

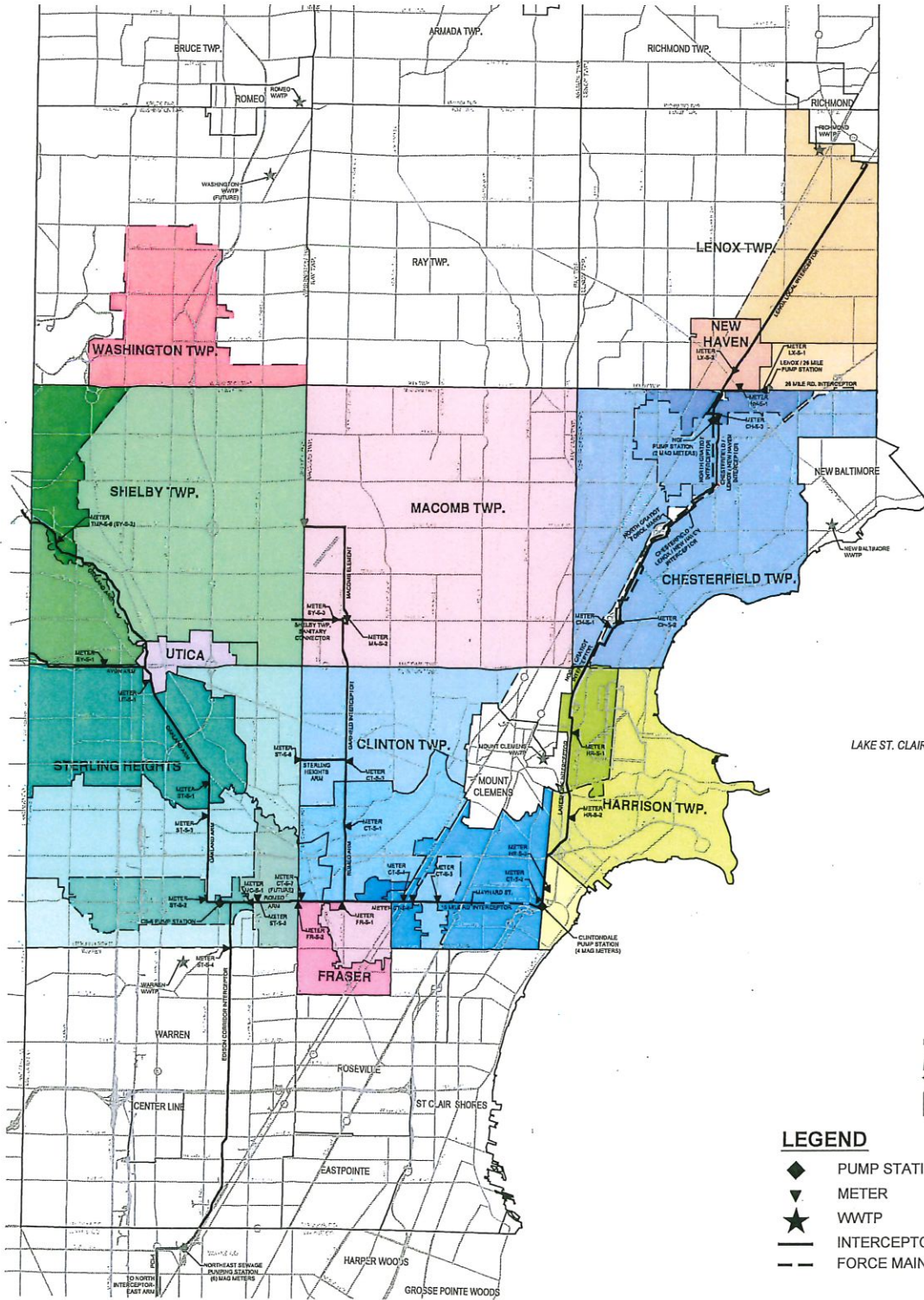
MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
APRIL 13, 2020
10:30 A.M.
AGENDA

NOTE: THIS MEETING WILL BE HELD BY TELECONFERENCE

Call in Number: 1-408-418-9388
Access Code: 713 089 569

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for April 13, 2020	
3. Approval of Minutes for March 9, 2020	3
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	
6. Insurance Policy Renewal – Bruce Manning/Stephen Saph	6
Motion: To approve the Chapter 20 General Liability Insurance coverage renewal with Argonaut Insurance Company in the amount of \$189,369 (MIDD share \$181,794.24)	
7. Aquasight Phase 2 Sewer Data Dashboards Recommendation – Vince Astorino	10
Motion: To approve the proposal from Aquasight in the amount of \$258,233 for sewer data meter analytics software development and three-year maintenance agreement.	
8. Proposed 2020/21 MIDD Budget – Brian Baker	15
Motion: To approve the 2020/21 Macomb Interceptor Drainage District (MIDD) budget and charges.	
9. Consideration for approval of invoices (see attached)	45
10. Financial Report – Bruce Manning	47
11. Adjourn	

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER

- LEGEND**
- ◆ PUMP STATION
 - ▼ METER
 - ★ WWTP
 - INTERCEPTOR
 - - - FORCE MAIN



fitch
 UPDATED: FEBRUARY 2017

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on March 9, 2020, at 10:20 A.M.

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

ALSO PRESENT: Brian Baker, Chief Deputy, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Danielle Devlin, Environmental Specialist, Kellie Kource, Drain Account Specialist, Karen Czernel, Deputy, Dan Heaton, Communications Manager, Macomb County Public Works

The meeting was called to order by the Chair, Candice 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 February 10, 2020 were presented. A motion was made by Mr. Santo, supported by Mr. Mijac 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. Downing updated the Board that the Segment 5 grouting project has made it down to our last 1,000 feet. The Segment 5 rehab project design documents will be wrapped up this week and will be posting for bid. An award recommendation for the lining and cleaning should be brought to the Board in May. The drop shaft projects are scheduled to start the next week with anticipated completion date of June 1.

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

Adopted: YEAS: 3
NAYS: 0

Ms. Miller updated the Board that the M59/Garfield property sale was pulled by the buyer. The property will be listed for sale again.

A motion was made by Mr. Mijac, supported by Mr. Santo to receive and file the update by Ms. Miller

Adopted: YEAS: 3
NAYS: 0

Mr. Downing updated the Board that we would like to award FK Engineering a contract to do an analysis of Segment 3, 4, and 7 through 10. It will analyze the pipe condition and cost benefit of the different rehabilitation options.

A motion was made by Mr. Santo, supported by Mr. Mijac to approve the proposal from FK Engineering in the amount of \$84,000 to perform a segment by segment options/cost analysis of the remaining portions of the MID interceptor.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the proposal from Access Interactive in a not-to-exceed amount of \$106,354 for replacement SCADA Storage Area Network hardware and installation (\$45,732 MIDD share).

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$6,262,358.42 to the board for review and approval.

A motion was made by Mr. Mijac, supported by Mr. Santo 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. Mijac, supported by Mr. Santo, that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

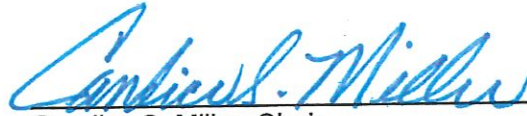
The meeting was adjourned at 10:36 a.m.



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, on March 9, 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: 3/9/20



Candice S. Miller

Public Works Commissioner
Macomb County

TO: Chapter 20 Boards
FROM: Bruce Manning, Finance Officer
DATE: April 13, 2020
RE: Liability Insurance

Please see below the insurance cost breakdown for the new 2020 insurance policy. After an analysis of the 2019 expenses, other drains' percentages were minimal.

Chapter 20
Insurance Cost Breakdown
April 26, 2020 Renewal

DRAIN NAME	PERCENT	PORTION OF INSURANCE
Eight Half Mile Relief	3.400%	\$ 6,438.55
Martin	0.600%	\$ 1,136.21
MIDDD	96.000%	\$ 181,794.24

Insurance bill	\$ 189,369.00
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MIDDD Costs	
Liability	\$ 181,794.24
Third-Party Administrator	\$ 1,500.00
Underground Infrastructure	\$ 12,000.00
MIDDD Total Cost	\$ 195,294.24



NICKEL & SAPH, INC.

INSURANCE SINCE 1929

MAILING ADDRESS:

P.O. BOX 46907
MT. CLEMENS, MI 48046-6907

OFFICE ADDRESS:

44 MACOMB PLACE
MT. CLEMENS, MI 48043
(586) 463-4573 • (810) 765-8887
1-800-657-7373 • FAX: (586) 463-3135
www.nickelsaph.com

March 18, 2020

Mr. Brian Baker
Macomb County Intra-County Drains &
Drainage Districts
21777 Dunham Road
Clinton Twp., MI 48036

Dear Mr. Baker:

Please accept the following renewal proposal of certain liability coverages are have been secured for the Intra-County drains and drainage districts.

Carrier: Argonaut Insurance Company
A. M. Best Rating: A- XIV. Admitted by the State of Michigan.

General Liability

Aggregate Limit: \$12,000,000
Occurrence Limit: \$11,000,000
Personal and Advertising Injury: \$11,000,000
Products/Completed Operations Aggregate: \$11,000,000
Retention: \$250,000

Policy terms include Blanket Additional Insured; Broadcasting, Publishing, and Telecasting offenses are covered under Personal Injury. The Pollution exclusion does not apply to: Hostile Fire, Emergency Operations, Mobile Equipment, Pesticides and/or Herbicides, Water Treatment, Above Ground Tanks, and Water and/or Sewer operations.

Automobile Liability

Occurrence Limit: \$11,000,000
Retention: \$250,000

Coverage is afforded for non-owned and rented autos only. No aggregate limitation applies.

Public Officials' Liability

Aggregate Limit:	\$12,000,000
Per Wrongful Act Limit:	\$11,000,000
Retention:	\$250,000
Annual Premium:	\$189,369
Terrorism Risk Insurance:	\$5,102

The expiring annual premium was \$185,706. The renewal offering has increased \$3,663 or 1.97%. Last year, Terrorism Risk Insurance was excluded (optional coverage). Premium is not subject to annual audit.

Afforded liability limits are separate from each other. Payment of claims for one line of coverage will not impact or reduce the limits dedicated to the remaining lines of coverage. Please refer to policy forms for terms, definitions, conditions, and exclusions.

The retention applies to both the payment of claim adjustment expenses and third-party damage payments. Once the retention is exhausted, the specific limit is dedicated to the payment of third party damages alone; claim expenses are outside of the afforded limits. Argonaut requires the continued third-party administrator (TPA) relationship with the ASU Group or other approved TPA.

Argonaut has include their proprietary Water Plus 360 endorsed which adds the following coverage enhancements: Under General Liability: Pollution exceptions for water operations; removal of Inverse Condemnation exclusion; Insured contract definition adds sidetrack agreements; watercraft extended for non-owned to under 100 feet and owned up to 300 h.p; and dams are scheduled by endorsement. Under Public Officials': Removal of Inverse Condemnation exclusion and coverage added for Wrongful Acts related to the distribution, treatment, discharge, testing, monitoring, or extraction of water or wastewater.

Prior to the procurement of this coverage in April 2018, no dedicated liability insurance had been secured for any of the drainage districts. In 2018, we performed a broad ranging marketing effort in search of a willing carrier and a competitive premium. Eleven (11) carriers were approached of which eight (8) declined to quote. The primary reason so many declined to quote was the lack of prior coverage and the inability to present a formal, prior loss history. While this year we did not conduct a detailed marketing effort, we did informally communicate with many carriers. The overwhelming response was that until the districts were able to provide at least three (3) years of official, hard copy loss runs, proposals would not be offered. With less than two (2) full years of reporting, we obviously did not have enough historic data to secure other quotes.

In addition to securing the afforded liability coverages, we continue to monitor additions or improvements to the districts' physical assets. We have been advised that no measurable changes occurred over the past year. You will recall that all property insurance is secure under Macomb County's property insurance policy.

