

### CAPITAL IMPROVEMENT PLANNING UPDATE





**Dima El-Gamal**, PhD, PE, LEED@AP GLWA CIP Director

#### **AGENDA**

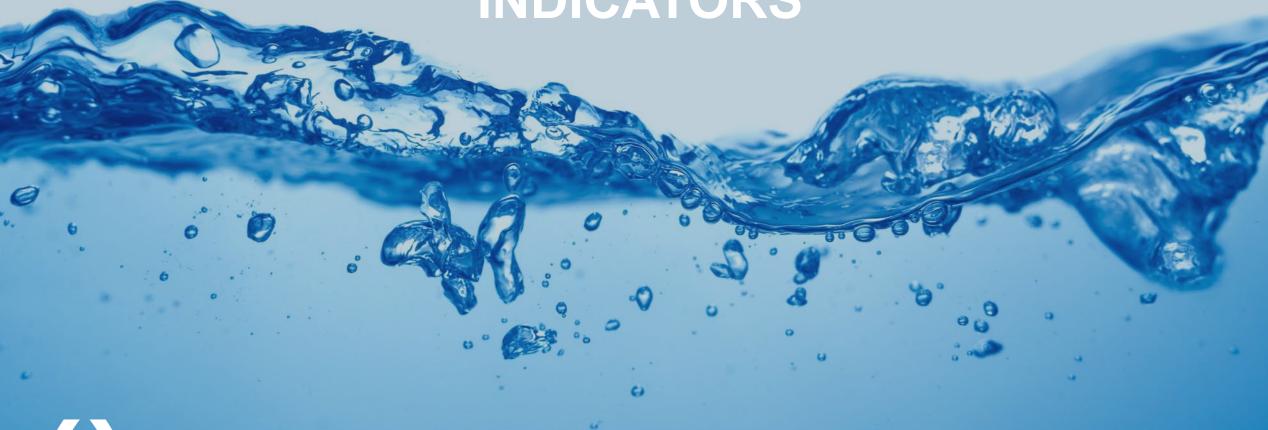
- FY 25 Initial Key Performance Indicators
- Board Approved CIP FY2026–FY2030
- Projects within the City of Detroit
- FY 27-31 CIP Update







# FY 25 INITIAL KEY PERFORMANCE INDICATORS

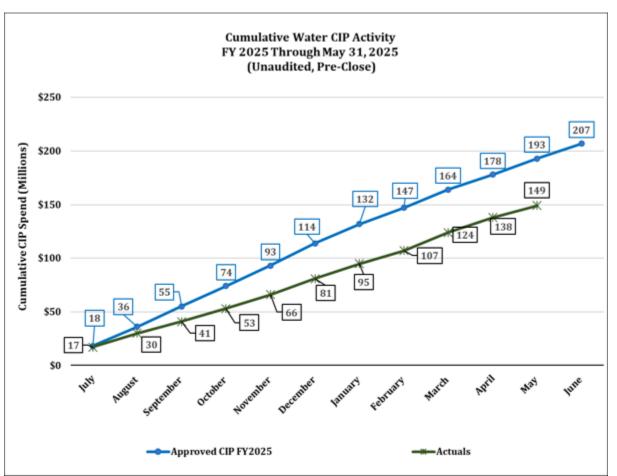




## FY25 KEY PERFORMANCE INDICATORS - WATER CUMULATIVE







#### **Current Status:**

The water system incurred \$149 million of CIP costs through May 2025.

This is 77% of the FY 2025 monthly *Approved CIP2025-2029*.

