



# GLWA FY 2023–2027 Capital Improvement Plan

*GLWA Board of Directors Meeting  
January 26, 2022, 2:00 p.m.*

**Jody Caldwell**  
Interim Chief Planning Officer

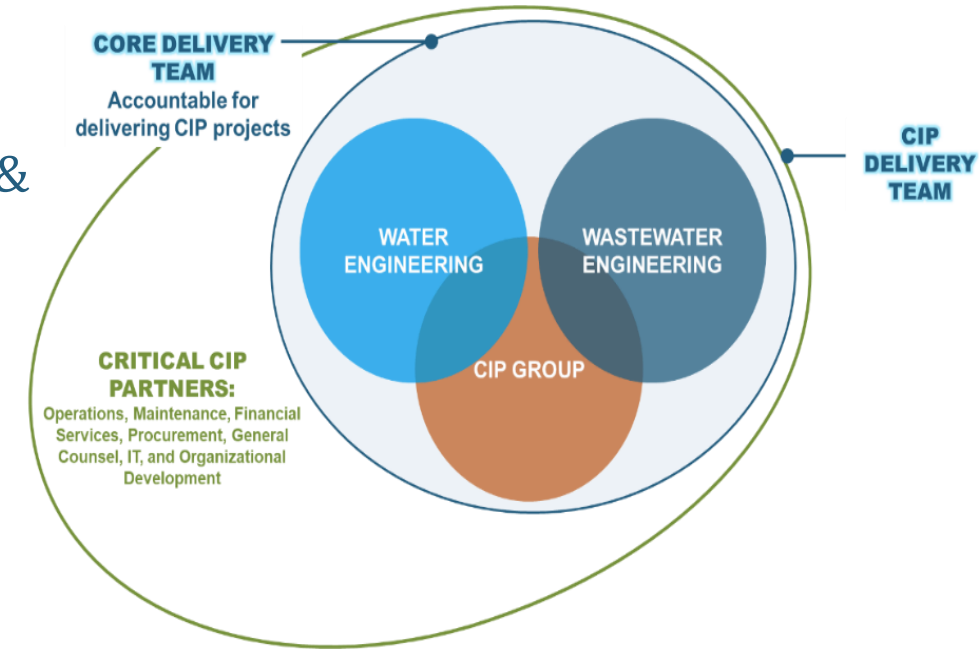
**Dima El-Gamal**  
Capital Improvement Program Director

**CIP**  
CAPITAL IMPROVEMENT PLAN  
**2023 - 2027**



# OVERVIEW

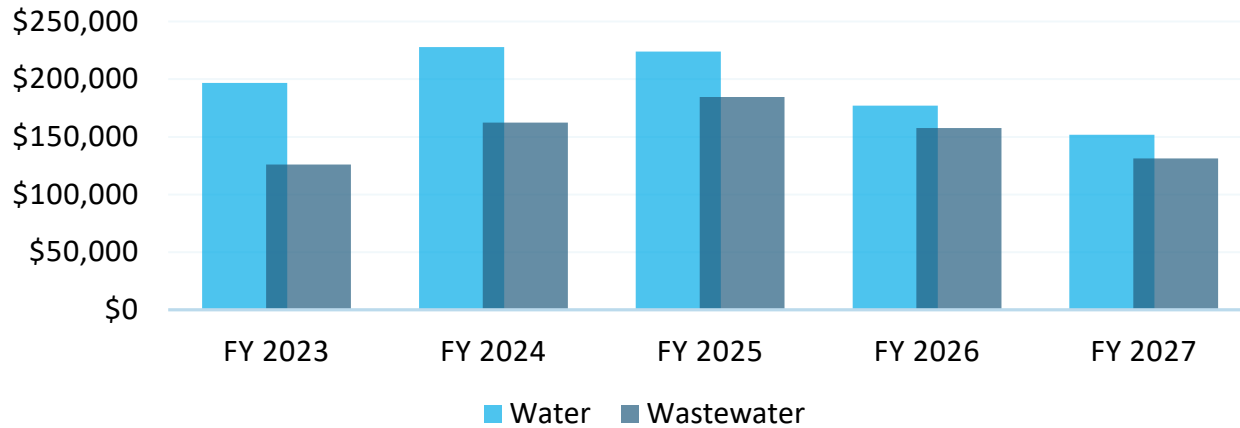
- Five-year looking forward document with a 10-year outlook
- CIP alignment with GLWA's overall Financial Plan
- Stakeholder Input – Opportunities for Board, Member Partners & vendor community to provide input during development
- Compilation of projects from all areas of the organization
- Address projects that promote improved redundancy, system resiliency, and health & safety
- Conformance with recommendations of long-term master plans
- Meet regulatory and operational needs



