

Water and Sewer Update

Finance and Administration Committee

Water and Sewer Capital Investment ~\$60M

From FY 2019-20 through FY 2024-2025

CATEGORY	PROJECT NAME	PROJECT DESCRIPTION	YR-6 2019-20 ACTIVITY	YR-5 2020-21 ACTIVITY	YR-4 2021-22 ACTIVITY	YR-3 2022-23 ACTIVITY	YR-2 2023-24 ACTIVITY	YR-1 2024-25 ACTIVITY	TOTAL
Sanitary Sewer	WRC Huron-Rogue Sewage Disposal System (HRSDS) Retention Facility Construction	The purpose of this project is to address the periodic contract flow exceedances the City has experienced over the past several years.	\$ 67,250	\$ 4,550,165	\$ 5,450,000				\$ 10,067,415
Sanitary Sewer	Nine Mile Rd Sanitary Relief Sewer	Replacement of approximately 6,400 feet of force main sanitary sewer with gravity sewer from Evergreen Court to Kensington. The main purpose of this project was to provide redundancy to the Park Place pump station, which is 1.6 miles from the closest gravity sewer outlet (near Kensington).	\$ 2,708,306	\$ 2,399,088	\$ 2,520,131	\$ 319,728			\$ 7,947,254
Water Distribution	Asbestos-Cement (AC) Water Main Replacement Phase 1- Meadowbrook Manor subdivision, Meadowbrook Lake subdivision, and along Center Street	This program is a multi-year effort that will likely cost the water and sewer system an estimated \$40 million, to be spread over 10 years. It removes and replaces aging, obsolete, and potentially hazardous water mains primarily in older residential areas of the City. Abatement of asbestos-cement water main as a needed improvement and benefit to the existing system was first identified as a priority in 2017 in the Water System Asset management Program Report.			\$ 324,664	\$ 6,082,157	\$ 378,366	\$ 10,738	\$ 6,795,945
Sanitary Sewer	WRC Huron-Rogue Sewage Disposal System (HRSDS) Interceptor Repairs	HRSDS Interceptor Sewer is owned by Oakland County, but maintenance, repair, and rehabilitation are funded by Novi. Sewer is 50+ years old, and inspection identified significant pipe defect. \$19.3M cost estimate - \$6M WRC Operating Reserves, \$7.3M WRC-issued Bond, \$6M Novi Water & Sewer Fund Reserves						\$ 6,000,000	\$ 6,000,000
Sanitary Sewer	Sanitary Sewer Capacity Upgrades Lanny's Influent & Drakes Bay Effluent	Existing pumps needed to be upgraded. That in turn necessitated a pipe size increase. While it will also assist with capacity in the system for new or future users, this project will reduce the current ongoing surcharging of sanitary sewer in this service area.		\$ 76,488	\$ 36,619	\$ 93,189	\$ 3,970,875	\$ 1,064,145	\$ 5,241,315
Water Distribution	AMI Water Meter Replacements	This project is part of ongoing routine maintenance to replace aging water meters throughout the water system, benefitting all rate payers.	\$ 264,403	\$ 1,073,673	\$ 1,863,431				\$ 3,201,506
Sanitary Sewer	Sanitary Sewer Main & Manhole Rehabilitation	Based on the 2019 SAW grant inspections, these are the recommended rehabilitation projects based on the deficiencies identified.	\$ 39,808	\$ 2,244,808	\$ 416,242				\$ 2,700,857
Water Distribution	Howell's Walled Lake Subdivision Water Main Replacement	This project addressed high-frequency water main breaks in this portion of the system. The project was conceived to coincide with other infrastructure improvements that will be combined to achieve economies of scale. These improvements will increase reliability for this section of the system.			\$ 159,858	\$ 2,312,165	\$ 106,433	\$ 53,826	\$ 2,632,282
Sanitary Sewer	WRC Novi Truck Sewer Replacement	Replacement and rehabilitation of a failing sanitary sewer in northwest portion of Novi. The purpose of this project was to replace 330 linear feet of sagging sanitary sewer, which had caused several sanitary sewer overflows (SSO) into the adjacent wetlands. Additionally, 2,382 linear feet of the concrete sewer main pipe was lined due to the deterioration observed during inspection.			\$ 2,200,000		\$ 280,000		\$ 2,480,000

