CIP Program Update
Capital Planning Committee

March 14, 2023

CIP Delivery Team

Jody Caldwell, PE, Chief Planning Officer

Dima El-Gamal, PhD, PE, LEED@AP., Capital Improvement Planning Director

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AGENDA

- CIP FY24–FY28 Board Approved
- FY 23 January 2023 KPIs
- FY 23 & FY 24-28 Forecast
- FY 25-29 CIP Next Steps
- CIP Delivery Teams are Growing
- CIP Program Management Updates

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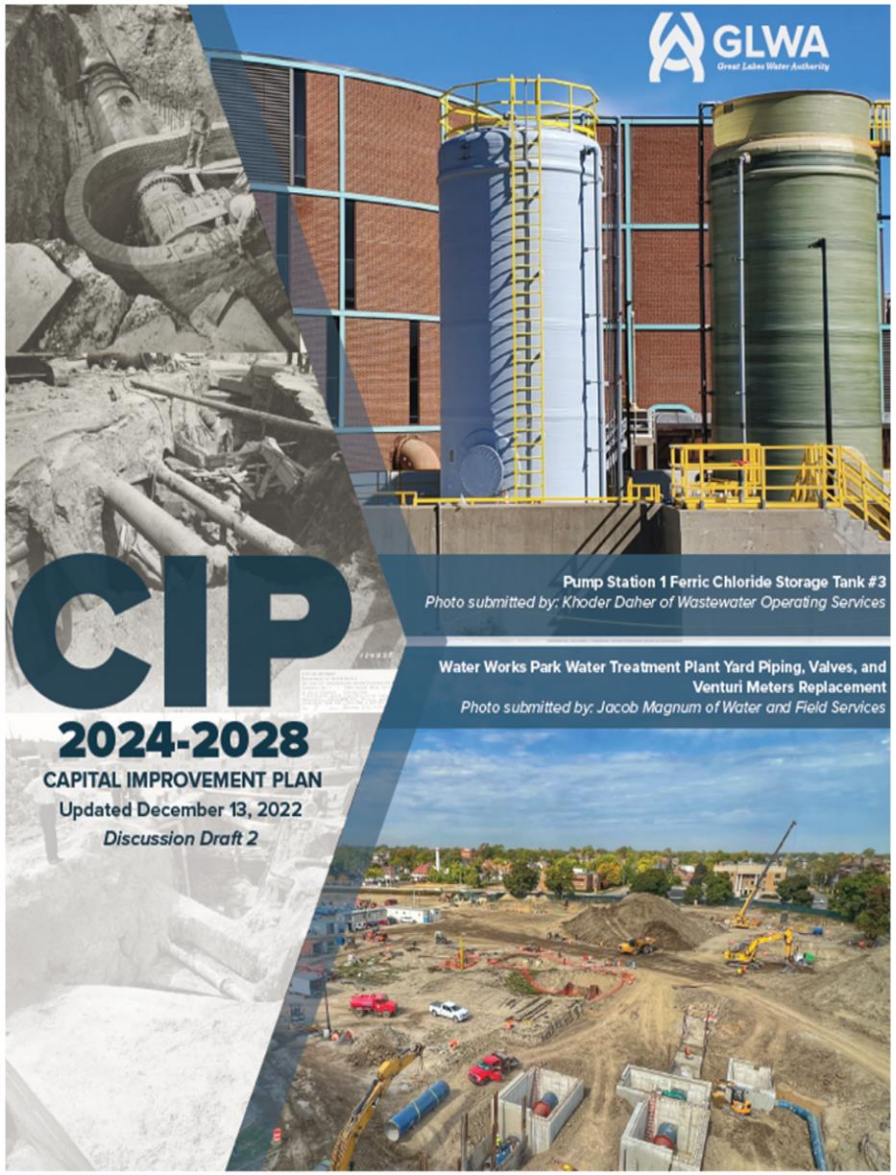

WATER

Category	Amount
5-Year Total	$986,616
5-Year Average	$197,323
10-Year Total	$1,957,610
10-Year Average	$195,761

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

WASTEWATER

Category	Amount
5-Year Total	$798,176
5-Year Average	$159,635
10-Year Total	$1,560,661
10-Year Average	$156,066

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

PLAN SPENDING SUMMARY

5-Year Total	10-Year Total
$1.78 Billion	$3.52 Billion
5-Year Annual Average	10-Year Annual Average
$356 Million	$352 Million

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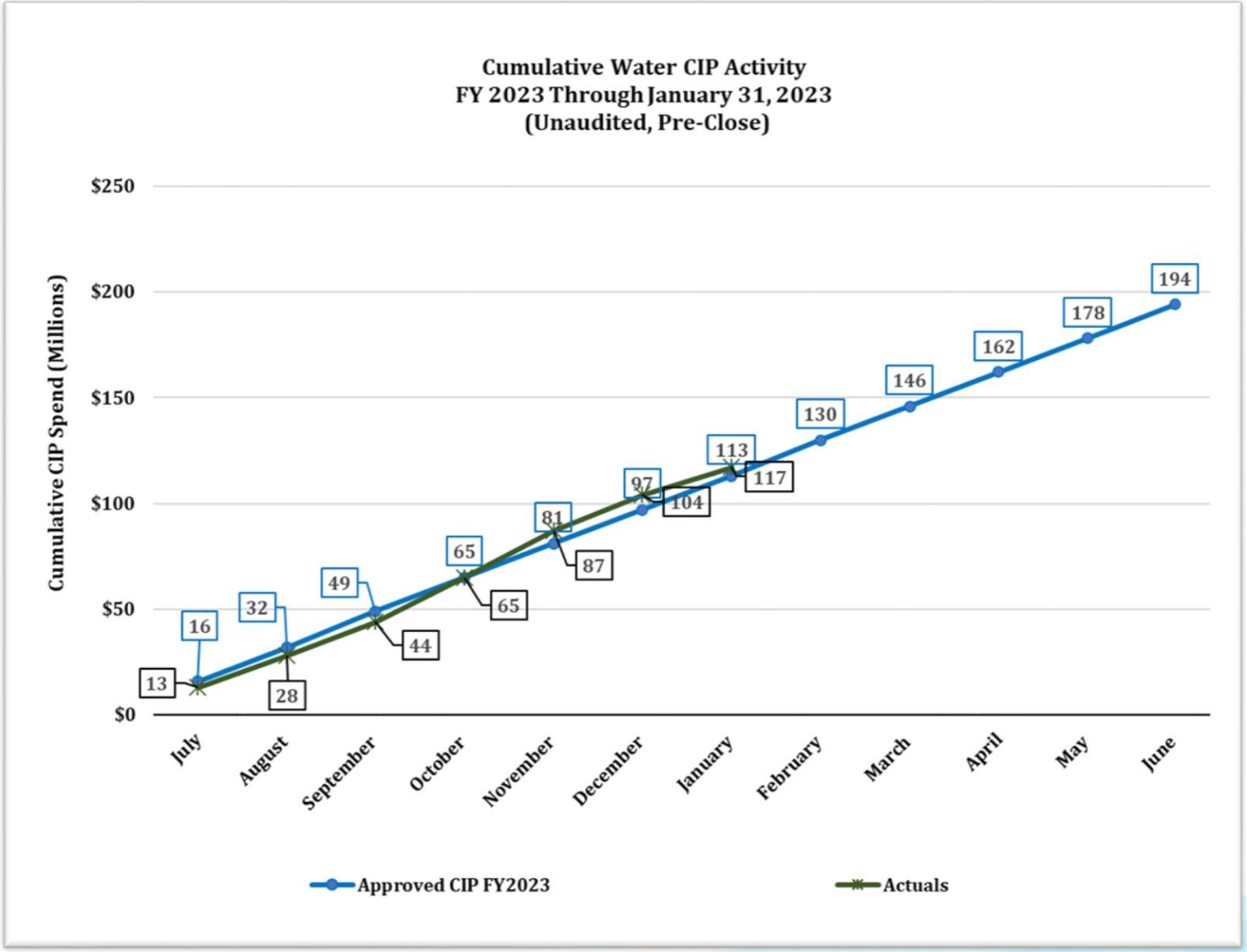
BOARD APPROVED ON FEBRUARY 22, 2023

