



08

APPENDIX F: HOW TO NAVIGATE THE CIP FY 2026-2030



APPENDIX F

1.1. KEY FEATURES

PROJECT STATUS DESCRIPTION

To determine a particular project’s progress within the CIP, a status is assigned to each project within the CIP. The project status designation provides a high-level understanding of the progress. Projects are often divided into multiple phases or categories based upon the contract type. As such, each phase of a multi-phase project will have its own status and contract number. Descriptions of each status are provided in Table 1 below. Projects that have been newly introduced into the CIP this year have been designed as “New to the CIP” based upon a checkmark within the Business Case Evaluation.

Table 1. Project Status Descriptions

| Project Status | Description |
|---|---|
| Active - Pre-Procurement - Construction | The RFB (and other supporting documents) are in development. |
| Active - Pre-Procurement - Design | The RFP (and other supporting documents) are in development. |
| Active - Procurement - Board Approved - Construction | The negotiated terms and conditions with the successful bidder have been approved by the board, but a contract has not yet been executed. |
| Active - Procurement - Board Approved - Design | The negotiated terms and conditions with the successful bidder have gone to the board and been approved but a contract has not yet been executed. |
| Active - Procurement - Construction | An RFB (and other required documentation) have been submitted to the Procurement group for solicitation of proposals. |
| Active - Procurement - Design | An RFP (and other required documentation) have been submitted to the Procurement group for solicitation of proposals. |
| Active - Procurement - Negotiation Phase - Construction | The lowest responsible bidder for contract labor services has been notified to begin negotiations. |

| Project Status | Description |
|---|--|
| Active - Procurement - Negotiation Phase - Design | The highest responsible scored bidder for professional services has been notified to begin negotiations. |
| Cancelled | Project that has been completely cancelled and removed from the CIP. |
| Closed | Project that has been officially completed. |
| Future Planned - Beyond Ten Years | Project start date is beyond ten years. |
| Future Planned - Ten Year CIP | Project Pushed out to years 6-10 |
| Future Planned - Within Five Year Plan | Project that was included in the previous CIP and does not have an assigned BS&A Project Number. |
| Project Execution - Construction | There is a fully executed contract for the active phase |
| Project Execution - Design | There is a fully executed contract for the active phase |
| Project Execution - Pending Closeout | Project has been assigned a BS&A Project Number, has been issued a Notice to Start Work, and has projected expenditures for the current fiscal year equal to \$100,000 or less, but has no future projected expenditures and has reached substantial completion. |
| Reclassified | Project has been merged into the scope of work of an existing project. |

PHASE CATEGORIES

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. Several categories may exist for each phase. In this case, the assumption is the same vendor, under one contract, will be performing multiple categories of the overall project. The current project categories are identified below.

- S - Study
- D - Design

- C - Construction
- CA - Construction Assistance
- DB - Design and Build
- DBA - Design Build Assistance
- CM - Construction Management
- PM - Project Management
- TBD - To Be Determined

CIP TYPES

CIP types are necessary to distinguish the differences in intent of how a CIP item is to be used. This CIP contains two primary CIP types: Projects and Programs. A typical project that has a specific scope and timeframe is considered a project. Whereas programs do not have specifically developed scopes and typically extend over many years. Last year there was an additional CIP type, Table 2 defines each CI

1.2 REPORT FORMAT

The 2026-2030 CIP format maintains the consistent layout of the 2025-2029 CIP document.

VARYING DEGREES OF PROJECT DETAIL

Within the document, projects and programs are portrayed in varying degrees of detail that should meet the needs of most readers. Projects can be viewed in the basic line item format that provides general information about the project and the projected expenditures. Within this format, projects have been rolled up by their major category of Water, Wastewater and Centralized Services, and

Note: newly established programs develop consistent schedules, requirements and history over time. Although not typically identified in the CIP future years projected expenses, these programs will typically be funded in perpetuity.

totals are provided. Projects have also been identified separately within each category to provide the reader more information on the type and amount of each project within a specific service area. One-page summaries of each project gives the reader more detail of the project phases, purpose, scope of work and potential challenges. Finally, for greater detail on each project, the BCE documents are provided in Appendix A, B and C.