In June of 2019, agency staff assisted in the filing of a claim against an at fault, third party to collect damages resulting from an auto accident. \$6,990 was collected on behalf of the districts for property damages that occurred to an electrical box as a result of the accident.

Please review this information and contact me with any questions or concerns. I plan to attend the meeting on Monday, April 13, 2020. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen R. Saph Jr.", written in a cursive style.

Stephen R. Saph Jr., LIC
Agent



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: April 8, 2020

Subject: Aquasight Phase 2 Recommendation

The purpose of this memorandum is to recommend the proposal for approval of the Aquasight Phase 2 data meter data analytics software development and maintenance. The intent is to make a change order to the Aquasight existing contract for the Phase 2 development.

In May 2019, the MIDDD Board approved Aquasight Phase 1 contract for the development of the data analytics software. The purpose of this software was to replace the antiquated and non-supported McMARS software, previously used for community flow meter data processing and billing. At this time, Phase 1 has been completed which provided a fully functional and updated software, currently being used to process billing meter information.

Phase 2 of this software development, will continue to build upon the previously completed Phase 1 and bring more necessary features to the software, providing communities highly reliable billing meter information. This next phase will focus on bringing access to all of the MIDDD communities. Each community will have the ability to see their billing meter data in near-real time and have access to the analytical tools that have been developed for this program. This next phase will also provide access to consultants and will allow them to extract certified data from the program. These two items will not only save our office time but will also save time and effort for our communities as well. This next phase will also bring in the ability to eliminate MCPWO staff from manually checking 5-year data volumes and will automate this with new integrated reports. This will allow us to easily monitor community flow volumes and detect anomalies in their flow patterns. One example is with the rising lake levels, MCPWO was able to identify some communities that have elevated sewage flow volumes due to this and MCPWO has notified them of this.

This proposal is for a 3 year contract that includes the following costs:

On-Boarding (Development) Fee:	\$185,975
Annual Phase 2 Subscription Fee:	\$24,086 / year (for 3 years)

MCPWO staff is recommending to award the phase 2 implementation to Aquasight in the total amount of \$258,233. The 20/21 cost for this will be \$210,061 and this has been budgeted for within the MIDDD 20/21 budget.

Attachment: Aquasight Phase 2 Proposal Dated 3-30-20

ORDER FORM AND SCOPE OF SERVICES

- 1. OWNER: **MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT
21777 Dunham Road
Clinton Township, MI 48036**
- 2. Aquasight Solution: **ACE 3.0, or higher
See Scope of Service**
- 3. Term: **3 years**
- 4. Fees:
 - On-boarding Fee: **\$ 185,975**
 - Annual Subscription Fee: **\$ 24,086 each year**
- 5. Scope of Services

- Implementation and Onboarding of Following Capabilities in ACE:

Generation 2 Enhancements
Gen 2 Certification Workflow ACE Data Plotting and Download New Meter Additions
Community, Consultant Dashboard and Self Service
Individual Community Dashboard Individual Consultant Pages Access Levels: Community, Consultant, Macomb Self Service Admin Pages User Privileges
Reports & Analytics
Make other reports presentation quality Volume summaries Community summaries Long term analysis comparisons. M2M, Y2Y, PYM2M

- Annual Subscription Service
 - ACE Technology and infrastructure management
 - Software and API upkeep and maintenance
 - Database maintenance
 - Bugs and help desk
 - Additional training
 - Periodic Check-ins

6. Payment Terms:

- Onboarding fees will be invoiced incrementally as detailed in the Rate Schedule
- Annual Subscription Service will be invoiced annually at the execution of the contract and the beginning of each year after the end of the first year as detailed in the Rate Schedule

7. Other terms and conditions:

- Onboarding fee includes providing OWNER access to Aquasight's ACE platform and all other necessary steps to provide OWNER with the features and services described in the Scope of Services
- Onboarding fee includes local OWNER site visits, as needed, during the course of the project
 - Any additional travel costs that may be necessary will be quoted and submitted to the OWNER through a Change Order Request. No additional charges will be incurred without OWNER's prior written approval.
- Any new features that are not described in the above Scope of Services are subject to additional cost and will be provided upon request. Additional costs will not be incurred without OWNER's written authorization.
- Raw data quality is the responsibility of the OWNER
- OWNER has to provide access to a computer that is on the network where source data is available with an internet connection
- No equipment will be provided by AQUASIGHT on-site or at OWNER's remote locations as part of this project
- Data extraction from source system is assuming industry standard data formats and readable technologies
- When requested, OWNER has to provide access to tags, basis of design, standard operating procedures, operators and experts
- Any delay for requested information can cause delays in timelines and milestones
- Pricing is up to 50 users

**OWNER: MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT**

PROVIDER:

By: Candice S. Miller
Its: Board Chairperson

By:
Its:

RATE SCHEDULE

Item	Amount	Invoice Date
Annual Subscription Year 1	\$24,086	5/01/2020
Onboarding Fee	\$30,995	5/1/2020
(\$185,975 total-	\$30,995	6/1/2020
billed across 6 months)	\$30,995	7/1/2020
	\$30,995	8/1/2020
	\$30,995	9/1/2020
	\$31,000	10/01/2020
Annual Subscription Year 2	\$24,086	5/1/2021
Annual Subscription Year 3	\$24,086	5/1/2022

**Macomb Interceptor Drain Drainage District
FY 2021 Budget & Charges
Executive Summary**

April 13, 2020

The proposed FY 2021 Macomb Interceptor Drainage District (MIDD) budget for the fiscal year beginning July 1, 2020 totals \$88.6 million. The budget increased only \$3.0 million or 3.5%. This represents the 2nd lowest charge increase to the MIDD communities in the past 10 years. The increase continues to be well below the average 15% annual increases experienced from 2010-2016.

The Great Lakes Water Authority (GLWA) and Oakland Macomb Interceptor District (OMID) have approved their budgets and charges which account for over two-thirds of the entire MIDD budget. Continued savings from last year's agreement with GLWA allows the OMID to budget and finance the estimated \$100 million of improvements and repairs to the Northeast Pump Station (NESPS) and Northeast Interceptor East Arm (NIEA). Further, these savings allow the MIDD to fund needed rehabilitation projects, while also keeping charge increases low.

The MIDD-only costs are less than one-third of the total budget. Existing MIDD debt payments declined by \$675,000 due to savings from refinancing the Clintondale Pump Station bonds. With a portion of these savings and several one-time project costs dropping off, next year's budget provides funding toward several needed MIDD projects including:

- \$1.75 million toward design and construction of additional odor and corrosion control projects.
- \$1.4 million for additional interceptor maintenance grouting.
- \$1.2 million in first year financing costs for the 15 Mile Interceptor lining project from Hayes to the ITC Corridor (Summer 2020 \$25 million SRF bond), and
- \$1.0 million for additional interceptor and drop shaft inspections, and \$875,000 in engineering costs for the 15 Mile Interceptor rehabilitation from Garfield to west of Kelly (mid 2021 SRF bond project).

The average sewer charge increase to the 11 MIDD communities is 3.5%. There is a slight charge variability among the MIDD communities due to updated five-year average sewer flow volumes and as four have communities already prepaid their share of the 2019 OMID bond. Note the \$2.76 million of estimated new OMID debt service for the NESPS & NIEA is budgeted, but will be billed after the bonds are issued. Attached is a more detailed budget and charge information which will explain the expenditures by cost center.

Should you have any questions, please do not hesitate to contact the Macomb County Public Works Office.

**MIDD Budget
Total Sewer Charges**

Cost Category	2019/2020 Budget	2020/2021 Budget	Change	%	%
				Change	of Total
GLWA-OMID	45,924,393	46,535,709	611,316	1.3%	52.5%
GLWA CSO Program	980,303	989,139	8,836	0.9%	1.1%
Total GLWA	46,904,696	47,524,848	620,152	1.3%	53.6%
OMID Capital	5,142,784	577,334	(4,565,450)	-88.8%	0.7%
OMID O&M	2,979,104	3,251,653	272,549	9.1%	3.7%
OMID New Debt (GLWA, NESPS & NIEA)	0	4,768,541	4,768,541	100.0%	5.4%
OMID Existing Debt	4,614,437	4,598,980	(15,457)	-0.3%	5.2%
Total OMID	12,736,325	13,196,508	460,183	3.6%	14.9%
Subtotal GLWA and OMID	59,641,021	60,721,356	1,080,335	1.8%	68.5%
MIDD Existing Debt	15,052,115	14,377,834	(674,281)	-4.5%	16.2%
MIDDD New Debt (Seg 5 Included in rates)	0	0	0	0.0%	0.0%
MIDDD O&M/Charge Required Revenue	10,927,799	13,548,089	2,620,290	24.0%	15.3%
Total MIDDD	25,979,914	27,925,923	1,946,009	7.5%	31.5%
Total Budget	85,620,935	88,647,279	3,026,344	3.5%	100%

MIDDD COMMUNITIES
TOTAL SEWER CHARGES
FY 2020 vs FY 2021

Cost Category	2019/2020 Charge	2020/2021 Charge	Difference	% Change	Page #
1) GLWA-OMID	45,924,393	46,535,709	611,316	1.3%	2
2) GLWA CSO Program	980,303	989,139	8,836	0.9%	2
3) Sub Total GLWA	46,904,696	47,524,848	620,152	1.3%	
4) OMID Capital Improvements	5,142,784	577,334	(4,565,450)	-88.8%	2
5) OMID O&M	2,979,104	3,251,653	272,549	9.1%	2
6) Sub Total OMID	8,121,888	3,828,987	(4,292,901)	-52.9%	
7) MIDDD O&M/Charge Required Revenue	10,927,799	13,548,089	2,620,290	24.0%	2,4
8) Sub Total	65,954,383	64,901,924	(1,052,459)	-1.6%	
9) OMID Existing Debt	4,614,437	4,598,980	(15,457)	-0.3%	3
10) OMID New Debt (GLWA, NESPS & NIEA)	0	4,768,541	4,768,541	100.0%	3
11) MIDDD New Debt (Seg 5 Included in rates)	0	0	0	0.0%	3
12) MIDDD Existing Debt	15,052,115	14,377,834	(674,281)	-4.5%	3
13) Sub Total Debt(See page 3)	19,666,552	23,745,355	4,078,803	20.7%	
TOTAL	85,620,935	88,647,279	3,026,344	3.5%	

Communities	2019/2020 Charge	2020/2021 Charge	Difference	% Change
Chesterfld Twp ⁽¹⁾	6,916,420	7,032,037	115,617	1.7%
Clinton Twp ⁽¹⁾	17,772,912	18,042,437	269,525	1.5%
Fraser	3,463,617	3,627,103	163,486	4.7%
Harrison Twp ⁽²⁾	5,134,746	5,588,725	453,979	8.8%
Lenox Twp ⁽²⁾	1,462,480	1,576,289	113,809	7.8%
Macomb Twp ⁽¹⁾	11,688,328	11,723,445	35,117	0.3%
New Haven ⁽¹⁾	1,083,018	1,087,182	4,164	0.4%
Shelby Twp	8,134,712	8,556,473	421,761	5.2%
Sterling Heights	26,127,954	27,450,964	1,323,010	5.1%
Utica	1,404,756	1,437,568	32,812	2.3%
Wash Twp	2,431,992	2,525,056	93,064	3.8%
TOTAL	85,620,935	88,647,279	3,026,344	3.5%

NOTES

- 1) Prepaid 2019 OMID Bond
- 2) Experienced higher than average increase in flows

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
2020-2021 SEWER CHARGES
 Effective July 1, 2020

