$213,539	$180,714	$151,612	$143,555	$181,325	$870,745	88%
Design	$22,485	$17,030	$22,193	$20,315	$21,380	$103,403	10%
GLWA Salary	$3,116	$2,560	$2,162	$1,916	$2,382	$12,136	1%
Professional Services	$119	$119	$67	$27	$0	$332	0%
Wastewater	**$199,060**	**$190,159**	**$159,044**	**$133,732**	**$116,180**	**$798,175**	**45%**
Construction	$177,869	$169,894	$137,801	$112,163	$99,035	$696,762	87%
Design	$15,509	$16,104	$18,229	$18,881	$15,234	$83,957	11%
GLWA Salary	$3,217	$3,037	$2,575	$2,267	$1,911	$13,007	2%
Professional Services	$2,465	$1,124	$439	$421	$0	$4,449	1%
Total	**$438,319**	**$390,582**	**$335,078**	**$299,545**	**$321,267**	**$1,784,791**	**100%**