EIGHT AND ONE-HALF MILE RELIEF DRAIN INTRA-COUNTY DRAINAGE BOARD DECEMBER 11, 2023 10:15 A.M. AGENDA

NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE OPTION FOR PUBLIC

Call in Number: 1-224-990-0182 Access Code: 927 405 823

		Page
1.	Call of meeting to order and roll call	
2.	Approval of Agenda for December 11, 2023	
3.	Approval of Minutes for November 13, 2023	3
4.	Public Participation	
5.	Project & Operational Updates – Vince Astorino	5
6.	Consideration for approval of invoices (see attached)	32
7.	Financial Report – Bruce Manning	33
8.	Adjourn	

SYSTEM LEGEND ASSET LEGEND (AS OF DATE OF PUBLICATION) PUMP STATION SYSTEM BOUNDARY Ø FLOW CONTROL STRUCTURE RTB **DISTRICT LEGEND** GRAVITY INTERCEPTOR (AS OF DATE OF PUBLICATION) IN-SYSTEM STORAGE DEVICE 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT OVERFLOW POINT SOUTHEAST MACOMB COUNTY WASTEWATER DISPOSAL SYSTEM LEVEL SENSOR MARTIN SANITARY DIVERSION DISTRICT ٥ RAIN GALIGE SOUTHEAST MACOMB SANITARY DISTRICT М FLOW METER NORTHEAST SEWAGE DISPOSAL SYSTEM MILK RIVER INTERCOUNTY DRAIN DRAINAGE DISTRICT

Hard copy is intended to be 8.5"x11" when plotted, Scale(s) indicated and graphic quality may not be accurate for

any other size.

CHAPATON SYSTEM MAP Macomb County, MI

-MILK RIVER RECIRCULATION

FACILITY

ALGER PS

Southeast Macomb Sanitary District Wastewater Master Plan

PROJECT NO. 181053

LOCAL MUNICIPALITY

OTHER

USER: MESEDKI

TIME: 1:33:59 PM

DATE: 7/20/2021

LAYOUT: FIG 3-6 CHAPATON SYS

PLOT INFO: Z:\2018\181053\CAD\PRECD\SEMSD OVERALL.DWG

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on November 13, 2023, at 10:13 A.M.

PRESENT: Candice S. Miller, Chair

Bryan Santo, Member

Sarah Lucido, Member

ALSO PRESENT: Daniel Acciavatti, Deputy Government Relations; Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Finance Manager; Pamela Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor; Don VanSyckel, Board of Commissioners

PRESENT VIA TELECONFERENCE: Bonnie Rau, City of Sterling Heights DPW

The meeting was called to order by the Chair, Candice S. Miller. A motion was made by Ms. Lucido, supported by Mr. Santo to approve the agenda as presented.

Adopted: YEAS: 3

NAYS: 0

Minutes of the meeting of October 16, 2023, were presented. A motion was made by Ms. Lucido, supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3

NAYS: 0

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Astorino said that there were no wet weather events for the past month. He presented pictures of the Beaconsfield In-System storage project and stated that it is progressing well. The contractor has received our letter regarding a timeline and liquidated damages, and they have assigned additional manpower toward the project in hopes to speed up the process. He said they will be installing a row of bollards placed in front of the structure because it is so close to the road. He doesn't want to open the road until the project is complete. Ms. Lucido said that the neighbors' driveways are not blocked, and that there have not been a lot of complaints because it lessens the traffic in that area.

Mr. Astorino updated on the Chapaton Canal Rehabilitation project saying that it is ahead of schedule and going well. The west side structure is nearly complete, and all the walls are up. Ms. Miller said that the Harbor Place residents have complained about the noise while we are sheeting. She has offered to house them temporarily at a local hotel. Some have declined and some have accepted the offer. The contractors have switched machines so the noise level is lower and should be more tolerable.

Mr. Astorino said that the Interceptor Inspection program is close to being complete. We found an area of concern along Harper. Doetsch was dispatched right away and they are still working on it.

