#### EIGHT AND ONE-HALF MILE RELIEF DRAIN INTRA-COUNTY DRAINAGE BOARD DECEMBER 12, 2022 10:15 A.M. AGENDA

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

Call in Number: 1-321-529-9096 Access Code: 738 68 3904

		Page
1.	Call of meeting to order and roll call	
2.	Approval of Agenda for December 12, 2022	
3.	Approval of Minutes for November 14, 2022	3
4.	Public Participation	
5.	Project & Operational Updates – Vince Astorino	6
6.	As Needed Engineering Services Contracts Recommendation – Vince Astorino	16
	Motion: To authorize the Board Chair to execute As-Needed Engineering Services contracts with the noted 10 firms and engage the firms as needed and within budgeted amounts, subject to obtaining prior board approval for tasks exceeding \$35,000.	
7.	Consideration for approval of invoices (see attached)	18
8.	Financial Report – Bruce Manning	19
9.	Adjourn	

#### SYSTEM LEGEND (AS OF DATE OF PUBLICATION) SYSTEM BOUNDARY **DISTRICT LEGEND** (AS OF DATE OF PUBLICATION) 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT SOUTHEAST MACOMB COUNTY WASTEWATER DISPOSAL SYSTEM MARTIN SANITARY DIVERSION DISTRICT SOUTHEAST MACOMB SANITARY DISTRICT NORTHEAST SEWAGE DISPOSAL SYSTEM MILK RIVER INTERCOUNTY DRAIN DRAINAGE DISTRICT LOCAL MUNICIPALITY OTHER

ASSET LEGEND

ALGER PS

PUMP STATION

Ø FLOW CONTROL STRUCTURE

FACILITY

RTB

GRAVITY INTERCEPTOR IN-SYSTEM STORAGE DEVICE

OVERFLOW POINT

LEVEL SENSOR

٥ RAIN GALIGE

М FLOW METER

PROJECT NO.

181053

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

Southeast Macomb Sanitary District

Wastewater Master Plan

2

USER: MESEDKI

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 14, 2022, at 10:43 A.M.

PRESENT:

Candice S. Miller, Chair

Bryan Santo, Member

ABSENT:

Veronica Klinefelt, Member

ALSO PRESENT: Daniel Acciavatti, Deputy of Government Relations; Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Denise Harwood, Fiscal Analyst; Bruce Manning, Financial Manager; Pam Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor; Don Brown, Macomb County Board of Commissioners; Don VanSyckel, Macomb County Board of Commissioners

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

Adopted:

YEAS: 2

NAYS: 0

Minutes of the meeting of September 12, 2022 were presented. A motion was made by Mr. Santo, supported by Ms. Miller to approve the minutes as presented.

Adopted:

YEAS: 2

NAYS: 0

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

Mr. Astorino updated on the Chapaton Basin and said there had been no wet weather events for the past month. The In-System Storage project at Beaconsfield Road and Oak Street is progressing very well. Mr. VanSyckle asked if we will still need to run the dewatering wells after the construction is complete. Mr. Astorino said no, only during construction. He showed photos of the contractors installing the beams. Mr. Brown asked what the lead time was like for materials. Mr. Astorino answered that we ordered well in advance. We buy Made in the U.S.A. so we haven't had an issue getting material for this project so far. Mr. VanSyckle asked if this work is being performed in the middle of the road, and Mr. Astorino said yes, but once the work is done, there will be access panels installed and the road will be intact like it was before the work. Mr. Brown asked who inspects the projects. Mr. Astorino told him we employ Tetra Tech and we have hired a full time staff employee who is a former contractor and engineer that inspects our jobs. Mr. Astorino said that we have been droning the project once a week to show progress.

L. D'Agostini is done with the Basin Expansion Joints project and the job is now closed out.

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

Adopted:

YEAS: 2

NAYS: 0

Mr. Astorino then talked about the Chapaton Electrical Upgrades design recommendation. The Chapaton Pump Station was constructed in 1968. We have had 3 electrical fires in the last 4 years. Because the 9 Mile Pump Station project is cancelled, this project will now include replacing all of the electrical equipment, the switch gear, and starters for the big storm pumps. It will also add generator back up for the facility. Five (2) megawatt generators will be lined up on the basin deck. Three of them will be diesel powered, two of them will be natural gas. The generators will be able to power everything at the station. We have a 10 megawatt feed coming in. Since the design was done mostly as a part of the Nine Mile Pump Station, we asked that Tetra Tech revise their design. MCPWO reviewed the proposal and is confident that the pricing and schedule is the lowest and fastest due to the work that has already been done. The Nine Mile Pump Station design budget also had approximately \$245,000 remaining so those funds can be transferred to this project.