	Total Annual	% Macomb County	Allocated to Macomb City	Monthly	Five Year Rolling Average per actual consumption 7/1/2014-6/30/2019										Total	
					Chesterfield Twp	Clinton Twp	Fraser	Harrison Twp	Lenox Twp	Macomb Twp	New Haven	Shelby Twp	Sterling Heights	Ulita		Wash Twp
OMIDD Charges to MIDD					7.2489%	21.2506%	4.0512%	6.4207%	1.0538%	13.9606%	0.8223%	9.9957%	30.9081%	1.5916%	2.7751%	100.00%
GLWA-OMID	68,455,000	67.98%	46,555,709	3,977,976	281,148	824,092	157,104	248,992	41,253	541,389	31,900	384,141	1,198,609	61,730	107,618	3,977,976
GLWA-CSO Program	1,634,400	60.52%	989,199	82,428	5,977	17,517	3,339	5,292	877	11,507	678	8,185	25,477	1,312	2,287	82,428
GLWA Sub Total	70,089,400		47,524,848	3,960,404	287,125	841,609	160,443	254,284	42,130	552,896	32,578	392,305	1,224,086	63,042	109,905	3,960,404
OMID Capital Improvements	862,980	66.90%	577,334	48,111	3,487	10,224	1,949	3,089	512	6,717	396	4,766	14,870	766	1,335	48,111
OMID O&M	4,783,250	67.98%	3,251,653	270,971	19,644	57,583	10,978	17,398	2,883	37,829	2,229	26,842	83,752	4,313	7,520	270,971
OMID Sub Total	5,646,230		3,823,987	319,082	23,131	67,807	12,927	20,487	3,395	44,546	2,625	31,608	98,622	5,079	8,855	319,082
Total GLWA and OMID Charges	75,735,630		51,353,835	4,279,486	310,256	909,416	173,370	274,771	45,525	597,442	35,203	423,914	1,322,708	68,121	118,760	4,279,486
STORMWATER PUMP STATION O&M	234,250	100.00%	234,250	19,521	3,333	3,542	0	4,375	0	0	0	0	8,271	0	0	19,521
MIDD O&M/Charge Required Revenue(pp 4)	13,313,839	100.00%	13,313,839	1,109,487	80,436	235,772	44,948	71,237	11,803	154,891	9,127	109,902	342,921	17,661	30,789	1,109,487
	89,283,719		64,901,924	5,408,494	384,025	1,148,730	218,319	350,383	57,328	752,333	44,330	533,816	1,673,900	85,782	149,549	5,408,494
O&M Total	4,728,300		3,204,596	261,916	4,204,596	687,935	9,027,995	531,959	6,405,791	20,086,800	1,029,384	1,794,588	64,901,924	730,468	23,745,355	23,745,355
Debt Total	2,303,737		1,576,289	133,429	888,354	2,695,450	555,223	7,350,184	1,087,182	8,556,473	27,450,964	1,437,568	88,647,279	2,525,056	88,647,279	88,647,279
Grand Total	7,032,037		4,782,885	395,345	1,138,023	2,391,404	1,247,177	8,405,975	1,714,967	11,663,243	1,584,562	10,552,264	28,151,884	1,462,624	2,525,056	28,151,884

DEBT WORKSHEET
OMID and MIDD

MIDD 2020-2021 DEBT WORKSHEET

Not Part of Monthly Invoice. Will be invoiced separately every 6 months
Does not include paying or calculation agent fees

MIDD DEBT SERVICE(FIXED BASED ON ORIGINAL FLOW)	Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnk Twp	Macomb Twp	New Haven	Shelby Twp	St. Hgts	Ulita	Wash Twp	Total
OMI CVRF #5368-01, 26,076,000	656,625	205,764	-	861,789	65,989	186,185	38,888	50,226	4,215	113,028	9,001	79,721	275,941	15,544	21,051	861,789
Refunded OMI 6.7 Million Bond Series 2010B (Recovery Zone Bonds)	182,823	40,330	-	223,175	17,089	48,733	10,071	13,007	1,092	29,270	2,831	20,645	71,460	4,025	5,452	223,175
OMI 2014A	225,076	109,765	-	334,841	26,640	73,118	15,109	19,515	1,636	43,916	3,497	30,975	107,215	6,039	8,179	334,841
OMI-2011 \$25,530,000 SRF 5368-02	559,416	227,828	-	787,244	78,682	224,246	46,339	59,851	5,023	10,726	0	10,726	328,919	18,523	25,085	797,244
OMI-2013 SRF 5368-03	1,452,585	487,787	-	1,940,372	165,722	466,901	96,483	124,616	10,458	280,432	22,332	273,231	884,533	38,566	52,229	1,940,372
Estimated Bond for NESFS and NIEA	1,729,365	1,028,322	-	2,758,322	199,975	566,159	111,744	177,104	29,343	385,078	22,690	273,231	852,545	43,907	76,546	2,758,322
OMI GLWA Bond	1,934,383	75,936	-	2,010,219	0	144,214	220,029	33,636	0	33,636	0	352,051	1,101,746	58,434	100,109	2,010,219
SAV Loan Project 2001-01	296,949	144,610	-	441,559	0	143,816	29,719	38,384	0	0	6,879	0	210,882	11,879	0	441,559
Refunded Clintondale Pump Station Rehab	1,050,000	771,750	-	1,821,750	139,493	397,808	82,206	106,173	8,912	238,933	19,026	168,523	593,317	32,859	44,500	1,821,750
NGI Phase 2015 Refunding District Apportionment 37,9992%	370,492	230,926	-	601,418	48,050	131,329	27,139	35,051	2,942	78,880	6,281	55,635	192,572	10,848	14,591	601,418
NGI Bond Series 2010 \$16,965 million District Appt. 4.6529%	28,815	32,979	(12,730)	48,864	3,742	10,670	2,205	2,848	239	6,409	510	4,520	15,646	881	1,184	48,864
MIDD 2017A Sinkhole Bond	1,485,000	2,691,850	-	4,176,850	295,287	885,263	175,754	243,632	31,819	575,804	33,778	416,764	1,326,000	75,622	117,257	4,176,850
MIDD SRF 5624-01-Macomb Element	180,000	55,376	-	215,376	15,762	47,182	9,553	12,313	1,223	29,294	2,025	20,823	67,487	4,075	5,649	215,376
MIDD SRF Segment 5-PROJECTED August 2020	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
MIDD SRF Segment 6 Projected for 2021/2022	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Macomb Interceptor Bonds-2010 Refunding Appt 87.2903%	2,369,932	2,458,051	-	4,827,983	369,680	1,054,267	217,863	281,380	23,618	633,219	50,423	446,617	1,545,901	87,082	117,933	4,827,983
Totals-Fixed	12,511,263	8,561,229	(12,730)	21,059,762	1,421,031	4,257,677	1,007,287	1,384,129	154,158	2,414,263	189,499	1,669,495	7,364,164	408,184	589,875	21,059,762

INDIVIDUAL DEBT SERVICE(NEGOTIATED)	Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnk Twp	Macomb Twp	New Haven	Shelby Twp	St. Hgts	Ulita	Wash Twp	Total
NGI Phase 2015 Refunding Remaining Apportionment 62.0008%	604,508	376,786	-	981,294	625,641	229,411	0	0	229,411	0	126,242	0	0	0	0	981,294
NGI Bond Series 2010 Remaining Apportionment 95.3471%	586,385	675,809	(260,862)	1,001,332	257,066	504,785	0	0	504,785	281,187	239,482	281,187	0	0	140,593	1,001,332
Macomb Interceptor Bonds-2010 Refunding Remaining Appt 12.7097%	345,068	357,899	-	702,967	882,706	0	0	0	734,196	281,187	365,724	281,187	0	0	140,593	702,967
Totals-Negotiated	1,535,961	1,410,494	(260,862)	2,685,593	2,505,737	4,257,677	1,007,287	1,384,129	888,354	2,695,450	555,223	2,150,682	7,364,164	408,184	730,468	23,745,355
TOTAL BY COMMUNITY					2,505,737	4,257,677	1,007,287	1,384,129	888,354	2,695,450	555,223	2,150,682	7,364,164	408,184	730,468	23,745,355

1) Total OMID and MIDD
OMID 9,367,621
MIDD 14,377,834
23,745,355

INFORMATIONAL-ONLY-NOT INCLUDED IN MIDD BUDGET CALCULATION

Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnk Twp	Macomb Twp	New Haven	Shelby Twp	St. Hgts	Ulita	Wash Twp	Total
NGI Lenox Local Refunding	565,000	382,750	-	937,750	937,750	0	0	0	0	0	61,649	0	0	0	937,750
Refunded NGI 2006-Phase 5	100,000	87,250	-	187,250	125,601	0	0	0	0	61,649	0	0	0	0	187,250
Totals-Informational	665,000	470,000	-	1,125,000	1,063,351	0	0	0	0	61,649	0	0	0	0	1,125,000

Based segment 5 interest on \$9,000,000 draw in first year(1/3 of cost). Used SRF 5368-01 as guide.
SRF 5368-01 had roughly 9,000,000 in draws in 2010 and interest was \$70,198
This was 2.5 percent but still good for estimating purposes.

MIDDD
Operations Maintenance
Budget to Actual

Description	Page #	Actual 2018/2019	Actual 1/31/2020	Projected 6/30/2020	Budget 2019/2020	Budget 2020/2021	Budget Change	% Change
EXPENSE								
Public Works Wastewater Personnel Cost	5	1,585,358	1,055,255	1,850,000	1,721,123	1,942,127	221,004	12.8%
Office Operations/Insurance	6	313,574	100,051	338,250	322,800	309,925	(12,875)	-4.0%
SCADA	7	63,608	122,473	211,117	196,634	268,889	72,255	36.7%
Sewer Systems Projects/Studies/Eng. Design	8	1,333,896	2,685,644	8,817,306	14,970,000	14,126,307	(843,693)	-5.6%
Legal Services	9	194,667	82,215	140,940	500,000	250,000	(250,000)	-50.0%
Clintondale PS O&M	10	373,380	267,201	396,995	345,000	639,500	294,500	85.4%
NGI O&M	11	89,599	47,110	64,740	330,000	230,000	(100,000)	-30.3%
Meters O&M	12	200,506	100,445	194,945	415,000	253,470	(161,530)	-38.9%
CS-3 O&M	13	0	0	10,000	226,000	226,000	0	0.0%
Biofilter O&M	14	66,841	83,354	94,854	277,500	22,500	(255,000)	-91.9%
Contribution Life Cycle Reserve	7,10,11,13,14	171,700	171,700	171,700	171,700	171,700	0	0.0%
Interceptor O&M	15	0	0	100,000	1,000,000	1,900,000	900,000	90.0%
Stormwater Pump Stations	16	0	47,001	65,800	65,800	234,250	168,450	256.0%
Sewage Disposal Charges - Mt. Clemens		197,086	102,320	175,406	200,000	200,000	0	0.0%
Debt Service -SRF and Revenue Bonds	17	572,530	318,641	546,242	546,242	1,784,523	1,238,281	226.7%
Total		5,162,745	5,183,410	13,178,295	21,287,799	22,559,191	1,271,392	6.0%
REVENUE								
Reimbursements	18	725,015	755,917	900,917	200,000	225,000	25,000	12.5%
Detroit Bankruptcy Settlement	18	0	0	0	0	100,000	100,000	100.0%
Sinkhole Settlement	18	0	0	0	0	0	0	0.0%
Washington Twp Meter Project	18	0	0	0	250,000	47,475	(202,525)	-81.0%
Grants/SRF Funding	18	246,264	422,001	422,001	0	0	0	0.0%
MIDDD O&M/Charge Required Revenue	2	8,989,650	6,374,549	10,927,799	10,927,799	13,548,089	2,620,290	24.0%
Carryforward	18	0	0	0	9,610,000	8,388,627	(1,221,373)	-12.7%
Use of Reserves	18	0	0	677,578	0	0	0	0.0%
Sale of Property	18	0	0	0	0	0	0	0.0%
Interest		241,898	211,803	250,000	300,000	250,000	(50,000)	-16.7%
Total		10,202,827	7,764,270	13,178,295	21,287,799	22,559,191	1,271,392	6.0%
Total Reserve⁽¹⁾		27,530,927		24,043,390	23,554,747	15,946,143		
Additional Notes								
1) Broken out as follows:								
SCADA Life Cycle		188,700		181,400	227,400	220,100		
Clintondale PS Life Cycle		300,000		375,000	375,000	450,000		
NGI Life Cycle		120,000		150,000	150,000	180,000		
CS-3 Life Cycle		5,000		10,000	10,000	15,000		
Biofilter Life Cycle		92,000		115,000	115,000	138,000		
Life Cycle Sub-Total		705,700		831,400	877,400	1,003,100		
Surplus MIDDD Acquisition(2010 Bond)		405,124		407,000	406,957	408,000		
Surplus Const CPS (2011 Bond)		3,050,449		-	3,150,000	-		
Surplus 2016 sinkhole project		3,379,738		2,879,738	4,000,000	2,379,738		
Emergency Reserve		11,536,625		11,536,625	15,120,390	12,155,305		
Carryforward		9,610,000		8,388,627	9,610,000	8,388,627		
Spending of Carryforward		(1,156,709)		(9,610,000)	(9,610,000)	(8,388,627)		
TOTAL RESERVES		27,530,927		24,043,390	23,554,747	15,946,143		
Non Committed Reserve(Excludes life cycle and carryover)		18,371,936		14,823,363	22,677,347	14,943,043		