Water and Sewer Projects in Construction

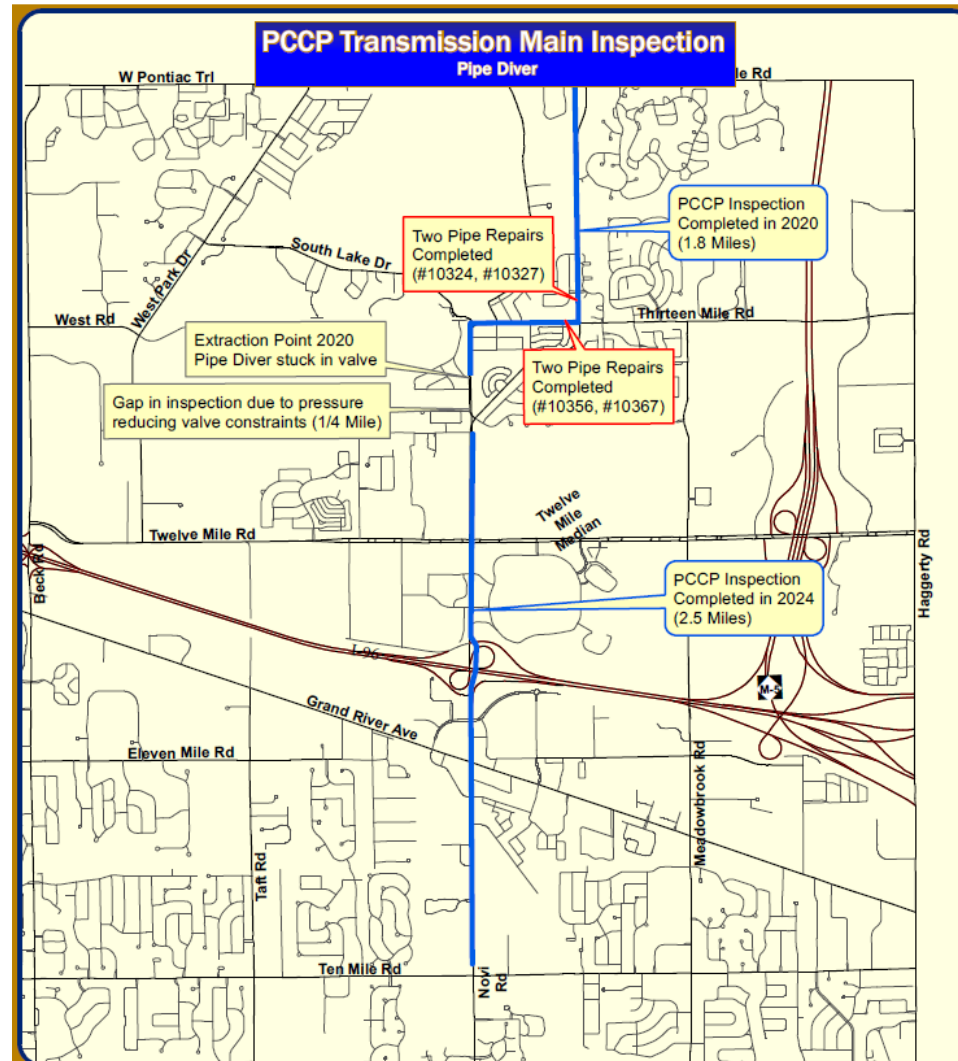
- **HRSDS Sewer Trunk Lining** **\$18M**
 - In progress rehab of WRC 36” Sanitary Sewer
- **SW Water Main LOOP** **\$7M**
 - Bid later this year. Looping from Beck Road to 8 Mile and north on Napier. Addressing low pressure issues
- **Bellagio Pump Station** **\$500K**
 - Pump and Equipment replacement
- **Cedar Springs Water Main Lining** **\$2.2M**
 - Construction this summer to address failing water main and historical breaks and service disruptions

