

4 FINANCE

4.1 INTRODUCTION

The intersection of the CIP and GLWA's overall long-term financial plan balances the need for investment in capital to improve system resiliency and reliability with limited financial resources.

Considerations in this effort include:

- Transparency and collaboration in the development of the financial plan.
- managing an inherited high debt burden.
- identifying alternative funding opportunities, and
- maintaining a smoothed effect on service charges.

4.2 FUNDING SOURCES AND USES

Accounting for CIP Activity. To ensure proper accountability of funding sources and uses, GLWA uses two funds for its capital program activity for each system: the Construction Fund and the Improvement and 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 I&E 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. Capital grant revenues are generally also accounted for in this fund.

I&E Fund. The I&E Fund is defined by GLWA's Master Bond Ordinance (MBO) as the "fund used for improvements, enlargements, extensions or betterment" of the system. GLWA's cash receipts are transferred into the I&E Fund pursuant to a flow of funds after requirements are met for transfers for operations and maintenance (O&M) expense, debt service, pension, Water Residential Assistance Program, 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 items are generally purchased (rather than constructed) and have an estimated useful life of less than 20 years.

CIP spending is accounted for on an 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.

GLWA draws upon five sources of funding for its CIP, as discussed in the following paragraphs.

Bond Proceeds. GLWA uses an incremental method of funding long-lived capital projects through a bond financing program. GLWA issues revenue bonds pursuant to the 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” are 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 CIP spending in subsequent years. This is also referred to as pay-as-you go or paygo funding.

Federal and State Loan Programs. GLWA’s sources of funding include lower-cost financing programs, including the State Clean Water Revolving Fund Loan Program and the Drinking Water Revolving Fund Loan Program.

Grants. GLWA pursues grant opportunities through federal, state, university, and other sources.

Contribution in Aid of Construction. Periodically, GLWA partners 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, GLWA 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” for establishing customer charges. The revenue requirement includes operations and maintenance (O&M) expenses, debt service, MBO reserve requirements, system lease requirements, revenue-financed capital targets, water residential assistance program funding, and legacy obligations. The second is the Construction Fund budget, which provides inflows (bond proceeds, grants, and investment income) and outflows (CIP spend). The third is the I&E Fund, which provides inflows (transfers 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 capital program funding between bond transactions and provide for cashflow stability.

4.3 FINANCIAL MANAGEMENT OF THE CIP

This CIP is being prepared following significant increase in costs and supply chain issues that have reset the base cost assumptions for capital projects. GLWA continues to be mindful of the economic impact on operations and capital programs. For this reason, GLWA conducts quarterly reviews of the economic outlook, based on objectives established by the initial Economic Outlook Task Force (EOTF) report presented to the GLWA Board of Directors in November 2022.

A key outcome of the EOTF's work was developing and updating a set of planning scenarios for the baseline, optimistic, and pessimistic sets of assumptions. The quarterly review drives a focused effort to monitor changing economic conditions to inform both the 10-year financial plan and this CIP.

Close financial management by all team members engaged in CIP is critical in addressing the cost escalations for constrained resources. Elements of those efforts are described in the following paragraphs.

CIP is a Plan and Not a Budget. It is important to note that, although 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, GLWA Board Operations and Review Committee review, and/or GLWA Board action.

CIP is Flexible. 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 consistent and proactive effort by all involved in the CIP process.

Cashflow Forecasting. GLWA's CIP is funded as a program rather than individual projects. For this reason, accurate forecasting of project cashflows is core to managing debt and the use of cash reserves. Monthly, the financial services and engineering teams work through revised 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 project spend forecasts. This collaboration of proactive and timely communication allows GLWA to time and size future bond issuances, thereby reducing interest expense.

Commitment to 10-Year Financial Planning. GLWA publishes updates to its 10-year financial plans at least twice per year: as a planning tool when closing out the prior FY and to assist in planning for future years; and after the Board adopts the biennial budget and charges. Any revisions to CIP spend projections are incorporated into each update. As GLWA continues to maximize grants and loan programs the organization's ability to manage project funding sources becomes increasingly important. New financial and project management system integrations currently in development are intended to enhance the organization's ability to track varied funding sources within and across projects.

Affordability. A focus on affordability is a thread that runs through all financial considerations and outcomes – especially the impact on charges.

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 economic challenges and resource limitations. GLWA is committed to transparency with our vendor partners through any shifts in priorities. GLWA

provides one-on-one meetings, outreach and engagement with the vendor community via the CIP Workgroup, and other public and group meetings.

Bond Ratings and Debt Service Coverage. Given the 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 the 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, cash reserves and, ultimately, financial resiliency. The accompanying five-year financial plan and ten-year forecast includes DSC and other financial metrics.