Table 2. CIP Types

| Project Type | Description |
|--------------|---|
| Project | A “Project” consists of the replacement and/or rehabilitation of specific capital assets within a finite timeframe and scope. |
| Program | A “Program” consists of the replacement and/or rehabilitation of specific capital assets on an ongoing or reoccurring basis. The program scope and/or projected expenses may vary from year to year depending on the needs identified within the program and as newly established programs develop consistent schedules, requirements and history over time. Although not typically identified in the CIP future years projected expenses, these programs will typically be funded in perpetuity. |

REVISED PROJECT CATEGORIES & NUMBERING

The revised categorization methodology and numbering and sequencing of CIP projects and programs introduced in the 2025-2029 CIP is continued in the 2026-2030 CIP. The project characterization is extremely beneficial to align CIP project budgets by managing business area cost centers. In addition, these directly align with costs centers in the operating

budget within GLWA's financial system.

As in the FY 2025-2029 CIP, projects within programs are assigned a CIP number within that program. This is required within the BS&A Financial system to accurately track and report expenses incurred. In the FY 2026 - 2030 CIP, these project "carve outs" are identified as individual projects under the programs.

This numbering is based on the "smart" numbering system as identified in **Table 3** on the following page.

GENERAL PURPOSE

The General Purpose category within Project Category 2 and Project Category 3 in Table 3 are necessary to identify projects that cross over multiple project categories. Projects that are not specifically attributed to one particular area will be identified here.

PROGRAMS

Programs consist of the replacement and/or rehabilitation of specific capital asset(s) on an ongoing or reoccurring basis. The program scope and/or projected expenses may vary from year-to-year, depending on the needs identified within the program. Although not typically identified in the CIP future years projected expenses, these programs will typically be funded in perpetuity. The numbering structure of the "Program" category is slightly different to allow up to 99 separate projects to be attributable to each program. These projects identified under a parent program will be issued a CIP number and will be identified as a project under the parent program.

Table 3. Capital Project/General Ledger Account Numbering Protocol - Six Numeric Digits (4th Segment of GL String)

| Digit 1 | Digit 1 + Digit 2 | Digit 1 + Digit 2 + Digit 3 (+ Digit 4) | Digits 4-6 / Digits 5-6 |
|--------------------|---|--|-------------------------------|
| Project Category 1 | Project Category 2 | Project Category 3 | Number 000-999 / Number 00-99 |
| 1XX-Water | 11X - Water Treatment Plants & Facilities | 111 - Lake Huron | |
| 1XX-Water | | 112 - Northeast | |
| 1XX-Water | | 113 - Southwest | |
| 1XX-Water | | 114 - Springwells | |
| 1XX-Water | | 115 - Water Works Park | |
| 1XX-Water | | 116 - General Purpose | |
| 1XX-Water | 12X - Field Services | 121 - General Purpose | |
| 1XX-Water | | 122 - Transmission System | |
| 1XX-Water | 13X - Systems Control Center | 131 - General Purpose | |
| 1XX-Water | | 132 - Pump Stations & Reservoirs | |
| 1XX-Water | 14X - Water Quality | 141 - General Purpose | |
| 1XX-Water | 15X - Metering | 151 - General Purpose | |
| 1XX-Water | 16X - General Purpose | 161 - General Purpose | |
| 1XX-Water | 17X - Programs | 170 - Programs | |
| 2XX - Wastewater | 21X - Water Resource Recovery Facility | 211 - Primary Treatment | |
| | | 212 - Secondary Treatment & Disinfection | |
| | | 213 - Residuals Management | |
| | | 214 - Industrial Waste Control | |
| | | 215 - CSO RTB & SDF | |
| | | 216 - General Purpose | |
| | 22X - Field Services | 221 - General Purpose | |
| | | 222 - Interceptor | |
| | 23X - Systems Control Center | 231 - General Purpose | |
| | | 232 - Pump Stations | |
| | | 233 - In System Devices (Dams, ISD's) | |
| | 24X - Metering | 241 - General Purpose | |
| | 25X - General Purpose | 251 - General Purpose | |