Mr. Astorino stated that there is not much going on with Chapaton Electrical upgrades.

A motion was made by Mr. Santo, supported by Ms. Lucido to receive and file the project updates.

Adopted: YEAS: 3

NAYS: 0

The Chair presented the invoices totaling \$5,645,487.88 to the board for review and approval.

A motion was made by Mr. Santo, supported by Ms. Lucido to approve the invoices as presented.

Adopted: YEAS: 3

NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Ms. Lucido and supported by Mr. Santo.

Adopted: YEAS: 3

NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Ms. Lucido, that the meeting of the Eight and One-Half Mile Relief Drain Board be adjourned.

Adopted: YEAS: 3

NAYS: 0

The meeting was adjourned at 10:39 A.M.

Candice S. Miller, Chair

Macomb County Public Works Commissioner

andico S. Miller

STATE OF MICHIGAN COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on November 13, 2023, the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

Candice S. Miller, Chair

Macomb County Public Works Commissioner

andico S. Miller

DATED: 11/13/23

Candice S. Miller



Public Works Commissioner Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations Director

Date: December 11, 2023

Subject: Construction Projects Status Updates for the December 2023 Board Meeting

The following provides a status update for construction work completed within the 8 ½ Mile Relief Drain Drainage District (8MRDDD) for the previous month.

Wet Weather Operations

No wet weather events for the past month.

Chapaton In-System Storage Project

Contractor: Weiss Construction

Engineering Consultant: Tetra Tech

Project Description:

The primary focus of the project is the construction of an access shaft and installation of the In-System Storage Device at Beaconsfield and Oak in Eastpointe. This project will achieve an additional 3.5 million gallons of storage within the 8.5 Mile Relief tunnel.

Significant project tasks that have occurred over the past month:

- 1. Submittals are being received and processed by the engineering team.
- 2. Construction Activities per Update Period:
 - Continued staging construction materials delivered & stored along Beaconsfield greenbelt.
 - Maintained secured work site with swing gates and privacy fence screening at construction sites.
 - Continued Beaconsfield site vibration and sensor monitoring and documentation during construction as required.
 - Continued dewatering and maintaining adequate working conditions within the limits of the Construction Site as necessary.

- Continued to strategically remove steel I-beam bracing from the Beaconsfield shaft as designed per engineers' approval.
- Placed approved backfill sand while performing compaction and density testing within specified incremental backfill heights as required inside the Beaconsfield shaft.
- Layout and placed concrete forms, reinforcing steel, dowels, thimbles, and water stop for East equipment room walls up to elevation 586' as well as West access room walls up to elevation 590' within the Beaconsfield shaft as designed.
- Poured in place high strength concrete East and West wall sections up to elevations 590' and 586' respectively within the Beaconsfield construction shaft as required.
- Installed dimensional asphalt shingles on the Control Building roof at Beaconsfield as required.
- Poured in place concrete equipment pads (5ea.) inside the Beaconsfield Control Building as designed.
- Set North and South vented lampstands sections located in the Kelly Road Boulevard as proposed.
- Removed existing concrete pavements and manhole structures and replaced with new bolted Macomb County manhole structures as designed at the Greater Mack and Edgewood sites.
- Poured in place new concrete slab with new access manhole structure and installed ductile iron pipe with vents as proposed at the Gaukler Street construction site.
- Removed concrete pavement at Malvern Street as required.

3. Construction Look Ahead:

- Continue deliveries of construction materials along Beaconsfield greenbelt.
- Continue Beaconsfield site vibration monitoring & documentation.
- Set in Place all required access hatches and openings as proposed to the 8.5 tunnel as designed at the Beaconsfield site.
- Pour in place the remainder concrete walls and roofs for the east and west access points near grade elevation 591' with high strength concrete as designed in the Beaconsfield shaft work site.
- Continue to backfill and remove steel I-beam bracing from the Beaconsfield shaft as designed per engineers' approval.
- Place new concrete pavement to allow partial opening of Beaconsfield Road at Oak Street as required.
- Complete installation of required lamp-post vents and necessary components for carbon odor control unit at the Kelly Road worksite.
- Place stone and grade accordingly for access drive at the Gaukler worksite as proposed.
- Install doors, drywall, and equipment for the proposed inflatable dam Control Building at Beaconsfield as required.