CAPITAL PROGRAM SPEND RATE ASSUMPTION POLICY

Recognizing the difference in scope between the CIP, which has a broader strategic view of system need, and the tactical financial plan, which models use of cash reserves and future borrowing, GLWA uses "capital spend rate assumption (SRA) policy" to forecast actual CIP execution as compared to the CIP. This policy, presented in the following paragraphs, was adopted by the GLWA Board of Directors on November 28, 2018, and was first implemented with the FY 2020 – 2024 CIP.

The SRA policy provides an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established in the CIP. The result is a carefully considered equilibrium between the desired capital investment and financial strategies aimed at managing debt levels and regulating customer charges.

Annually, a projected spending rate assumption for the financial plan related to the proposed capital improvement plan is established, based on 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 who develop and manage the CIP projects. That SRA is presented to the Audit Committee no later than December 31 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 spending 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 percent. Recent years have resulted in a spending level that is within, and most recently above, the expected range for a large CIP. The years with material underspend occurred for several reasons, including project interdependencies, team member resource constraints, and evaluating project design alternatives. Years with a higher spending level reflect the pace of project execution as well as grant and low-cost funding to support project delivery ahead of schedule. Applying the

Capital Spend Ratio bridges the gap in the dollar amounts from the CIP to the financial plan to prevent over or under-borrowing.

PLAN VS ACTUAL

FY	Water			Wastewater			Total GLWA		
	Approved Plan	Actual (a)	Percent	Approved Plan	Actual	Percent	Approved Plan	Actual	Percent
2017	\$130,232	\$39,663	30%	\$128,973	\$57,328	44%	\$259,205	\$96,991	37%
2018	\$137,655	\$36,599	27%	\$160,746	\$71,000	44%	\$298,401	\$107,599	36%
2019	\$66,038	\$61,532	93%	\$105,183	\$82,134	78%	\$171,221	\$143,666	84%
2020	\$143,247	\$76,312	53%	\$161,480	\$73,827	46%	\$304,727	\$150,139	49%
2021	\$147,564	\$129,836	88%	\$110,638	\$81,509	74%	\$258,202	\$211,345	82%
2022	\$179,210	\$158,706	89%	\$106,050	\$67,449	64%	\$285,260	\$226,155	79%
2023	\$194,376	\$196,264	101%	\$125,932	\$104,655	83%	\$320,308	\$300,919	94%
2024	\$239,260	\$177,574	74%	\$199,061	\$136,393	69%	\$438,321	\$313,967	72%
2025	\$207,333	\$158,627	77%	\$169,189	\$175,763	104%	\$376,521	\$332,905	88%

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 GLWA'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 GLWA'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. Occasionally there are exceptions to the general guidance on cost allocation by agreement or consensus among member partners and GLWA. The source document for greater specificity is the annual cost of service study. Most asset additions are assigned to the following categories.

Water Functions

1. **Treatment** represents costs associated with improvements to GLWA's WTPs. 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 subfunctions that are used in the water charge methodology — including the relative distance and elevation associated with each customer's location.

2. **Transmission** projects reflect GLWA'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** refer 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 CSO treatment and conveyance facilities, including retention treatment basins (RTBs) 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 on the terms of service agreements with GLWA's customers. The agreements assign 83 percent of costs related to these specifically designated facilities to City of Detroit customers and 17percent to other customers.

Discussions continue regarding Master Plan strategies and alignment with GLWA'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	FY 27	FY 28	FY 29	FY 30	FY 31	FY 27-31 CIP Total	Percent of 5-Year Total	Total FY 27-36
Water	\$277,274	\$333,737	\$227,589	\$186,974	\$94,019	\$1,119,593	48%	\$2,267,212
None of these	\$14,563	\$14,929	\$0	\$0	\$0	\$29,492	3%	\$38,582
Pumps	\$32,334	\$56,882	\$55,418	\$30,967	\$12,331	\$187,932	17%	\$634,813
Storage	\$13,063	\$15,370	\$10,921	\$12,462	\$10,809	\$62,624	6%	\$70,558
Transmission	\$136,542	\$142,091	\$15,711	\$17,394	\$5,193	\$316,931	28%	\$464,906
Treatment	\$80,772	\$104,466	\$145,539	\$126,152	\$65,685	\$522,614	47%	\$1,058,354
Wastewater	\$280,901	\$312,648	\$257,620	\$188,294	\$177,273	\$1,216,736	52%	\$2,158,831
Conveyance/Pumps	\$128,220	\$127,574	\$82,847	\$51,139	\$43,828	\$433,608	36%	\$631,234
CSO	\$23,957	\$37,955	\$41,918	\$41,551	\$37,399	\$182,780	15%	\$239,348
Treatment	\$128,725	\$147,120	\$132,854	\$95,604	\$96,045	\$600,348	49%	\$1,288,248
Grand Total	\$558,175	\$646,386	\$485,208	\$375,268	\$271,291	\$2,336,328	100%	\$4,426,044