Rest of Segment 5, Segment 6, remainder of Project Plan,
remaining drop shafts and odor control improvements

Public Works Wastewater Disposal Division

Personnel Cost

FY 2020/2021

Position	Number of Positions	BUDGET 2019/2020	BUDGET 2020/2021
Operation & Flow Manager	1	89,769	95,376
Construction and Maint Manager	1	89,769	95,376
Wastewater Engineer II/Construction Engineer	2.5	200,691	211,260
Wastewater Field Supervisor	1	70,054	71,251
SCADA System Manager	1	80,276	81,071
SCADA Part Time	0.5	33,819	37,527
Senior Asset Mgmt Technician	0.5	34,157	35,650
GIS Technician Senior	1	68,314	71,300
Community Wastewater Services Manager	1	58,215	59,160
GIS Specialist/Engineering Tech	0.5	27,512	26,436
Wastewater Field Operator	3	152,118	153,624
Drain Account Specialist	1	42,507	45,091
Incentive Pay, P.E.		2,400	2,400
1/3 Admin support from GF(Candice,Karen, Brian,Dan,Ken)	1.65	163,476	170,744
	15.65	1,113,077	1,156,266
Overtime ⁽¹⁾		50,000	125,000
Standby Pay		22,000	22,000
Longevity		1,600	1,000
Fringe Benefits ⁽²⁾	Subtotal	73,600	148,000
		512,446	614,861
Accounting Support Staff	Subtotal	1,699,123	1,919,127
		22,000	23,000
		1,721,123	1,942,127

NOTES:

1) Increased construction, maintenance, and flow control

2) Increased largely because of higher medical cost for all MIDD employees and higher retirement medical cost for employees starting before 2012

**MIDDD
Office Operations**

MIDDD OFFICE OPERATIONS	BUDGET 2019/2020	BUDGET 2020/2021	NOTES
Bank Fees	200	200	Wire fees for incoming deposits and payment of various invoices
Command Center	1,000	1,000	
Dues, Membership & Subscriptions	4,000	4,500	
Equipment Repair & Maintenance	15,000	10,000	
Equipment	7,500	7,650	
Gasoline(County)	8,000	12,000	Increased number of projects
Internal Service Cost(County)	22,000	25,000	Cross charge from county for telephone, car insurance, and building insurance
Insurance	200,000	210,000	Liability and underground coverage
Office Supplies	1,000	1,000	
Operating Supplies	2,000	2,000	
Parking & Mileage	100	75	
Personnel-Non WWS Employees	9,000	9,000	Charge to WW for Chapaton personnel
Postage & Shipping	500	500	
Training	7,000	6,000	MWEA and WEFTEC Conferences(multiple people), Nexgen, etc
Uniforms	1,500	2,000	
New computer for new hire	2,000	0	
Weather Radar	3,000	3,000	
Telephone	8,000	12,000	
New Truck	26,000	0	
Vehicle Maintenance	5,000	4,000	
Total	322,800	309,925	

SCADA

SCADA		BUDGET 2019/2020	BUDGET 2020/2021
SCADA as needed		49,355	40,000
Battery replacements for 10 (6 OMID shared) of the billing meter sites		3,583	1,700
Wonderware Software support		7,306	8,000
VEEAM support renewal		390	430
Comcast Business Service		4,048	4,100
Cell modem service (Verizon) 6 units		3,024	2,400
Cell modem service (Sprint) 9 units		1,004	720
Spare parts for MIDD control panels ⁽¹⁾		10,000	10,000
Obsolete Wireless backhaul replacement links ⁽²⁾		0	21,500
3.6GHz Replacement Radios at MPSCS2705 ⁽³⁾		0	93,439
SolarWinds - Network Management Software ⁽⁴⁾		0	12,900
Fiber Optic Improvements ⁽⁵⁾		0	21,500
Security Servers replacement in MIDD ⁽⁶⁾		0	20,000
Firewall Hardware Design/Config ⁽⁷⁾		0	17,200
Training - Radios/Switches/MMWare ⁽⁸⁾		0	5,000
Security Camera Replacement at NGI and CPS ⁽⁹⁾		0	10,000
Add redundant UPS for headend network server racks ⁽¹⁰⁾		3,225	0
Fluke calibration meter		950	0
PLC software		3,749	0
Engineering study for SCADA Standards ⁽¹¹⁾		100,000	0
	Total New Projects	186,634	268,889
Camera replacement for NGI and Biofilter ⁽⁹⁾		10,000	0
	Total Carryover Projects	10,000	0
	TOTAL ALL PROJECTS	196,634	268,889
Future costs of upgrade-Life Cycle ⁽¹²⁾		38,700	38,700

NOTES

- 1) Will be used to purchase spare SCADA equipment to ensure a higher uptime of service
- 2) Several critical wireless links utilize 10-year old technology and can no longer be purchased. Since they have reached the end of their useful life, they are in need of replacement
- 3) License for existing radios will expire in one year.
- 4) We currently own the base version of this software. The software support has not been kept up and this is to upgrade the software to a business format. This upgraded platform will help streamline communications support for our staff.
- 5) This will be used to start setting up redundant links for our main SCADA servers. We have had a few issues since the County fiber was installed that when it goes down we completely lose backup abilities between the two servers.
- 6) Security camera servers have reached the end of their useful life and are in need of replacement
- 7) The existing firewalls are being dual purposed to act as a security appliance and as an OSPF router. The routing capabilities of the existing firewalls are very limited and often times will cause outages simply due to their poor routing capabilities.
- 8) Training for SCADA personnel as recommended by the Tetra Tech evaluation
- 9) Unable to replace the security cameras at NGI last year due to a failure of cameras at CPS so funds had to be reallocated. This will be used to replace the NGI tower camera and CPS gate camera.
- 10) Added level of protection for SCADA servers.
- 11) Phase 1 evaluation of current SCADA system (review current platform, develop standards, etc.). Needed to move to newer software
- 12) Used for future server upgrades

SYSTEM PROJECTS/STUDIES/CONSULTING

Project #	Macomb System	BUDGET 2019/2020	BUDGET 2020/2021
	Meter Dye Testing 2 year contract new this year	0	100,000
	Data Review-Aquasight ⁽¹⁾	240,000	250,000
	Replenish reserve from CPS refunding ⁽²⁾	0	618,680
	Design Odor and Corrosion ⁽³⁾	0	750,000
	Construction Project for Odor and Control ⁽⁴⁾	0	1,000,000
	SY-S-1,SY-S-2, WA-S-1 Construction Admin ⁽⁵⁾	0	250,000
	Segment 6 Construction Administration ⁽⁶⁾	0	875,000
	FKE Rehab analysis phase 2 ⁽⁷⁾	0	84,000
	Seg 5 Construction ⁽⁸⁾	0	1,150,000
	Phase II Grouting ⁽⁹⁾	0	1,100,000
	Phase III Grouting ⁽⁹⁾	0	325,000
	GLWA Assistance	20,000	40,000
	As Needed FTCH	0	75,000
	As Needed FK Engineering	0	75,000
	As Needed Wade Trim	0	75,000
	As Needed Metco	0	125,000
	As Needed Applied Science	0	25,000
	As Needed Odor and Corrosion	0	75,000
	Total New Projects	250,000	6,992,680
	Seg 5 Engineering Design ⁽¹⁰⁾	1,000,000	374,557
	Contribution to Segment 5(Grouting ⁽¹⁰⁾)	3,850,000	1,450,000
	15 Mile Interceptor Design East of Garfield (Segment 6)/Const Admin ⁽¹¹⁾	1,000,000	625,000
	SY-S-1 & SY-S-2 Meter Design/Rehab ⁽¹²⁾	1,200,000	1,134,070
	Phase II Grouting ⁽¹³⁾	2,900,000	2,400,000
	Level Sensors/Pressure/H2S-Meters ⁽¹⁴⁾	0	250,000
	Wastewater Master Plan/Contract Capacity	500,000	400,000
	Washington Township meter	500,000	500,000
	Drop Shaft Repairs(MA-S-2),CT-S-2, HR-S-2,ST-S-5,UT-S-1)	2,860,000	0
	System wide odor and corrosion study	350,000	0
	Meter Dye Dilution Testing/As needed	100,000	0
	McMARS Operations	50,000	0
	Aquasight Operations-Was originally budgeted for Bluewater	50,000	0
	As-needed support(Year 2 of 2)	0	0
	As Needed FTCH	50,000	0
	As Needed CH2M/Jacobs	70,000	0
	As Needed FK Engineering	55,000	0
	As Needed Wade Trim	45,000	0
	As Needed Metco	0	70,000
	As Needed Applied Science	0	0
	Total Carryover Projects	14,710,000	7,133,627
	TOTAL ALL PROJECTS	14,970,000	14,126,307

NOTES

- Phase II of Aquasight implementation. Phase II will consist of providing MIDD communities access, improving reporting capabilities, enhancements to the current certification workflow, and other misc. improvements.
- Place \$5,093,401 in reserves over five years
- Design of the recommendations provided by the system-wide odor and corrosion evaluation. \$500,000 for MIDD and \$250,000 for CPS. NGI's portion will be paid from NGI construction funds
- Phase 1 collection of funds for the construction of new odor & corrosion prevention facilities.
- Construction Administration for repairs at SY-S-1, SY-S-2, and WA-S-1
- Construction Administration for Segment 6 repairs. Remaining balance from design(Note 11) will be combined for total of \$1,500,000
- FKE will perform a value engineering risk analysis of all of the remaining proposed SRF repair segments which include Segments 3,4,7,8,9, and 10. A similar analysis was performed on Segment 5.
- Segment 5 eight foot lining and pump station
- Collection of funds for the next phase of chemical grouting in the MID interceptors
- Funds to help pay for the costs of the upcoming Segment 5 repairs and grouting. Remaining to be used for Segment 5 engineering
- Design repair of Segment 6 (15 Mile Road from Garfield to Harper) for construction in FY 21-24. Remaining to be used for construction admin
- Design and construction cost for two meter pits
- Savings from drop shaft project will be put toward the total project cost of \$4,000,000. Phase II grouting is the Romeo Arm (North of 15 Mile), Garfield Interceptor, and Lakeshore Interceptor
- Was originally budgeted in 17/18 however was not brought forward in the 19/20 budget. Work is planning to be performed in 2021. Currently the MIDD system only has one flow meter (MC-S-1) and therefore there is a lack of control from an operational stand point. This work would include installing seven flow meters for flow control throughout the system. These sites would also have air pressure and H2S sensors to help monitor corrosion and pressure concerns and would be connected to SCADA.

