

4 FINANCE

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 debt burden
- ✓ Smoothing of annual adjustments to service charges
- ✓ Improve the Authority's financial position

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

1. **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 the revenues of the system remaining after deducting the reasonable expenses of administration, operation, and maintenance of the system.
2. **Revenue Financed Capital (Improvement & Extension Fund):** Based upon ongoing expense, capital, and revenue optimization efforts, the Authority is able to build reserves to use pay-as-you go funding for shorter-lived and lower-dollar capital expenditures as well as to reduce the level of borrowing for longer-lived assets. These funds are not budgeted for use until received and recorded in the Improvement & Extension Fund for the water or the sewer system.
3. **Federal Loan Programs:** The Authority's sources of funding include lower cost financing programs including the State Clean Revolving Fund (CWRP) Loan Program and the Drinking Water Revolving Fund (DWRP) Loan Program.

4. **Grants:** The Authority utilizes public grants programs such as the State of Michigan's Stormwater, Asset Management, and Wastewater Program (provides both grants and loans) and is pursuing federal and private grants for energy optimization. This funding area may evolve given recent legislation at the Federal and State levels. At the time that this CIP is being prepared, federal funding programs are being announced for water related infrastructure improvements. How that will impact GLWA will not be known until calendar year 2022.
5. **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.

The Authority routinely publishes updates to its ten-year financial plans. Those plans set forth the forecasted strategic application of funding sources in general and specific terms. Process improvements in the CIP database being developed by the Capital Planning Group for future CIPs will contain specific funding sources by individual projects and project phases.

To ensure proper accountability of funding sources and uses, the Authority utilizes two funds for its capital program 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 improvement in future years. 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. The balance of bond funds an 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, WRAP, budget stabilization fund, and extraordinary repair and replacement fund as administered by a trustee. Capital outlay items are 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 capital 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 and expenditures are used interchangeably.

4.2. Summary CIP Financial Plan Review and Analysis

The GLWA CIP financial plan document is based on a foundational database of capital projects and programs to support improved analysis and decision-making, provide transparency, balance risk and opportunity, and demonstrate greater clarity in the long-term GLWA financial strategy. With the ultimate performance measure of lowering the cost of capital, a better-executed financial plan optimizes the use of bonds, revenue financial capital, revolving fund loans, and grants. It also contemplates execution risk (actual rate of capital project delivery) versus inherent risk in project cost estimating. Lastly, a sustainable financial plan encompasses flexibility to allow for strategic timing of new debt, pace of cash flow needs, and adequate reserves for system needs.

While the GLWA Board of Directors approves the plan, the authority to spend does not occur until additional project review processes are completed prior to the procurement process. 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 CIP Committee review and/or GLWA Board action.

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”. 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.

CAPITAL PROGRAM SPEND RATE ASSUMPTION POLICY

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 non-financial, 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.

The remainder of this chapter provides an analysis of information in the CIP database that will inform the spend rate assumption for future financial plans.

COST POOL RESPONSIBILITY

Revenue requirements are the 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. Each of these elements is allocated to the cost pools listed below that align with customer's use of the system. The debt service and revenue financed capital revenue requirements are allocated to cost pools based on the Authority's investment in fixed assets. The cost of capital improvements will impact future fixed asset records, and future charges.

Water Cost Pools

1. **Water Treatment Plants (WTP)** represents treatment related costs that are allocable to customers based primarily on their contractual max day demands.
2. **Conveyance** represents costs related to transmitting water to customers that 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.

Wastewater Cost Pools

1. **Water Resource Recovery Facility (WRRF)** represents treatment related costs that are allocable to customers based on their contribution of sanitary and total volumes.
2. **Conveyance** represents costs that are allocable to customers based on their contribution of total volumes.
3. **CSO 83/17** represents capital costs that are allocated based upon terms of service agreements with the Authority's customers. These agreements assign 83% of "combined sewer overflow control facilities" (CSO) costs to City of Detroit customers and 17% to other customers.

Table Cost Allocation Water & Wastewater summarize the assignment of proposed capital improvement expenditures to the various cost pools. The Wastewater projects are currently all assigned as “To Be Determined” (TBD) pending discussion of Master Plan strategies and alignment with the Authority’s service agreements with Wastewater customers and the associated Wastewater Charge Methodology.

COST ALLOCATION WATER & WASTEWATER

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

Cost Allocation	FY23	FY24	FY25	FY26	FY27	Total FY 2023-2027	Percent of 5-Year Total
Water	\$194,376	\$225,436	\$221,616	\$174,681	\$149,539	\$965,648	55.9%
Conveyance	\$134,009	\$147,283	\$151,775	\$127,894	\$102,122	\$663,083	68.7%
WTP	\$60,367	\$78,153	\$69,841	\$46,786	\$47,417	\$302,564	31.3%
Wastewater	\$125,932	\$162,313	\$184,523	\$157,689	\$131,307	\$761,764	44.1%
TBD	\$125,932	\$162,313	\$184,523	\$157,689	\$131,307	\$761,764	100.0%
Grand Total	\$320,308	\$387,749	\$406,139	\$332,370	\$280,846	\$1,727,412	100.0%

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. For this reason, the five-year financial plan is regularly reviewed during the fiscal year. Updates may also occur due to grant awards, collaboration opportunities, and changes in budgetary conditions. The financial plan reflects grants and federal and state loans only after approval is received by the grantor or authorized party.