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 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. Some plant improvements are an exception to the rule. 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 those with an estimated useful life greater than 20 years. 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 (\$1,000s) and may reflect small differences due to rounding

Asset Life Range	FY 27	FY 28	FY 29	FY 30	FY 31	FY 27-31 CIP Total	% of 5-Year total	Total FY 27-36
Water	\$277,274	\$333,737	\$227,589	\$186,974	\$94,019	\$1,119,593	48%	\$2,267,212
Useful Life < 20 Years	\$29,405	\$45,015	\$55,362	\$36,999	\$3,518	\$170,299	15%	\$200,258
Useful Life > 20 Years	\$247,869	\$288,723	\$172,227	\$149,975	\$90,501	\$949,294	85%	\$2,066,955
Wastewater	\$280,901	\$312,648	\$257,620	\$188,294	\$177,273	\$1,216,736	52%	\$2,158,831
Useful Life < 20 Years	\$11,464	\$26,434	\$24,767	\$22,172	\$26,700	\$111,537	9%	\$673,124
Useful Life > 20 Years	\$269,437	\$286,214	\$232,853	\$166,121	\$150,573	\$1,105,198	91%	\$1,485,707
Grand Total	\$558,175	\$646,386	\$485,208	\$375,268	\$271,291	\$2,336,328	100%	\$4,426,044

PROJECT STATUS ANALYSIS

As outlined in Section 2.2, PROJECT STATUS, a status is assigned to each project or program in the CIP. The project status designation provides a high-level understanding of the progress of the project or program. Although there are subcategories for project status, active projects are, in general, in the 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. To illustrate the level of flexibility in the CIP, **Table– Project Status**, notes that nearly 60 percent of the water system CIP costs are in the projection execution phase and 93 percent of the sewer system CIP costs are in project execution.

PROJECT STATUS

CIP Budget	FY 27	FY 28	FY 29	FY 30	FY 31	FY 27-31 CIP Total	% of 5-Year total
Water	\$277,274	\$333,737	\$227,589	\$186,974	\$94,019	\$1,119,593	48%
Project Execution	\$169,263	\$198,876	\$142,203	\$104,292	\$61,959	\$676,592	60%
Future Planned	\$38,125	\$76,172	\$43,541	\$55,213	\$31,632	\$244,683	22%
Active (Pre-Procurement & Procurement)	\$69,886	\$58,689	\$41,845	\$27,470	\$428	\$198,318	18%
Wastewater	\$280,901	\$312,648	\$257,620	\$188,294	\$177,273	\$1,216,736	52%
Project Execution	\$274,681	\$297,675	\$240,160	\$164,523	\$148,613	\$1,125,652	93%
Future Planned	\$2,217	\$9,057	\$8,750	\$12,966	\$15,952	\$48,942	4%
Active (Pre-Procurement & Procurement)	\$4,004	\$5,916	\$8,710	\$10,805	\$12,707	\$42,142	3%
Grand Total	\$558,175	\$646,386	\$485,208	\$375,268	\$271,291	\$2,336,328	100%

SPEND CATEGORY ANALYSIS

The internal costs in the CIP, compared to the external costs and the associated level of effort from the vendor community, highlight the significant portion of CIP spending. As shown in **Table – Spend Category**, GLWA plays a crucial role in the regional economy and is deeply invested in the success of our vendor community partners.

SPEND CATEGORY ANALYSIS

Project Category	FY 27	FY 28	FY 29	FY 30	FY 31	FY 27-31 CIP Total	% of 5-Year total
Water	\$277,274	\$333,737	\$227,589	\$186,974	\$94,019	\$1,119,593	48%
Construction	\$260,133	\$313,038	\$215,018	\$169,918	\$82,461	\$1,040,568	93%
Design	\$14,573	\$18,655	\$10,954	\$15,735	\$10,350	\$70,267	6%
GLWA Salary	\$2,471	\$2,043	\$1,616	\$1,322	\$1,208	\$8,661	1%
Professional Services	\$97	\$0	\$0	\$0	\$0	\$97	0%
Wastewater	\$280,901	\$312,648	\$257,620	\$188,294	\$177,273	\$1,216,736	52%
Construction	\$255,665	\$286,511	\$235,873	\$173,726	\$161,284	\$1,113,059	91%
Design	\$22,529	\$23,899	\$19,605	\$12,709	\$14,389	\$93,130	8%
GLWA Salary	\$2,371	\$2,165	\$2,070	\$1,786	\$1,587	\$9,979	1%
Professional Services	\$335	\$73	\$73	\$73	\$13	\$567	0%
Grand Total	\$558,175	\$646,386	\$485,208	\$375,268	\$271,291	\$2,336,328	100%