LEGAL SERVICES

Legal Services	BUDGET 2019/2020	BUDGET 2020/2021
General MIDD/OMID Claim ⁽¹⁾	500,000	250,000
Total	500,000	250,000

NOTE:

1) Sinkhole claim expenses paid from surplus 2017A new money bond issue

**CLINTONDALE PUMP STATION
OPERATIONS and MAINTENANCE**

Project #	Clintondale Pump Stat O & M	BUDGET 2019/2020	BUDGET 2020/2021
	O&M	100,000	125,000
	Spare Parts	35,000	45,000
	Drain Valve For Force Main ⁽¹⁾	0	100,000
	Pump Room Air Filter System ⁽²⁾	0	7,500
	Screening Room Trash Bin Repairs ⁽³⁾	0	5,000
	Wet Well Gate Valve Hand Actuator Tool ⁽⁴⁾	0	7,000
	Clintondale Generator Switchgear Replacement Study ⁽⁵⁾	0	100,000
	Utilities	210,000	250,000
	Total	345,000	639,500
	Life Cycle/Future repairs ⁽⁶⁾	75,000	75,000

NOTES

- 1) Conversion of the manually operated drain valve to be operated within SCADA. The current setup creates a safety risk for MCPWO when opening manually due to the high levels of H2S that are created while opening.
- 2) Filter system to be installed on the air intake system within the CPS pump room to minimize the amount of insects entering the building during the summer months.
- 3) Current trash bins have deteriorated and the bottom screens within them need to be repaired
- 4) Within the wet well at CPS there are valves installed on each pump discharge column. This tool will help our staff open/close these valves as part of their preventive maintenance activities.
- 5) Current generator switchgear was not replaced as part of the rehab project. This equipment has reached the end of its useful life and is in need of replacement
- 6) Future replacement cost for impeller, pump shaft, discharge header, diffuser bowl, etc.

**NORTH GRATIOT INTERCEPTOR
OPERATIONS and MAINTENANCE**

Project #	NGI O & M	BUDGET 2019/2020	BUDGET 2020/2021
	O&M	100,000	50,000
	Spare Parts	10,000	5,000
	Two 20 inch isolation pigging valves ⁽¹⁾	50,000	0
	Pigging	30,000	25,000
	Utilities	10,000	20,000
	Total New Projects	200,000	100,000
	Move Hydrant connection closer ⁽²⁾	10,000	10,000
	Replace pressure transducers-sensors ⁽³⁾	100,000	100,000
	Repave Parking Lot ⁽⁴⁾	20,000	20,000
	Total Carryover Projects	130,000	130,000
	TOTAL ALL PROJECTS	330,000	230,000
	Life Cycle/Future repairs ⁽⁵⁾	30,000	30,000

NOTES

- 1) The expense was recognized in NGI Phase 2 construction account.
- 2) Needed to improve pigging operation. Will have long term cost savings.
- 3) Sensors near end of useful life and the installation of new equipment.
- 4) Repave existing pavement areas. Starting to develop large cracks.
- 5) Future replacement cost for pumps, HVAC, force main, odor control

**METERS
OPERATION and MAINTENANCE**

Project #	METERS O & M	BUDGET 2019/2020	BUDGET 2020/2021
	Meter Maintenance ⁽¹⁾	300,000	163,470
	Utilities ⁽²⁾	40,000	15,000
	As Needed	50,000	50,000
	Total New Projects	390,000	228,470
	Replace Underground Light Fixtures ⁽³⁾	25,000	25,000
	Total Carryover Projects	25,000	25,000
	TOTAL ALL PROJECTS	415,000	253,470

NOTE

- 1) New 3-year maintenance contract which saved money
- 2) Reduced due to lower actual costs
- 3) Light fixtures are starting to fail at multiple facilities. Need to replace for personnel safety.

CS-3

OPERATION and MAINTENANCE

Project #	CS-3 O&M	BUDGET 2019/2020	BUDGET 2020/2021
	O&M	25,000	25,000
	Spare Parts	1,000	1,000
	Total	26,000	26,000
	Improvement to Hydraulic Cylinder ⁽¹⁾	200,000	200,000
	Total Carryover Projects	200,000	200,000
	TOTAL ALL PROJECTS	226,000	226,000
	Life Cycle	5,000	5,000

Notes:

This is a recent asset that was previously maintained by OMID. During OMI construction Oakland County maintained this asset. With OMI construction coming to a close, Macomb County will now handle O&M.

1) Replacing the hydraulic cylinders (end of useful life and safety concerns)

**BIOFILTER
OPERATIONS and MAINTENANCE**

Project #	BIOFILTER O & M	BUDGET 2019/2020	BUDGET 2020/2021
	O&M	25,000	20,000
	Spare Parts	1,000	1,000
	Water ⁽¹⁾	1,500	1,500
	Total New Projects	27,500	22,500
	Media Filter Replacement ⁽²⁾	250,000	0
	Total Carryover Projects	250,000	0
	TOTAL ALL PROJECTS	277,500	22,500
	Life Cycle ⁽³⁾	23,000	23,000

NOTES

- 1) We ran the sprinklers more last year due to the replacement of the wood chips. Watering schedules should return to normal this year.
- 2) Woodchip replacement is completed
- 3) Future replacement cost for media bed filter material, centrifugal fan, driveway, flow conditioner, etc.

**INTERCEPTOR
OPERATIONS and MAINTENANCE**

Project #	Interceptor	BUDGET 2019/2020	BUDGET 2020/2021
	Annual O&M/Inspection Program ⁽¹⁾	0	1,000,000
	Total New Projects	0	1,000,000
	Annual O&M/Inspection Program ⁽¹⁾	1,000,000	900,000
	Total Carryover Projects	1,000,000	900,000
	TOTAL ALL PROJECTS	1,000,000	1,900,000

NOTES

- 1) Will be inspecting and doing spot repairs on an estimated ten meter facility drop shafts and the below noted pipes.
 The ten drop shafts that are to be inspected is yet to be determined.
- Macomb Element
 - Shelby Sanitary Connector
 - Sterling Heights Arm
 - NGI
 - Romeo Arm
 - Lakeshore Interceptor

**PUMP STATIONS-STORMWATER
OPERATIONS and MAINTENANCE**

Chapter	Community	Various Pump Stations ⁽¹⁾	2019/2020 BUDGET	2020/2021 BUDGET
4	Chesterfield	Schmidt ⁽⁴⁾	18,600	40,000
4	Clinton Twp	Bridgewood ⁽⁴⁾	17,400	42,500
4	Sterling Heights	Hildebrandt ^(2 & 4)	13,300	99,250
4	Harrison Twp	Murdock Ballard ^(3 & 4)	16,500	52,500
		Total	65,800	234,250

NOTES

- 1) Costs are 100% allocated to applicable community listed above
 Fee will be used for maintenance, utilities, weekly inspections, annual inspections, and SCADA, as drainage district funds on hand have been exhausted.
- 2) Unexpected cost to upgrade the DTE feed and transformer to accommodate the new pumps' power requirements. The current service is 120/240V and the new pumps require 277/480V. The direct cost to DTE for this upgrade is \$17,998. The initial cost estimate for construction was thought to include the initial SCADA components, which consists of the panel, hardware, installation and programming. However, during the bid process it was vetted out that cost was not included in the Engineer's final construction cost estimate. The one-time SCADA cost for the pump station is \$48,138.
- 3) \$10,000 for repairs to the impellers of the two large storm pumps at this pump station.
 Problems were identified by Kennedy last year but repairs have been put on hold until they could be budgeted.
- 4) Our stormwater pump stations currently do not have standby power.
 If power fails we are unable to operate pumps. Stations have generator hookups but we do not have a generator for them. This will improve the reliability of the stormwater pump stations
 Cost of \$100,000 split evenly among the four pumps stations.

**Revenue Bond
and
Projected SRF Calculation**

Payment Date	2019/2020 BUDGET	2020/2021 BUDGET
Fall ⁽¹⁾	202,775	201,472
Spring ⁽¹⁾	481,775	480,422
Projected Seg 5 SRF Debt ⁽²⁾	0	1,160,396
Less Cash on Hand ⁽³⁾	(138,308)	(57,767)
Total	546,242	1,784,523

NOTE

- 1) SRF 5540-01 and 5487-01 are classified as revenue bonds so they must be included in the rate calculation on page 4, unlike the debt shown on page 3
- 2) SRF 5659-03 is projected to close in late summer of 2020. Will collect the funds over a 12 month period instead of the semi annual basis due to the uncertainty of the amount that will be drawn.
- 3) Previous budget and charges based on maximum SRF draws from State. As actual SRF debt payments were lower than budgeted, the cash on hand has been used to offset current SRF debt payments. As the SRF projects have ended, cash on hand should be exhausted.

	Fall 2020
5540-01(Biofilter) Interest	16,650
5540-01(Biofilter) Principal	105,000
5487-01(Meter Rehab) Interest	79,822
Total	201,472
	Spring 2021
5540-01(Biofilter) Interest	15,600
5487-01(Meter Rehab) Principal	385,000
5487-01(Meter Rehab) Interest	79,822
Total	480,422

Revenue Detail

Revenue	2019/2020 BUDGET	2020/2021 BUDGET
Reimbursements ⁽¹⁾	200,000	225,000
Detroit Bankruptcy Settlement ⁽²⁾	0	100,000
Carryforward ⁽³⁾	9,610,000	8,388,627
Land sale	0	0
Sinkhole Settlement	0	0
MIDDD O&M/Charge Required Revenue	10,927,799	13,548,089
Washington Twp Meter Project	250,000	47,475
Interest	300,000	250,000
Total	21,287,799	22,559,191

NOTES

1) Reimbursement from OMID for personnel, SCADA, other and engineering. Also from other drainage districts for SCADA and engineering assistance

2) As part of the bankruptcy settlement, MIDDD as part of class 14 has been issued Class B notes that mature in 2044.

3) Remaining projects that were charged in prior years and need to be carried forward for completion in 20/21

Improvement to Hydraulic Cylinder	CS-3	200,000
Level Sensors/Pressure/H2S-Meters	Eng	250,000
Engineering Design for Segment 5 MID repairs	Eng	1,824,557
Phase II Grouting	Eng	2,400,000
SY-S-1 & SY-S-2 Meter Rehab	Eng	1,134,070
Wastewater Master Plan/Contract Capacity	Eng	400,000
Washington Township Meter	Eng	500,000
15 Mile Interceptor Design East of Garfield (Segment 6)	Eng	625,000
Annual O&M/Inspection Program	Interceptor	900,000
Replace Underground Light Fixtures	Meters	25,000
Move Hydrant connection closer	NGI	10,000
Repave Parking Lot	NGI	20,000
Replace pressure transducers-sensors	NGI	100,000
TOTAL	TOTAL	8,388,627



Oakland-Macomb Interceptor Drain Drainage District

TO: Mike Gregg, Chairman
Oakland-Macomb Interceptor Drain Drainage District (OMIDDD)

FROM: Brian Coburn, P.E.; Chief Engineer WRC
Vincent Astorino, Operations and Flow Manager MCPWC

SUBJECT: Rate Year (RY) 2020/21 Budget Recommendation

DATE: March 18, 2020--REVISED

Staff of the Macomb County Public Works Commissioner's Office and the Oakland County Water Resources Commissioner's Office recently met to discuss the budget, cost allocation, and capital improvement plan for the upcoming rate year. Staff recommends that the Board approve the proposed sewer charges contained herein for the rate year beginning July 1, 2020.