Water and Sewer CIP FY 2026-2027 through 2031-32

Project Name	CIP Category	GL Fund #	Fiscal Year	FY 2026-27 YR 1	FY 2027-28 YR 2	FY 2028-29 YR 3	FY 2029-30 YR 4	FY 2030-31 YR 5	FY 2031-32 YR 6	Total Budget
Meadowbrook Road Rehabilitation, Drainage and Water Main Improvements (9 Mile to 10 Mile Roads) - Water & Sewer Fund portion	Water Distribution	WATER AND SEWER 592	2027-2028	\$ -	\$ 1,353,206	\$ -	\$ -	\$ -	\$ -	\$ 1,353,206
Willowbrook Estates No. 3 Road Reconstruction, Section 25 Storm Drainage Improvements, AC Water Main Replacement (Glen Ridge Court, Rock Hill Lane, Maude Lea Circle, Ripple Creek Road) - Water & Sewer Fund portion	Water Distribution	WATER AND SEWER 592	2027-2028	\$ -	\$ 142,181	\$ 2,143,178	\$ -	\$ -	\$ -	\$ 2,285,359
Sanitary Sewer Rehabilitation - Meadowbrook Glens Subdivision	Sanitary Sewer	WATER AND SEWER 92	2026-2027	\$ 776,692	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 776,692
Elevated Water Tank Construction- Island Lake District	Water Distribution	WATER AND SEWER 592	2026-2027	\$ 438,625	\$ 6,885,808	\$ -	\$ -	\$ -	\$ -	\$ 7,324,433
Master Meter and Water Main Installation (Future NV-06 Connection)- 14 Mile Road to Haggerty Corridor Corporate Park II	Water Distribution	WATER AND SEWER 592	2029-2030	\$ -	\$ -	\$ -	\$ 3,143,461	\$ -	\$ -	\$ 3,143,461
PRV (Pressure Reducing Value) Redistricting- Decommission at 12 Mile/ Meadowbrook & Installation at 13 Mile/ Novi	Water Distribution	WATER AND SEWER 592	2029-2030	\$ -	\$ -	\$ -	\$ 1,305,568	\$ -	\$ -	\$ 1,305,568

Water Main PCCP Inspection 2019-2020

- 4 Segments Repaired
- 4 Segments with >5 wire breaks identified
- Gap in inspection due to PRV



Water Main PCCP Inspection Baseline (re-inspect) and AFO

Baseline PCCP EM Inspection				
Category	Unit	Unit Rate	Quantity	Total
PipeDiver PCCP EM Baseline Inspection	lump sum	\$514,367.42	1	\$514,367.42
Pure Robotics PCCP EM Baseline Inspection	lump sum	\$240,400.00	1	\$240,400.00
Subtotal PCCP EM Baseline Inspection				\$754,367.42

AFO Monitoring		
Description	Price	Invoicing Period
Year 1 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 2 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 3 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 4 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 5 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 6 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 7 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 8 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 9 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Year 10 Monitoring Services	\$348,830.00	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days

WRC Walled Lake Treatment Plant Improvements

Project Description	Estimated Implementation Year(s)	Net Useful Life/ Extended Life	Estimated Cost
New Dewatering System	2026 - 2027	20 years	\$600,000
Concrete Tanks Restoration	2026 - 2029	50 years	\$895,000
Process Blowers Replacement	2026 - 2029	20 years	\$585,000
Collection System and Manhole Restoration and Lining	2026 - 2029	40 years	\$1,400,000
Electrical Control Center Replacement	2027-2029	30 years	\$1,550,000
Effluent Structure Replacement	2028 - 2029	40 years	\$150,000
Administration HVAC Replacement	2029	15 years	\$200,000
Replacement of Manlift	2030	40 years	\$620,000

Novi share \$2M which can be paid from fund balance or financed (built into rates)

Investigating Establishment of Water Authority

Contiguous Communities

- Novi
- Wixom
- Farmington Hills
- West Bloomfield

Revenue requirements calculations showed a financial savings of approximately of **\$2.5M** (split by communities)

- needs to have a GLWA system benefit
- currently working with WRC and consultant to explore

Rates and Fund Balance

- Reserve Fund Balance 4/30, ~\$19.6M

	RATE INCREASES/DECREASES										Proposed
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26
GLWA	7.2%	-23.9%	8.7%	-0.2%	-0.6%	1.9%	2.0%	2.7%	5.9%	2.4%	6.3%
WRC	3.8%	2.8%	0.6%	1.3%	21.3%	15.5%	1.1%	3.3%	5.1%	7.0%	4.2%
City Water	12%	-16%	0%	2%	2%	2.0%	1.0%	2.5%	6.0%	6.0%	8.0%
City Sewer	4%	6%	0%	8%	3%	7.0%	1.0%	5.0%	6.25%	9.0%	6.0%
Typical User - Combined	8%	-8%	0.0%	3.2%	1.6%	2.8%	0.6%	2.5%	4.0%	5.0%	4.7%

In order to maintain an appropriate fund balance, staff recommends performing a “Rate Study” given the potential for reduced revenue requirements versus capital needs and aging infrastructure.