ENTERPRISE RESILIENCY FY 2023 TOTAL WATER CIP SPEND

CIP Delivery Team



Current Status:

The water system incurred $117 million of CIP costs **through January 2023.**

This is 104% of the FY 2023 monthly prorated *Approved **FY 23-27** CIP.*

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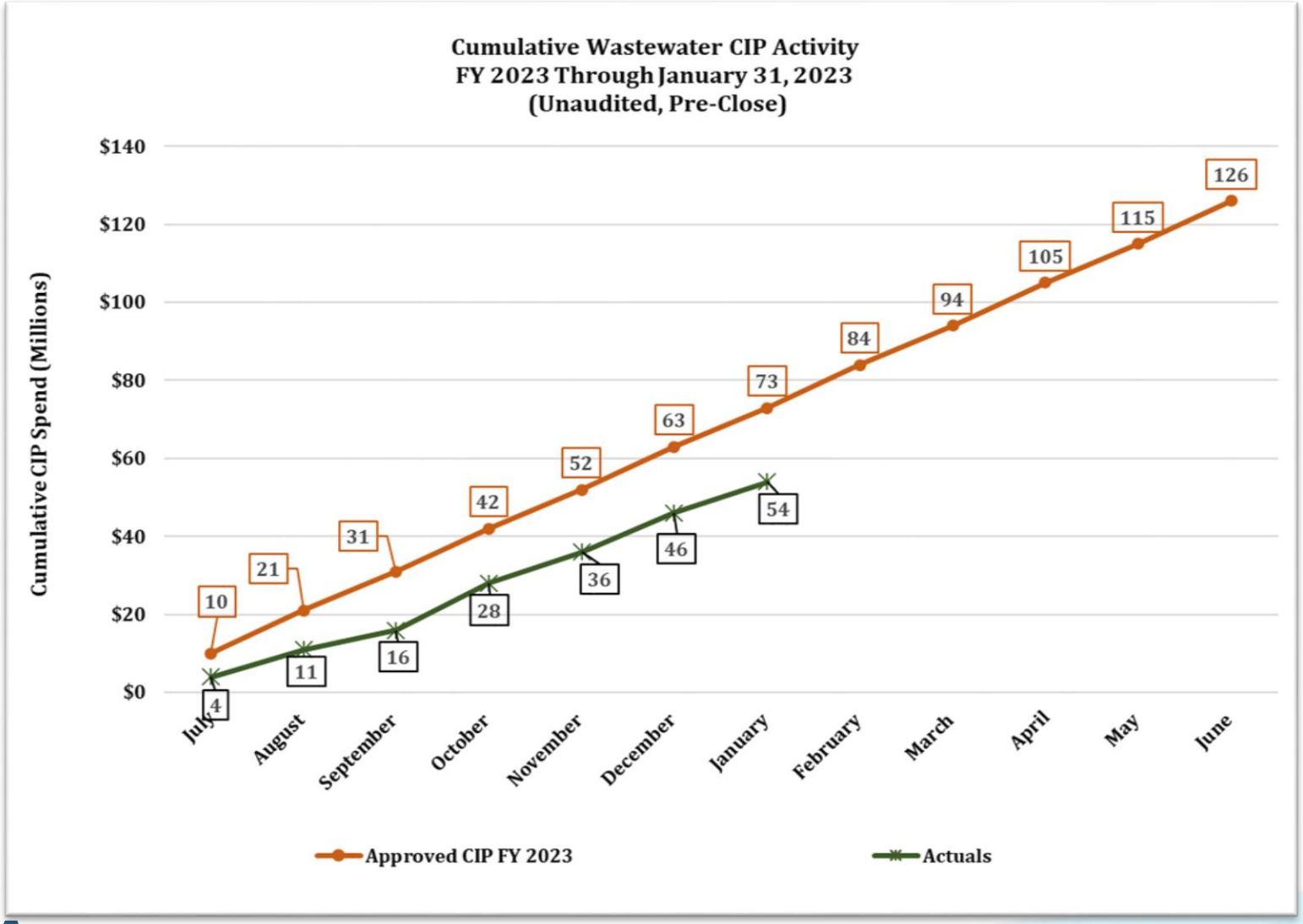
Note: The Capital Spend Rate Assumption for the Water System was initially budgeted at 80%. With the FY 2023 first quarter budget amendments, that percentage was revised to 100.0% to align the budget with revised CIP spending forecasts.

ENTERPRISE RESILIENCY FY 2023 TOTAL WASTEWATER CIP SPEND



Current Status:

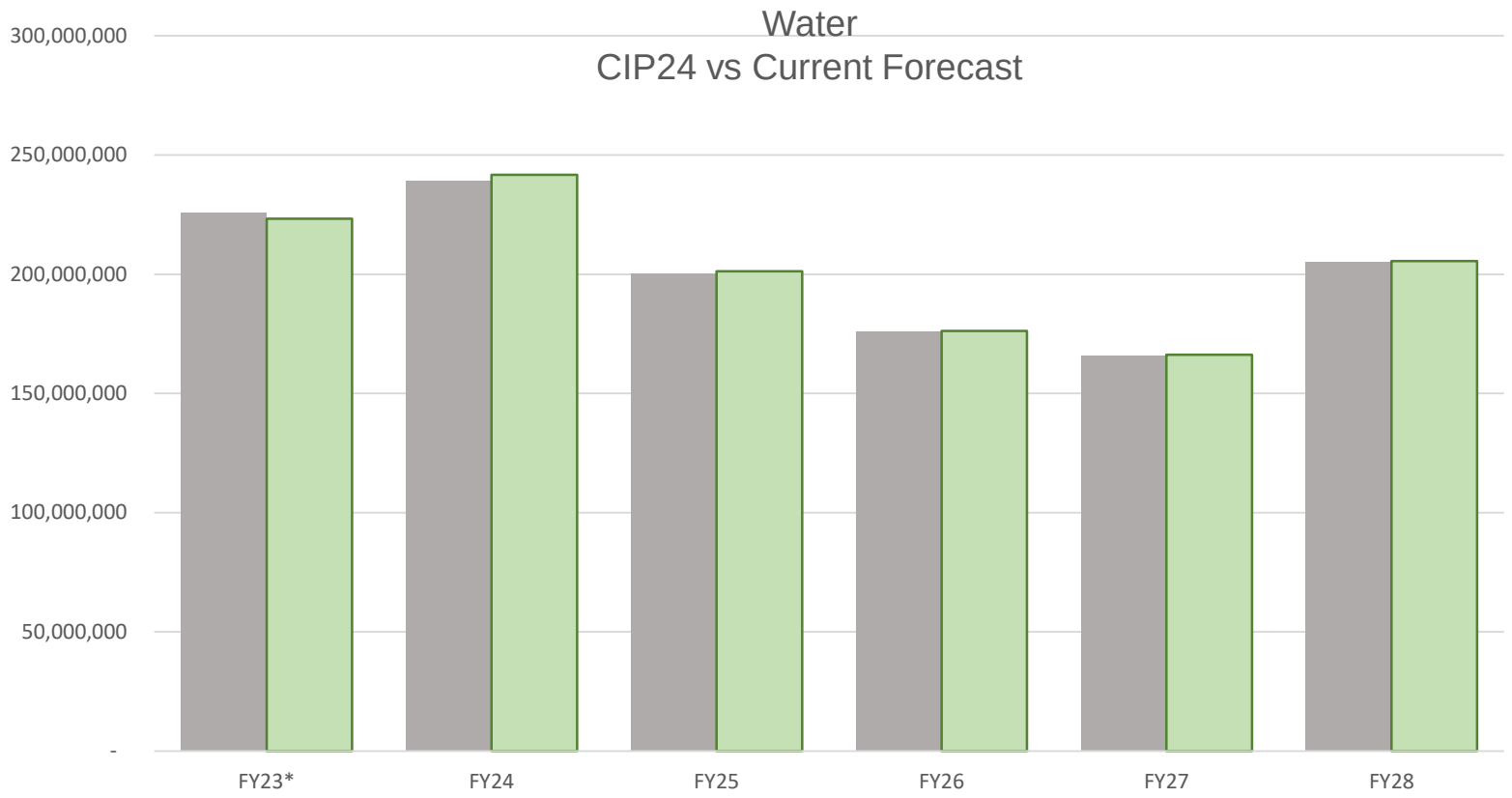
The wastewater system incurred $54 million of CIP costs **through January 2023.**

This is 74% of the FY 2023 monthly Prorated *Approved **FY 23-27** CIP.*

Note: The Capital Spend Rate Assumption for the Water System was initially budgeted at 75%. With the FY 2023 first quarter budget amendments, that percentage was revised to 100.0% to align the budget with revised CIP spending forecasts.

