

MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
NOVEMBER 9, 2020
11:00 A.M.
AGENDA

NOTE: THIS MEETING WILL BE HELD BY TELECONFERENCE

Call in Number: 1-408-418-9388
Access Code: 173 897 6343

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for November 9, 2020	
3. Approval of Minutes for October 19, 2020	3
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	
6. Wade Trim As-Needed Engineering Services Contract Change Order – Vincent Astorino	6
Motion: To approve Change Order No. 2 for \$75,000 to the As Needed Engineering Contract with Wade Trim.	
7. METCO As-Needed Engineering Services Contract Change Order – Vincent Astorino	8
Motion: To approve Change Order No. 2 for \$125,000 to the As-Needed Contract with METCO.	
8. Jacobs Odor & Corrosion Study Change Order – STS – 3 Odor Investigation Cost Sharing – Stephen Downing	10
Motion: To approve Change Order No. 3 for \$53,410.26 with Jacobs for an investigation of odor complaints near STS-3 and to split the costs with the City of Sterling Heights.	
9. Consideration for approval of invoices (see attached)	15
10. Financial Report – Bruce Manning	17
11. Adjourn	

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held via telephone conference per the State Public Act 228 of 2020 due to the COVID-19 pandemic, on October 19, 2020, at 10:45 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Robert Mijac, Member

ALSO PRESENT: Brian Baker, Chief Deputy, Karen Czernel, Deputy, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Jeff Bednar P.E., Environmental Resources Manager, Vince Astorino, Operations & Flow Manager, Kellie Kource, Drain Account Specialist, Norb Franz, Communications Manager, Macomb County Public Works

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

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of September 14, 2020 were presented. A motion was made by Mr. Mijac, supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

Mr. Downing updated the board that the Segment 5 grouting is complete. The rehabilitation project will be moving ahead soon with dewatering for shaft construction to start this week. There were some odor complaints to EGLE which have been addressed.

The drop shaft rehabilitation project lost some time due to a by-pass contractor change, but will be back on track with completion toward the end of 2020.

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

Adopted: YEAS: 3
NAYS: 0

Mr. Baker updated the board that the purchaser has terminated the purchase agreement for the land for sale at M59/Garfield. We plan to talk with the County regarding the potential for public use of this property.

A motion was made by Mr. Santo, supported by Mr. Mijac to receive and file the termination agreement.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino and Ms. Miller updated the board that we will be expanding the COVID testing of wastewater to Sterling Heights and Lenox Township. This expanded testing is fully funded by grant money. The window for this project is through December.

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the agreement between the MIDD and EGLE for COVID wastewater testing grant funds of \$404,150.98.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino and Ms. Miller updated the board that we are keeping the same group of contractors as the Clinton Township testing program.

A motion was made by Mr. Santo, supported by Mr. Mijac to approve the Aquasight proposal for \$266,500 to handle the laboratory testing, web platform, and analytics.

A motion was made by Mr. Santo, supported by Mr. Mijac to approve the Hesco quotes totaling \$47,400 to provide the sampling equipment and equipment installation.

A motion was made by Mr. Santo, supported by Mr. Mijac to approve the Colville Electric quote of \$36,980 to install conduits and electrical and integrate units into the SCADA system.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino updated the board that we have three metering facilities that need repair and Weiss was the low bidder.

A motion was made by Mr. Santo, supported by Mr. Mijac to award the bid to Weiss Construction Co., LLC for \$857,159 to rehabilitate three sewerage metering sites.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino updated the board that we have three metering facilities that need repair and we recommend to use Hubbel, Roth, and Clark for the contract administration portion of the meter repairs.

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the proposal from Hubbell, Roth & Clark (HRC) for construction engineering and contract administration for the Metering Facility Rehabilitation project for \$149,200.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$10,556,443.20 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. Mijac 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 Mr. Santo and supported by Mr. Mijac.