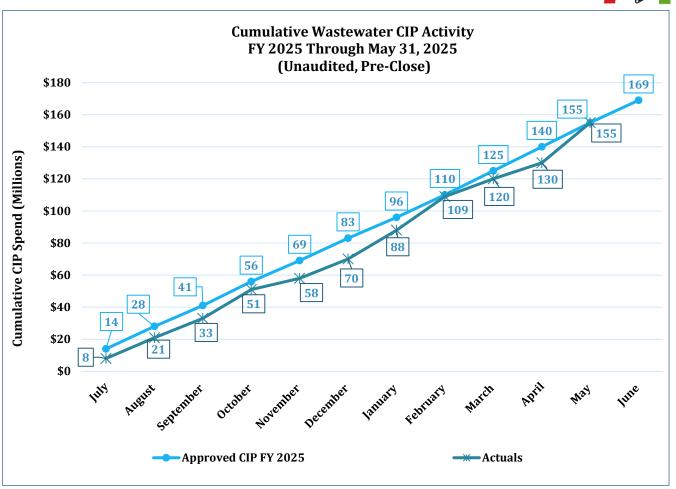
Water System is underspending due to delayed start of major projects. The underspend is primarily driven by 22019:

Jefferson Main Replacement Project: This project is currently paused due to coordination with the City of Detroit.

122016: Downriver Transmission Main Loop: and 111012: LHWTP-Flocculation Improvements started late due to design challenges. These projects account for \$45M underspend

## FY 25 KEY PERFORMANCE INDICATORS - WASTEWATER CUMULATIVE





#### **Current Status:**

The wastewater system incurred \$155 million of CIP costs through May 2025.

This is 100% of the FY 2025 monthly *Approved CIP2025-2029*.



## **BOARD APPROVED CIP FY26- FY30**



#### FY 26-30 CIP AT A GLANCE

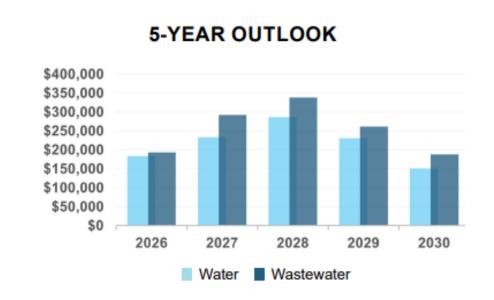


#### **Board Approved Feb 26, 2025**

WATER							
5-Year Total	\$1,083,229						
5-Year Average	\$216,646						
10-Year Total	\$2,216,920						
10-Year Average	\$221,692						

WASTEWATER	
5-Year Total	\$1,271,603
5-Year Average	\$254,321
10-Year Total	\$2,112,834
10-Year Average	\$211,283

Note: Figures are shown in \$1,000's.





Note: \*Six new projects from program

- \*\* In addition to the 156 projects, there are:
- +No reclassified projects
- +No canceled project