| Digit 1 | Digit 1 + Digit 2 | Digit 1 + Digit 2 + Digit 3 (+ Digit 4) | Digits 4-6 / Digits 5-6 |
|------------------------|------------------------------|---|----------------------------------|
| Project Category 1 | Project Category 2 | Project Category 3 | Number 000-999 / Number 00-99 |
| | 26X - Programs | 2601 - Programs | |
| | 27X – CSO Facilities | 270 - Multiple CSO facilities | |
| | | 271 - Puritan Fenkell | |
| | | 272 - Seven Mile | |
| | | 273 - Hubbell Southfield | |
| | | 274 - Leib | |
| | | 275 - St. Aubin | |
| | | 276 - Conner Creek | |
| | | 277 - Baby Creek | |
| | | 278 - Oakwood | |
| | | 279 - Belle Isle | |
| 3XX - Central Services | 31X - Information Technology | 311 - General Purpose | |
| | | 312 - Service Desk | |
| | | 313 - Infrastructure | |
| | | 314 - Enterprise Applications | |
| | | 315 - Business Applications | |
| | | 316 - Security | |
| | | 317 - Project Management Office | |
| | 32X - Fleet | 321 - General Purpose | |
| | 33X - Facilities | 331 - General Purpose | |
| | 34X - Security | 341 - General Purpose | |
| | 35X - Energy Management | 351 - General Purpose | |
| | 36X - Engineering | 361 - General Purpose | |
| | 37X - General Purpose | 371 - General Purpose | |
| | 38X - Programs | 38x - Programs | |

CIP AND BUSINESS UNIT OVERVIEW

To understand the full extent of the Water and Wastewater Systems under the responsibility of GLWA, sections are included to provide an overview of the services provided and infrastructure maintained within each category. While the information is not all-inclusive, it does contain a substantial amount of reference information that will help the reader familiarize themselves with the capital assets and responsibilities of each business unit. As the CIP document evolves annually, these sections will be continuously updated to provide a great source of reference material related to the GLWA infrastructure.

PROJECT RISK MATRIX

Project risks are identified specifically related to their Probability of Failure (PoF) and Consequence of Failure (CoF) and portrayed on an overall Risk Matrix. The overall criteria remain unchanged, however, to show each project on the risk matrix, the eight criteria used in the project prioritization framework are designated as either a PoF or CoF primary risk driver. The designation of PoF and CoF to each criterion as primary risk driver is shown in Table 4.

After each criterion is scored for each project, the weighted PoF and CoF factors have been calculated. This provides a 1 to 5 vertical axis value for probability of failure and a 1 to 5 horizontal axis value for the consequence of failure. This point is plotted with the other projects to show its relative position compared to others within the matrix. A sample of the matrix is shown in Figure 1.

This provides the varying audiences additional information related to the overall project risk as it relates to its consequence and probability of failure.

Table 4. Risk Criteria

| No. | Weight | Criteria |
|-----|--------|---|
| 1 | 12% | Condition |
| 2 | 15% | Performance (Service Level/Reliability) |
| 3 | 18% | Regulatory (Environmental/Legal) |
| 4 | 11% | O&M |
| 5 | 18% | Health and Safety |
| 6 | 8% | Public Benefit |
| 7 | 10% | Financial |
| 8 | 8% | Efficiency and Innovation |

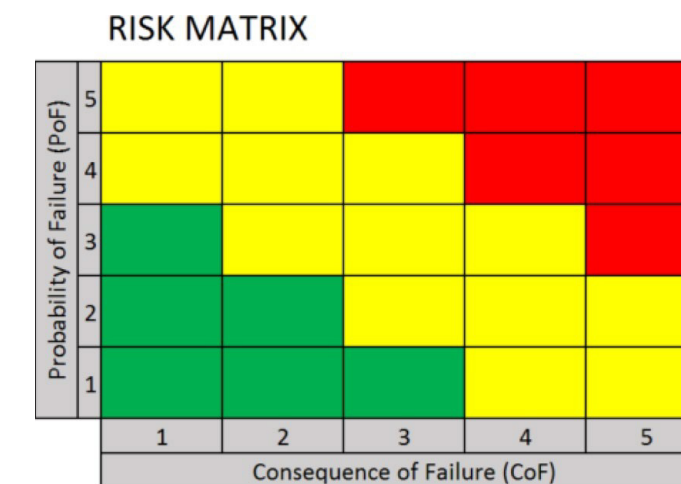


Figure 1. Risk Matrix

COST ESTIMATION CLASSIFICATIONS

This cost estimate rating gives the reader an idea of whether the cost estimate is a ballpark-level estimate, generally for work projected in the out years, or a higher-confidence estimate, such as for work projected to start sooner or already under contract.