Adopted: YEAS: 3
NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Mr. Mijac, that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 11:20 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 taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, October 19, 2020 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: 10/19/20



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Vincent Astorino, Operations & Flow Manager

Date: November 9, 2020

Subject: Change Order #2 Approval Request for As-Needed Engineering Services – Wade Trim

The 2017/2018 Macomb Interceptor Drain Drainage District (MIDDD) budget allocated \$450,000 for As-Needed Engineering Services. A competitive bid was issued on MITN for consultants to submit a Statement of Qualifications and Rate Schedule. The Board approved the recommendation to award contracts to six consultants, each with a budget of \$75,000, including Wade Trim.

In December, 2017 the MIDDD entered into an agreement with six consultants, each to provide services based on the District's needs and the Consultant's area of discipline. Since that time the consultants have successfully provided support for various engineering tasks, ranging from reports, studies, condition assessments and design.

The 2018/2019 MIDDD budget allocated \$450,000 for As-Needed Engineering Services. During the March 11, 2019 MIDDD board meeting change order #1 was approved to add \$75,000 to Wade Trim's general as-needed contract.

The 2020/2021 MIDDD budget allocated \$450,000 for As-Needed Engineering Services. At this time, allocating additional funds from the 2020/2021 budget to Wade Trim is requested.

A draft copy of this change order has been attached for reference. On behalf of the MCPWO Engineering staff please approve this request to allocate \$75,000 as Change Order No. 2 to the Wade Trim as-needed contract.

Attachments: Draft Change Order No. 2

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

			Change Order	02
Date of Issuance:	11/09/20	Effective Date:	11/09/20	
Owner:	MIDDD	Owner's Contract No.:	WWS-18-002F	
Engineer:	Wade Trim	Project No.:		
Project:	As-Needed Engineering	Contract Name:		

The Contract is modified as follows upon execution of this Change Order: Add \$75,000 to existing contract to provide as-needed engineering services at the direction of MCPWO Engineering staff.

The original Contract Sum was: \$ 75,000.00

The net change from previously approved Change Orders No. 1: \$ 75,000.00

The Contract Sum prior to this Change Order: \$ 150,000.00

The Contract Sum prior to this Change Order will be increased by: \$ 75,000.00

The new Contract Sum, including this Change Order, will be: \$ 225,000.00

The Contract Time will be unchanged by: 0 (days)

The date of Substantial Completion as of the date of this Change Order, therefore, is: N/A

ACCEPTED: By: _____ Owner (Authorized Signature)	ACCEPTED: By: _____ Engineer (Authorized Signature)
Title _____ Date _____	Title _____ Date _____



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Vincent Astorino, Operations & Flow Manager

Date: November 9, 2020

Subject: Change Order #2 Approval Request for As-Needed Engineering Services – METCO

The 2017/2018 Macomb Interceptor Drain Drainage District (MIDDD) budget allocated \$450,000 for As-Needed Engineering Services. A competitive bid was issued on MITN for consultants to submit a Statement of Qualifications and Rate Schedule. The Board approved the recommendation to award contracts to six consultants, each with a budget of \$75,000, including METCO.

In December, 2017 the MIDDD entered into an agreement with six consultants, each to provide services based on the District's needs and the Consultant's area of discipline. Since that time the consultants have successfully provided support for various engineering tasks, ranging from reports, studies, condition assessments and design.

The 2018/2019 MIDDD budget allocated \$450,000 for As-Needed Engineering Services. During the October 21, 2019 MIDDD board meeting change order #1 was approved to add \$75,000 to METCO's general as-needed contract.

The 2020/2021 MIDDD budget allocated \$450,000 for As-Needed Engineering Services. At this time, allocating additional funds from the 2020/2021 budget to METCO is requested. MCPWO allocated additional funds for Metco due to the potential increase in need for flow control services from OMIDDD.

A draft copy of this change order has been attached for reference. On behalf of the MCPWO Engineering staff please approve this request to allocate \$125,000 as Change Order No. 2 to the METCO as-needed contract.