	Date (if applicable)	Amount
Original Contract Amount		\$9,673,200.00
Change Order #1	9/15/22	\$269,666.49
Revised Contract Amount		\$9,942,866.49
Total Spent to Date	Pay Apps. #1 - 19	\$5,984,060.58
Remaining Budget		\$3,958,805.91

Figure 1 – Removing Steel I-Beams @ Beaconsfield Shaft



Figure 2 – Placing Reinforcing Steel @ Beaconsfield Shaft

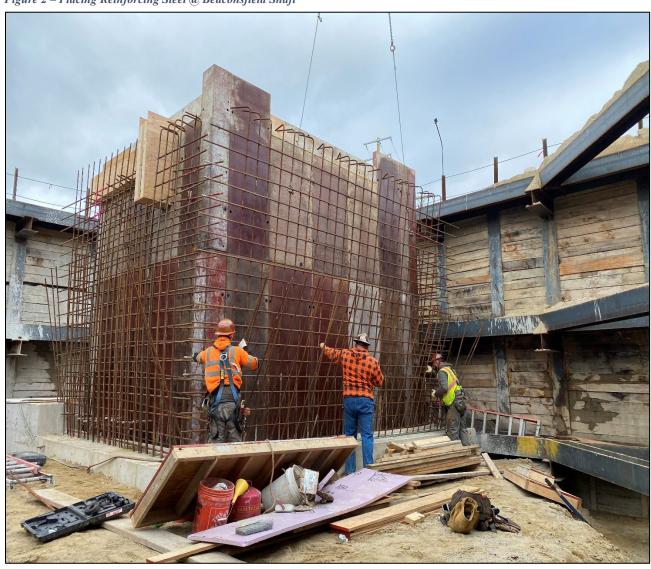


Figure 3 – Installing Concrete Wall Forms @ Beaconsfield Shaft



Figure 4 – Placing Wall Concrete for West Access @ Beaconsfield Shaft



Figure 5 – Embedded Thimbles for Vent Pipe @ Beaconsfield Shaft





Figure 7 - Compacting Sand Backfill @ Beaconsfield Shaft



Figure 8 – Installing Lampstand Vents @ Kelly Rd. Blvd.



Figure 9 – Placing Concrete @ Greater Mack Road



Figure 10 –Removing Concrete @ Malvern Street



Figure 11 - Facing West @ Beaconsfield & Oak Intersection

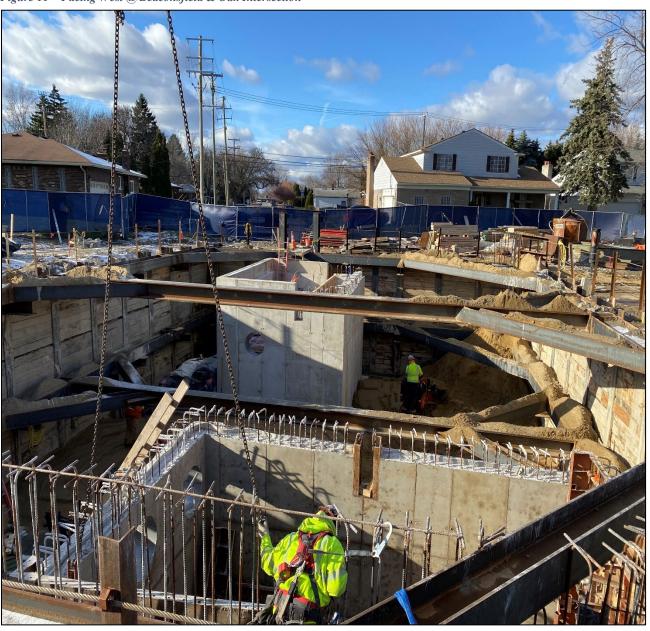


Figure 12 – Drone Aerial at 200 FT



Chapaton RTB Canal Rehabilitation Project

Contractor: Z Contractors

Engineering Consultant: Wade Trim

Project Description:

The primary focus of the project is to rehabilitate the Chapaton Treatment Canal which was last rehabilitated in the early 2000s, replace the Chapaton Canal Control Structure gates and associated building and electrical components, and raise the top of the Chapaton Treatment Canal above the 500-year flood elevation. This will provide flood resiliency for the surrounding area and will improve the water quality of Lake St. Clair by capturing more CSO and discharging fewer times per year. Additional project components include a direct process pipe to the lake to reduce treatment costs by using less water, proper abandonment of a portion of the 100-year-old 9-Mile Drain, and an 11-acre sewer separation along 9-Mile Road.

Significant project tasks that have occurred over the past month:

- 1. Construction Activities per Update Period:
 - Stripped all remaining vertical forms on screening structure divider walls
 - Formed, placed rebar, and poured top slab of screening structure.
 - Formed, placed rebar, and poured vertical walls of outfall structure and the control building foundation / emergency bypass conduit.
 - Continued sheeting along northerly property line; tie-back wall 90% complete.
 - Installed 36" diameter storm sewer (future outlet of 11-acre storm sewer separation) within the north box of original 9-Mile Drain.
- 2. Construction Look Ahead:
 - Finish crest gate walls and begin prepping for top-slab pour
 - Finish tie-back sheeting and begin sheeting along northerly edge of new canal footprint.
 - Continue on outfall building foundation and install emergency bypass conduit.
 - Complete storm outfall discharge chamber (walls, risers, hatches, etc.)

	Date (if applicable)	Amount
Original Contract Amount		\$27,374,710.00
Total Spent to Date	Through Pay App. #4	\$12,431,200.99
Remaining Budget		\$14,943,509.01

Figure 13 – Screening Structure divider walls, beginning top slab forms



Figure 14 – Decorative stamped finish on side of screening structure (to match future sheeting cap)



Figure 15 – Screening Structure top slab forms



Figure 16 – Screening Structure top slab pour; north half. Poured in favorable evening weather conditions

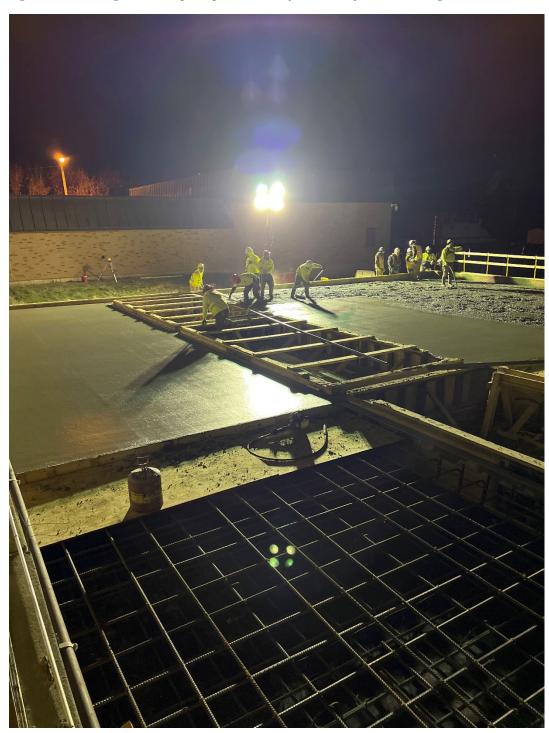


Figure 17 – Outfall Structure wall pour (N-s) + divider wall steel (E-W)