FY 23 & FY 24-28 FORECAST SUMMARY-WATER

CIP Delivery Team



Forecast

Board Approved

Board Approved FY24-28

-	FY23*	FY24	FY25	FY26	FY27	FY28
BA CIP2024-2028	225,790,000	239,259,562	200,422,321	176,033,524	165,813,445	205,087,045
Forecast	223,299,954	241,663,625	201,189,962	176,240,512	166,252,941	205,494,258

FY 23 & FY 24-28 FORECAST SUMMARY-WASTEWATER

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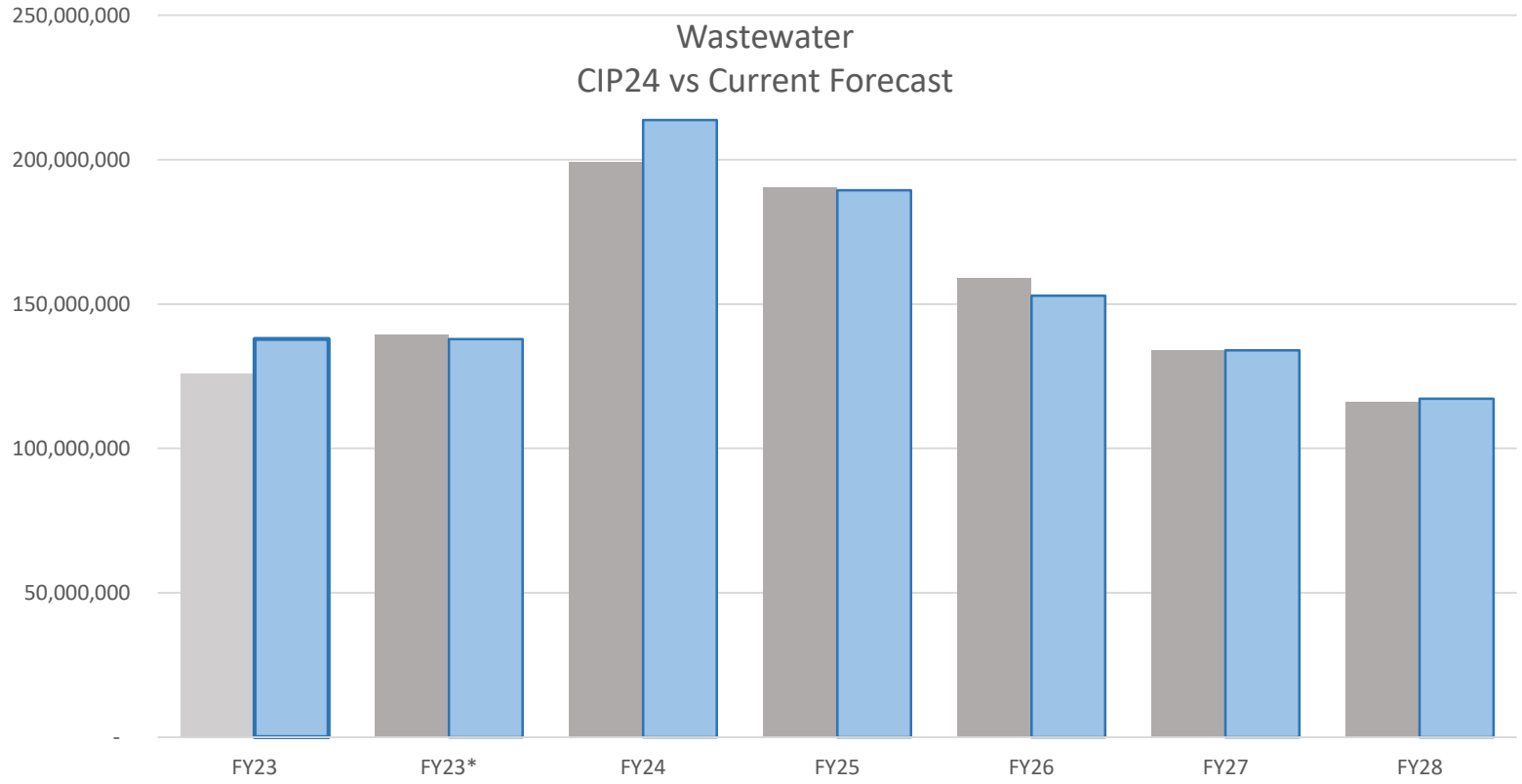


Forecast

Board Approved

Board Approved FY24-28

-	FY23*	FY24	FY25	FY26	FY27	FY28
CIP2024-2028	139,442,000	199,061,145	190,158,901	159,043,928	133,731,792	116,179,979
Forecast	137,908,817	213,715,756	189,377,158	152,870,508	133,947,105	117,226,338