Attachments: Draft Change Order No. 2

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			Change Order	02
Date of Issuance:	11/09/20	Effective Date:	11/09/20	
Owner:	MIDDD	Owner's Contract No.:	WWS-2018-002	
Engineer:	METCO	Project No.:		
Project:	As-Needed Engineering	Contract Name:		

The Contract is modified as follows upon execution of this Change Order: Add \$125,000 to existing contract to provide as-needed engineering services at the direction of MCPWO Engineering staff.

The original Contract Sum was: \$ 75,000.00

The net change from previously approved Change Orders No. 1: \$ 75,000.00

The Contract Sum prior to this Change Order: \$ 150,000.00

The Contract Sum prior to this Change Order will be increased by: \$ 125,000.00

The new Contract Sum, including this Change Order, will be: \$ 275,000.00

The Contract Time will be unchanged by: 0 (days)

The date of Substantial Completion as of the date of this Change Order, therefore, is: N/A

ACCEPTED: By: _____ <div style="text-align: center;">Owner (Authorized Signature)</div> Title _____ Date _____	ACCEPTED: By: _____ <div style="text-align: center;">Engineer (Authorized Signature)</div> Title _____ Date _____
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Candice S. Miller
Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

From: Stephen Downing, Construction & Maintenance Manager

Date: November 5, 2020

Subject: Odor & Corrosion Study Change Order No. 3 – ST-S-3 Odor Investigation

The Macomb Interceptor Drain Drainage District entered an agreement with Jacobs in 2018 to conduct a system-wide Odor & Corrosion study. The study was performed in conjunction with an OMID system-wide Odor & Corrosion study. The intention was that the systems undergo a comprehensive investigation to provide practical solutions to address the odor and corrosion issues inherent to the systems. The projects are in the final report phase which has resulted in the recommendation of several odor control facilities. One of the proposed locations for construction of an odor control facility is at the ST-S-3 Meter Facility, located at Dodge Park and Sorrento in Sterling Heights, MI.

There is a longstanding odor related issue in this area, specifically in the Rougewood Condominiums just south of the meter facility. One of the Rougewood residents have expressed frustrations with this longstanding issue that dates back to approximately 2004. The MCPWO Engineers and City of Sterling Heights have recently engaged with the residents to investigate this matter. In addition, we engaged the Jacobs Project Manager and Technical Expert to assist with analyzing and resolving the issue.

Resolution of this matter includes two primary objectives: 1) Analyze existing information and data related to this location to determine if there is an issue that the proposed odor control facility will not remedy and 2) Confirm the proposed odor control facility is sized appropriately to mitigate the odor issues. Jacobs has provided a proposal to perform the work required to address each of these two objectives which is attached for reference. The MCPWO authorized Jacobs to perform Task 1 on October 22, 2020 for a total of \$6,076.63. This task included analysis of all existing historical information, including plan and profile drawings sewer drawings, flow data from ST-S-3 and the as-built drawings for the Rougewood Condominium sewer system. The next step is to authorize Jacobs to proceed with Task 2 which is a Fan Test with Oda Loggers and pressure sensors, which is described in the attached proposal, for a cost of \$47,333.63. The execution of Task 2 will provide the technical staff the data and information required to verify the proposed facility is sized appropriately and if there are other issues present that are causing the odor issue.

The City of Sterling Heights DPW Director, City Engineer and other staff have been part of the discussions and agree with the proposed plan. In addition, they have agreed to a cost share of up to 50% for this work with the MIDDD. If it is determined during this work that the OMIDDD should contribute to this work, the cost will be shared appropriately. Our staff will report back to this Board the findings of this study and the final cost to the MIDDD.

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The action is that the Macomb Interceptor Drain Drainage District Board authorize the Board Chair to sign Change Order No. 3 with Jacobs to perform Task 1 and 2 as described in the attached proposal for the lump sum add of \$53,410.26. The revised total contract value for Jacobs will be \$547,301.26.