*The goal of the CIP is to provide regional collaboration & planning to balance capital expenditures demands without compromising our mission to **"implement best practices in the treatment and transmission/conveyance of water and wastewater"**.*

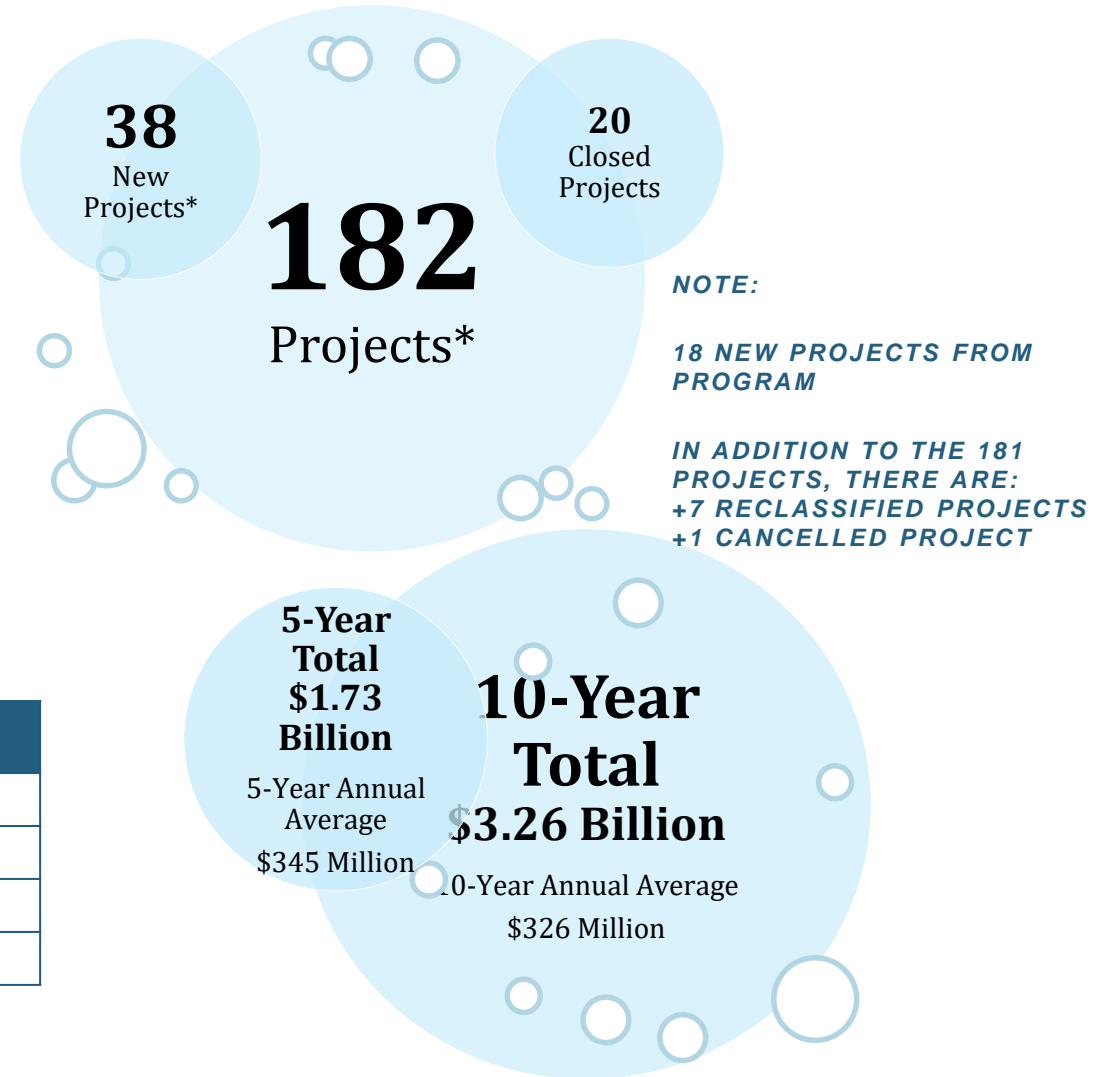
# FY 2023-2027 CIP SUMMARY

## 5-Year Outlook



WATER	(\$1,000'S)
5-Year Total	\$965,648
5-Year Average	\$193,130
10-Year Total	\$1,881,683
10-Year Average	\$188,168