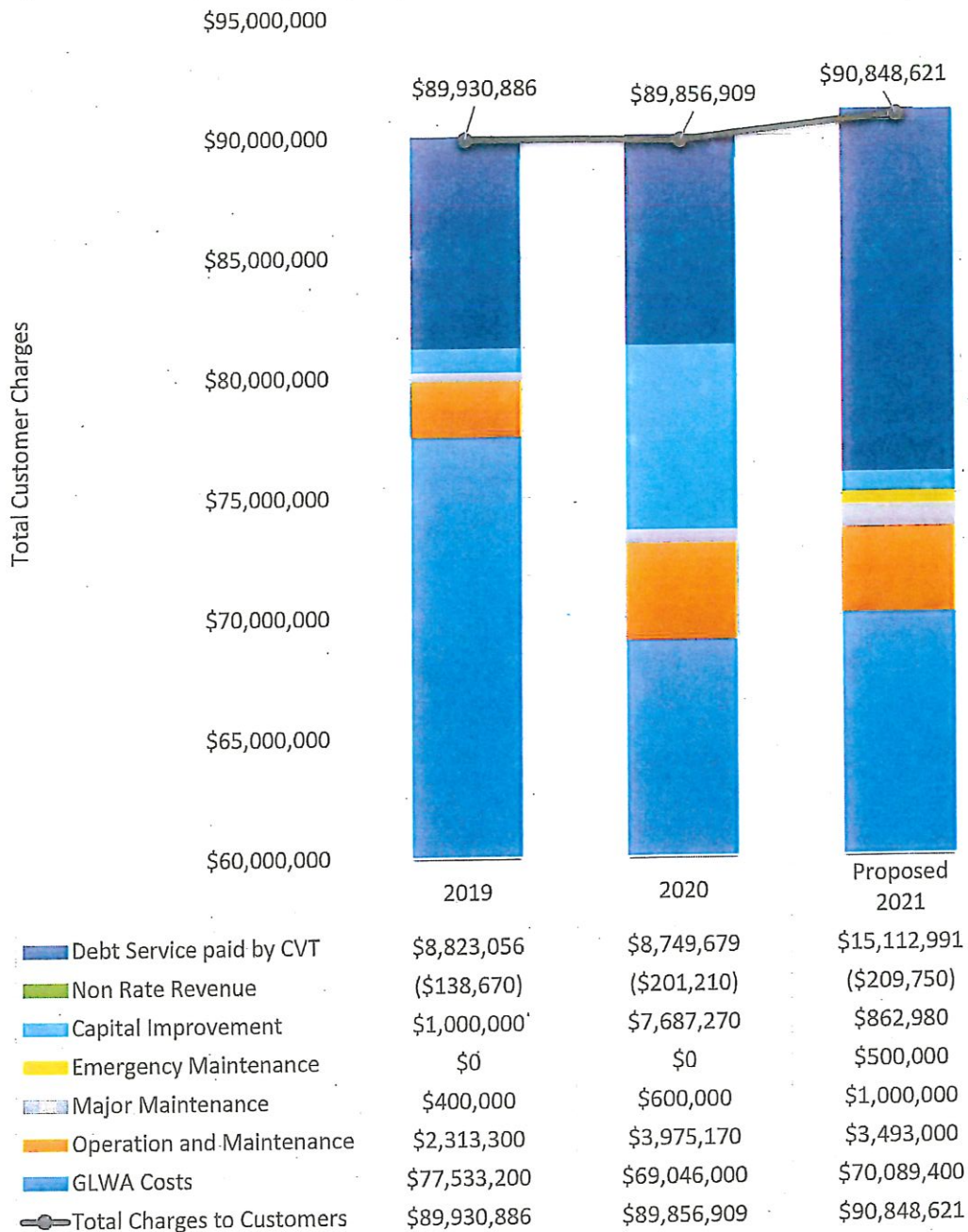
The main elements of the proposed budget and sewer charges are as follows:

- 1) The Great Lakes Water Authority (GLWA) approved a 1.5% increase in sewer charges to OMIDDD.
- 2) The proposed operation and maintenance budget includes a decrease of 12.1% (see Exhibit A)
- 3) The proposed revenue requirement is decreased by 7.1% to offset the future debt obligation to the customer communities for improvements to the Northeast Pump Station and North Interceptor East Arm. While OMIDDD plans to issue \$80 million to \$100 million in new debt, the total cost to the customer communities (OMIDDD charges plus direct debt payments) will only increase by 0.6% on average in 2021 (see Figure 1).
- 4) The method for determining the split between Oakland and Macomb was approved on March 20, 2019 and will remain in place through RY 2024/25 unless GLWA modifies the sewer charge methodology. The cost allocation using this methodology is as follows:
 - a. GLWA common-to-all and OMIDDD operations and maintenance costs are allocated based on the nine-year rolling average as shown in Exhibit B. This year's allocation is 32.02% Clinton Oakland Sewage Disposal System (COSDS) and 67.98% to the Macomb Interceptor Drain Drainage District (MIDDD).
 - b. GLWA's Combined Sewage Overflow Program is allocated 39.48% to COSDS and 60.52% to MIDDD per the 1999 Rate Settlement Agreement.
 - c. Capital Improvement Reserve contributions are allocated based on the current GLWA Contract Capacity split of 33.10% for the COSDS and 66.90% for the MIDDD.
- 5) The budget proposes to fund \$725,000 of new major maintenance work and \$4,337,110 of new capital improvements from the OMIDDD operation and maintenance fund, in addition to projects that are not revenue financed (see Exhibit C).

Recommended Action: Approve the proposed operating budget (Exhibit A), cost allocation (Exhibit B), and the Capital Improvement Program (Exhibit C) for the rate year beginning July 1, 2020, as presented.

APPROVED BY DRAIN BOARD 3/18/2020

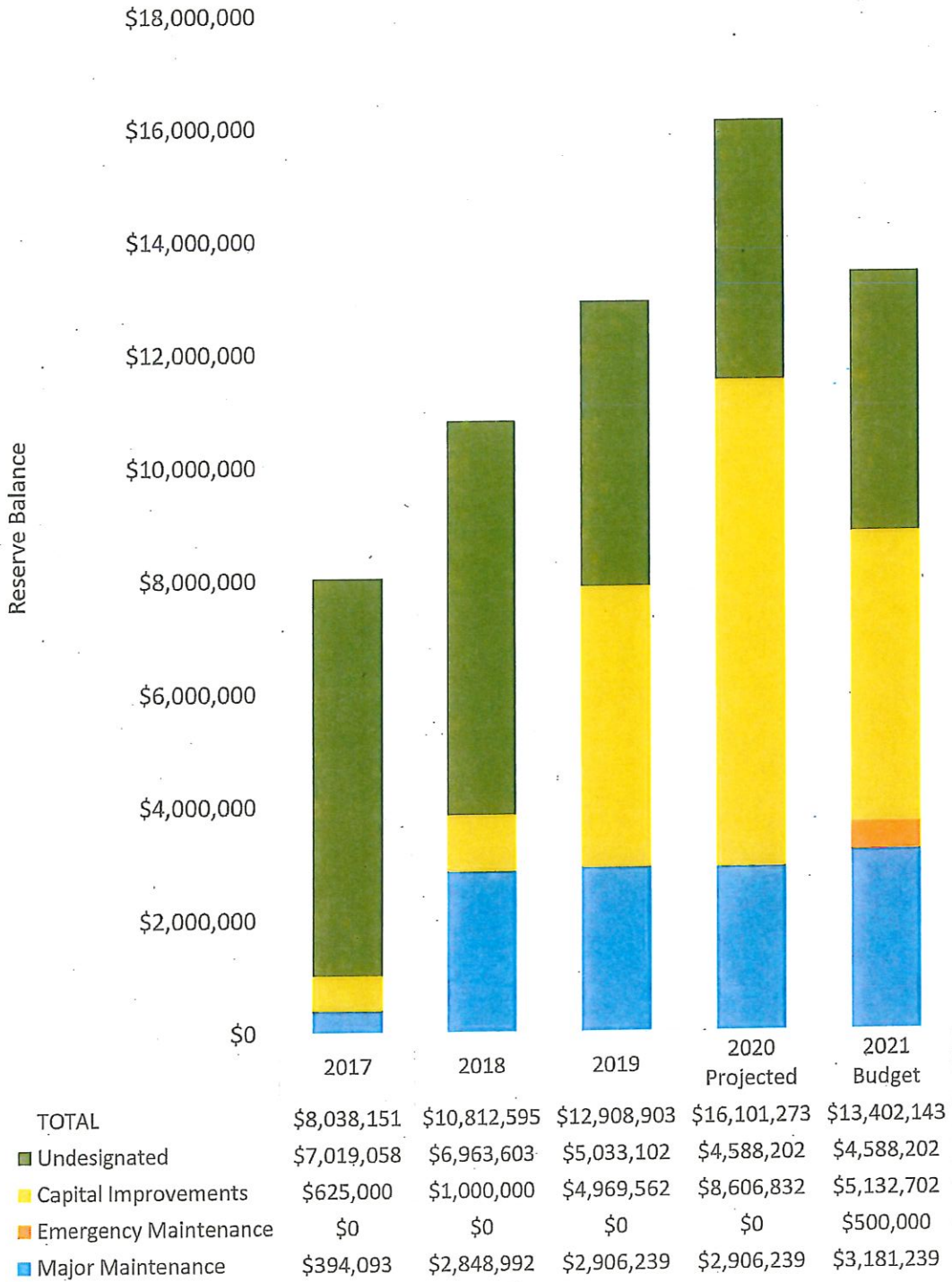
FIGURE 1. Total Sewer Charges allocated to OMIDDD Customers



Notes:

- The decrease in GLWA costs from 2019 to 2020 was a result of the amended contract allowing OMIDDD to maintain and finance improvements to the GLWA Leased OMIDDD-only facilities.
- The Debt Service Paid by CVTs is the sum of the apportionments to the local units of government that receive a benefit from the improvements and are paid directly by those units outside of the OMIDDD Monthly Charges. They are included in this chart for demonstration of total cost to the customer community.

FIGURE 2. OMIDDD Maintenance Fund Reserve Balances



Effective July 1, 2020

APPROVED BY DRAIN BOARD 3/18/2020 Exhibit A

Annual Operating Charges

	Current 2020		2021 Budget	COSDS		MIDD %	Annual		Monthly	
	Budget			%			COSDS	Macomb	COSDS	MIDD
GLWA										
Common-to-all and OMIDDD Charges		\$ 68,455,000		32.02%	67.98%	\$ 21,919,291	\$ 46,535,709			
C-SO Program		1,634,400		39.48%	60.52%	645,261	989,139			
Total	69,046,600	70,089,400				22,564,552	47,524,848		\$ 1,880,379.33	\$ 3,960,404.00
OMIDDD										
Operations and Maintenance Expense										
Sewer System Maintenance	1,386,710	1,583,750		32.02%	67.98%	507,117	1,076,633			
Sewer System Engineering	70,100	15,360		32.02%	67.98%	4,918	10,442			
Pump Maintenance Unit	2,063,000	1,767,270		32.02%	67.98%	565,880	1,201,390			
Systems Control Unit	71,080	110		32.02%	67.98%	35	75			
Mapping Unit	13,620	1,900		32.02%	67.98%	608	1,292			
Miss Dig	490	370		32.02%	67.98%	118	252			
General and Administrative	370,190	124,240		32.02%	67.98%	39,782	84,458			
Subtotal	3,975,170	3,493,000				1,118,458	2,374,542		93,204.83	197,878.50
Non Operating										
Major Maintenance	600,000	1,000,000		32.02%	67.98%	320,200	679,800		26,683.33	56,650.00
Emergency Maintenance		500,000		32.02%	67.98%	160,100	339,900		13,341.67	28,325.00
Capital Improvement	7,687,270	862,980		33.10%	66.90%	285,646	577,334		23,803.83	48,111.17
Subtotal	8,287,270	2,362,980				765,946	1,597,034		(5,596.83)	(11,882.33)
O&M Non-Rate Revenue	(201,210)	(209,750)		32.02%	67.98%	(67,162)	(142,588)			
FY 2021 Total Fixed Charges	\$ 81,107,830	\$ 75,735,630				\$ 24,381,794	\$ 51,353,836		2,031,816.16	4,279,486.34

Capital Improvements are defined as investments that are made to assets that exceed \$5,000 and increase the useful life of assets by five years or more.