Attachments: Jacobs Proposal dated October 14, 2020

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Macomb Interceptor Drain Drainage District (MIDDD) c/o Macomb County Public Works Office (MCPWO) Meter ST-S-3 Service Area Odor Investigation

October 14, 2020

Background and Purpose

The Meter ST-S-3 site is a known site of high odorous hydrogen sulfide (H_2S). Levels of H_2S were measured and documented as part of sampling done by Jacobs Engineering in 2019. As part of the Oakland-Macomb Interceptor Drain (OMID) System-wide Odor/Corrosion Study, it was recommended that a forced air ventilation activated carbon or biofilter system be installed at the ST-S-3 metering site to mitigate odors and corrosion in the OMID interceptor sewer system in Dodge Park Road.

More recently, there has been an increase in the number and frequency of odor complaints from nearby residents in Sterling Heights. In addition, there have been reports of air bubbling through drain traps in houses located along Rougewood Drive, which indicates unusually high pressures in the sewers. The high pressures could be causing odors to emit from residential plumbing vents.

The purpose of this requested scope of work is to determine the cause of the odor complaints and high pressures upstream of the ST-S-3 metering facility and to evaluate alternatives to reduce the odor issues.

Scope of Work

Task 1 – Sewer As-built Drawings and Hydraulics Review

As-built plan/profile sewer drawings of the local Sterling Heights sewer system and system hydraulics upstream of Meter ST-S-3 will be reviewed to document how the sewers are interconnected to ST-S-3 to determine if there is a common sewer headspace. This common sewer headspace could allow odors caused by the drop at Meter ST-S-3 to migrate upstream and into local sewers and even residential sewer leads and interior plumbing systems. Any sewer drops that could cause turbulence and therefore stripping of H_2S will be documented to further help determine the source of odors.

Task 2 – Pressure/H₂S monitoring and Fan Testing

Under this task, H₂S and pressure monitors will be installed in sewers in and around Meter ST-S-3. It is recommended that up to 5 H₂S and 5 pressure monitors will be installed for one (1) week. While the monitors are installed, a fan test will be performed to help determine the size of a vapor-phase odor control system (e.g. activated carbon) to depressurize the sewers throughout the upstream neighborhood to reduce or prevent odors.

If a common headspace is found between Meter ST-S-3 and the sewers near Rougewood Drive, then the recommended ST-S-3 odor control system may be able to be sized large enough to ventilate both ST-S-3 and some of the upstream residential sewers. The fan test would be used to determine if that is the case. If there is not a common headspace between the sewers, then the fan test would be designed to determine how large an “air jumper” pipe would have to be that would connect the ST-S-3 system to the upstream residential sewers.

It is assumed that an 18,000 cfm fan testing unit would be rented from Airflow Sciences for 2 days. **A carbon unit to minimize impacts on residents during testing is not included in the schedule and budget but is optional for an additional fee from Airflow Sciences.** The fan flow rate will be stair-stepped and pressure measurements will be taken at several locations to determine the optimum air flow rate that would be required to depressurize the upstream local sewers and capture air that would be transmitted to Meter ST-S-3, either through the sewer headspaces or through an air jumper.

Task 3 – Conceptual Design of Mitigation System (Future Optional Task)

If the 10,000 cfm system currently recommended at Meter ST-S-3 is found to be capable of depressurizing the upstream local sewers near Rougewood Street, then this task will not be completed.

However, if it is found that the currently contemplated vapor-phase treatment system at Meter ST-S-3 is not large enough, then a larger system will be conceptually designed. The conceptual design will include a process flow diagram, system sizing, and conceptual site and plan and profile drawings. If it is determined that an air jumper will be required, then the air jumper will be sized and conceptual plan and profile drawings will be developed.

An updated cost estimate will be prepared for the recommended mitigation system.

Schedule

The work described herein will be completed in about eight (8) weeks, with a technical memorandum provided to MCPWO technical staff for review. The final report will be issued once review comments are received by MCPWO staff. Assuming a Notice to Proceed date of October 26, 2020, the draft technical memorandum will be issued to MCPWO for review no later than December 23, 2020.



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Proposed Cost Estimate and Invoicing

The total not-to-exceed budget for the scope of services presented herein for Tasks 1 and 2 is **\$53,410.26**. Below is a breakdown of hours by key personnel and expenses for this investigation.