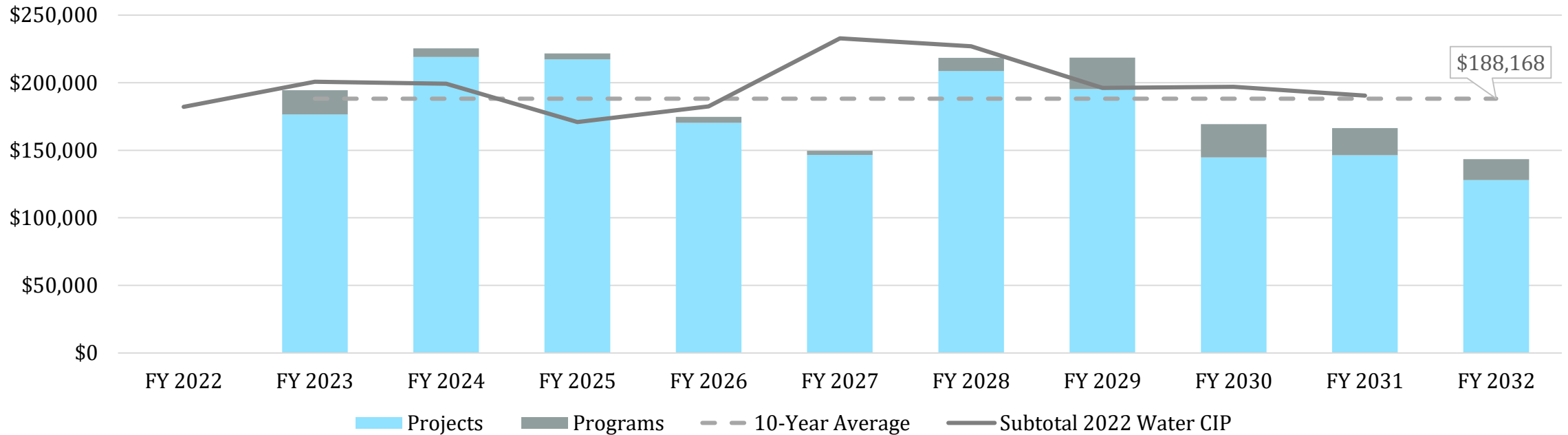
WASTEWATER	(1,000'S)
5-Year Total	\$761,764
5-Year Average	\$152,353
10-Year Total	\$1,381,808
10-Year Average	\$138,181



# FY 2023-2032 10-YEAR WATER CIP OUTLOOK

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Projects	\$176,463	\$218,980	\$217,229	\$170,301	\$146,474	\$208,594	\$195,313	\$144,658	\$146,377	\$128,010
Programs	\$17,912	\$6,456	\$4,387	\$4,380	\$3,065	\$9,760	\$23,190	\$24,595	\$20,059	\$15,479
<b>Total</b>	<b>\$194,376</b>	<b>\$225,436</b>	<b>\$221,616</b>	<b>\$174,681</b>	<b>\$149,539</b>	<b>\$218,354</b>	<b>\$218,503</b>	<b>\$169,253</b>	<b>\$166,436</b>	<b>\$143,489</b>