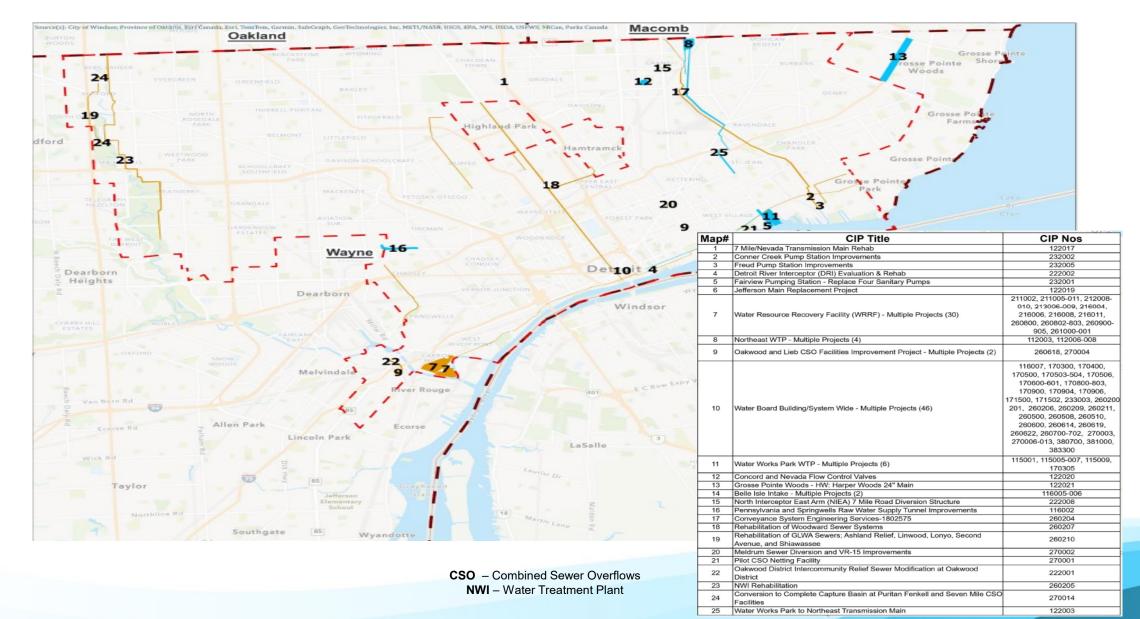
## PROJECTS WITHIN THE CITY OF DETROIT





#### PROJECTS WITHIN THE CITY OF DETROIT - LIST





#### PROJECTS WITHIN THE CITY OF DETROIT - WATER



CIP Number	Title	Project Status	Start Date	End Date	FY 26-30 Forecast
112006	Northeast Water Treatment Plant Flocculator Replacements	Project Execution - Construction	1/24/2022	3/18/2027	\$ 13,462,755.00
115001	Water Works Park Water Treatment Plant Yard Piping, Valves and Venturi Meters Replacement	Project Execution - Construction	6/26/2017	9/18/2025	\$ 56,073,060.00
115005	WWP WTP Building Ventilation Improvements	Project Execution - Construction	9/29/2020	8/29/2025	\$ 16,999,461.00
116002	Pennsylvania and Springwells Raw Water Supply Tunnel Improvements	Project Execution - Construction	1/29/2018	6/30/2026	\$ 98,756,636.00
116005	Belle Isle Seawall Rehabilitation	Project Execution - Construction	9/1/2022	3/26/2025	\$ 2,190,619.00
122019	Jefferson Main Replacement Project	Project Execution - Design	9/1/2021	6/30/2030	\$ 43,135,982.00
122020	Concord and Nevada Flow Control Valves	Project Execution - Design	7/1/2025	6/30/2028	\$ 8,593,500.00
122021	Grosse Pointe Woods - Harper Woods 24" Main	Project Execution - Design	7/1/2025	6/30/2028	\$ 7,077,000.00
<b>CIP Number</b>	Title	Project Status	Start Date	End Date	FY 26-30 Forecast
112007	NEWTP-Structural Repairs	Active - Procurement - Construction	7/1/2023	10/1/2027	\$ 6,685,115.00
112008	Northeast Water Treatment Plant Filter Replacement	Active - Procurement - Negotiation Phase - Design	7/1/2025	6/30/2030	\$ 94,631,390.00
		2 congri			
<b>CIP Number</b>	Title	Project Status	Start Date	End Date	FY 26-30 Forecast
CIP Number	Title  Water Works Park Sedimentation Basins Structural Upgrades				FY 26-30 Forecast \$ 16,845,902.00
		Project Status	Date	Date	
115009	Water Works Park Sedimentation Basins Structural Upgrades	Project Status  Future Planned - Within Five Year Plan	<b>Date</b> 8/4/2027	<b>Date</b> 5/2/2031	\$ 16,845,902.00
115009 <b>116006</b>	Water Works Park Sedimentation Basins Structural Upgrades  Belle Isle Intake System Rehabilitation and Improvements	Project Status  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan	<b>Date</b> 8/4/2027 <b>7/1/2026</b>	<b>Date</b> 5/2/2031 <b>6/30/2028</b>	\$ 16,845,902.00 \$ 2,221,841.00
115009 <b>116006</b> 170305	Water Works Park Sedimentation Basins Structural Upgrades  Belle Isle Intake System Rehabilitation and Improvements  WWP SCADA Network Upgrade	Project Status  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan	Date 8/4/2027 7/1/2026 7/1/2028	Date 5/2/2031 6/30/2028 2/4/2030	\$ 16,845,902.00 \$ 2,221,841.00 \$ 7,542,009.00
115009 116006 170305 170803	Water Works Park Sedimentation Basins Structural Upgrades  Belle Isle Intake System Rehabilitation and Improvements  WWP SCADA Network Upgrade  Reservoir Inspection, Design, and Construction Management Services Phase III  Northeast Water Treatment Plant High-Lift Pumping Station Improvements	Project Status  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan  Future Planned - Within Five Year Plan	Date 8/4/2027 7/1/2026 7/1/2028 7/1/2026	Date 5/2/2031 6/30/2028 2/4/2030 6/30/2032	\$ 16,845,902.00 \$ 2,221,841.00 \$ 7,542,009.00 \$ 78,849,172.00

