



Lake Huron Water Treatment, Filter Instrumentation and Raw Water Flow Metering Improvements
Photo by Erik Kramp

Lowering the Control Gate into Grand Connection Tunnel
Photo by Mimi Panicker

CIP
CAPITAL IMPROVEMENT PLAN
2023 - 2027



GLWA's 2023 – 2027 Capital Improvement Plan

Board Meeting

February 23, 2022, 2:00 p.m.

Jody Caldwell

Interim Chief Planning Officer

Dima El-Gamal

Capital Improvement Program Director



FY 2023-2027 CIP SUMMARY

WATER

CIP Document	FY2022	FY2023	FY2024	FY2025	FY 2026	FY 2027	5-Year Total
Approved Water CIP FY 2022-2026	\$179,210	200,713	\$199,165	\$170,936	\$182,430	\$232,796	\$932,454
Draft Water CIP FY 2023-2027		\$194,376	\$225,436	\$221,616	\$174,681	\$149,539	\$965,648
Difference (\$)		(\$6)	\$26	\$51	(\$8)	(\$83)	\$33
Difference (%)		(3%)	13%	20%	(4%)	(36%)	4%

(Figures are shown in \$1,000's.)

4%

WASTEWATER

CIP Document	FY2022	FY2023	FY2024	FY2025	FY 2026	FY 2027	5-Year Total
Approved Wastewater CIP FY 2022-2026	\$106,050	\$123,190	\$160,940	\$173,024	\$175,200	\$210,615	\$738,403
Draft Wastewater CIP FY 2023-2027		\$125,932	\$162,313	\$184,523	\$157,689	\$131,307	\$761,764
Difference (\$)		\$3	\$1	\$11	(\$18)	(\$79)	\$23
Difference (%)		2%	1%	7%	(10%)	(38%)	3%

(Figures are shown in \$1,000's.)

3%

+18

+13

+4

38
New
Projects*

182
Projects*

20
Closed
Projects

NOTE:

18 NEW PROJECTS FROM PROGRAM

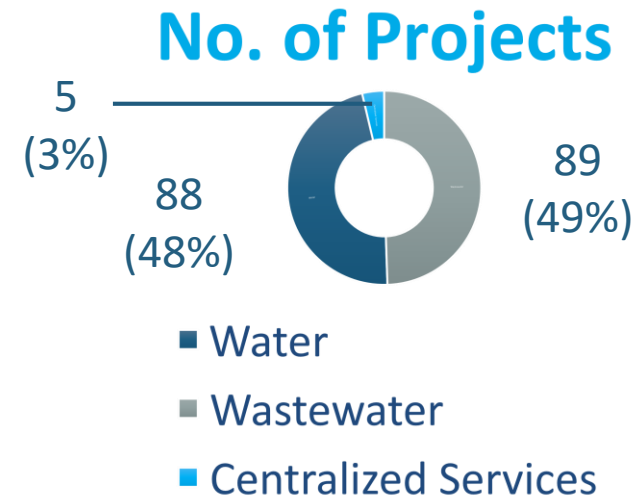
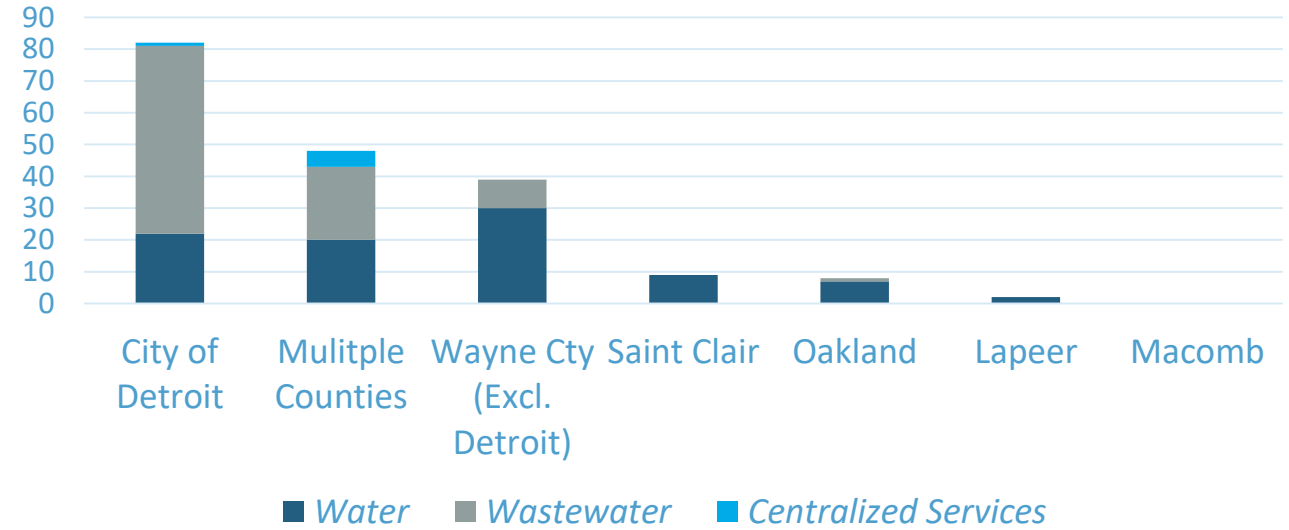
IN ADDITION TO THE 181 PROJECTS, THERE ARE:
+7 RECLASSIFIED PROJECTS
+1 CANCELLED PROJECT