Task	Jason Matteo	Steve Graziano	John Siczka	Bill Desing	Staff Engr	Admin. Support	Expenses	Total	Assumptions
1	8	8	0	6	4	8	\$150.00	\$6,076.63	
2	16	40	4	20	16	12	\$28,865.00	\$47,333.63	Includes travel expenses for 2 out-of-town Jacobs staff. Includes \$24,675 quote (NO CARBON) for Airflow Sciences for fan testing. Assumes 5 pressure loggers and 5 OdaLogs for 1 week.
Total	24	48	4	26	20	20	\$29,015.00	\$53,410.26	
3 (Optional)	20	40	4	24	8	4	\$300.00	\$19,333.57	Assumes air jumper will be required.

This work will be billed on a time-and-materials basis under the MID System-wide Odor/Corrosion Study (MCPWO Work Order: WWS-018-010 and Jacobs Project Number: 707997CH) per the terms and conditions of that agreement and using current 2020 hourly rates.

Invoices will be submitted on a monthly basis and will include a summary of labor hours. For convenience, detailed time sheets and receipts for direct expenses will not be provided unless otherwise requested in writing to the Project Manager.

MACOMB INTERCEPTOR DRAIN 10/20/20 - 11/4/20

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance
Macomb Interceptor Drain Administration	Chapter 20						
	Chesterfield - 7.2499%	Astorino	ADS Environmental Services	\$ 12,620.00	Invoice #35414-0720A - 8.22.20	Meter Maintenance - 7.1.20 - 7.31.20	\$ 421,310.00
	Clinton - 21.2506%	Astorino	ADS Environmental Services	\$ 10,540.00	Invoice #35414-0820A - 9.26.20	Meter Maintenance - 8.1.20 - 8.31.20	\$ 410,770.00
	Fraser - 4.0512%	Baker	Aloia & Associates, P.C.	\$ 532.00	Invoice #20629 - 9.1.20	Sale of M59/Garfield Property	
	Harrison - 6.4207%	Downing	Anderson, Eckstein & Westrick	\$ 37,613.30	Invoice #128248 - 10.19.20	Dropshaft & Connecting Sewer Rehab	\$ 114,388.45
	Lenox - 1.0638%	Astorino	Anderson, Eckstein & Westrick	\$ 40,083.55	Invoice #128078 - 10.15.20	Engineering Oversight - Phase 2 Grouting	\$ 268,964.65
	Macomb - 13.9606%	Manning	County of Macomb	\$ 314,619.31	Invoice #AR200714 - 9.16.20	Personnel and Operating 2nd Quarter	
	New Haven - 8.226%	Downing	Doetsch	\$ 128,077.10	Invoice #71417 - 10.26.20	Phase 2 Grouting	\$ 1,419,361.50
	Shelby - 9.9057%	Astorino	DTE Energy	\$ 1,125.96	Invoice #20-504 - 10.1.20	Monthly Electric - 9.1.20 - 9.30.20	
	Sterling Heights - 30.9081%	Astorino	HESCO	\$ 15,900.00	Invoice #20201487 - 10.9.20	Sampler Installation and Training - State COVID \$	
	Utica - 1.5918%	Astorino	HESCO	\$ 10,500.00	Invoice #20201488 - 10.9.20	Monthly Lease - Sampler Equipment - State COVID \$	
	Washington - 2.7751%	Downing	Inland Waters	\$ 226,777.50	Invoice #WO18331 Est 2 - 10.31.20	Dropshaft & Connecting Sewer Rehab	\$ 419,000.00
		Downing	FK Engineering Associates	\$ 2,495.48	Invoice #19-134 - 10.7.20	Segment 5 Engineering Design - 8.22.20 - 10.3.20	\$ 4,812.24
		Downing	FK Engineering Associates	\$ 61,075.26	Invoice #20-058-005 - 10.7.20	Segment 6 Rehabilitation - Design	\$ 146,509.46
		Astorino	Fishbeck	\$ 975.00	Invoice #395413 - 10.2.20	Engineering Oversight - Phase 2 Grouting	\$ 26,167.37
		Downing	KHVPF, PLC	\$ 11,152.00	Invoice #45419 - 10.1.20	General Matters September 2020	
		Astorino	METCO Consulting Services	\$ 1,494.98	Invoice #1717-16 - 10.5.20	Flow Control Services - Segment 5	\$ 2,404.02
		Downing	NTH Consultants, Ltd.	\$ 16,096.46	Invoice #623984 - 10.7.20	Drop Shaft & Metering Facility Rehab	\$ 95,182.78
		Downing	Oscar Renda Contracting	\$ 1,230,691.50	Invoice #WO19024 Est #1	Segment 5 Lining	\$ 27,440,065.00
		Astorino	ULINE	\$ 655.68	Invoice #125488504 - 10.15.20	Gloves and Coveralls	
	Sucharski	Verizon Wireless	\$ 1,084.63	Invoice #9863486605 - 9.23.20	Monthly Cell - 8.24.20 - 9.23.20 (Equipment Fund)		
	Sucharski	Verizon Wireless	\$ 652.54	Invoice #9863486605 - 9.23.20	Monthly Cell - 8.24.20 - 9.23.20		
	Baker	Vision Invesco LLC	\$ 25,000.00	Invoice #20-507 - 10.6.20	Return of Garfield Property Deposit		