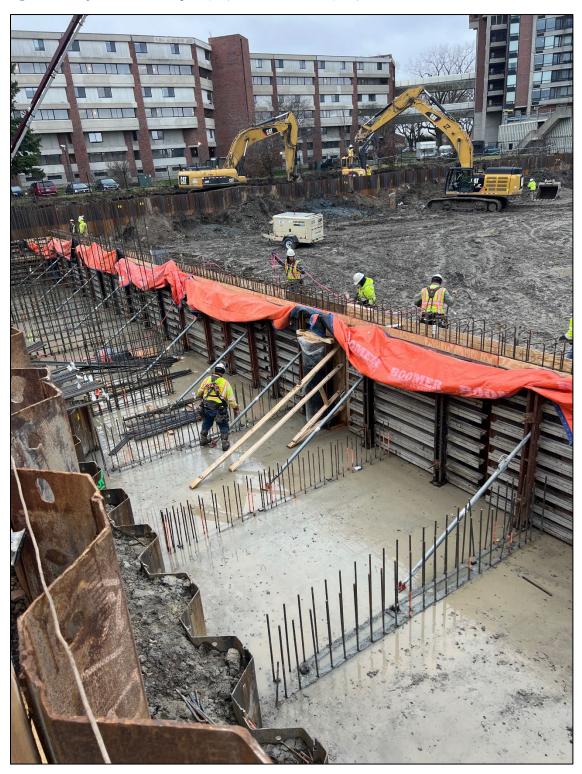


Figure 18 - Cofferdam and deep foundation for future outfall building



Figure 19 – Row of tieback sheeting along northerly property line

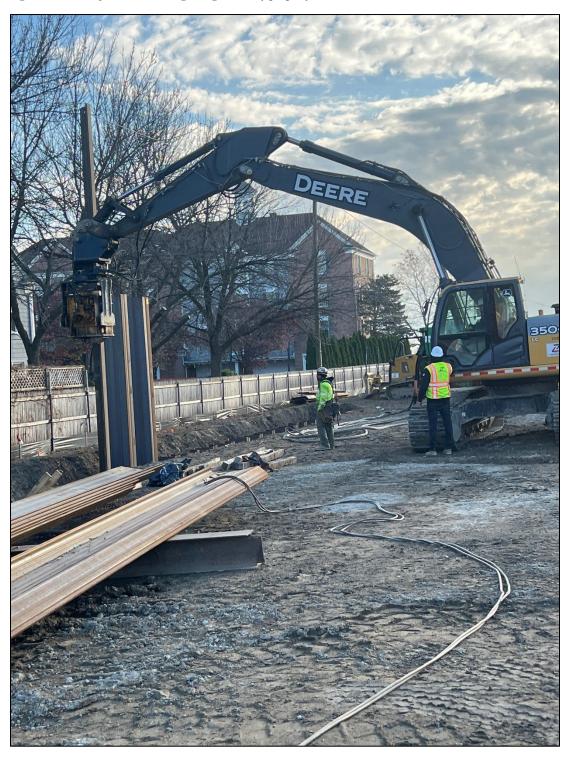


Figure 20 – 36" dia. Storm sewer installed within north box of abandoned 9-Mile Drain.



Figure 21 – Drone Aerial at 100 FT Facing East (Baseline)

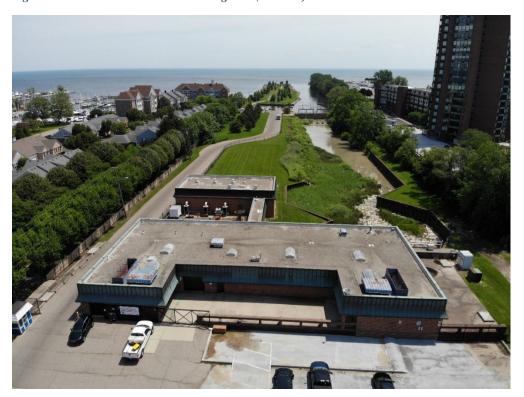


Figure 22 – Drone Aerial at 100 FT Facing East (12/04/23)

