

**BOARD OF TRUSTEES**  
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5200 Civic Center Drive  
 Waterford, Michigan 48329-3773  
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[www.waterfordmi.gov](http://www.waterfordmi.gov)

**DEPARTMENT OF PUBLIC WORKS**  
 Russell Williams  
 Director  
 Joseph Ashley  
 Water & Sewer Superintendent  
 Justin Westlake  
 Facilities & Operations Superintendent  
 Derek Diederich  
 Administrative Superintendent  
 Frank Fisher  
 Engineering Superintendent

DATE: October 20, 2020

TO: Honorable Charter Township of Waterford Board of Trustees

FROM: Russell D. Williams, DPW Director *R.W.W.*

RE: Annual Wastewater Treatment Charges Pass-Through.

Please see attached memo from Mr. Derek Diederich, DPW Administrative Superintendent and Township Budget Director, referring to the wastewater treatment charge decrease from the Clinton-Oakland Sewer Disposal System (COSDS). This is the annual rate increase / decrease from the COSDS.

This rate originates with the Great Lakes Water Authority (GLWA) that operates the southern-most portion of the collection system and Water Resource Recovery Facility in Detroit. The Oakland-Macomb Interceptor Drain Drainage District (OMIDDD) operates the combined Oakland and Macomb County's sewer interceptor system that eventually drains to GLWA. Waterford Township's Wastewater flows first to the COSDS system before flowing to the OMIDDD system then eventually to the GLWA. This complex system and charge results in a 2020-2021 annual decrease to the average Waterford Township sewer customer of \$18.84 per year.

This is a direct pass-through charge from COSDS, Waterford Township's contracted wastewater treatment provider, to the Township's sewer customers. Waterford Township DPW does not benefit from this rate decrease.

<b>Requested Board Action #1</b>		
<b>Approve the proposed sewer rates as outlined, Effective November 1, 2020</b>		
<b>Customer</b>	<b>Charge</b>	<b>Per Quarter Charge</b>
Sewer & Water	Ready to Serve	From \$70.34 to \$66.85
Sewer Usage	Use	From \$3.86 to \$3.65 per 100 Cubic Feet
Sewer Only	Flat Ready to Serve Per Quarter	From \$130.56 to \$123.75
Industrial Waste Control (IWC)		Adjust rates as outlined in WRC 2020/2021 Rate Change Letter
<b>Requested Board Action #2</b>		
<b>Approve a Delay of the Annual 2.5% Rate increase from 1/1/2021 until 2/1/2021</b>		

Cc: Gary Wall, Township Supervisor  
 Joe Ashley, Water & Sewer Superintendent  
 Derek Diederich, Administrative Superintendent,  
 & Budget Director

With us there are no boundaries

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Director

Joseph P. Ashley

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Derek Diederich

Administrative Superintendent

Frank Fisher

Engineering Superintendent

Justin Westlake

Facilities Superintendent

DATE: October 19, 2020

TO: Russell D. Williams, DPW Director

FROM: Derek C. Diederich, Twp. Budget Director and DPW Administrative Superintendent

RE: Clinton Oakland Sewage Disposal System 2020-2021 Rate Changes

The Great Lakes Water Authority (GLWA) has notified the Oakland County Water Resource Commissioner's (WRC) office of their new sewage charges for the 2020-2021 fiscal years. The WRC has, in turn, notified the Township of the resulting increase to its sewage charges and of the increase to the Clinton-Oakland Sewage Disposal System (COSDS) rate. We should request approval of new sewage rates for Waterford's sanitary sewage customers to offset the rate changes implemented by the WRC. In short, the sewer rates need to be adjusted to meet the new charges; these are pass-through reductions/costs in nature and traditionally occur every summer. Again, these increases, and reductions are from the Township's third-party service providers, not the Township itself.

**Attachment #I:**

Please see the April 6<sup>th</sup> memo from the Water Resource Commissioner outlining the changes in all the different rate components. As you know, the rate components involve the GLWA, WRC, COSDS and OMI components. As you also know, Waterford does not have its own sewer treatment facility, so it is dependent upon these other entities to help convey and ultimately treat its wastewater.