MACOMB INTERCEPTOR DRAIN 10/20/20 - 11/4/20

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance
Clintondale P.S.	Biofilter	Astorino	City of Fraser	\$ 1,740.34	Invoice #20-515 - 9.26.20	Monthly Utility - 8.21.20 - 9.22.20	
		Astorino	De-Cal, Inc.	\$ 556.80	Invoice #W090020085-3 - 9.30.20	3rd Quarter PM	
		Astorino	Clinton Township Treasurer	\$ 2,427.28	Invoice #20-497 - 9.30.20	Water & Sewer Bill - 8.25.20 - 9.22.20	
		Astorino	Colville Electric Co., LLC	\$ 1,880.95	Invoice #200540 - 10.8.20	SCADA Integration	
		Astorino	De-Cal, Inc.	\$ 2,947.80	Invoice #W090020091-3 - 9.30.20	3rd Quarter PM	
		Astorino	De-Cal, Inc.	\$ 686.12	Invoice #W09201377 - 10.13.20	Backflow Testing	
		Astorino	DTE Energy	\$ 15,008.96	Invoice #20-510 - 10.1.20	Monthly Electric - 9.2.20 - 10.1.20	
		Astorino	Duperon Corporation	\$ 684.36	Invoice #22650 - 9.28.20	Bearing Kit	
		Astorino	HMR Fabrication	\$ 1,700.00	Invoice #2396 - 10.20.20	Mesging Installation in Dumpster Bins	\$ 1,700.00
	15 Mile Sinkhole		Baker	\$ 6,351.25	Invoice #20634 - 9.1.20	MIDDD vs. 3 Contractors	
			Baker	\$ 8,939.75	Invoice #45420 - 10.1.20	Water Hammer Lawsuits - Expert Services	
	Meters		Astorino	\$ 1,778.55	Invoice #200515 - 10.7.20	Trench Dig/Repair Irrigation and Drainage Pipes	
	NGI		Astorino	\$ 4,036.19	Invoice #W09201235 - 9.30.20	Repair 18" and 16" Wedge Valve	
		Astorino	\$ 4,799.20	Invoice #W09201369 - 10.13.20	Clean ARVs		
		Astorino	\$ 16,635.00	Invoice #25464 - 10.2.20	Cleaning 22" HDPE Piping		
		Astorino	\$ 660.00	Invoice #39115 - 10.15.20	Jet Vac		
OMID		Downing	\$ 4,257,665.09	Invoice #SDS0007434-OCT	October 2020 Sewer		
			Total	\$ 6,478,259.89			