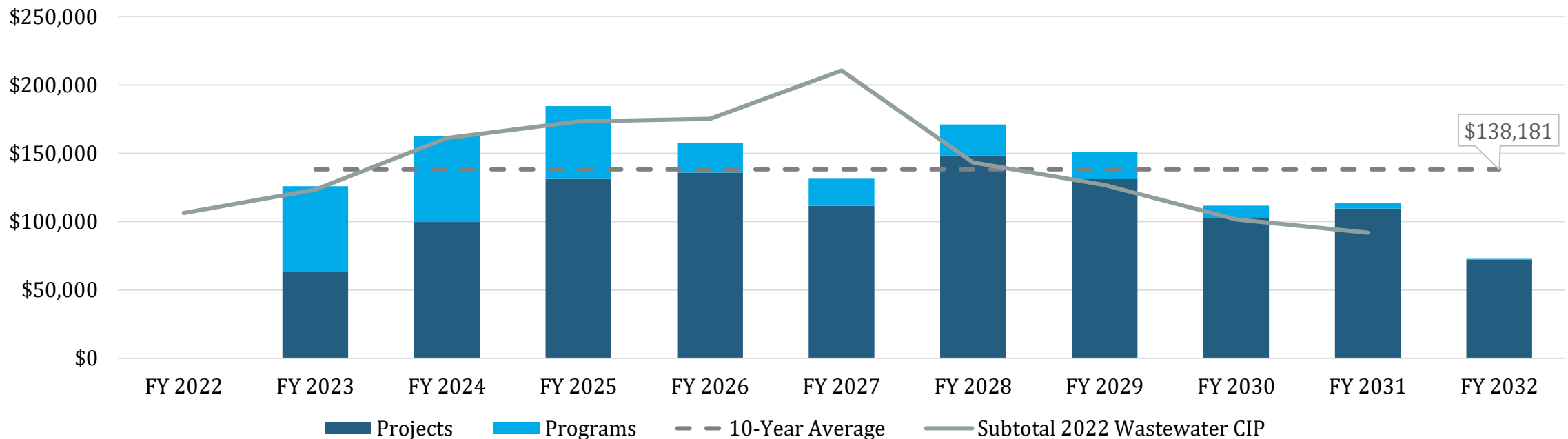
10- Year Water CIP Outlook



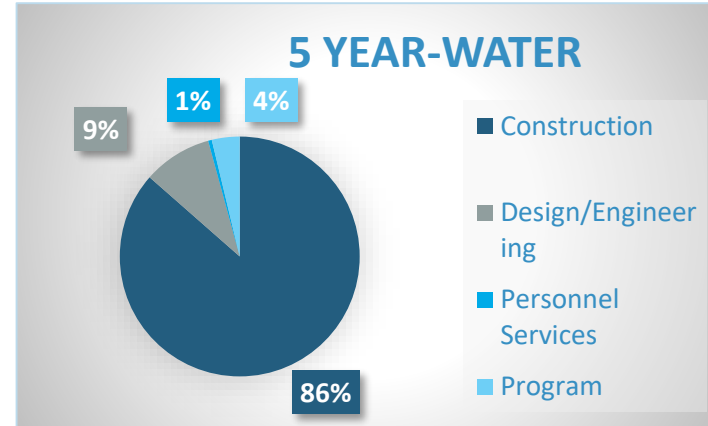
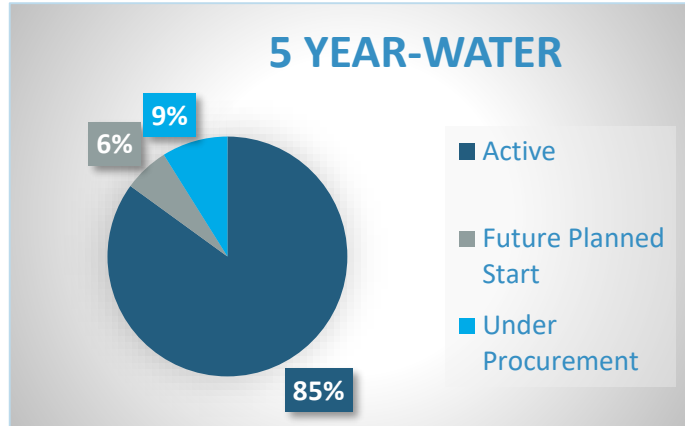
# FY 2023-2027 10-YEAR WASTEWATER CIP OUTLOOK

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Projects	\$63,409	\$99,807	\$131,168	\$135,845	\$111,536	\$148,525	\$131,078	\$102,649	\$109,590	\$72,232
Programs	\$62,524	\$62,506	\$53,354	\$21,844	\$19,771	\$22,543	\$19,880	\$9,058	\$3,894	\$594
<b>Total</b>	<b>\$125,932</b>	<b>\$162,313</b>	<b>\$184,523</b>	<b>\$157,689</b>	<b>\$131,307</b>	<b>\$171,068</b>	<b>\$150,958</b>	<b>\$111,707</b>	<b>\$113,484</b>	<b>\$72,826</b>