CIP DELIVERY TEAMS ARE GROWING

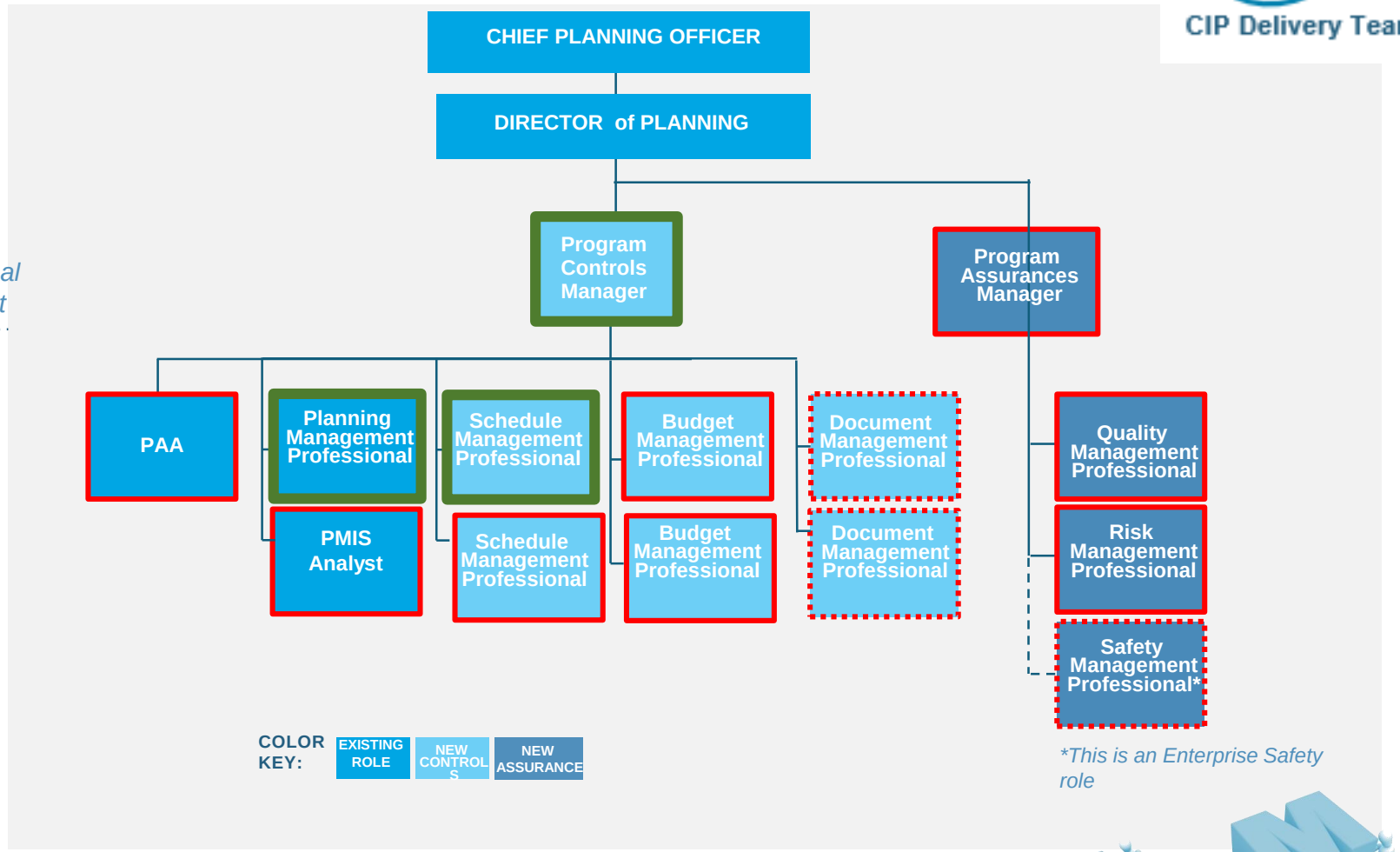
CIP Delivery Team

Water & Wastewater

- Chief Operating Officer
- Director of Engineering
- Lifecycle PM (Manager)
- Lifecycle PMs
- Technical Management Leaders

Cross Functional Support

CIP



*This is an Enterprise Safety role

Roles outlined in solid green have been filled

Roles outlined in solid red are in the process of being filled

Roles outlined in dotted red will be filled in the future

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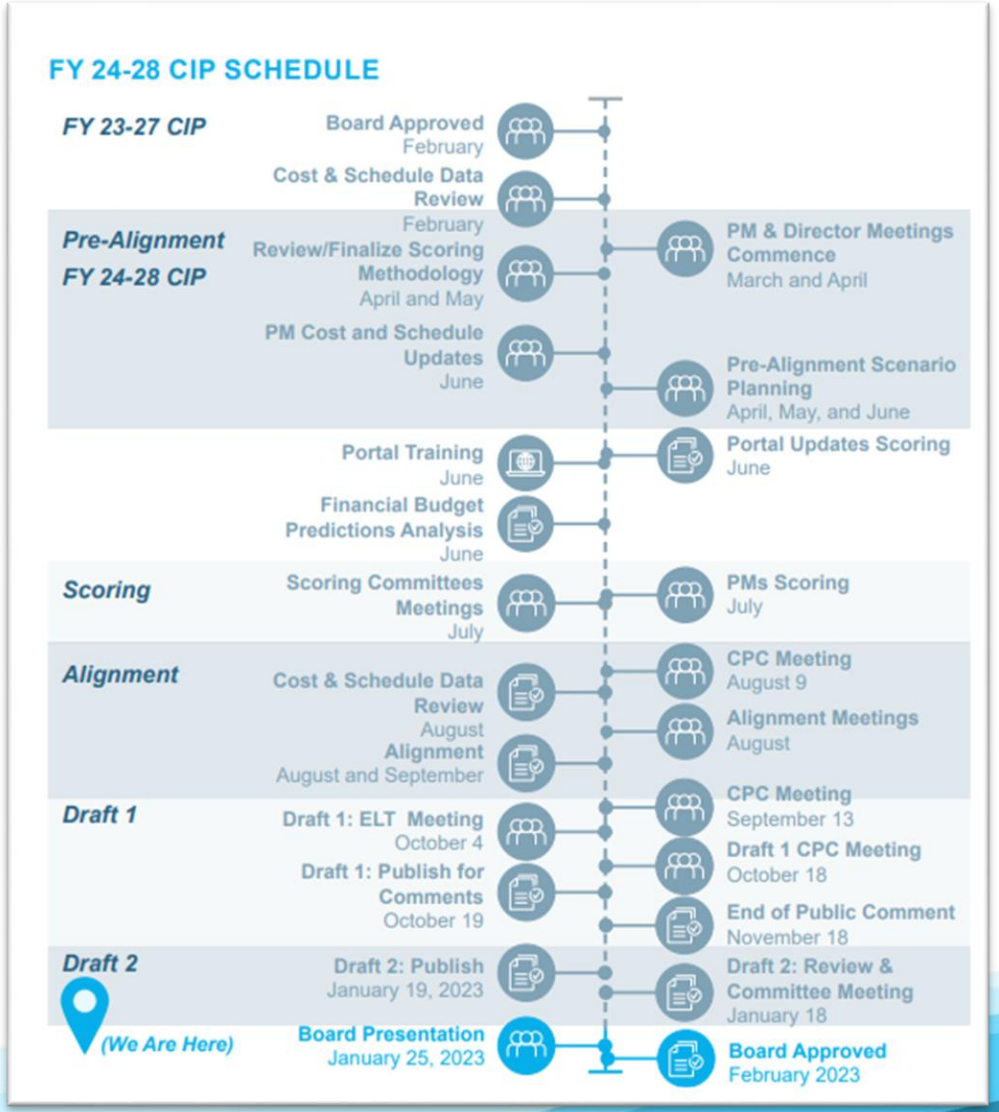
WHAT'S NEXT –FY 25-29

CIP Delivery Team

- Improve Cost and Schedule Updates
- Improve the Portal Experience
- Train PMs
- Streamline Alignment with Financial Plan
- Improve CIP Document Layout
- Develop FY 25-29 Schedule



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CIP Delivery Team
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QUESTIONS
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PROGRAM MANAGEMENT UPDATE

March 14, 2023

CIP Delivery Team

GLWA Great Lakes Water Authority

AECOM

Donal Baron, AECOM
Michael McClure,, AECOM

Agenda

1. Team Member Introduction
2. Task Budget
3. Task Accomplishments

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Team Member Introduction

CIP Delivery Team

Michael McClure

Proven leader for major infrastructure improvement programs. Planned, developed and lead organizations to build capital improvements for multiple projects.

Led program organizations in diverse industry areas including vertical construction**, water, wastewater,** transportation and environmental for clients both private (water, power, oil & gas, mfg.),and public sector (DOD, DOE, USACE) around the world.

Michael (Mike) McClure
Principal Program Manager, AECOM

**** He will be assuming the role of Program Manager for GLWA's CIP going forward***

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Task Budget Updates

CIP Delivery Team

Task #	Task Description	Type	Total Contract Budget (post MOU)	Total Billed thru 12/23/22 (Inv. 37B)	% Complete
1	CIP Business Process Improvements	LS	$1,043,816	$1,043,816	100%
2	CIP Delivery Standard Operating Procedure (SOP) Development	LS	$1,181,756	$903,510	77%
3	CIP Delivery Resource Evaluation	LS	$676,847	$676,847	100%
4	Project Management Information System (PMIS) Selection	LS	$1,493,744	$743,885	50%
5	Project Controls and Reporting Support	T&M	$17,127,520	$14,220,116	83%
6	CIP Validation	LS	$2,121,024	$1,970,034	93%
7	Engineering and Construction Staff Augmentation (Booked)	T&M	$20,976,251	$15,232,465	73%
7	Engineering and Construction Staff Augmentation (Not booked)	T&M	$4,773,513	N/A	0%
8	Advanced Facilities Planning (Hold)	LS	$2,006,563	$75,787	4%
9	Staff Augmentation other than Construction or Engineer	T&M	$2,834,100	$1,086,251	38%
	Grand Total		**$54,235,134**	**$35,952,710**	
	Balance Remaining		**$18,282,424**		