#### PROJECTS WITHIN THE CITY OF DETROIT - WASTEWATER



CIP Number	Title	Project Status	Start Date	End Date	FY 26-30	) Forecast
211009	WRRF Rehabilitation of the Circular Primary Clarifier Scum Removal System	Future Planned - Within Five Year Plan	3/4/2022	3/3/2033	\$ 2	23,230,394.00
211010	Rehabilitation of Sludge Processing Complexes A and B	Future Planned - Within Five Year Plan	7/1/2027	6/30/2033	\$ 1	14,104,222.00
212009	WRRF Aeration Improvements 3 and 4	Future Planned - Ten Year CIP	5/2/2032	6/29/2043	\$ 27	71,545,226.00
212010	WRRF Conversion of Disinfection of all Flow to Sodium Hypochlorite and Sodium Bisulfite	Future Planned - Within Five Year Plan	7/1/2028	12/31/2036	\$	6,231,557.00
213008	WRRF Rehabilitation of the Ash Handling Systems	Future Planned - Within Five Year Plan	11/14/2025	2/28/2033	\$	7,188,909.00
260803	WRRF Roof Improvements - Phase II	Future Planned - Within Five Year Plan	3/8/2026	6/30/2029	\$	3,531,631.00
260900	WRRF Facility Optimization Program	Future Planned - Within Five Year Plan	1/1/2029	6/30/2038	\$ 8	35,935,000.00
261000	WRRF Rehabilitation of the Secondary Clarifiers	Future Planned - Ten Year CIP	7/1/2028	6/30/2037	\$ 3	39,337,242.00
270002	Meldrum Sewer Diversion and Valve Remove (VR) Improvements	Future Planned - Within Five Year Plan	7/1/2026	7/1/2031	\$	9,353,793.00
270008	Flushing System Improvements at Conner Creek and St. Aubin CSO Facilities	Future Planned - Within Five Year Plan	4/25/2027	4/28/2034	\$	7,070,077.00
270011	HVAC Improvements at Conner Creek and Belle Isle CSO Facilities	Future Planned - Ten Year CIP	4/23/2031	4/26/2034	\$	5,803,759.00
270013	Facility Improvements at Puritan Fenkell and Seven Mile CSO Facilities	Future Planned - Within Five Year Plan	4/21/2028	12/24/2032	\$	902,132.00
270014	Conversion to Complete Capture Basin at Puritan Fenkell and Seven Mile CSO Facilities	Future Planned - Within Five Year Plan	4/22/2028	4/25/2035	\$	4,482,478.00

CIP Number	Title	Project Status	Start Date	End Date	FY 26-30 Forecast
261001	WRRF Rehabilitation of the Secondary Clarifiers Phase 1	Active - Procurement - Design	11/1/2024	11/1/2029	\$ 35,256,278.00
270001	Pilot CSO Netting Facility	Active - Procurement - Negotiation Phase - Design	7/1/2024	6/30/2033	\$ 37,936,599.00
270010	HVAC Improvements at Puritan Fenkell and Seven Mile CSO Facilities	Active - Procurement - Negotiation Phase - Design	4/1/2025	7/17/2029	\$ 6,629,046.00