5-Year Total \$1.73 Billion
5-Year Annual Average \$345 Million

10-Year Total \$3.26 Billion
10-Year Annual Average \$326 Million

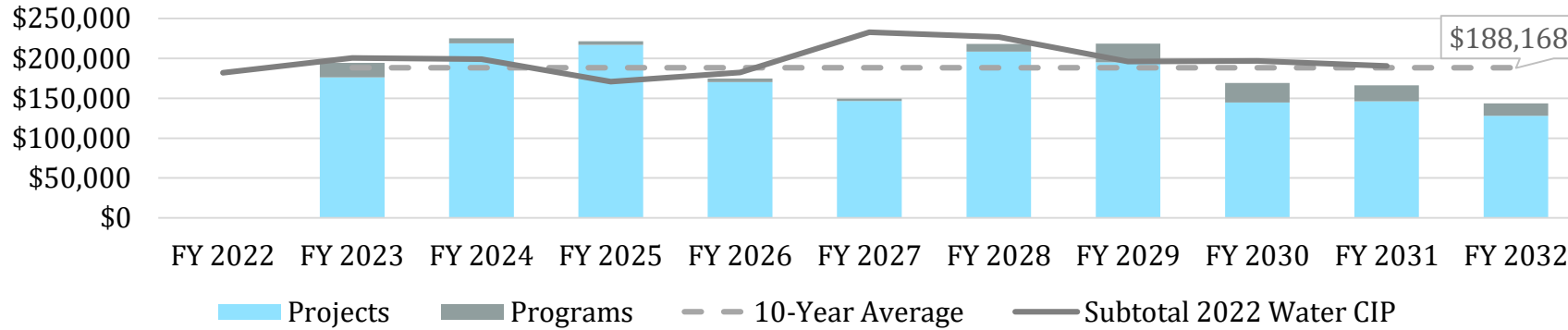
OVERVIEW – PROJECT QUANTITY, TYPE, & LOCATION

Projects	Water	Wastewater	Centralized Services
New	13	28	1
Status Changed to Active	11	16	
Status Changed to Pending Closeout	2	1	2
Status Changed to Anticipating Close FY23	10	10	
5 Yr. Total >\$5M	23	27	
5 Yr. Total >30M	10	8	
FY 23 Total >\$5M	12	8	
Water Master Plan Right Sizing	15		
Wastewater Master Plan		10	
Potential For Innovation	10	14	1
Redundancy and Reliability	42	40	1
Northeast Water Plant Repurposing	7		
Total Projects	88	89	5