Key| LS – Lump Sum, T&M – Time and Materials

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Task Accomplishments

Task 1 CIP Business Process Improvements

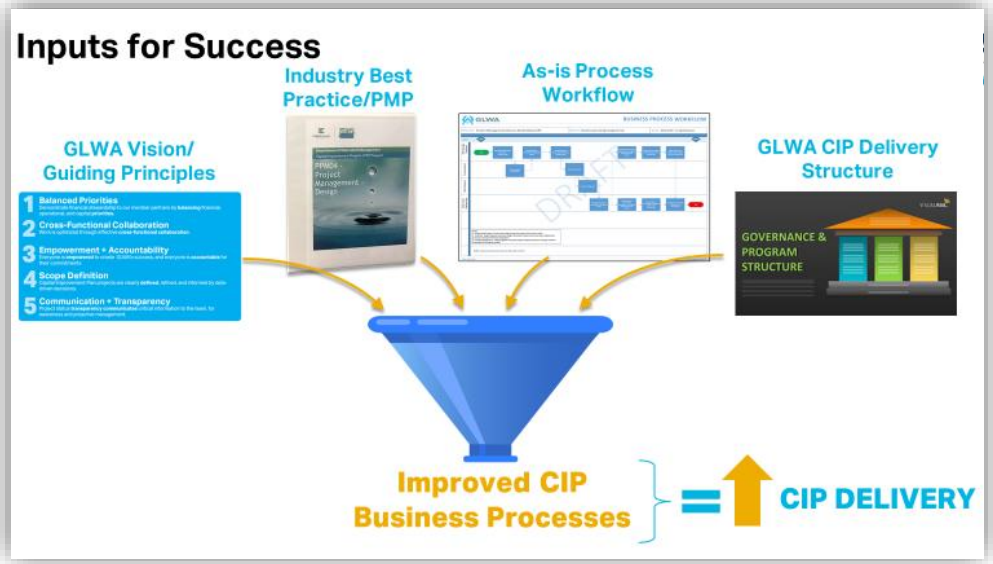
CIP Delivery Team

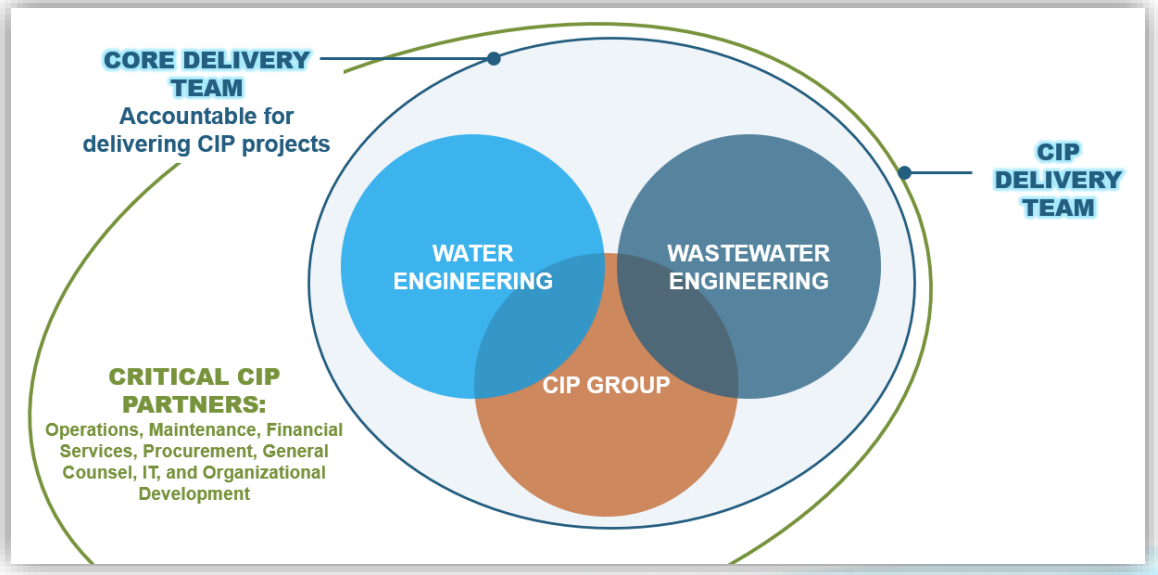
Key achievements:

- ✓ Completed mapping of existing GLWA business processes
- ✓ Developed recommendations on key CIP delivery models

Key Recommendations:

- ✓ Project lifecycle approach versus contracts
- ✓ Accountable and empowered Lifecycle Project Managers (LPM) responsible for delivery outcomes throughout project lifecycle





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Task Accomplishments

CIP Delivery Team

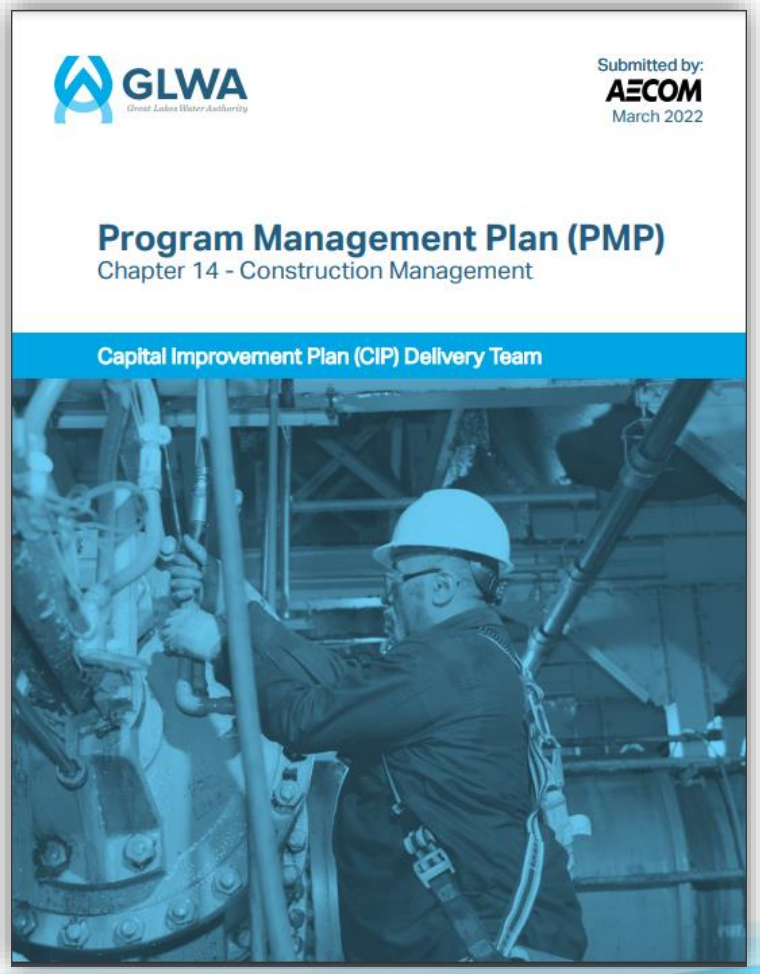
Task 2 CIP Delivery Standard Operating Procedure (SOP) Development

Chapters published:

- ✓ PMP 00 – PMP Overview
- ✓ PMP 01 – CIP Program Overview
- ✓ PMP 02 – Org. & Governance
- ✓ PMP 05 – Schedule and Budget Mgt
- ✓ PMP 06 – Contract Change Mgt
- ✓ PMP 07 – Quality Management
- ✓ PMP 08 – Risk Management
- ✓ PMP 09 – Engineering & Design Mgt
- ✓ PMP 10 – Procurement & Contracts
- ✓ PMP 11 – Permitting and Regulatory
- ✓ PMP 14 – Construction Mgt

Chapters in progress:

- ✓ PMP 03 - Communications Management
- ✓ PMP 04 – Document Management
- ✓ PMP 12 – Health & Safety Management
- ✓ PMP 13 – Public Information & Stakeholder Management
- ✓ PMP 15 – CIP Planning & Development