#### PROJECTS WITHIN THE CITY OF DETROIT - WASTEWATER



CIP Number	Title	Project Status	Start Date	End Date	FY 26-30 Forecast
211002	WRRF PS No. 2 Pumping Improvements - Phase 1	Project Execution - Construction	8/11/2010	12/31/2025	\$ 4,002,287.00
211005	WRRF PS No. 2 Improvements Phase II	Project Execution - Construction	2/21/2022	6/3/2040	\$ 86,034,446.00
211006	WRRF PS No. 1 Improvements	Project Execution - Construction	5/7/2019	5/8/2031	\$ 114,107,522.00
211007	WRRF PS #2 Bar Racks Replacements and Grit Collection System Improvements	Project Execution - Construction	10/20/2020	10/14/2033	\$ 243,125,368.00
211008	WRRF Rehabilitation of Ferric Chloride Feed System in PS-1 and Complex B Sludge Lines	Project Execution - Construction	7/1/2018	11/16/2026	\$ 13,416,110.00
211011	PS 1 Rack and Grit HVAC System Upgrade	Project Execution - Construction	8/21/2020	4/30/2041	\$ 307,732,086.00
212008	WRRF Aeration Improvements 1 and 2	Project Execution - Construction	4/8/2024	3/27/2032	\$ 213,744,633.00
213007	WRRF Modification to Incinerator Sludge Feed Systems at Complex -II	Project Execution - Construction	10/17/2022	11/16/2026	\$ 25,523,817.00
216006	Assessment and Rehabilitation of WRRF yard piping and underground utilities	Project Execution - Construction	12/28/2020	6/30/2029	\$ 38,010,419.00
216008	Rehabilitation of Screened Final Effluent (SFE) Pump Station	Project Execution - Construction	1/22/2019	1/10/2029	\$ 106,554,482.00
216011	WRRF Structural Improvements	Project Execution - Construction	9/16/2022	7/18/2027	\$ 13,977,502.00
222002	Detroit River Interceptor (DRI) Evaluation and Rehabilitation	Project Execution - Construction	7/1/2017	1/30/2036	\$ 119,602,517.00
222008	North Interceptor East Arm (NIEA) 7 Mile Road Diversion Structure	Project Execution - Construction	11/1/2023	11/30/2025	\$ 4,549,500.00
232002	Conner Creek Pump Station Improvements	Project Execution - Construction	9/1/2023	12/31/2036	\$ 348,098,596.00
232005	Freud Pump Station Improvements	Project Execution - Construction	6/7/2017	4/30/2030	\$ 150,983,098.00
260206	Conveyance System Repairs (Sewers)	Project Execution - Construction	6/7/2021	5/15/2029	\$ 39,836,925.00
260207	Rehabilitation of Woodward Sewer Systems	Project Execution - Construction	10/14/2019	7/1/2025	\$ 22,924,569.00
260211	Emergency and Urgent Sewer Repair II	Project Execution - Construction	2/1/2024	1/31/2028	\$ 6,066,000.00
260510	Conveyance System Repairs (Outfalls)	Project Execution - Construction	6/7/2021	6/30/2027	\$ 25,251,949.00

#### PROJECTS WITHIN THE CITY OF DETROIT - WASTEWATER



CIP Number	Title	Project Status	Start Date	End Date	FY 26-3	30 Forecast
260802	2022 WRRF Roof Improvements Project	Project Execution - Construction	5/11/2022	4/30/2027	\$	4,751,071.00
260901	Rehabilitation of HAZMAT Facility at WRRF	Project Execution - Construction	7/24/2020	2/28/2025	\$	3,856,922.00
260903	WRRF Front Entrance Rehabilitation	Project Execution - Construction	4/5/2021	6/30/2026	\$	7,582,772.00
260905	WRRF Plumbing Shop Renovation - 260905	Project Execution - Construction	8/15/2022	8/31/2025	\$	2,687,726.00
213006	WRRF Improvements to Sludge Feed Pumps at Dewatering Facilities	Project Execution - Design	4/14/2023	6/13/2029	\$	21,514,422.00
213009	WRRF Biosolids Processing Improvements	Project Execution - Design	11/4/2024	1/31/2042	\$	908,269,564.00
260904	WRRF 3rd Floor Renovation	Project Execution - Design	9/5/2022	1/1/2028	\$	9,390,331.00
270004	Oakwood and Leib CSO Facilities Improvement Project	Project Execution - Design	9/16/2022	1/31/2032	\$	59,536,399.00
260205	Northwest Interceptor (NWI) Rehabilitation	Project Execution - Pending Closeout	6/1/2020	10/1/2025	\$	9,347,793.00