As shown in Table Useful Life Water & Wastewater, 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 WATER & WASTEWATER

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

Asset Life Range	FY23	FY24	FY25	FY26	FY27	Total FY 2023-2027	Percent of 5-Year Total
Water	\$194,376	\$225,436	\$221,616	\$174,681	\$149,539	\$965,648	55.90%
Useful Life < 20 Years	\$8,975	\$9,254	\$14,518	\$17,162	\$14,144	\$64,053	6.63%
Useful Life > 20 Years	\$185,400	\$216,183	\$207,098	\$157,519	\$135,395	\$901,595	93.37%
Wastewater	\$125,932	\$162,313	\$184,523	\$157,689	\$131,307	\$761,764	44.10%
Useful Life < 20 Years	\$15,930	\$21,626	\$19,622	\$18,743	\$16,131	\$92,053	12.08%
Useful Life > 20 Years	\$110,002	\$140,687	\$164,901	\$138,946	\$115,176	\$669,712	87.92%
Grand Total	\$320,308	\$387,749	\$406,139	\$332,370	\$280,846	\$1,727,412	100.00%

PROJECT STATUS ANALYSIS

As shown in Table Project Status Water & Wastewater below, approximately 6% of the water system projects and 8% of the wastewater system projects are classified as “Future Planned Start”. Note that a project designated as “Active” includes all projects where at least one phase is active, including GLWA Salaries phases.

PROJECT STATUS WATER & WASTEWATER

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

Project Status	FY23	FY24	FY25	FY26	FY27	Total FY 2023-2027	Percent of 5-Year Total
Water	194,376	225,436	221,616	174,681	149,539	965,648	55.9%
Active	141,367	153,890	151,136	122,431	105,637	674,460	69.8%
Future Planned Start	4,741	23,427	16,371	12,364	2,219	59,122	6.1%
Under Procurement	48,268	48,120	54,109	39,886	41,683	232,065	24.0%
Wastewater	125,932	162,313	184,523	157,689	131,307	761,764	44.1%
Active	73,462	111,002	144,978	124,735	99,600	553,777	72.7%
Future Planned Start	1,748	6,759	12,282	19,433	23,816	64,038	8.4%
Under Procurement	50,722	44,551	27,262	13,522	7,892	143,949	18.9%
Grand Total	320,308	387,749	406,139	332,370	280,846	1,727,412	100.0%

PHASE CATEGORY ANALYSIS

Often projects are broken up into several phases related to how the project will be delivered and managed. Categories may be grouped to align with work to be performed within each individual phase. Individual categories are identified and named below, however; several categories may exist for each phase. In this case, this implies the same vendor, under one contract, will be performing multiple categories of the overall project. The current project categories are identified below.

PROJECT CATEGORIES •

Construction, Design/Engineering, Personnel Services, Program

As shown in Table Phase Category Water & Wastewater below, the majority of the dollars are allocated to construction. From a financial standpoint, this increases the validity of the projected CIP spend once a contract is awarded as there are significantly less dollars assigned to pre-construction activities.

PHASE CATEGORY WATER & WASTEWATER

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

Asset Life Range	FY23	FY24	FY25	FY26	FY27	Total FY 2023-2027	Percent of 5- Year Total
Water	\$194,376	\$225,436	\$221,616	\$174,681	\$149,539	\$965,648	55.90%
Construction	\$135,597	\$197,452	\$203,858	\$160,117	\$137,958	\$834,983	86.47%
Design/Engineering	\$39,553	\$20,368	\$12,311	\$9,499	\$7,898	\$89,630	9.28%
Personnel Services	\$1,313	\$1,161	\$1,059	\$684	\$617	\$4,834	0.50%
Program	\$17,912	\$6,456	\$4,387	\$4,380	\$3,065	\$36,201	3.75%
Wastewater	\$125,932	\$162,313	\$184,523	\$157,689	\$131,307	\$761,764	44.10%
Construction	\$41,136	\$84,330	\$115,783	\$115,888	\$94,412	\$451,549	59.28%
Design/Engineering	\$21,446	\$14,303	\$14,336	\$18,817	\$16,170	\$85,072	11.17%
Personnel Services	\$826	\$1,175	\$1,050	\$1,141	\$953	\$5,144	0.68%
Program	\$62,524	\$62,506	\$53,354	\$21,844	\$19,771	\$219,999	28.88%
Grand Total	\$320,308	\$387,749	\$406,139	\$332,370	\$280,846	\$1,727,412	100.00%