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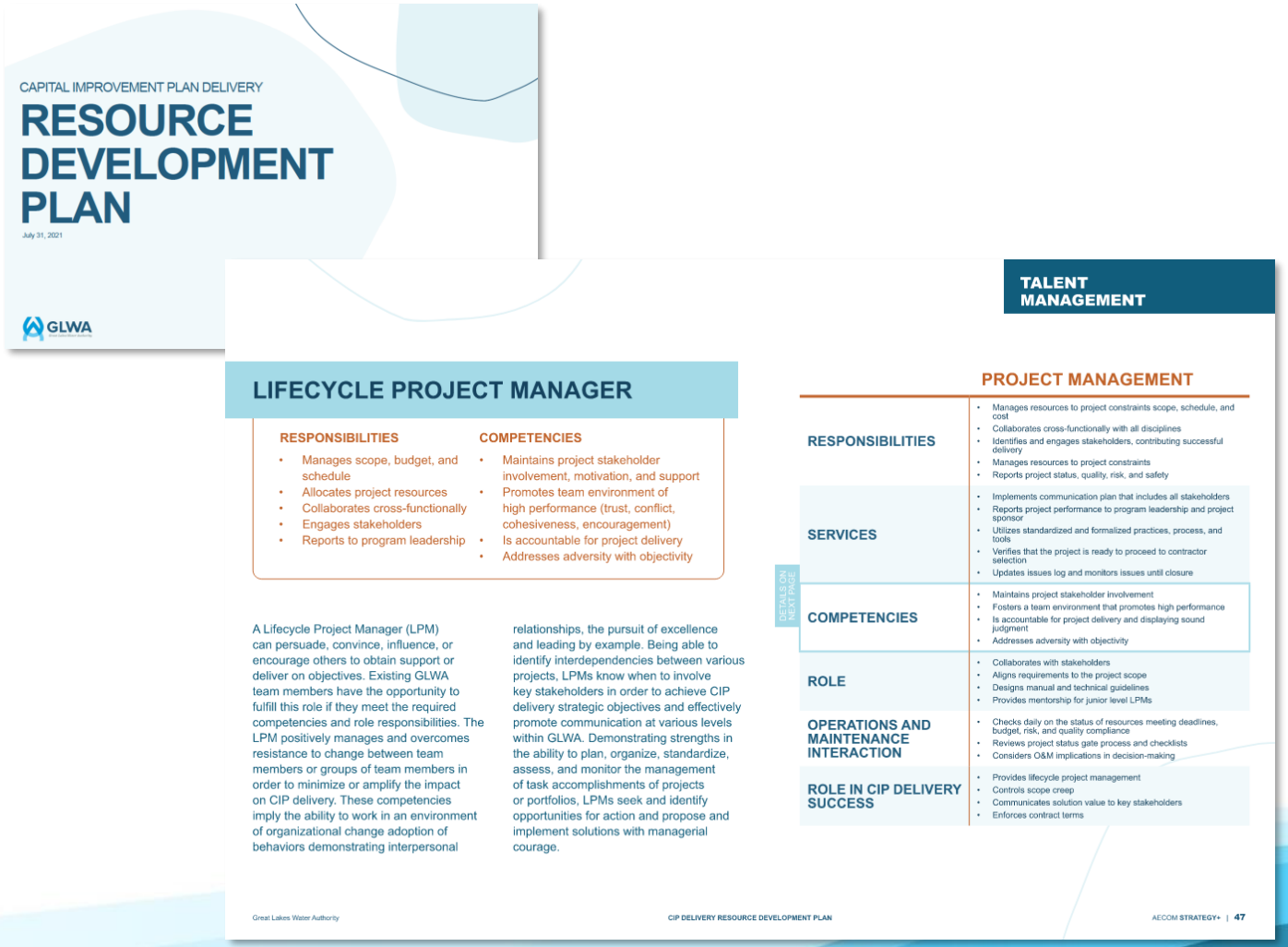
Task Accomplishments

Task 3 CIP Delivery Resource Evaluation

CIP Delivery Team

- ✓ Resource Development Plan final delivery July 2021
- ✓ Defined CIP Delivery Model, CIP Delivery Roles (Competencies and Responsibilities)
- ✓ Included CIP Delivery FTE Resource Forecast Model



CAPITAL IMPROVEMENT PLAN DELIVERY

RESOURCE DEVELOPMENT PLAN

July 31, 2021

GLWA

LIFECYCLE PROJECT MANAGER

RESPONSIBILITIES

- Manages scope, budget, and schedule
- Allocates project resources
- Collaborates cross-functionally
- Engages stakeholders
- Reports to program leadership

COMPETENCIES

- Maintains project stakeholder involvement, motivation, and support
- Promotes team environment of high performance (trust, conflict, cohesiveness, encouragement)
- Is accountable for project delivery
- Addresses adversity with objectivity

A Lifecycle Project Manager (LPM) can persuade, convince, influence, or encourage others to obtain support or deliver on objectives. Existing GLWA team members have the opportunity to fulfill this role if they meet the required competencies and role responsibilities. The LPM positively manages and overcomes resistance to change between team members or groups of team members in order to minimize or amplify the impact on CIP delivery. These competencies imply the ability to work in an environment of organizational change adoption of behaviors demonstrating interpersonal relationships, the pursuit of excellence and leading by example. Being able to identify interdependencies between various projects, LPMs know when to involve key stakeholders in order to achieve CIP delivery strategic objectives and effectively promote communication at various levels within GLWA. Demonstrating strengths in the ability to plan, organize, standardize, assess, and monitor the management of task accomplishments of projects or portfolios, LPMs seek and identify opportunities for action and propose and implement solutions with managerial courage.

TALENT MANAGEMENT

PROJECT MANAGEMENT

RESPONSIBILITIES	• Manages resources to project constraints scope, schedule, and cost • Collaborates cross-functionally with all disciplines • Identifies and engages stakeholders, contributing successful delivery • Manages resources to project constraints • Reports project status, quality, risk, and safety
SERVICES	• Implements communication plan that includes all stakeholders • Reports project performance to program leadership and project sponsor • Utilizes standardized and formalized practices, process, and tools • Verifies that the project is ready to proceed to contractor selection • Updates issues log and monitors issues until closure
COMPETENCIES	• Maintains project stakeholder involvement • Fosters a team environment that promotes high performance • Is accountable for project delivery and displaying sound judgment • Addresses adversity with objectivity
ROLE	• Collaborates with stakeholders • Aligns requirements to the project scope • Designs manual and technical guidelines • Provides mentorship for junior level LPMs
OPERATIONS AND MAINTENANCE INTERACTION	• Checks daily on the status of resources meeting deadlines, budget, risk, and quality compliance • Reviews project status gate process and checklists • Considers O&M implications in decision-making
ROLE IN CIP DELIVERY SUCCESS	• Provides lifecycle project management • Controls scope creep • Communicates solution value to key stakeholders • Enforces contract terms

DETAILS ON NEXT PAGE

Great Lakes Water Authority | CIP DELIVERY RESOURCE DEVELOPMENT PLAN | AECOM STRATEGY+ | 47