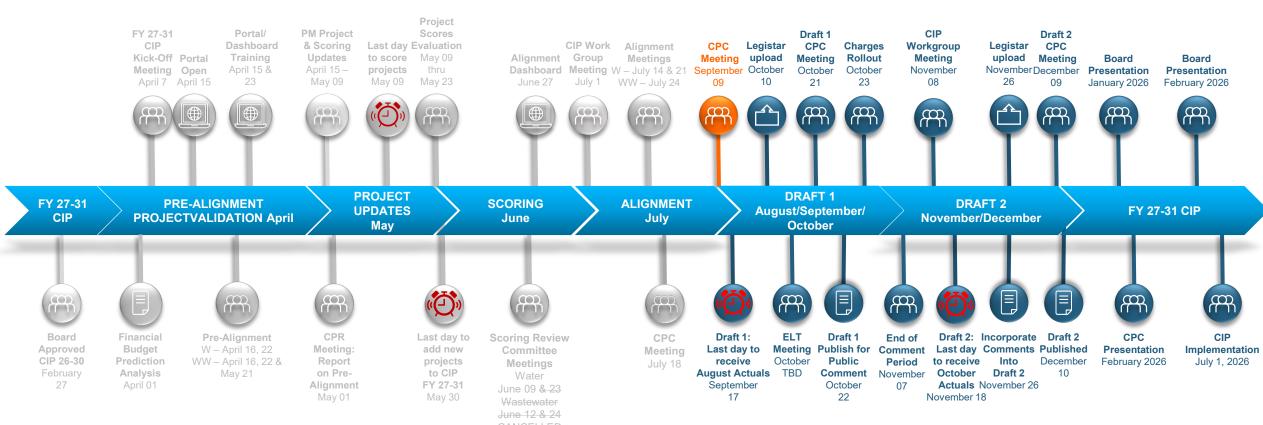
## FY 27-31 CIP UPDATE





#### **CIP FY 27-31 ROAD MAP**





Notes:

Draft 1 Actuals Cut-Off August 31
Draft 2: Actuals Cut Off October 31



Next Meeting

#### FY 2027-2031 PROCESS OPTIMIZATION – SCORING



### PROJECT SCORED / RESCORED

### PROJECTS NOT RESCORED

- New Project
- Future Planned
- Active Procurement
- Projects from Programs
- Project Execution-Design & Project
   Delivery Method = DBB

- Programs
- Project Phase Status
- Project Execution Construction
- Project Execution Pending Closeout
- Project Execution Design & Project
   Delivery Method = CMAR, DB, or PDB