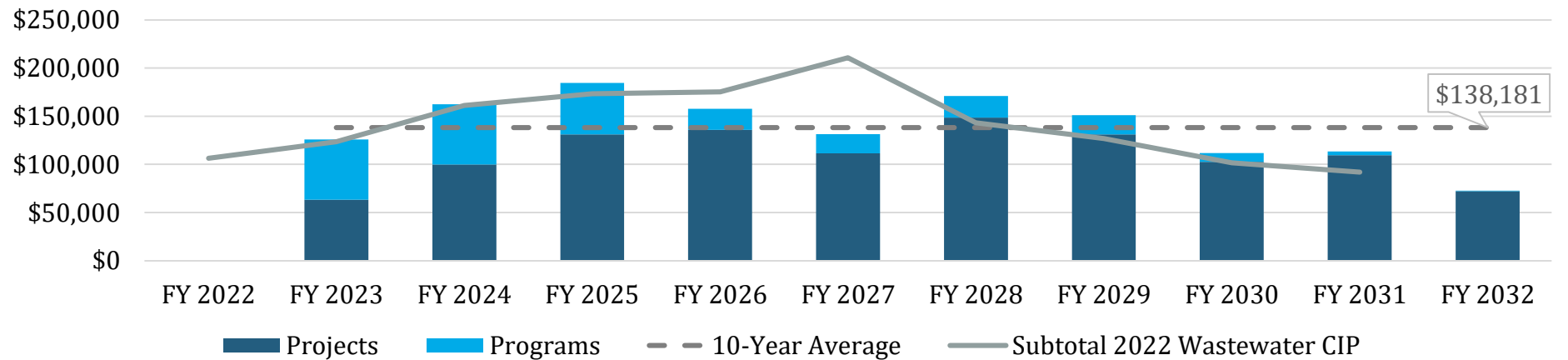


OVERVIEW – 10 YEAR CIP OUTLOOK

10- Year Water CIP Outlook



10-Year Wastewater CIP Outlook



LAKE HURON WTP FILTER INSTRUMENTATION AND RAW WATER FLOW METERING IMPROVEMENTS

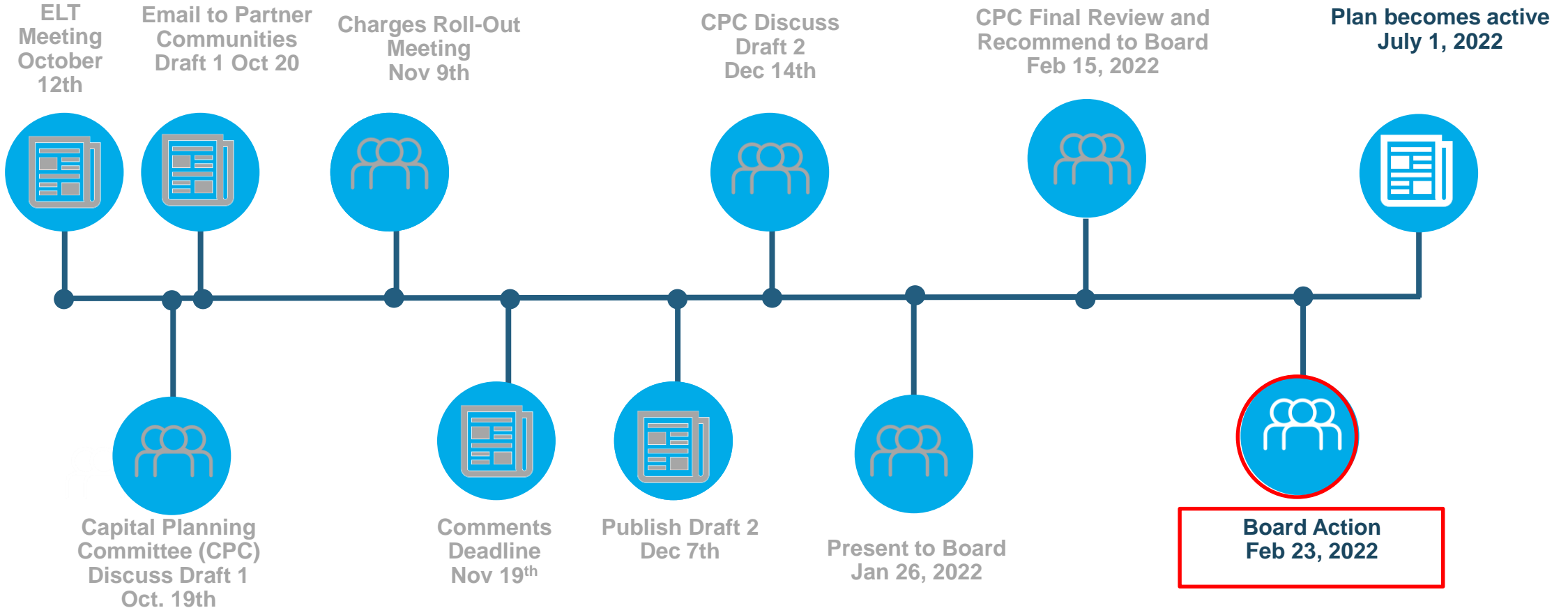
- CIP 111006
- Committee Score 60.5
- Replace filter instrumentation (Valves, transmitters, flow switches, and sample lines)
- Investigate raw water venturi flow metering and replace if necessary
- Exceeded service life
- System no longer functioning as needed
- Total Project Budget \$25.9 Million
- Progressive Design Build March 2022 – April 2028

WRRF AERATION BASINS 1 AND 2

- CIP 212008
- Committee Score 76.3
- Rehab of Aeration Basins 1 & 2 and Replacement of Intermediate Lift Pumps (ILP) 1 & 2. Conversion of Aeration Basins to incorporate biological Phosphorous Removal. Implementation of step feed to improve flow management
- ILPs Exceeded service life. Phosphorous removal to reduce oxygen and chemical usage. Conversion to step feed will improve hydraulics and increase flow through secondary treatment
- Total Project Budget \$73.8 Million
- Design Build October 2024 - June 2030



FY23-27 CIP SCHEDULE & NEXT STEPS





GLWA
Great Lakes Water Authority

THANK YOU AND QUESTIONS