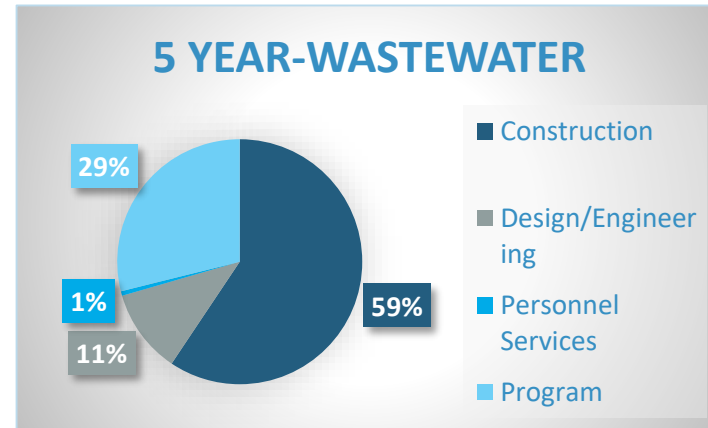
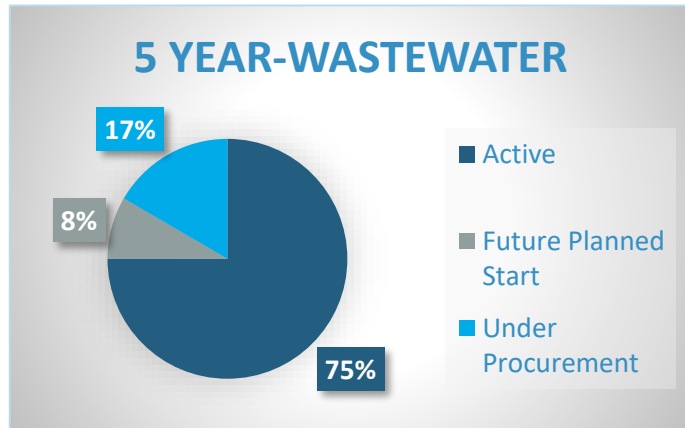
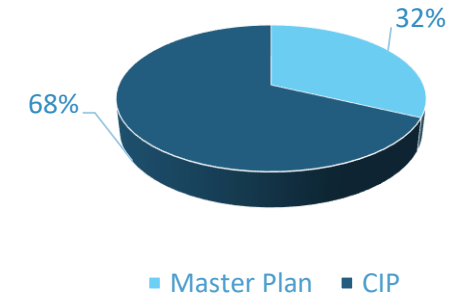
10-Year Wastewater CIP Outlook



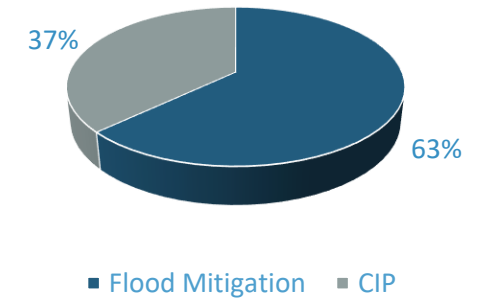
# FY 2023-2027 CIP STATISTICS



## WATER-MASTER PLAN RIGHT SIZING



## WASTEWATER-FLOOD MITIGATION





# CIP FEATURES

**GLWA** Page 1  
CIP Number: 111001

Project Title: Lake Huron Water Treatment Plant, Low-Lift, High Lift and Filter Backwash Pumping System Improvements

Project Status: Project Execution - Design

Class Lvl 1: Water

Class Lvl 2: Treatment Plants and Facilities

Class Lvl 3: Lake Huron

Lookup Location: Lake Huron WTP

Project New to CIP:

Innovation  
 WW Master Plan  
 Water Master Plan Right Sizing  
 Redundancy  
 NE WTP Repurposing  
 Linear Assets Outside of Facilities  
 Predecessor Project(s)