GLWA has adopted the American Association of Cost Engineering (AACE) International system for classifying cost estimates. This standardized method for classifying project phases will be very beneficial in managing expectations related to the accuracy of the associated procurement contracts.

Table 5. AACE Cost Estimate Classes

| Estimate Class | Project Definition | End Usage | Method | Average Expected Range | Accuracy |
|----------------|--------------------|---------------------------------|--|------------------------|----------|
| Class 5 | 0% to 2% | Screening or feasibility | Judgement, trend analysis, parametric | 120% | -60% |
| Class 4 | 1% to 5% | Concept study or feasibility | More parametric, expert opinion, trend analysis | 85% | -43% |
| Class 3 | 10% to 40% | Budget authorization or control | Combinations (detailed, unit cost, activity-based + class 4 & 5 methods) | 40% | -20% |
| Class 2 | 30% to 70% | Control or bid/tender | Primarily deterministic | 20% | -10% |
| Class 1 | 50% to 100% | Check estimate or bid/tender | Deterministic | 10% | -5% |

INNOVATION, MASTER PLAN, REDUNDANCY & NE WTP RELATED PROJECTS

Several areas of interest have been identified and can be seen in Chapter 2 These areas are:

- Innovation: Projects that may have a possibility at utilizing an innovative solution or process.
- Master Plan: Projects that have incorporated the 2015 Water Master Plan recommendations to “Right-Size” infrastructure to allow for future capital cost avoidance by derating the water supply system.
- Redundancy: Projects that have a direct impact to improving system redundancy.
- NE WTP Repurposing: Projects necessary to meet the 2015 Water Master Plan recommendations to repurpose the Northeast Water Treatment Plant to allow for future capital cost avoidance.

PROGRAM PROJECTS

Projects that were performed under programs were identified by the CIP group and issued a CIP number. These projects have been derived from the outcome of their parent program. The CIP number associated with these projects is numerically relevant to the parent CIP number. To better portray this relationship in the CIP, these projects are identified as projects under the parent CIP program.

PROJECT YEAR-TO-YEAR COMPARISON

To compare a project’s projected expenses from one year to the next, comparison tables have been included in each project summary

and BCE. This also allows the reader to identify how the project schedule may have changed from year-to-year. Project Managers’ and Engineers’ description of the change is typically also included at the project level.

Total Project Expenses (in \$1,000s) Comparison to Prior Year CIP

| CIP Version | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|-------------|------|------|-------|-------|-------|------|------|------|------|-------|
| 2018 | | | 1,000 | 3,000 | 1,600 | | | | 0 | 5,600 |
| 2019 | 0 | | 251 | 3,919 | 1,187 | 0 | 0 | 0 | 0 | 5,357 |

Description of CIP Changes - moved construction start to FY2019, added GLWA costs, changed project delivery from DBB to DB

PROJECT SCHEDULE

A significant benefit for stakeholders associated with GLWA’s CIP process is related to the information provided for project scheduling. Starting with the 2019 CIP, most projects have been scheduled to show the high-level tasks of Scope Development, Procurement, Project Execution and Project Closeout. This information is beneficial to GLWA’s Procurement Group to determine overall procurement needs and resources, as well as, for the engineering work areas to manage project delivery. Finally, this schedule provides the vendor community with an estimate of timing related to projects they may be interested in pursuing.

COST AND SCHEDULE FORECAST

The cash flow forecasts in the CIP are based on the Project Manager’s most current information at the time of publication of the CIP and may reflect both future unanticipated project changes and pending contractual documentation

Phase Tasks and Dates

| | | | | | |
|----------------|----------------------|-------------------------|------------|----------|-----------|
| Phase Category | DB | Design and Build | | | |
| Budget | Water | Task Name | Start Date | Duration | End Date |
| Phase Status | Future Planned Start | Scope Development | 1/22/2018 | 100 | 5/2/2018 |
| Contract No | NA | Procurement | 7/1/2018 | 220 | 2/6/2019 |
| Cost Est Class | | Project Execution | 2/6/2019 | 750 | 2/25/2021 |
| | | Project Closeout | 2/25/2021 | 90 | 5/26/2021 |