A motion was made by Mr. Santo, supported by Ms. Miller to approve the Tetra Tech design proposal for the Chapaton Electrical upgrades project for \$225,000.

Adopted:

YEAS: 2

NAYS: 0

Mr. Astorino updated on the Chapaton Accusonic Flow Meters. As a part of our permit with the State, we have to notify them of the volume of treated discharge we release. Furthermore, from an operational standpoint, we need to know what flow is coming into the facility and how we are storing flow as it is beneficial information to maximize as much flow as possible. We have some equipment that is failing. The new proposed system has multiple redundancies within the sensors and is installed throughout Detroit at their CSO facilities with a minimum 10+ years of useful life and it is extremely accurate.

A motion was made by Mr. Santo, supported by Ms. Miller to approve the purchase and installation of the Chapaton Accusonic Flow Meters from HESCO for \$224,227.38.

Adopted:

YEAS: 2

NAYS: 0

The next item that Mr. Astorino presented was the Chapaton Sluice Gates Rehabilitation design recommendation. The Chapaton Pump Station was constructed in 1968 and much of the equipment is still original and has reached the end of its useful life. As a part of the MCPWO planning process and capital improvement plan it was determined that one of the key projects would be the replacement and rehabilitation of the sluice gates as they are critical to the operations of the facility. There are a total of 10 gates around the Chapaton facility. They either need to be rehabilitated or replaced. The Chapaton dewatering gate is the most important. We put out an RFP and sent it to 6 different firms with a scope of what we wanted done. We received 5 back. AEW was the best price coming in at \$87,600.50, just under AECOM at \$88,247.47. ASI, Tetra Tech and Wade Trim all came in higher. Mr. VanSyckle asked why there was such a difference in the price. Mr. Astorino said that he doesn't think they necessarily understood the complete scope of work, but MCPWO will assist them and that he is confident that they can do the job but it will take more effort on our part.

A motion was made by Ms. Miller, supported by Mr. Santo to award the design of the Chapaton Sluice Gates Rehabilitation project to Anderson, Eckstein & Westrick, Inc. for \$87,600.50.

The Chair presented the invoices totaling \$747,478.13 and \$716,671.30 to the board for review and approval.

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

Adopted:

YEAS: 2

NAYS: 0

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

Adopted:

YEAS: 2

NAYS: 0

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

Adopted:

YEAS: 2

NAYS: 0

The meeting was adjourned at 11:05 A.M.

Candice S. Miller, Chair

Macomb County Public Works Commissioner

## 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 14, 2022 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

DATED: 11/14/22

## Candice S. Miller



Public Works Commissioner Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: December 12, 2022

Subject: Construction Projects Status Updates for the December 2022 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 this 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 Beaconsfield construction site.

- Continued Beaconsfield site vibration and sensor monitoring and documentation during pier installation and shaft construction as required
- Continued excavating interior of shaft approximately 20 ft below grade to expose 11.5 ft tunnel at Beaconsfield site.
- Continued installing timber lagging retaining walls around interior of Beaconsfield shaft as required.
- Fabricated steel shaft bracing the mid-level tier elevation at Beaconsfield construction site as designed.
- Excavated and installed electrical duct bank under Beaconsfield for proposed rubber weir control building as required.
- Replaced concrete sidewalk and driveway approach for resident at 219613 Beaconsfield
- Re-energized street lighting on Beaconsfield as requested.

#### 3. Construction look ahead:

- Continue deliveries of construction materials along Beaconsfield greenbelt.
- Ongoing excavation to expose 11.5FT tunnel at Beaconsfield and remove spoils offsite as planned.
- Continue to install shaft interior timber lagging retaining walls as required.
- Install lower-level steel I-beam bracing and supports per plans at Beaconsfield shaft construction.
- Expose existing 11.5ft tunnel and support as required.
- Place flow fill grout to fill voids behind shaft lagging and seal timber walls as necessary.
- Continue site vibration monitoring & documentation.