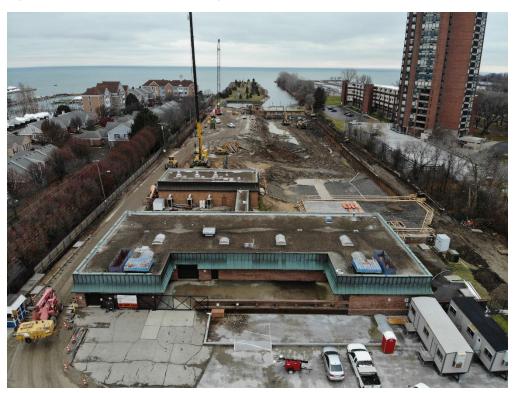
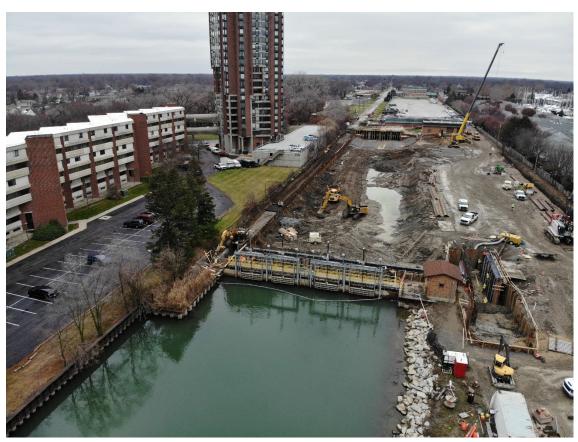


Figure 23 – Drone Aerial at 100 FT Facing West (12/04/23)



2023 Interceptor Inspection Program

Contractor: Taplin

Engineering Consultant: NTH

Project Description:

The 2023 sewer inspection program was awarded to Taplin in March 2023. The inspection program includes inspection of approximately 24 miles of sanitary sewer ranging from 2-feet to 12-feet in diameter and 152 manholes across the MIDDD and 8.5 Mile Districts.

The inspection interval for the entire system is based on a 3-year cycle, where non-reinforced concrete pipe is inspected every 3 years and reinforced concrete pipe is inspected every 6 years. The 8.5 Mile, due to being a combined sewer and mostly stormwater, is on a 10-year schedule. This may be adjusted pending the results of the current inspection.

Significant project tasks that have occurred over the past month:

- 1. All pipe inspections have been completed.
- 2. 3D manhole scans completed.
- 3. Several areas of concern discovered during the inspection along the Harper lateral were quickly addressed by MCPWO staff.
- 4. Overall, the 8-1/2 pipe network is in good shape with only localized spot repairs expected.

	Date (if applicable)	
Original Contract Amount	4/10/23	\$403,919.38
Total Spent to Date	Through Pay App #2	\$282,170.30
Remaining Budget		\$121,749.08

^{*}This Table reflects the 8.5 Mile costs only.

Chapaton Electrical Upgrades

Contractor: Rotor Electric

Engineering Consultant: Tetra Tech

Project Description:

The project consists of installing three 2 MW generators and all associated synchronous gear, new motor starters for each of the three stormwater pumps, new 15 kV switchgear, and a complete motor rebuild for storm pump 2. This project will increase the electrical resiliency of the Chapaton Pump Station.

Significant project tasks that have occurred over the past month:

- 1. Submittals are being received and processed by the engineering team.
- 2. Construction Activities per Update Period:
 - No construction activities at this time. On-site work is currently not planned until 2025.