Debt Service

2010A mfa 5368-02	1,674,500	1,673,375
2010B	188,345	-
2011A mfa 5368-02	1,622,750	1,624,125
2013A mfa 5368-03	3,952,800	3,954,200
2014A	465,894	469,694
2015A mfa 2001-01	546,750	542,750
2019 refunding	288,640	433,848
Estimated NESPS and NIEA Debt*	-	6,415,000
Total Debt Service	8,749,679	15,112,991
Total OMIDDD Related Revenue Requirements	89,857,509	90,848,621

* Estimated NESPS and NIEA Debt - Principal \$100,000,000, 20 Years, 2.5% Interest

Effective July 1, 2020

APPROVED BY DRAIN BOARD 3/18/2020 Exhibit B

Flow Data

Year	Fiscal Year	OMID FMWG Flows		DWSD Rate Simplification Flows		OMIDDD Allocation Flows	
		COSDS (cfs)	MIDDD (cfs)	COSDS (cfs)	MIDDD (cfs)	COSDS (cfs)	MIDDD (cfs)
1	FY1011	33.69	73.23	31.64	67.33	32.67	70.28
2	FY1112	33.25	71.00	32.44	68.00	32.85	69.50
3	FY1213	29.89	62.82	NA	NA	29.89	62.82
4	FY1314	30.74	64.80	NA	NA	30.74	64.80
5	FY1415	29.74	64.76	NA	NA	29.74	64.76
6	FY1516	29.36	65.08	NA	NA	29.36	65.08
7	FY1617	30.63	66.50	NA	NA	30.63	66.50
8	FY1718	34.05	69.60	NA	NA	34.05	69.60
9	FY1819	34.05	69.60	NA	NA	34.05	69.60
9 Yr Average						31.55	66.99
Percent						32.02%	67.98%

- All annual flows are based on the average of 12 months of flow (the average is not proportioned based on the actual days of each month)
- COSDS Flows for fiscal years FY0910 thru FY1415 include a 30% adjustment to account for diversion to Pontiac WWTP. COSDS Flows for fiscal years FY1516 & FY1617 are based on measured flow which includes actual diversion to Pontiac
- Due to a catastrophic failure at the Clinton River Water Resource Recovery Facility (COSDS's non-OMID outlet), COSDS delivered more than 70% of its flow to OMID in FY1718. For the FY1920 calculations, the actual FY1718 COSDS-to-OMID flow was replaced with a COSDS-to-OMID flow adjusted to equal 70% of the total COSDS flow. The adjustment was made to reflect the intent to deliver 70% of COSDS flow and minimize rate volatility. In FY1819, COSDS offset the high FY1718 COSDS-to-OMID flow with a low FY1819 COSDS-to-OMID flow. With the actual flows from these two years paired, volatility is minimized and the intent to deliver 70% of COSS flow is reflected. Therefore, the FY1718 actual COSDS-to-OMID flow is used for the FY2021 calculations instead of the FY1718 adjusted COSDS-to-OMID flow.
- In FY1718 and FY1819, there was volatility in the flow delivered from COSDS to OMID (see note 3 for details). When paired, these two years offset each other and the volatility is mitigated. The OMID rates are based on a rolling 9-year average flow rate. In Rate Years 2829 and 2930, these volatile years will roll off the average, which will create volatility in the average. To reduce this future volatility, the COSDS-to-OMID flows and MIDDD flows for FY1718 (COSDS = 37.74 cfs, MIDDD = 67.29 cfs) and FY1819 (COSDS = 30.35 cfs, MIDDD = 71.90 cfs) have both been replaced with the average for these two years (COSDS = 34.045 cfs, Macomb = 69.595 cfs).

EXHIBIT C
OAKLAND MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
CAPITAL IMPROVEMENT PROGRAM
March 18, 2020

Maintenance Reserve (Fund 82912)

Project No.	Project Description	2020 Projected	2021 Proposed
Total Maintenance Reserve Revenue		\$600,000	\$1,000,000
1-2842	NESPS Operational Transition	\$19,974	\$0
1-3014	NESPS Emergency Contingencies Project	\$228,536	\$250,000
1-3015	OMID Immediate Repairs Project	\$1,433,978	\$0
NEW	PLC Replacement at NESPS Generator		\$150,000
NEW	NEXGEN (Asset Management) Implementation		\$300,000
NEW	Generator Tank Paint/Gas Line Modifications		\$25,000
Total Maintenance Reserve Expenses		\$1,682,488	\$725,000
MAINTENANCE RESERVE BALANCE		\$1,823,751	\$2,098,751

Capital Reserve (Fund 82912)

Project No.	Project Description	2020 Projected	2021 Proposed
Total Capital Reserve Revenue		\$7,687,270	\$862,980
1-3017	NESPS Security Upgrades	\$297,000	\$0
1-3016	OMID Flow Control Improvements	\$482,744	\$1,887,110
1-3018	NESPS Drywell Elevator Upgrades	\$312,838	\$0
1-3020	NESPS Mechanical and Electrical Upgr/Design	\$1,926,565	\$0
1-3019	OMID NIEA Sewer Rehabilitation Design	\$2,908,054	\$0
NEW	OMID PCI-7 Bypass Feasibility Analysis	\$0	\$1,000,000
NEW	Pipe Lining PCI-7	\$0	\$450,000
NEW	Hydrogen Sulfide Mitigation in OMID	\$0	\$1,000,000
Total Capital Reserve Expense		\$5,927,201	\$4,337,110
CAPITAL RESERVE BALANCE		\$6,729,631	\$3,255,501

Construction Funds

Project No.	Project Description	Construction Fund	Remaining Funds Committed for Capital Projects (In-progress)
1-2892	Odor Corrosion Study	84912-Segment 1	\$106,036
1-1557	Interceptor Segment 3	84914-Segment 3	\$26,149
1-1913	Interceptor Segment 4	84915-Segment 4	\$6,124,374
1-2041	NESPS Pump Install	84915-Segment 4	\$7,979
1-2232	NESPS Gatehouse	84915-Segment 4	\$81,013
Total Remaining Expense in Construction Funds			\$6,345,550

Future 2020-2021 Bonded Projects

Project No.	Project Description	Project Estimate
NEW	NESPS Mechanical and Electrical Construction	\$61,300,000
NEW	NIEA Improvements	\$37,900,000
Total Future 2020-2021 Bonded Projects		\$99,200,000

APPROVED BY DRAIN BOARD 3/18/2020



Office of the Chief Executive
735 Randolph Street, Suite 1900
Detroit, Michigan 48226

March 17, 2020

RE: Great Lakes Water Authority FY 2021 Approved Wholesale Sewer Charges

On March 11, 2020, the Great Lakes Water Authority (GLWA) Board of Directors approved a schedule of wholesale sewage charges for Fiscal Year 2021. These service charges continue to incorporate our ongoing efforts to control expenses while providing effective and efficient wastewater services to all our customers. The approved sewer charges reflect:

- The Board approved FY 2021 Sewer Budget increase of 1.3 percent;
- Reduced investment earnings as compared to the FY 2020 Sewer Budget, increasing charges by 0.7 percent; and
- No changes to the Sewer Shares for FY 2021.

The result: Sewer charges for suburban wholesale customers will increase by an average of 2.25 percent, rather than the 3.50 percent increase originally presented in January 2020. The increase has been applied uniformly to all member partners for FY 2021.

The revised FY 2021 schedule of charges for your organization is attached. The new charge amounts will apply to services provided beginning July 1, 2020 and will be effective on all bills rendered by GLWA as of August 1, 2020. The new schedule of charges also includes moderate changes to Industrial Waste Control (IWC) charges and Pollutant Surcharges, compared to what was originally proposed.

Our pledge to you is to continue to control the budget within the four percent 'Promise' contained in the Lease Agreements that established GLWA. We have delivered on that promise every year since the launch of GLWA. Mitigating increases in future charges continue to be a top priority for GLWA.

I want to extend my thanks once again to the *One Water Partnership* for their efforts, and to your representatives who participated in the Customer Outreach Program. The approval of the FY 2021 charges represents the successful result of this continued collaborative process with all our member partners.

It continues to be our pleasure to provide you these services. If you have any questions please contact Jon Wheatley, Public Finance Manager at (313) 224-4771.

Sincerely yours,



Sue F. McCormick
Chief Executive Officer

Enclosures

Great Lakes Water Authority
 Approved FY 2021 Industrial Specific Retail Sewer Charges

Industrial Waste Control Charges	
Meter Size - inches	Charge \$/mo
5/8	3.45
3/4	5.18
1	8.63
1-1/2	18.98
2	27.60
3	50.03
4	69.00
6	103.50
8	172.50
10	241.50
12	276.00
14	345.00
16	414.00
18	483.00
20	552.00
24	621.00
30	690.00
36	759.00
48	828.00

Pollutant Surcharges	
Pollutant	Charge \$/lb
BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l	0.502
TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l	0.51
PHOSPHORUS (P) for concentrations > 12 mg/l	7.519
FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l	0.484
SEPTAGE DISPOSAL FEE Per 500 gallons of disposal	48.00

FY 2021 Suburban Wholesale Sewer Service Charge Schedule Calculation *

OMID

	(1)	(2)	(3)	(4)	(5)
	FY 2020 Revenue Requirement	FY 2021 Uniform Adjustment	Charge Adj Revenue Required	FY 2021 Revenue Requirement	Effective Charge Adjustment
	\$		\$	\$	
FY 2021 CHARGE CALCULATION	<i>see below</i>				
1 Wholesale Budget Allocation	67,205,400	2.25%	1,512,100	68,717,500	2.2%
2 Member Partner Specific Amounts (a)	1,341,400	2.3%	30,500	1,371,900	0.4%
3 Bad Debt Recovery	501,600	-100%	(501,600)	0	-100.0%
4 Total	69,048,400		1,041,000	70,089,400	1.5%
5 Fixed Monthly Charge	5,816,500		24,300	5,840,800	0.4%
6 Estimated Member Partner "Pass Thru" Amounts (a)	750,000		0	750,000	0.0%
7 Capital Contribution Applied to Rev Req't (a)	5,960,000		0	5,960,000	0.0%
8 Total Annual Revenue Requirement	75,758,400		1,041,000	76,799,400	1.4%

* Wholesale Sewer Service Charges were approved by the Great Lakes Water Authority Board on March 11, 2020.

(a) OMID Specific Cost Elements	FY 2020	FY 2021	Variance	% Variance
	\$	\$	\$	
GLWA Operating Expense	756,700	787,000	30,300	4.0%
GLWA Legacy Pension Obligation	392,800	392,800	0	0.0%
Transfer to WRAP Fund	10,400	10,600	200	1.9%
Lease Payment	181,500	181,500	0	0.0%
Subtotal - Fixed Amounts	1,341,400	1,371,900	30,500	2.3%
Electric Charges For NEPS	750,000	750,000	0	0.0%
Subtotal - Annual Recurring Amounts	2,091,400	2,121,900	30,500	
Capital Contribution (b)	5,960,000	5,960,000	0	0.0%
Total	10,142,800	10,203,800	61,000	0.6%

(b) For purposes of budgeted revenue requirements, reflected as 1/2 in FY 2020 and 1/2 in FY 2021.