#### **Construction Costs:**

	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 - 8	\$2,724,429.63
Remaining Budget		\$7,218,436.86

Figure 1 – Installing Timber Retaining Walls



Figure 2 – Middle Tier Bracing and Support Layout



Figure 3 – Beaconsfield Shaft Excavation @ Approx. 20FT





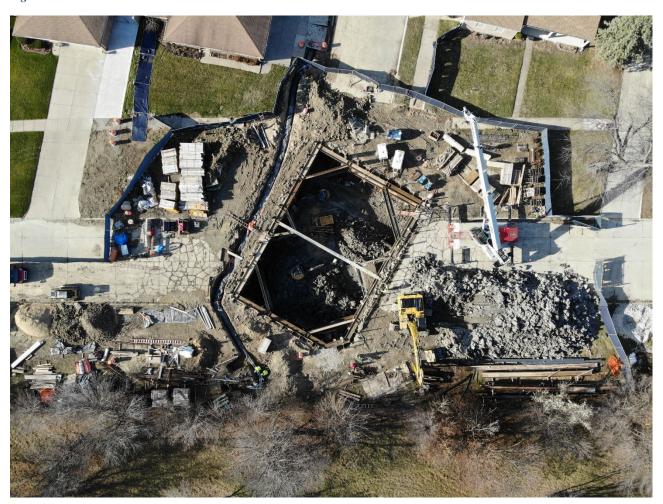








Figure 7 – Drone Aerial at 200 FT



### Candice S. Miller



Public Works Commissioner Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: December 12, 2022

Subject: 8.5 Mile As-Needed Request for Proposal - Evaluation & Recommendation

WWS-2022-RFP-001

Macomb County Public Works Office (MCPWO), on behalf of the 8 ½ Mile Relief Drain Drainage District (8MRDDD), has coordinated a competitive Request for Qualifications (RFQ) to provide as-needed engineering support for various projects throughout the 8MRDDD along with the Martin Sanitary Diversion Drainage District, and Southeast Macomb County Wastewater Disposal System. The as-needed program has been utilized successfully since early 2018 and allows MCPWO staff to quickly engage a consultant without having to go through the formal, lengthy RFP process. It is typically utilized for small, specialty, straight-forward projects where either A) an extensive RFP process would provide little benefit, B) the issue is urgent in nature and requires quick action, or C) a particular consultant is especially well-suited to perform a certain scope of work.

The RFQ was published on the Michigan Inter-Governmental Trade Network (MITN) website and on December 5, 2022, proposals and cost rate tables from eleven (11) firms were received as follows (in alphabetical order):

- Applied Science, Inc.
- Anderson, Eckstein & Westrick
- Fishbeck
- FK Engineering
- Hubbell, Roth & Clark
- METCO Services
- NTH Consultants, Ltd.
- OHM Advisors
- Testing Engineers and Consultants
- Tetra Tech
- Wade Trim Associates

Proposers were instructed to state their firm's credentials for one or more of the engineering fields. While the formation of teams was not permitted, the overall goal is for MCPWO is to have a "team" of specialty consultants under separate contracts in the following engineering fields:

- Planning and Development
- Hydraulic Engineering

- Geotechnical Engineering
- Pipeline Rehabilitation
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Odor and Corrosion Control

All firms presented strong qualifications and, upon review of the proposals, it is the recommendation of MCPWO staff to enter into as-needed agreements with ten of the proposers. Testing Engineers and Consultants, Inc. also presented strong qualifications but not what the MCPWO staff were looking for, therefore, entering in an as-needed arrangement with them is not being recommended. MCPWO may continue to work with TEC on certain projects but does not see the need for a dedicated as-needed contract to do so.

The ten other firms will primarily be utilized individually for their stated specialty or specialties. However, MCPWO does not propose to assign certain fields exclusively (i.e. Firm X is the Planning and Development Consultant). Instead, staff will recommend based on the firms qualifications on a case-by-case basis as to which consultant to engage.

MCPWO staff is recommending to award the as-needed engineering services contract to the ten firms noted above. Upon board approval, MCPWO staff will execute the contracts and engage the firms as needed. Additionally, all existing as-needed contracts will be terminated once all active Tasks are completed. MCPWO staff will obtain Board approval on any specific Tasks exceeding the board required \$35,000 threshold.