Review and analysis of WRC's increase begins by breaking it down into component parts:

- 1.) **Wastewater Disposal Charge:** For 2020-2021 Waterford's Monthly charge will be \$760,018 or \$9,120,216 annually. Last year the same component charge was \$826,422 per month or \$9,917,064 annually. This equates to a <\$796,851> reduction on an annual basis.
- 2.) **GLWA Industrial Surcharge and Industrial Waste Control:** These charges come directly off the schedule from GLWA and the Township simply needs to adjust the schedule and rate tables to match the rate adjustment. The Township bills and collects for these charges but does not add any additional charge to this rate component; the Township simply collects these charges and hands them over directly to GLWA. For 2020-2021 it is estimated the Township will bill an estimated \$35,568 in these charges to industrial and commercial customers and then send that portion directly over to GLWA.

3.) **True Up Adjustment:** The True-Up Adjustment is a charge (or credit) that the COSDS communities are assigned based on their proportional flow contribution. The adjustment is needed to balance the OMID Rehabilitation Project expenses. Bonds were secured with a fixed allocation to each COSDS community and the true-up is a mechanism to reconcile changing percentages. The FY 2020-2021 True-Up Adjustment to Waterford is an annual credit of (\$116,557.44) or (\$9,713.21) per month. These totals were confirmed via WRC Management after the initial April correspondence.

**Attachment #II:**

4.) **Bond Debt:** Please see the attached OMI (Oakland Macomb Interceptor) Series 2020-A Sewer Bond Debt Schedule. Waterford is slated to pay 6.7532% of the public debt related to this issuance. You will remember earlier in the year the Township Board authorized a 2-Million Prepayment to reduce the size of the debt to be placed on the long-range debt schedule, as well as save the Waterford Sewer Rate Payer an estimated \$500,000 thousand in interest over the life of the 20-year loan.

The total annual sewage decrease at this time is a decrease to the Township of <\$871,599.90>. As a result, I am recommending the adoption of the new sewer rates as follows:

**Requested Board Action #1 of 2: (Sewer Rate Change):**

**Effective November 1, 2020**

**Sewer and Water Customers**

Ready to Serve

Decrease \$70.34/per quarter to \$66.85/per quarter

**Sewer Usage Charge**

Decrease from \$3.86 per 100 CF/quarter to \$3.65 per 100 CF/quarter

**Sewer Only Customers**

Flat Ready to Serve Charge

Decrease \$130.56/per quarter to \$123.75/per quarter

**Industrial Waste Control (IWC) Quarterly Charges**

Adjust rates as outlined in WRC 2020/2021 Rate Change letter.

Based on the proposed rates, the average residential customer, who uses 1,400 CF/quarter, will see an annual decrease of \$18.84 per Year (\$4.71 per Quarter) or (\$1.57 per month).

Under the recommended proposal, the Township will not realize any additional revenue because it is merely a pass-through and takes into account the changes that have occurred at Great Lakes Water, new Public Debt Issued and the timing of the implementation. It is my recommendation that the Board approve the proposed rates outlined above.

**Requested Board Action #2 of 2: (Jan. 1<sup>st</sup> 2021 Sewer Rate Change Delay):**

As the board will remember in February-2020 they approved an annual 2.5% sewer rate increase for 6-years related to addressing Waterford Township Public Sewer Infrastructure. Due to the fact that the Township employs a quarterly billing cycle and the adjustments above are necessary, rather than have (2) rate changes happening concurrently, I recommend that the board delay the previously approved 1-1-2021 2.5% increase until 2-1-2021. This will help with the administration of the changes.

As always, we recommend rate adjustments to the (590) Enterprise Fund whenever significant changes are experienced. Thank you for helping to keep our rates and financial system in line with the changes that happen on a regular basis. Should you have any questions, please do not hesitate to contact myself.

cc. Gary Wall, Twp. Supervisor  
cc. Barb Miller, Assit. Twp. Budget Director and Accounting Mgr.  
cc. Frank Fisher, DPW Engineering Superintendent  
cc. Joe Ashley, Water-Sewer Superintendent  
cc. Rachel Woolcox, DPW Staff Analyst  
cc. Rate Adj. File

## **Attachment #I:**

**The April 6, 2020 memo from the Water Resource Commissioner outlining the changes in all the different rate components for the 2020-2021 Fiscal Year.**



*Jim Nash*

April 6, 2020

Township Supervisor  
Charter Township of Waterford  
5200 Civic Center Drive  
Waterford MI 48329

**Reference: Clinton-Oakland Sewage Disposal System 2020-21 Rate Change**

Dear Township Supervisor:

The purpose of this letter is to notify you of the sewage disposal charge for the Great Lakes Water Authority (GLWA) 2020-21 rate year for the Clinton Oakland Sewage Disposal System (COSDS). The Great Lakes Water Authority Board approved charges including the GLWA monthly charges, pollutant surcharges and industrial waste control charges, which are a pass through from the GLWA to the Oakland Macomb Interceptor Drainage District (OMIDDD). The OMIDDD has approved its FY2020-21 charges and the Pontiac Wastewater Treatment Facility (Pontiac WWTF) FY2020-21 along with Clinton River Water Resources Recovery Facility (Clinton River WRRF) FY2020-21 assessments have been approved. Also included in this letter are the Oakland County Water Resources Commissioner's (OCWRC) charges associated with operating and maintaining the COSDS. Please refer to the Schedule of Rates and Charges included with this packet for community information.