	Date (if applicable)	Amount
Original Contract Amount		\$14,650,000.00
Total Spent to Date	Pay Apps. #	\$0.00
Remaining Budget		\$14,650,000.00

EIGHT AND ONE-HALF MILE RELIEF 11/08/2023 - 12/07/2023

Funding Source	Apportionment	Manager	<u>Vendor</u>	Amount	Invoice Detail	Project Summary	P	roject Balance
8 1/2 Mile Relief	Chapter 20							
o 1/2 White Rener	State of MI – 16.04%							
	County of Macomb – 2.25%							
	Dept. of Roads – 2.25% Eastpointe – 54.33%							
	St. Clair Shores – 25.13%							
		Astorino	Anderson, Eckstein & Westrick	\$ 1,752.01	Invoice #147245 - 11.11.23	Chapaton Basin Gate Rehabilitation Design	\$	16,644.09
		Tanghe	Belle Tire	\$ 720.72	Invoice #42214721 - 11.09.23	Vehicle #18-481 Tire Replacement		
		Manning	County of Macomb	\$ 297,866.18	Invoice #AR23000164 - 10.17.23	2nd Qtr Personnel		
		Manning	County of Macomb	\$ 2,984.90	Invoice #AR23000164 - 10.17.23	2nd Qtr Internal Services		
		Manning	County of Macomb	\$ 267,059.91	Invoice #AR23000164 - 10.17.23	3rd Qtr Personnel		
		Manning	County of Macomb	\$ 5,109.65	Invoice #AR23000164 - 10.17.23	3rd Qtr Internal Services		
		Astorino	Delecke Welding, Inc	\$ 690.00	Invoice #14700 - 11.02.23	Backhoe Adjustments		
		Astorino	DTE Energy	\$ 672.26	Invoice #23-822 - 10.02.23	Monthly Electric - 10.01.23 - 10.31.23		
		Astorino	DTE Energy	\$ 6,864.92	Invoice #23-1001 - 10.11.23	Monthly Electric - 10.09.23 - 11.07.23		
		Astorino	DTE Energy	\$ 646.28	Invoice #23-1002 - 10.13.23	Monthly Electric - 10.13.23 - 11.12.23		
		Astorino	Fishbeck	\$ 1,849.00	Invoice 3430770 - 11.30.23	As Needed - EPA Assistance		
		Baker	Kienbaum Hardy Vivano Pelton	\$ 1,350.00	Invoice #50250 - 11.01.23	General Matters - October 2023 - Harbor Place		
		Baker	Kienbaum Hardy Vivano Pelton	\$ 900.00	Invoice #50196 - 10.01.23	General Matters - September 2023 - Harbor Place		
		Baker	Kienbaum Hardy Vivano Pelton	\$ 1,942.50	Invoice #50251 - 11.01.23	General Matters - October 2023		
		Astorino	Lardner Elevator	\$ 1,043.98	Invoice #199343 - 1102.23	Elevator Door Repair		
		Astorino	METCO	\$ 4,160.00	Invoice #2207B-02 - 12.05.23	Chapaton HVAC Study through 12.03.23	\$	82,485.00
		Astorino	OHM Advisors	\$ 7,143.50	Invoice #69081 - 11.07.23	Ventilation Design through 10.23.23	\$	72,956.50
		Astorino	SDS Weather	\$ 7,849.00	Invoice #252 - 11.13.23	Weather Surveillance System		
		Astorino	SDS Weather	\$ 1,287.00	Invoice #250 - 11.13.23	Radar Software Subscription		
		Astorino	Tetra Tech	\$ 6,790.00	Invoice #52161994 - 11.21.23	Chapaton Electrical CCA through 10.27.23	\$	693,798.00
		Astorino	Tetra Tech	\$ 30,966.11	Invoice #52161997 - 11.21.23	In-System Storage CCA through 10.27.23	\$	285,184.63
		Astorino	The Macomb Group	\$ 540.94	Invoice #6921646 - 10.25.23	Supplies		
		Astorino	Wade Trim	\$ 10,470.00	Invoice #2029486 - 11.29.23	Chapaton RTB Flushing Improvements Design	\$	172,442.31
		Astorino	Wade Trim	\$ 80,112.86	Invoice #2029487 - 11.29.23	Chapaton RTB Canal Upgrades - CCA	\$	1,590,639.04
		Astorino	Z Contractors	\$ 3,489,816.96	Invoice #App 4 - 11.28.23	Chapaton RTB Canal Rehabilitation	\$	14,943,509.01