The initial as-needed contracts will each be executed with up to a \$100,000 not-to-exceed amount over a three-year term; however, no services shall be rendered and/or invoiced until written Task Authorization is obtained from MCPWO. MCPWO will track all expenditures in-house ensure that the overall as-needed program stays under budget. This approval is not authorizing 10 x \$100,000 to be spent.

Funding Source	Apportionment	Manager	<u>Vendor</u>	Amount	<u>Invoice Detail</u>	Project Summary	Pr	roject Balance
8 1/2 Mile Relief	Chapter 20 State of MI – 16.04% County of Macomb – 2.25% Dept. of Roads – 2.25% Eastpointe – 54.33% St. Clair Shores – 25.13%							
		Astorino	Access Interactive LLC	\$ 25,693.50	Invoice #INV000110000 - 07.27.22	SCADA Server		
		Astorino	Access Interactive LLC	\$ 5,148.00	Invoice #INV000110680 - 11.03.22	SCADA Maintenance		
		Astorino	Colville Electric Co., LLC	\$ 1,034.88	Invoice #22507 - 11.04.22	SCADA Server Fiberoptic Modifications		
		Manning	County of Macomb	\$ 289,197.83	Invoice #AR221048 - 10.26.22	Personnel 2nd Quarter 2022		
		Manning	County of Macomb	\$ 2,849.37	Invoice #AR221048 - 10.26.22	Indirect Costs 2nd Quarter 2022		
		Manning	County of Macomb	\$ 316,851.73	Invoice #AR221049 - 10.26.22	Personnel 3rd Quarter 2022		
		Manning	County of Macomb	\$ 2,849.37	Invoice #AR221049 - 10.26.22	Indirect Costs 3rd Quarter 2022		
		Astorino	DTE Energy	\$ 5,975.48	Invoice #22-394 - 11.18.22	Monthly Electric - 10.10.22 - 11.7.22		
		Astorino	DTE Energy	\$ 4,357.31	Invoice #22-365 - 10.28.22	Monthly Electric 09.09.22 - 09.30.22		
		Astorino	DTE Energy	\$ 1,782.54	Invoice #22-375 - 10.28.22	Monthly Electric 10.01.22 - 10.09.22		
		Astorino	DTE Energy	\$ 551.88	Invoice #22-369 - 10.31.22	Monthly Electric 10.01.22 - 10.31.22		
		Astorino	DTN, LLC	\$ 617.63	Invoice #6205152 - 10.21.22	Storm Sentry Weather Service		
		Astorino	KHVPF	\$ 10,800.00	Invoice #48982 - 11.1.22	ISS Contract Review		
		Astorino	Major Brands Oil	\$ 3,333.06	Invoice #0374910-IN - 10.28.22	Hydraulic Oil		
		Downing	Marino's Landscape	\$ 1,156.00	Invoice #20960 - 10.31.22	Lawn Care October 2022		
		Astorino	NTH Consultants, Ltd	\$ 1,584.85	Invoice #631148 - 11.07.22	2023 Interceptor Inspection Program - Design	\$	64,993.75
		Astorino	NTH Consultants, Ltd	\$ 6,339.40	Invoice #631148A - 11.07.22	2023 Interceptor Inspection Program - Design	\$	64,993.75
		Astorino	State of Michigan	\$ 6,000.00	Invoice #11051453 - 12.1.22	NPDES Annual Permit Fee		
		Astorino	Tetra Tech, Inc.	\$ 7,190.00	Invoice #51978649 - 11.03.22	Chapton Electrical Generator Design	\$	217,010.00
		Astorino	Tetra Tech, Inc.	\$ 47,897.97	Invoice #51978645 - 11.04.22	In-System Storage Design/CCA	\$	753,442.35
		Astorino	Tetra Tech, Inc.	\$ 25,400.53	Invoice #51978645A - 11.04.22	In-System Storage Design/CCA	\$	753,442.35
		Astorino	Tetra Tech, Inc.	\$ 43,903.36	Invoice #51992554 - 12.2.22	In-System Storage CCA - 10.29.22 - 11.25.22	\$	709,538.99
		Astorino	ULINE	\$ 1,764.89	Invoice #155228335 - 10.17.22	Gloves, Coveralls, Tools		
		Astorino	Wade Trim	\$ 51,796.62	Invoice #2025851 - 11.29.22	Chapaton RTB Canal Rehab - Design	\$	241,111.75
		Astorino	Weiss Construction	\$ 426,827.84	Invoice #WWS-2021-006 #8 through	In-System Storage #8 through 11.18.22	\$	7,218,436.86