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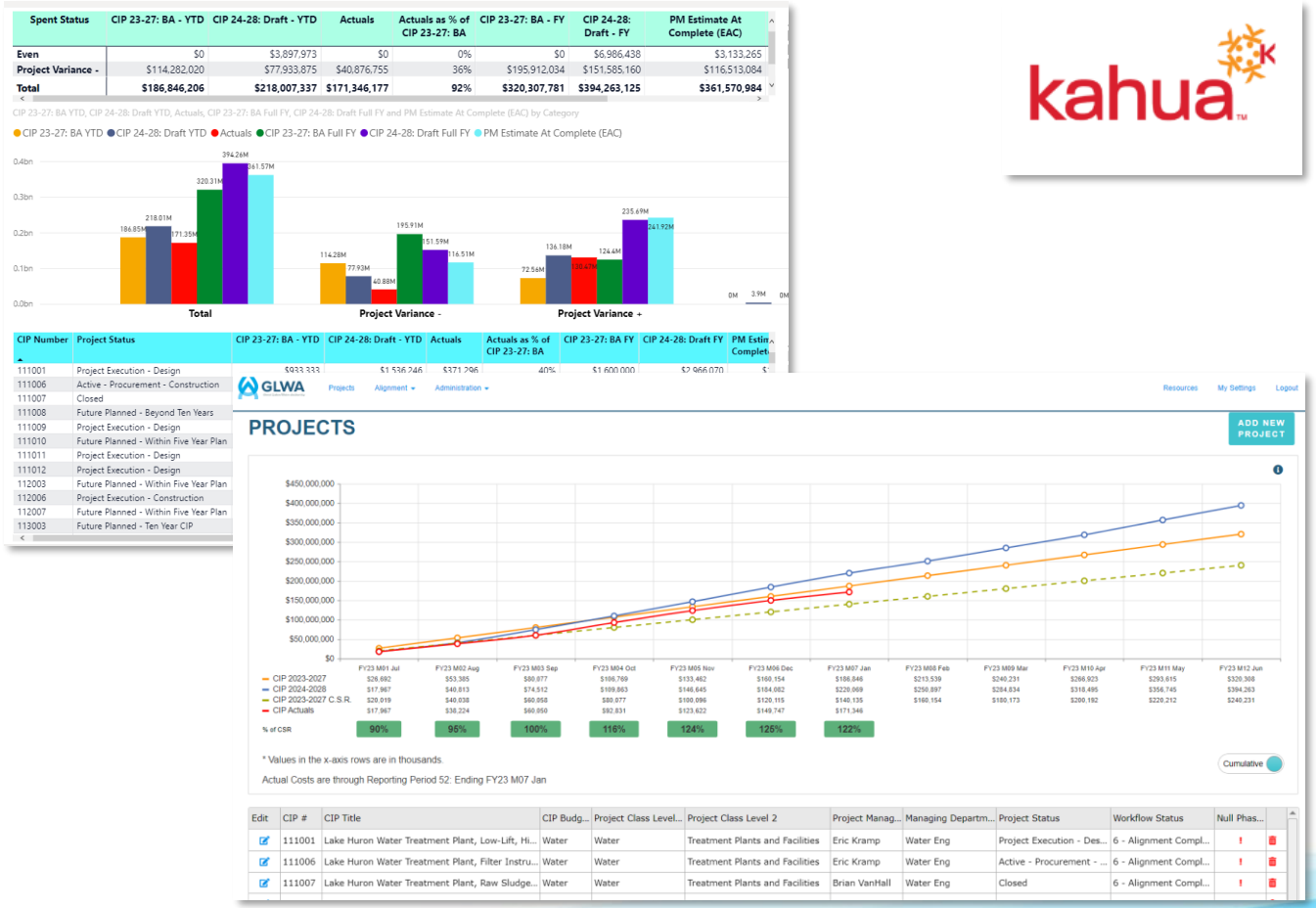
Task Accomplishments

Task 4 Project Management Information System (PMIS) Selection

CIP Delivery Team

- ✓ Developed comprehensive **RFP** for PMIS procurement
- ✓ Supported GLWA through proposal reviews and selection, including proposal and demonstration scoring
- ✓ Selected **Kahua as the PMIS** for GLWA
- ✓ Developed and managed an “interim PMIS” to support basic critical program delivery needs

**Task 4 was put on hold prior to the conclusion of contract negotiations. This task will be revisited in March of 2024.*



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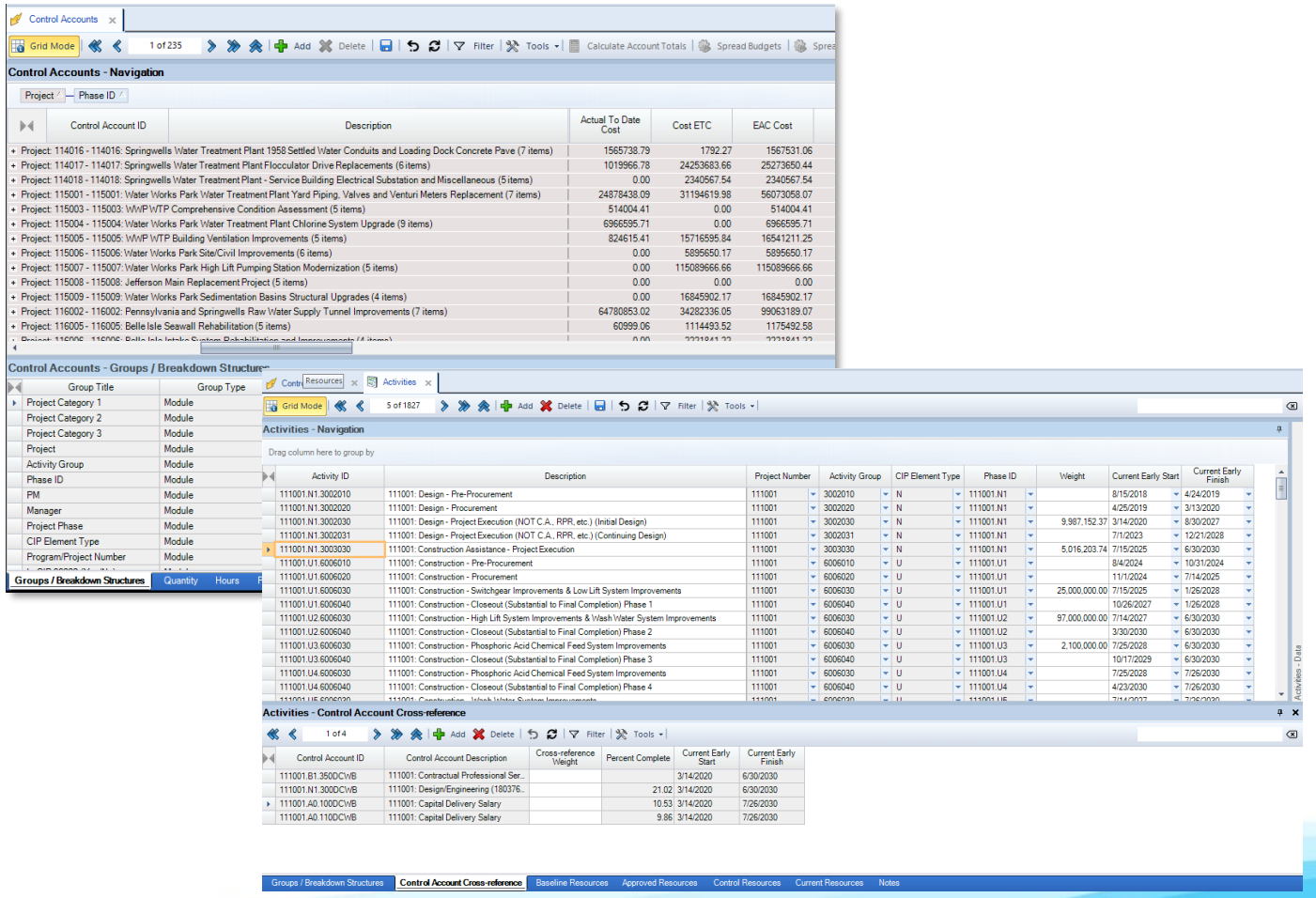
Task Accomplishments

Task 5 Project Controls and Reporting Support

CIP Delivery Team

- ✓ CIP Development cycle completed
- ✓ Working with PMs on inputting data
- ✓ Developed tool and step-by-step guide to align PMs' project data
- ✓ Working on roles transition and knowledge transfer
- ✓ Developing project cost and schedule information flow protocols