Total \$ 4,230,588.68

	2024			REMAINING	
DESCRIPTION	FINAL BUDGET	ENCUMBERED	ACTUAL	BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Interest Earned	275,000			275,000	0.0%
Other Revenue	5,000			5,000	0.0%
Grants	47,009,450		14,116,564	32,892,886	30.0%
8.5 O&M/Charge Required Revenue	5,260,440		2,630,220	2,630,220	50.0%
PY Revenue-Fund Balance	11,372,850			11,372,850	0.0%
Reimbursement from St. Clair Shores	710,000			710,000	0.0%
Use of Reserve	270,560			270,560	0.0%
Total Revenue Accounts	64,903,300	-	16,746,784	48,156,516	25.8%
EXPENSE ACCOUNTS					
Application/Permit Fee	6,000			6,000	0.0%
Dues, Training, Conf, Subs.	17,400		2,957	14,443	17.0%
Engineering					
PS Main Floor Ventilation	750,000		7,144	742,856	1.0%
Digital Twin Model Pilot Project	275,000			275,000	0.0%
Sluice & Dewatering Gates Rehab/Replacement Project	4,912,400		1,376	4,911,024	0.0%
Flushing	4,863,290		70,939	4,792,351	1.5%
General Construction/Engineering Contingency-All Projects	567,500			567,500	0.0%
As Needed Engineering	161,460		37,056	124,404	23.0%
9 Mile Emergency Bypass Structural Rehab	881,420		3,182	878,238	0.4%
9 Mile Bypass Pipe Structural Repairs-Construction/CA	50,000		16,088	33,912	32.2%
In-System Storage-Construction Admin and Construction	2,617,840			2,617,840	0.0%
In-System Storage-Construction Admin and Construction (County ARPA)	2,150,250		852,051	1,298,199	39.6%
Electrical Rehab (State and County ARPA Funds)	15,369,930		11,535	15,358,395	100.0%
Canal Rehab (State ARPA Funds)	29,489,270		13,252,978	16,236,292	100.0%
New Equipment	113,750			113,750	0.0%
Office Supplies	500			500	0.0%
Operating Supplies	96,450		3,393	93,057	3.5%
Other Professional Srvcs	56,500		4,173	52,327	7.4%
Personnel Services	1,251,350		•	1,251,350	0.0%
Repair & Maintenance	614,500		16,213	598,287	2.6%
Contribution to Reserve	288,240		, -	288,240	0.0%
Scada System	82,050		562	81,488	0.7%
Utilities	288,200		38,703	249,497	13.4%
Total Expense Accounts	64,903,300	_	14,318,350	50,584,950	22.1%

	O&M Balance		Total
	9/30/2023	O&M	11/30/2023
Cash - Operating	15,698,301	2,428,434	18,126,735
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		16,746,784	16,746,784
Expenditures		14,318,350	14,318,350
			0
Equity*	15,698,301		18,126,735

Detail of 2023 Equity*

 Chlorine storage tank relining
 7,500
 Capital Reserve
 1,768,010

 Painting
 50,000
 SCADA Reserve
 158,470

 As needed Engineering
 35,723
 SRF Replacement Reserve
 2,851,350

 Sluice and Dewatering Gates Rehab/Replace Project
 3,958,336
 9 Mile Bypass Pipe Struct Rprs
 29,726

 Flushing
 3,850,637
 In System Storage
 1,961,964

 9 Mile Emergency Bypass Structural Rehab
 996,585
 East Building Server
 30,000

ARPA Funds	Remaining
County	
ISS	2,595,237
Electrical	9,500,000
<u>State</u>	
Electrical	5,903,393
Canal Rehab	20,741,110

Federal Earmark 2,500,000