Representative Snapshot to be Replaced under CIP: 111001

Project Engineer/Manager: Eric Kramp  
Director: Grant Gartrel

Project Score: 71.6

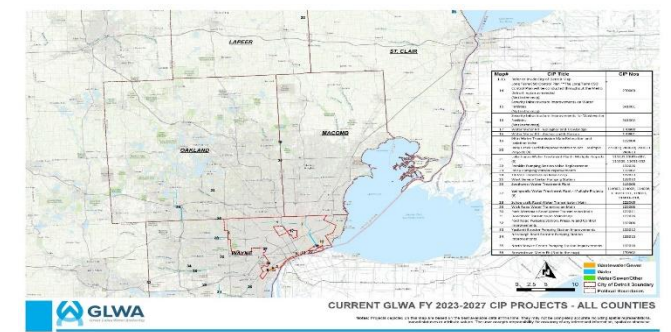
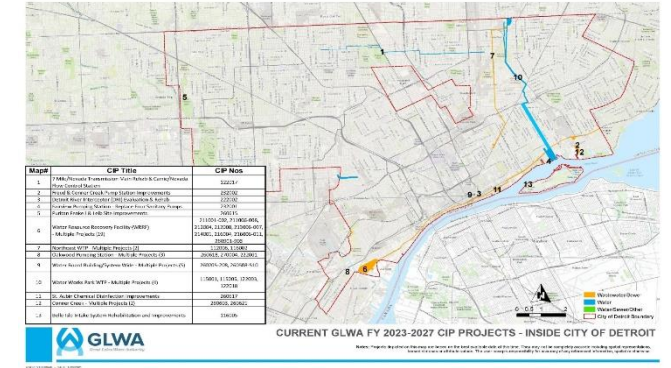
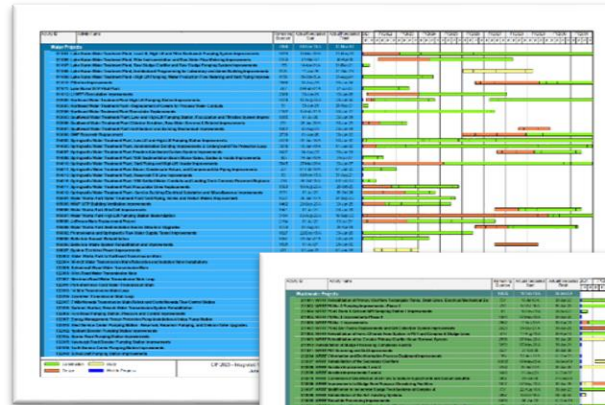
**Problem Statement:**  
Improvements needed to align the existing low lift pumping rate with the Lake Huron WTP production rate per the 2015 Water Master Plan Update.

**Scope of Work/Project Alternatives:**  
The CIP will be delivered using a design-bid-build project delivery method. The project's scope of improvements will generally include rehabilitation or replacement of the following systems and equipment:  
 1. High and medium voltage electrical system at the facility  
 2. Low-lift pumps, right-sized to current and projected demands  
 3. High-lift pumping units, right-sized to current and projected demands  
 4. Filter wash water pumps and related equipment  
 5. Phosphoric acid storage tanks and f...

**Other Important Info:**  
"Innovation" rating: Special award  
 Coordinator: motor require analysis may to operate all innovative all maintenance

**Current Expenses (All figures are in \$1,000's)**

Activity Name	Total Costs	Actual Costs	Prior FYs	FY21	FY22	FY23	FY24	FY25
GLWA Salaries	\$260	\$48	\$48	\$48	\$27	\$28	\$21	\$
Design & Construction Assistance #	\$10,444	\$34	\$34	\$1,839	\$1,839	\$1,456	\$793	\$
Construction (Build) #	\$46,442	\$0	\$0	\$0	\$0	\$2,899	\$8,052	\$10,000