#### **PROJECT SCORING - EXAMPLE**



Project Manager Weighted Score:	93				
Criteria Name	Score				
Condition		A. Asset has immediately	<b>GLWA</b>		Page 1
		breakdown (	Great Lahor Wester Authority		CIP Number: 112006
Performance (Service Level/Reliability)	5	D. Canceling and/or relial	Project Title: Northeast Water Treatment P	lant Flocculator Replacements	
		service level	- Tojout Hadi Holandad Hadi Holandad H	tant i roccatator replacomente	
		performance		I	1
		obsolete/ext	Project Status: Project Execution -	Innovation	
		significant c	Construction	WW Master Plan	
Regulatory (Environmental/Legal)	5	F. Compliand impact, E. D	CIP Type: Project	Water Master Plan Right Sizing	<b>GLWA</b>
		violations, re	Class Lvl 1: Water	Wet Weather Resiliency	GLVVA
		regional or s	Class Lvl 2: Treatment Plants and	<u>-</u>	Great Lakes Water Authority
		ecosystem, a Unregulated		Redundancy	
		permit/regul		■NE WTP Repurposing	
Operations and Maintenance	4	C. Repairs to keep in serv	Class LvI 3: Northeast	Predecessor Project(s)	
Health and Safety	2	B. Project lin	Project New to CIP	Linear Assets Outside of Facilities	
Public Benefit	3	F. Canceling	✓Useful Life > 20 Yrs	□cso	
Public Delient	3	relationships	Multiple Phases	Pumps	
Financial	3	(\$100K-\$499 C. Moderate	<u> </u>		
Tillalicial	3	years, D. Cz	Project Score	Storage	
500		repair/rest	82.4	▼Treatment	
Efficiency and Innovation	3	A. Projecc t			
			Project Manager: Brian VanHall	Date Original Business Case Prepared:	Project Jurisdiction: City of Detroit
Review Committee Weighted Score:	82.4		Director: Tim Kuhns	10/1/2018	Lookup Location: Northeast Water Treatment Plant
Criteria Name	Score	Comen		Year Project Added to CIP: 2018	
Condition	5	cores carri	Managing Dept.: Water Eng	CIP Budget: Water	Funds and Cost Center: Water - 5519-882111
Peno. Pace (Service Level/Reliability)	3	Scores carri		Cir Budget Huter	(Water Treatment Plants (WTP))
Regulatory (Environmental/Legal)	4	Scores carri	ed over from previous year		
Operations and Maintenance	4		ed over from previous year		
Health and Safety	4		ed over from previous year		
Public Benefit	2		ed over from previous year		
Financial	3		ed over from previous year		
Efficiency and Innovation	4	Scores carri	ed over from previous year		



#### PROJECT SCORING - REVIEW COMMITTEE



- All New Projects
- +/- 10 variance from previous score

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Cheryl Porter, Chief Operating Officer - Water Services

Terry Daniel, Deputy Chief Operating Officer

Biren Saparia, Director - Systems & Resiliency

Chandan Sood, Director - Water Analytics, Planning & Metering

\*John Danci, City of Dearborn Heights

Michael Dunne, Manager Life Cycle Project Management

Peter Fromm, Director - Water Transmission

Ronald Hayes, Director - Water Operations

Steven Dutschke, Director - Enterprise Asset Management

Timothy Kuhns, Director - Water Engineering

\*\*Eric Kramp, Life Cycle Project Manager (Scoring Alternate)

\*\*Erich Klun, Life Cycle Project Manager (Scoring Alternate)

#### **WASTEWATER**

Navid Mehram - Chief Operating Officer - Wastewater Services

Christopher Nastally - Director - Wastewater Engineering

Philip Kora - Manager - Wastewater Life Cycle Project Management

**Kevin Jankowski** - Director - Wastewater Analytics, Planning & Metering

Majid Khan - Director - Wastewater Operations

Steven Dutschke - Director - Enterprise Asset Management

Mini Panicker - Director - Energy and Resiliency

Vincent Genco - Manager - Wastewater Engineering

\*Michael Way, Grosse Pointe Shores

\*\*Kashmira Patel - Life Cycle Project Manager (Scoring Alternate)

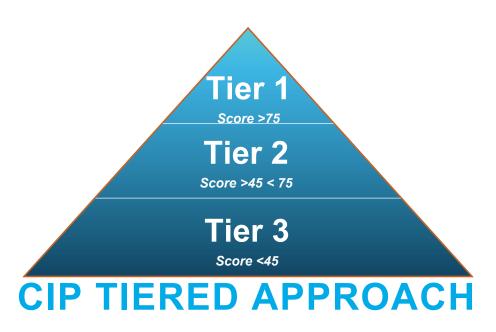
\*\*Greg Marker - Life Cycle Project Manager (Scoring Alternate)