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Task Accomplishments

Task 6 CIP Validation

CIP Delivery Team

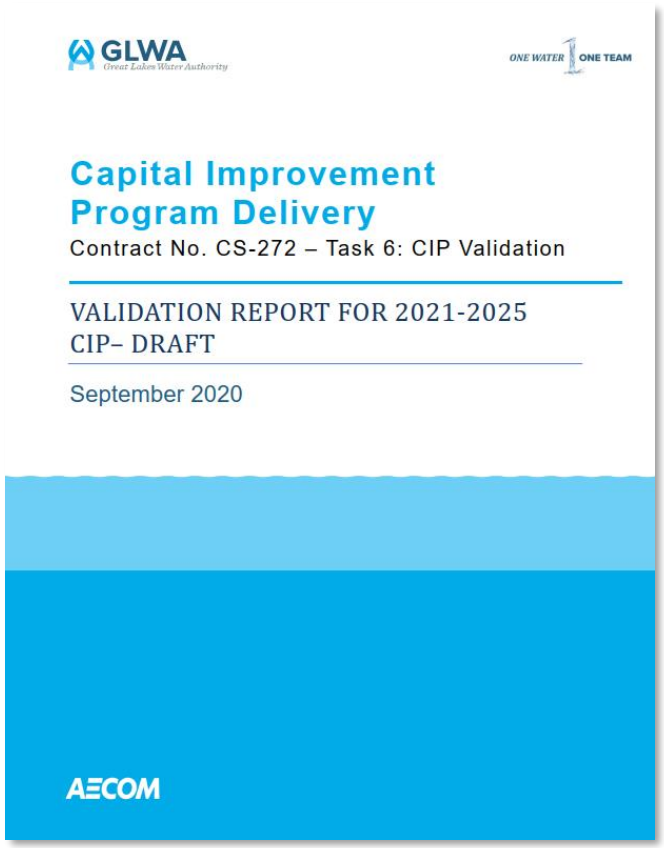
✓ **CIP Validation summary:**

Year	Projects Validated
1	30
2	90
3	6

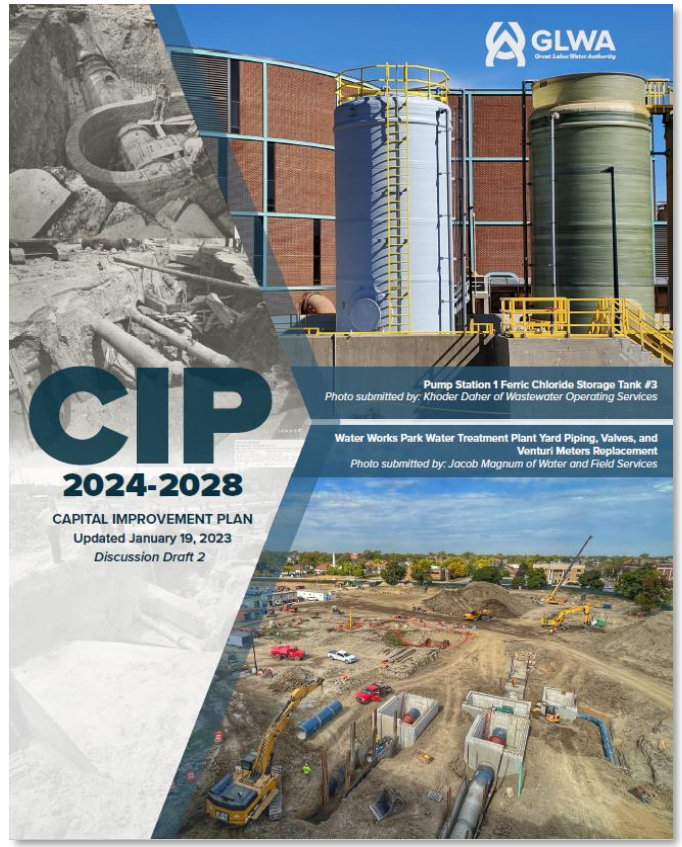
✓ **CIP summary:**

CIP successfully completed
FY' 2022-26
FY' 2023-27
FY' 2024-28

- CIP for FY 24-28 was approved by the Board and will be in effect from Jul 1, 2023
- Automated the CIP document delivery from Portal to document



CIP FY' 23-27 Validation Report



CIP FY' 24-28 Approved

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Task Accomplishments

Task 7 Engineering and Construction Staff Augmentation

CIP Delivery Team

Highlights

- ✓ BODR for – the CSO project Hubbell Southfield CSO Facilities
- ✓ Alternatives Analysis and BODR – Springwells WTP Header and Yard Piping Project
- ✓ BODR – Aeration Basin 1 and 2
- ✓ Place 4 WW augmented LPMs
- ✓ Place 1 WW augmented Design Manager
- ✓ Successfully managed Wick Road Pipeline project

Task 7 or 9	Water/Sewer	Status	# of Tasks		Total Budget	Total Cost to Date	% Spent
7	Water	1 - Active	26	$	7,667,841	4,859,280	63.4%
		2 - Completed	3	$	601,267	575,582	95.7%
		3 -Close	33	$	2,550,330	2,550,192	100.0%
	Water Total		**62**	**$**	**10,819,439**	**7,985,054**	**73.8%**
	Sewer	1 - Active	38	$	4,928,372	3,169,668	64.3%
		2 - Completed	37	$	2,716,387	1,621,365	59.7%
		3 -Close	41	$	2,770,185	2,770,102	100.0%
	Sewer Total		**116**	**$**	**10,414,944**	**7,561,135**	**72.6%**
7 Total			**178**	**$**	**21,234,382**	**15,546,189**	**73.2%**
9	Water	1 - Active	4	$	1,207,892	527,921	43.7%
		2 - Completed	2	$	29,012	25,062	86.4%
		3 -Close	5	$	367,397	367,397	100.0%
	Water Total		**11**	**$**	**1,604,301**	**920,379**	**57.4%**
	Sewer	1 - Active	2	$	52,421	30,915	59.0%
		2 - Completed	3	$	122,020	118,069	96.8%
		3 -Close	5	$	91,260	91,260	100.0%
	Sewer Total		**10**	**$**	**265,701**	**240,244**	**90.4%**
9 Total			**21**	**$**	**1,870,002**	**1,160,624**	**62.1%**
Grand Total			**199**	**$**	**23,104,384**	**16,706,813**	**72.3%**

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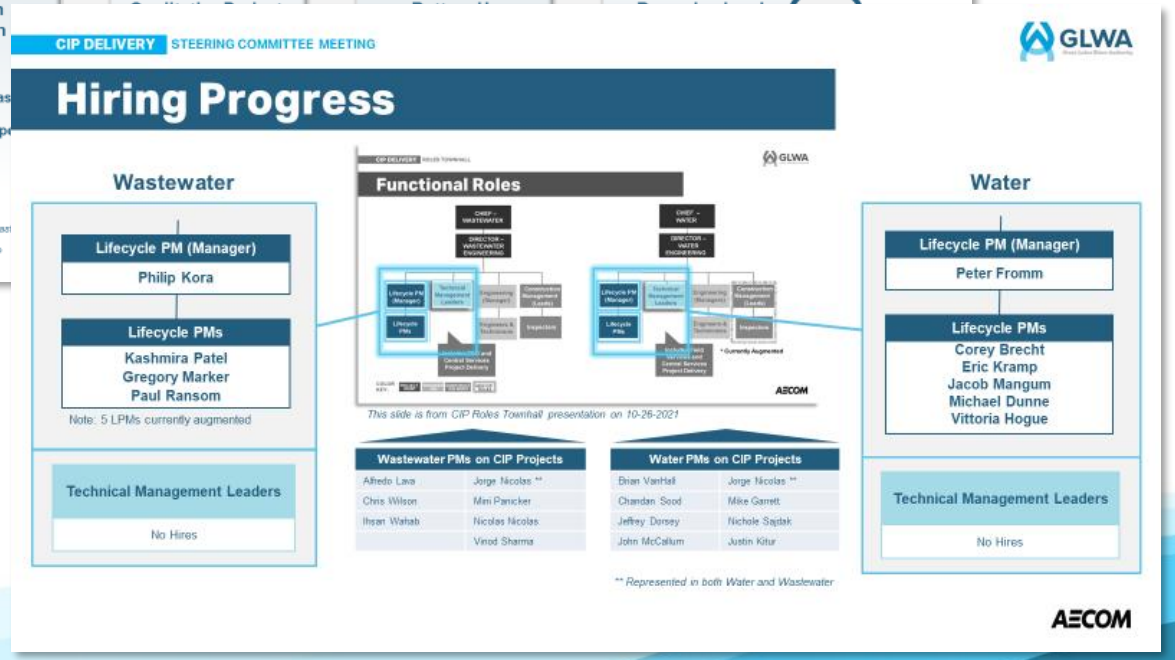
Task Accomplishments

Task 9 Staff Augmentation other than Construction or Engineer

CIP Delivery Team

ORGANIZATIONAL CHANGE MANAGEMENT

- ✓ Updated CIP Delivery FTE 5-Year Forecast Model
- ✓ Complexity Rating Tool Developed for Water and Wastewater Project Portfolio Resourcing
- ✓ LPM Manager and LPM Hiring Progress to date in Water and Wastewater
- ✓ Skills Training Plan in Support of PMP Implementation



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THANK YOU

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