Budget to Actual
MIDD
As of Oct 31, 2021 = 33%

DESCRIPTION	2021 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	47,262,993		15,756,685	31,506,308	33.3%
OMID O&M	3,828,987		1,276,329	2,552,658	33.3%
Settlement	100,000			100,000	0.0%
Reimbursements	225,000		98,861	126,139	43.9%
PY Revenue-Fund Balance	8,388,627			8,388,627	0.0%
Washington Twp Meter Project	47,475			47,475	0.0%
Reimb-Local Communities	13,548,089		3,387,022	10,161,067	25.0%
Interest	250,000		22,103	227,897	8.8%
Total Revenue Accounts	73,651,171	-	20,541,000	53,110,171	27.9%
EXPENSE ACCOUNTS					
GLWA-OMID	47,262,993		15,756,685	31,506,308	33.3%
OMID O&M	3,828,987		1,276,329	2,552,658	33.3%
Public Works Wastewater Disposal Division	1,942,127		306,780	1,635,347	15.8%
Office Operations/Insurance	309,925		34,596	275,329	11.2%
SCADA	268,889		17,980	250,909	6.7%
Engineering					
Meter Dye Testing 2 year contract new this year	100,000		25,300	74,700	25.3%
Data Review-Aquasight	250,000		30,995	219,005	12.4%
Replenish reserve from CPS refunding	618,680			618,680	0.0%
Design Odor and Corrosion	750,000		3,420	746,580	0.5%
Construction Project for Odor and Control	1,000,000			1,000,000	0.0%
SY-S-1, SY-S-2, WA-S-1 Construction Admin	250,000			250,000	0.0%
FKE Rehab analysis phase 2	84,000		14,000	70,000	16.7%
Seg 5 Construction	1,150,000		131,548	1,018,452	11.4%
Phase II Grouting	3,825,000		1,052,452	2,772,548	27.5%
GLWA Assistance	40,000		1,425	38,575	3.6%
As Needed FTCH	75,000		366	74,634	0.5%
As Needed FK Engineering	75,000			75,000	0.0%
As Needed Wade Trim	75,000		104	74,896	0.1%
As Needed Metco	125,000		1,495	123,505	1.2%
As Needed Applied Science	25,000			25,000	0.0%
As Needed Odor and Corrosion	75,000			75,000	0.0%
Seg 5 Engineering Design	374,557		111,054	263,503	29.6%
Contribution to Segment 5/Grouting	1,450,000		575,604	874,396	39.7%
15 Mile Inter Design East of Garfield (Segment 6)/Const Admin	1,500,000		146,061	1,353,939	9.7%
SY-S-1 & SY-S-2 Meter Design/Rehab	1,134,070			1,134,070	0.0%
Level Sensors/Pressure/H2S-Meters	250,000			250,000	0.0%
Wastewater Master Plan/Contract Capacity	400,000		20,960	379,040	5.2%
EGLE Testing Grant	-		77,177	(77,177)	0.0%
Washington Township meter	500,000			500,000	0.0%
Legal Services					
Clintondale PS O&M	250,000			250,000	0.0%
Clintondale PS O&M	639,500		68,198	571,302	10.7%
NGI O&M	230,000		34,604	195,396	15.0%
Meters O&M	253,470		91,824	161,646	36.2%
CS-3 O&M	226,000			226,000	0.0%
Biofilter O&M	22,500		7,024	15,476	31.2%
Contribution Life Cycle Reserve	171,700			171,700	0.0%
Interceptor O&M	1,900,000		7,715	1,892,285	0.4%
Stormwater Pump Stations	234,250		78,083	156,167	33.3%
Sewage Disposal Charges - Mt. Clemens	200,000		29,650	170,350	14.8%
Debt Service - Revenue Bonds	1,784,523		594,841	1,189,682	33.3%
Total Expense Accounts	73,651,171	-	20,496,271	53,154,900	27.8%

	O&M Balance 6/30/2020	O&M	Total 10/31/2020
Cash - Operating	24,226,346	44,730	24,271,076
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		20,541,000	20,541,000
Expenditures		20,496,271	20,496,271
Equity*	24,226,346		24,271,076

Detail of 2020 Equity*

Projected reserve at 6/30/2020	6,818,887
Projected Engineering Reserve	12,920,000
Projected Sinkhole Surplus	3,656,059
Life Cycle Reserve	831,400