- \* Member Partners Representative
- \*\* Alternate Members

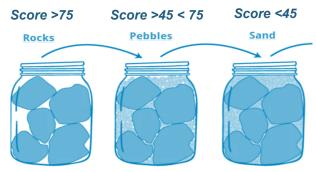


#### **PROJECT SCORING - EVALUATION**





#### Tier 1 Tier 2 Tier 3



#### Holistic Decision Factors

- Predecessor Projects
- Delivery Flexibility
- Funding Source
- Financial Plan
- Proactive Planning
- Constructability
- Operational Considerations
- Efficient Resource Allocation
- Integrated Asset Management



## PROPOSED NEW PROJECTS / PROGRAMS EX 27-31 CIP



#### WATER (\$118 million Total Budget)

- 1. 112009 Northeast Sedimentation Basins Sludge Processing Facility. PM Score 94.6 / RC Score 74.4
- 2. 114019 Springwell Sedimentation Basins Sludge Processing Facility. PM Score 92.7 / RC Score 74.4
- 3. 116101 Design/Inspection of Raw Water Tunnels PM Score 78.4 / RC Score 59.4
- 4. 122024 Central Post Beard Transmission Main Renewal PM Score 90.1 / RC Score 75
- 5. 122025 Morang Transmission Main Replacement PM Score 62.7 / RC Score 63.9
- 6. 170507 Water Transmission, Valve, Emergency and Other Urgent Repairs PM Score 100 / RC Score 100
- 7. 170605 42", Squirrel, Auburn Hills *PM Score* 77.7 / *RC Score* 58.4
- 8. 170606 120-inch Renewals PM Score 80.7 / RC Score 77.5
- 9. 170607 42" Tyler-North, Van Buren Twp PM Score 72.6 / RC Score 57.5
- 10. 170700 Transmission Pump Station Mechanical/Structural/Architectural Improvements Program. No Score\*

#### **WASTEWATER**

No New Projects Added

Notes:

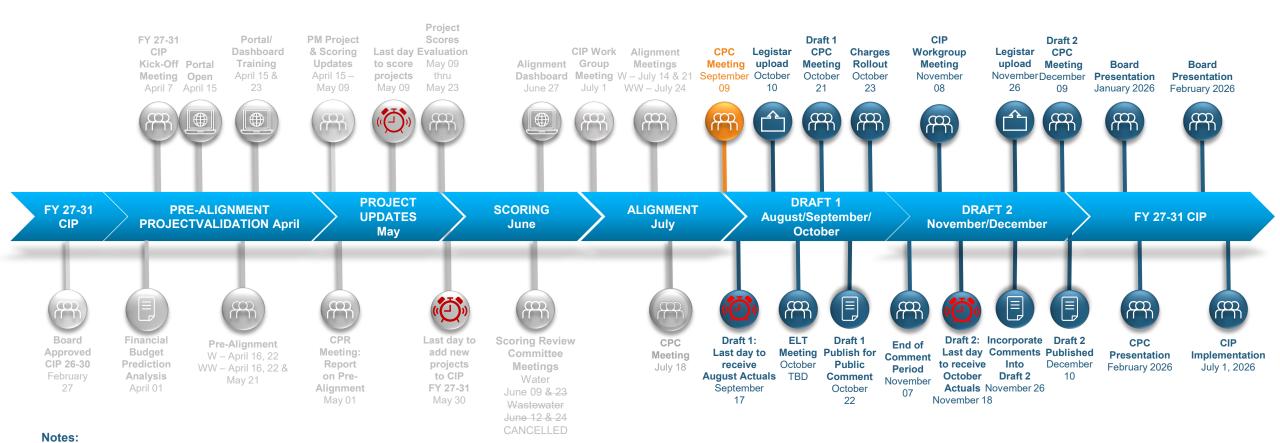
**Bold- Outside GLWA Facilities** 

\* Programs are not scored



#### CIP FY 27-31 - WHAT'S NEXT





GLWA

Draft 1 Actuals Cut-Off August 31
Draft 2: Actuals Cut Off October 31



## THANK YOU!