**Total** \$ 1,290,904.04

	2023			REMAINING	
DESCRIPTION	FINAL BUDGET	ENCUMBERED	ACTUAL	BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Interest Earned	20,000		13,364	6,636	66.8%
Other Revenue	5,000		40	4,960	0.8%
8.5 O&M/Charge Required Revenue	5,003,220		2,501,610	2,501,610	50.0%
PY Revenue-Fund Balance	4,412,010			4,412,010	0.0%
Use of Reserve from prior contributions	3,738,110			3,738,110	0.0%
Use of Reserve(Flow Meters)	350,000			350,000	0.0%
Use of SCADA Reserve	64,750			64,750	0.0%
Use of Surplus from past collections	1,051,830		-	1,051,830	0.0%
Total Revenue Accounts	14,644,920	-	2,515,014	12,129,906	17.2%
EXPENSE ACCOUNTS					
Application/Permit Fee	6,000			6,000	0.0%
Dues, Training, Conf, Subs.	17,010		165	16,845	1.0%
Engineering					
Sluice & Dewatering Gates Rehab/Replacement Project	1,974,340			1,974,340	0.0%
Canal Rehab Design	320,000		39,639	280,361	12.4%
8.5 Mile Inspection Project	500,000		2,568	497,432	0.5%
9 Mile Drain & Dewater Accusonic Flow Meters	350,000			350,000	0.0%
9 Mile Emergency Bypass Structural Rehab	3,000,000			3,000,000	0.0%
Flushing	1,895,660		464	1,895,196	0.0%
As needed Engineering	39,110		7,190	31,920	18.4%
Sluice and Dewatering Gates Rehab/Replace Project(Was 9 Mil	2,025,660		49,250	1,976,410	2.4%
Cost Share Army Corp Grant-Green Infrastructure Project	162,500			162,500	0.0%
9 Mile Bypass Pipe Structural Repairs-Construction/CA	308,010			308,010	0.0%
Chapaton Improvements-Office Space Downstairs	100,000			100,000	0.0%
In-System Storage-Construction Admin and Construction	1,659,410		444,176	1,215,234	26.8%
New Equipment	3,000			3,000	0.0%
Office Supplies	500			500	0.0%
Operating Supplies	81,800		34	81,766	0.0%
Other Professional Srvcs	42,500			42,500	0.0%
Personnel Services	1,135,790			1,135,790	0.0%
Repair & Maintenance	246,000		8,343	237,657	3.4%
Contribution to Reserve	288,240			288,240	0.0%
Scada System	199,390		14,090	185,300	7.1%
Utilities	290,000		12,047	277,953	4.2%
Total Expense Accounts	14,644,920	-	577,966	14,066,954	3.9%

	O&M Balance 9/30/2022	O&M	Total 11/30/2022
Cash - Operating	9,802,509	1,937,048	11,739,557
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		2,515,014	2,515,014
Expenditures		577,966	577,966
			0
Equity*	9,802,509		11,739,557

#### Detail of 2022 Equity\*

9 Mile Bypass Struct Rprs-Const/CA	292,264	Capital Reserve	953,047
As-Needed Engineering	48,544	Contribution from Macomb Cty	2,000,000
Chapaton Improvements-Lab/Office Space	173,347	In System Contrib from SEMSD	1,351,239
Chlorine storage tank #3 relining	7,500	LSCWWI 04B Transfer	738,112
Cost Share Army corp Grant-Green Infrastructure Project	162,500	SCADA Reserve	155,140
Fiber Optic Improvements	16,130	SRF Replacement Reserve	2,592,140
Firewall Hardware Design/Config	12,900	Painting	25,000
In-System Storage Design/Const Admin/Const	116,276	SolarWind -Network Mgmt Softwar	9,670
Obsolete Wireless backhaul replacement links	16,120	Storm PLC Replacments	30,000
Sluice & Dewatering Gates Rehab/Replace Proj(Was 9 Mile PS)	1,102,581		