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance	
Macomb Interceptor Drain	Chapter 20 Chesterfield - 7.1724% Clinton - 21.1566% Fraser - 4.0713% Harrison - 6.2117% Lenox - .9496% Macomb - 14.1023% New Haven - .8184% Shelby - 9.9387% Sterling Heights - 31.1032% Utica - 1.6497% Washington - 2.8262%	Administration						
			Astorino	21st Century Media - Michigan	\$ 5,875.00	Invoice #1958497 - 2.20.20	Macomb Daily Ad - Segment 5 SRF Notice	\$
			Astorino	Access Interactive LLC	\$ 12,686.29	Invoice #INV000102198 - 3.31.20	SCADA Maintenance (Upgrades and Licenses)	
			Baker	Aloia & Associates	\$ 2,394.00	Invoice #19581 - 3.1.20	Garfield Property Sale	
			Astorino	Anderson, Eckstein & Westrick	\$ 2,036.85	Invoice #125357 - 1.6.20 - 2.2.20	Engineering Oversight - System-wide Grouting	\$ 433,821.15
			Downing	Anderson, Eckstein & Westrick	\$ 1,637.35	Invoice #125744 - 2.21.20	Engineering Oversight - Phase II Grouting	\$ 434,220.65
			Downing	Anderson, Eckstein & Westrick	\$ 4,413.65	Invoice #125745 - 3.20.20	Engineering Oversight - Phase II Grouting	\$ 429,087.00
			Astorino	City of Mt. Clemens	\$ 18,613.02	Invoice #28001255 - 3.10.20	Sewage Flow - February 2020	
			Astorino	CH2M Hill Engineers, Inc.	\$ 33,695.72	Invoice #707997CH017 - 3.2.20	Odor & Corrosion Study	\$ 13,285.59
			Baker	Department of Roads	\$ 650.68	Invoice #301532 - 3.9.20	Fleet Fuel February 2020	
			Astorino	Department of Roads	\$ 20,000.00	Invoice #20-134 - 3.12.20	Phase II Grouting Inspection Deposit	
			Astorino	Doetsch	\$ 399,521.35	Invoice #71130 - 2.28.20	Segment 5 Grouting	
			Astorino	Doetsch	\$ 175,164.65	Invoice #71173 - 3.28.20	Emergency Grouting	
			Astorino	Fishbeck	\$ 3,031.40	Invoice #390167 - 3.2.20	GLWA Assistance	
			Astorino	Fishbeck	\$ 3,685.00	Invoice #390175 - 3.2.20	2020 Inspection Program	\$ 223,409.00
			Astorino	Fishbeck	\$ 2,694.25	Invoice #390155 - 3.2.20	Wastewater Master Plan	\$ 546,188.20
			Astorino	Fishbeck	\$ 11,441.25	Invoice #390738 - 3.26.20	Wastewater Master Plan	\$ 534,746.95
			Astorino	FK Engineering	\$ 22,993.25	Invoice #17-134-021 - 3.5.20	As-Needed Geotechnical Services - Segment 5 Grout	
			Downing	FK Engineering	\$ 131,609.89	Invoice #19-134-004	Segment 5 Engineering Design - 2.1.20 - 2.29.20	\$ 212,175.76
			Astorino	HESCO	\$ 2,673.00	Invoice #20201124 - 3.5.20	C5-3 Level Sensor	
Manning	Huntington National Bank	\$ 3,472,600.00	Invoice #20-143 - 3.17.20	Debt Service - 2017 Refunding MDDDD Bond				
Astorino	KHVFP, PLC	\$ 6,142.50	Invoice #44004 - 3.5.20	General Matters - Contracts				
Baker	M2K Management LLC	\$ 25,000.00	Invoice #20-109 - 3.5.20	Return of Deposit on 45345 Garfield Road				
Downing	Meadowbrook Insurance	\$ 13,750.00	Invoice #3977 - 2.20.20	OCIP Set Up Fee				
Astorino	METCO Consulting Services	\$ 16,757.78	Invoice #1717-13 - 3.2.20	Flow Control Services	\$ 29,010.36			
Astorino	METCO Consulting Services	\$ 5,715.98	Invoice #1717-14 - 4.1.20	Flow Control Services - Segment 5 Grouting	\$ 23,294.38			
Astorino	NTH Consultants, Ltd.	\$ 7,523.59	Invoice #621700 - 3.5.20	Meter & Drop Shaft Rehab	\$ 178,788.56			
Astorino	Verizon	\$ 1,112.83	Invoice #9849033087 - 2.23.20	Monthly Cell - 1.24.20 - 2.23.20				
Astorino	Verizon	\$ 592.00	Invoice #9849033087 - 2.23.20	Monthly Cell - 1.24.20 - 2.23.20				
Astorino	De-Cal	\$ 546.20	Invoice #W090020085 - 3.23.20	Spring 2020 Preventative Maintenance				
Biofilter								

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance	
Clintondale P.S.		Astorino	Air Design Inc.	\$ 11,962.00	Invoice #1912-062A1 - 2.27.20	Explosion Proof Duct Heater		
		Manning	Clinton Township Treasurer	\$ 2,297.40	Invoice #20-115 - 2.28.20	Water and Sewer - 1.28.20 - 2.25.20		
		Astorino	DTE Energy	\$ 22,707.69	Invoice #20-125 - 3.3.20	Monthly Electric - 2.4.20 - 3.3.20		
		Astorino	De-Cal	\$ 546.20	Invoice #WO9200420 - 3.23.20	Heater Repairs		
		Astorino	De-Cal	\$ 2,903.77	Invoice #WO90020091-1 - 3.23.20	1st Quarter Preventative Maintenance - HVAC		
		Manning	Huntington National Bank	\$ 1,435,000.00	Invoice #20-140 - 3.17.20	Debt Service - 2011 CPS Bond		
		Manning	Huntington National Bank	\$ 154,350.00	Invoice #20-145 - 3.17.20	Debt Service - 2020 CPS Refunding Bonds		
		Astorino	Spencer Oil Company	\$ 1,783.93	Invoice #600417 - 3.19.20	Diesel Fuel - Generator		
	15 Mile Sinkhole		Baker	Aloia & Associate, P.C.	\$ 9,700.25	Invoice #19489 - 2.1.20	Water Hammer Lawsuit	
			Baker	Aloia & Associates	\$ 10,128.75	Invoice #19587 - 3.1.20	MIDD vs. 3 Contractors	
		Manning	Huntington National Bank	\$ 3,381,300.00	Invoice #20-143 - 3.17.20	Debt Service - 2017 Sinkhole Bond		
		Baker	KHVPP, PLC	\$ 754.90	Invoice #44005 - 3.5.20	Water Hammer Lawsuit		
		Baker	KHVPP, PLC	\$ 49,715.36	Invoice #44006 - 3.5.20	Water Hammer Lawsuit		
		Baker	KHVPP, PLC	\$ 84,608.50	Invoice #44203 - 4.2.20	Water Hammer Lawsuit		
		Baker	N1 Discovery, LLC	\$ 4,710.15	Invoice #N1D4743 - 2.28.20	Water Hammer Lawsuit - Data Management		
Meters			Astorino	ADS Environmental Services	\$ 12,150.00	Invoice #35414-0220-R1 - 3.4.20	Meter Maintenance	\$ 479,640.00
			Astorino	Applied Science, Inc.	\$ 16,100.00	Invoice #7538 - 2.27.20	Dye Dilution Testing - 1.1.19 - 6.7.19	\$ 38,587.50
			Astorino	Colville Electric Company	\$ 4,772.65	Invoice #200148 - 3.20.20	Repair Damaged Electrical Line - To Be Reimbursed	
		Astorino	DLZ	\$ 1,125.00	Invoice #142121 - 2.18.20	McMars Data System	\$ 1,187.50	
		Astorino	DTE Energy	\$ 657.12	Invoice #20-098 - 2.21.20	Monthly Electric - 1.22.20 - 2.20.20		
	NGI		Astorino	DTE Energy	\$ 1,321.61	Invoice #20-114 - 3.2.20	Monthly Electric - 1.30.20 - 2.28.20	
			Astorino	Kennedy Industries	\$ 1,570.00	Invoice #616664 - 2.28.20	Pump Troubleshooting	
			Astorino	National Industrial Maintenance	\$ 1,020.00	Invoice #37508 - 2.28.20	Concordia - Clean Rock Basket	
	OMID		Astorino	Access Interactive LLC	\$ 2,065.21	Invoice #INV000102198 - 3.31.20	SCADA Maintenance (Upgrades and Licenses)	
			Manning	Fraser	\$ 3,703.15	Invoice #2020-020120F - 2.24.20	OMID Overpayment Credit on Refunded Bond	
		Manning	Oakland County	\$ 4,585,548.67	Invoice #SDS0007012 - Feb	Sewage Disposal - February		
		Downing	Oakland County	\$ 4,585,548.67	Invoice #SDS0007050 - March	Sewer Disposal - March		
		Manning	Utica	\$ 1,480.20	Invoice #2020-02120U - 2.24.20	OMID Overpayment Credit on Refunded Bond		
		Manning	Washington Township	\$ 2,004.64	Invoice #2020-020120W - 2.24.20	OMID Overpayment Credit on Refunded Bond		
SEMSD			Astorino	Fishbeck	\$ 10,028.00	Invoice #390166 - 3.2.20	Wastewater Master Plan	\$ 109,452.00
			Astorino	Fishbeck	\$ 10,649.55	Invoice #390761 - 3.30.20	Wastewater Master Plan	\$ 98,802.45
			Downing	Giffels Webster	\$ 632.50	Invoice #120956 - 3.23.20	Macomb Element & Sterling Heights Arm Interceptor & Manhole Rehabilitation - Final	
Total				\$ 18,817,403.35				

Budget to Actual
MIDDD
As of March 31, 2020 = 75%

DESCRIPTION	2020 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	46,904,696		35,209,516	11,695,180	75.1%
OMID O&M	8,121,888		6,091,425	2,030,463	75.0%
Settlement	-		522,116	(522,116)	100.0%
Reimbursements	200,000		271,695	(71,695)	135.8%
PY Revenue-Fund Balance	9,610,000			9,610,000	0.0%
Washington Twp Meter Project	250,000			250,000	0.0%
Reimb-Local Communities	10,927,799		8,195,841	2,731,958	75.0%
Interest	300,000		237,941	62,059	79.3%
Total Revenue Accounts	76,314,383	-	50,528,533	25,785,850	66.2%
EXPENSE ACCOUNTS					
GLWA-OMID	46,904,696		35,209,516	11,695,180	75.1%
OMID O&M	8,121,888		6,091,425	2,030,463	75.0%
Public Works Wastewater Disposal Division	1,721,123		799,874	921,249	46.5%
Office Operations/Insurance	322,800		117,796	205,004	36.5%
SCADA	196,634		150,848	45,786	76.7%
Engineering					
GLWA Assistance	20,000		23,218	(3,218)	116.1%
Washington Township meter	500,000			500,000	0.0%
Data Review-Aquasight	240,000		200,000	40,000	83.3%
Contribution to Segment 5 Construction/Repairs	3,850,000			3,850,000	0.0%
15 Mile Interceptor Design East of Garfield (Seg 6)	1,000,000		3,220	996,780	0.3%
Seg 5 Engineering Design	1,000,000		417,691	582,309	41.8%
Drop Shaft Repairs(MA-S-2),CT-S-2, HR-S-2, ST-S-5,UT-S-1)	5,750,000		32,824	5,717,176	0.6%
System wide odor and corrosion study	350,000		224,093	125,907	64.0%
SY-S-1 & SY-S-2 Meter Rehab	1,200,000		33,035	1,166,966	2.8%
Meter Dye Dilution Testing/As needed	100,000		16,100	83,900	16.1%
Saw Grant	-		25,561	(25,561)	100.0%
McMARS Operations	50,000		5,760	44,240	11.5%
Aquasight Operations	50,000		50,000	-	100.0%
As Needed FTCH	50,000		6,643	43,357	13.3%
As Needed CH2M	70,000		20,394	49,606	29.1%
As needed FK Engineering	55,000		252,689	(197,689)	459.4%
As Needed Wade Trim	45,000		15,104	29,896	33.6%
As Needed Metco	70,000		120,990	(50,990)	172.8%
As Needed Applied Science	70,000			70,000	0.0%
Emergency Grouting	-		1,903,104	(1,903,104)	100.0%
Wastewater Master Plan/Contract Capacity	500,000		146,273	353,727	29.3%
Legal Services					
Clintondale PS O&M	500,000		355,770	144,230	71.2%
NGI O&M	345,000		307,710	37,290	89.2%
Meters O&M	330,000		53,160	276,840	16.1%
CS-3 O&M	415,000		216,108	198,892	52.1%
Biofilter O&M	226,000		2,953	223,047	1.3%
Contribution Life Cycle Reserve	277,500		116,639	160,861	42.0%
Interceptor O&M	171,700			171,700	0.0%
Stormwater Pump Stations	1,000,000		3,685	996,315	0.4%
Sewage Disposal Charges - Mt. Clemens	65,800		49,350	16,450	75.0%
Debt Service - Revenue Bonds	200,000		118,613	81,387	59.3%
	546,242		409,682	136,561	75.0%
Total Expense Accounts	76,314,383	-	47,499,826	28,814,557	62.2%

	O&M Balance 6/30/2019	O&M	Total 3/31/2020
Cash - Operating	25,896,373	3,028,707	28,925,080
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		50,528,533	50,528,533
Expenditures		47,499,826	47,499,826
			0
Equity*	25,896,373		28,925,080

Detail of 2019 Equity*

Projected reserve at 6/30/2019(No Land Sale)	12,180,673
Projected Engineering Reserve	9,610,000
Projected Sinkhole Surplus	3,400,000
Life Cycle Reserve	705,700