**BUSINESS CASE EVALUATION (BCE) AND ONE PAGE SUMMARIES**

**INTEGRATED MASTER SCHEDULE (IMS)**

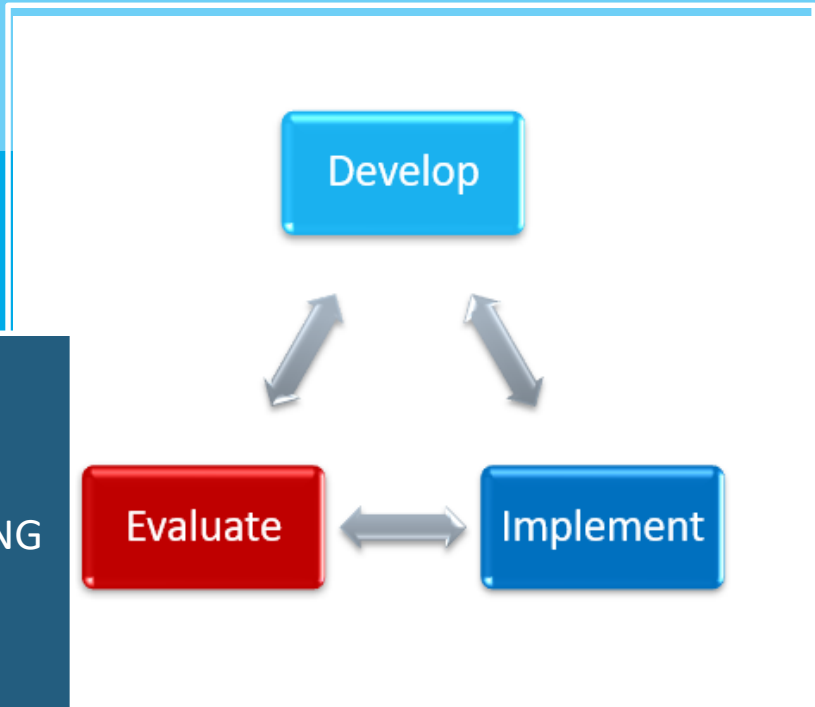
**GIS MAPS- CITY OF DETROIT (COD)/ ALL COUNTIES**

# NEW CIP FEATURES



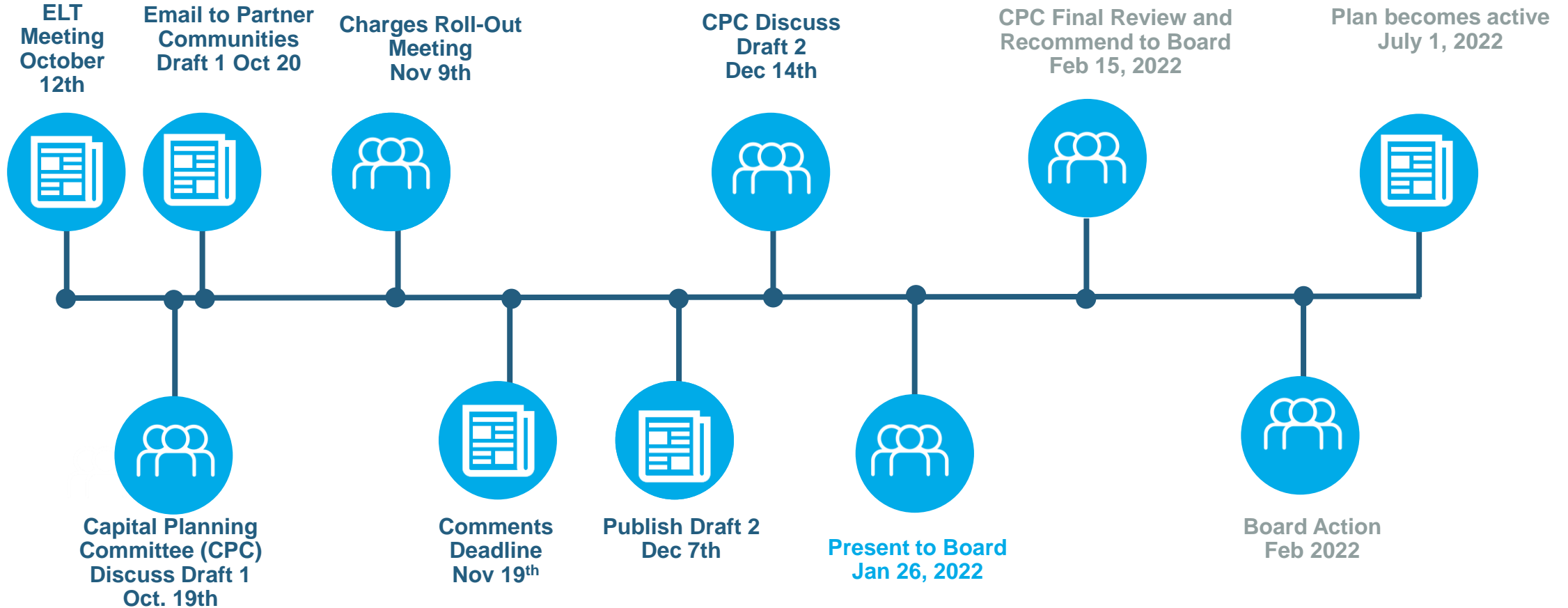
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ACKNOWLEDGEMENT  
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Appendix F: SCORING  
TECH MEMO





# FY23-27 CIP SCHEDULE & NEXT STEPS





**Thank you**

*Questions and Discussion*