**OMIDDD, Pontiac WWTF, Clinton River WRRF, and OCWRC Charges**

In the Fall of 2013, the DWSD approved a rate simplification methodology which eliminated the commodity charge and in-turn developed a monthly fixed charge for each of the wholesale customers. The COSDS also implemented rate simplification for rate year 2014-15 by using average flows from rate year 2012-13. OCWRC and COSDS communities met again early this year to discuss the methodology for the 2020-21 share calculation and it was decided to use a three-year average (FY2016/17 – FY2018/19) flow to determine the shares for the monthly charges for rate year 2020-21. These revised monthly charges will be billed for services starting July 2020. The share percentages will be reviewed annually during the rate setting process.

The total of the annual charge to communities will decrease 7.4% to \$36,131,120.00 effective July 1, 2020. This decrease is attributable to decreases in operating and capital expenditures. The following detailed worksheets are attached:

	<u>PAGE(S)</u>
GLWA Correspondence	3-5
OMIDDD Correspondence/Worksheets	6
Pontiac WWTF Correspondence	7-8
Clinton River WRRF Correspondence	9-10
COSDS Schedule of Rates and Charges	11-13
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Share & Monthly Charge Comparison	16
COSDS True-Up Calculations	17



**Oakland-Macomb Interceptor Drain Drainage District (OMIDDD)**

**A. True-Up for the OMIDDD Rehabilitation Projects**

The COSDS communities agreed to a reallocation of capital costs and interest on the outstanding indebtedness (principal and interest) for all OMIDDD bond issuances. Per the 2013 Inter-Municipal Contract, the reallocation will be based on a three-year rolling flow volume. The FY 2020-21 True-up takes into account all bond and interest payments for the July 1, 2018 through June 30, 2019 rate year. The original principal and interest charges for FY2020-21 (July 1, 2020 through June 30, 2021) will continue to be sent per the final amortization schedules. For the Annual Flow-Based True-Up, each community shall receive a monthly charge or credit on its sewage disposal invoice in accordance with the Schedule of Rates and Charges.

If you have any questions regarding this matter, please contact Raphael Chirolla at [chiollar@oakgov.com](mailto:chiollar@oakgov.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Nash".

Jim Nash

# CLINTON-OAKLAND SEWAGE DISPOSAL SYSTEM

## SCHEDULE OF RATES AND CHARGES

### EFFECTIVE JULY 1, 2020

#### **1. Reporting**

To assist with the Clinton-Oakland Sewage Disposal System (COSDS) billing process and to enable accurate tracking of available flow capacity, COSDS communities will be required to provide specific reporting information as indicated below.

##### New Accounts

Each community shall provide, within fifteen (15) days following the end of each quarter, a report of sewer connections to their lateral system made during the previous quarter. This report shall include address, type of account, parcel identification number, service line size (potable water) and meter size (potable water).

##### Water Consumption

Water consumption information for lateral system accounts shall be provided periodically, as identified and deemed necessary by the Oakland County Water Resources Commissioner (WRC). In cases where water consumption is not available or applicable, other means of estimating sewage flow will be identified (i.e. fixture unit analysis) and the appropriate information for doing so will be provided to WRC.

#### **2. Wastewater Disposal Charge**

Each community shall pay monthly, a charge in accordance with the schedule below:

GLWA FY 2020-21	
Monthly Charge	
Auburn Hills	\$ 353,994.66
Independence Twp	246,053.00
Lake Orion	36,643.00
Oakland Twp	81,174.58
Orion Twp	290,765.25
Oxford	36,191.34
Oxford Twp	120,437.00
Rochester	168,280.67
Rochester Hills	722,020.16
Waterford Twp	760,018.08
West Bloomfield Twp	195,348.92
Total:	\$ 3,010,926.66

### 3. Pollutant Surcharge

In accordance with current Great Lakes Water Authority (GLWA) standards and rates, the following Pollutant Surcharges shall be levied against industrial and commercial customers contributing sewage to the System with concentrations of pollutants exceeding the levels described as follows:

POLLUTANT SURCHARGE RATE, PER EXCESS POUND	2020-21 \$/LB
Biochemical Oxygen Demand (BOD) in excess of 275 mg/l	\$ 0.502
Total Suspended Solids (TSS) in excess of 350 mg/l	0.510
Phosphorus (P) in excess of 12 mg/l.	7.519
Fats, Oil, & Grease (FOG) in excess of 100 mg/l	0.484

### 4. Industrial Waste Control Charge (IWC)

Each community shall report monthly the total number and size of water meters used by non-residential users of the System. Where metered water is not available, the community shall report monthly the "Assigned Water Meter Size" of non-residential users of the System as determined by WRC via Residential Equivalency Units (REU) equivalents or use of AWWA M22 (Chapter 5 – Sizing the Customer's Service and Meter).

Based on the reported number of water meter sizes, actual and assigned, for non-residential users of the System, each community shall pay a monthly IWC in accordance with the following schedule:

METER SIZE	FY 2020-21 MONTHLY IWC CHARGE
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

METER SIZE	FY 2020-21 MONTHLY IWC CHARGE
5/8"	\$ 0.86
3/4"	1.30
1"	2.16
1 1/2"	4.75
2"	6.90
3"	12.51
4"	17.25
6"	25.88
8"	43.13
10"	60.38
12"	69.00
14"	86.25
16"	103.50
18"	120.75

\*Administration Only

Non-residential users shall be defined as all users other than those in single family houses, apartment buildings, condominiums, town houses, mobile homes, schools, churches and municipal buildings.

##### **5. Annual Flow-Based True-Up for the OMIDDD Rehabilitation Projects**

The COSDS communities agreed to a reallocation of capital costs and interest on the outstanding indebtedness (principal and interest) for all OMIDDD capital costs. Per the 2013 Inter-Municipal Contract, the reallocation will be based on a three-year rolling flow volume. The FY 2020-21 True-up takes into account all project costs and bond interest payments for the July 1, 2018 through June 30, 2019 rate year. The original principal and interest charges for FY2020-21 (July 1, 2020 through June 30, 2021) will continue to be sent per the final amortization schedules. For the Annual Flow-Based True-Up, each community shall receive a monthly charge or credit on its sewage disposal invoice in accordance with the schedule below:

<b>True-Up FY 2020-21</b>	
	<b><u>Monthly Charge</u></b>
Auburn Hills	\$ 35,546.42
Independence Twp	9,609.41
Lake Angelus	(520.53)
Lake Orion	(976.57)
Oakland Twp	(8,767.36)
Orion Twp	4,570.48
Oxford	(8,063.21)
Oxford Twp	(4,803.11)
Rochester	(3,383.10)
Rochester Hills	(23,522.13)
Waterford Twp	(16,160.01)
West Bloomfield Twp	16,469.72

Annual Flow-Based True-Up for the OMIDDD Rehabilitation Projects  
Corrected - September 2020

Community	FY 2020-2021 Monthly Charge Remaining 10 Months
Auburn Hills	<b>22,007.66</b>
Independence	<b>7,158.22</b>
Lake Angelus	<b>(266.06)</b>
Lake Orion	<b>(226.22)</b>
Oakland	<b>(4,938.00)</b>
Orion	<b>836.11</b>
Oxford Twp	<b>(4,027.29)</b>
Oxford Vlg	<b>(3,848.40)</b>
Rochester	<b>(502.75)</b>
Rochester Hills	<b>(11,458.45)</b>
Waterford	<b>(9,713.21)</b>
West Bloomfield	<b>10,180.99</b>

**Clinton Oakland Sewer Disposal System**  
**58600**  
**Financial Summary**

	2019 Actual	2020 Budget	2021 Forecast	Inc / (Dec)	% Variance
<b><u>Operating Revenues</u></b>					
Operating Rate Revenue	\$ 35,846,587.47	\$ 35,417,460.00	\$ 33,631,120.00	\$ (1,786,340.00)	-5.0%
Operating Non-Rate Revenue	1,177,594.83	927,350.00	943,580.00	16,230.00	1.8%
Operating Revenues	\$ 37,024,182.30	\$ 36,344,810.00	\$ 34,574,700.00	\$ (1,770,110.00)	-4.9%
<b><u>Operating Expenses</u></b>					
Sewage Treatment	\$ 33,222,523.77	\$ 32,813,720.00	\$ 31,020,810.00	\$ (1,792,910.00)	-5.5%
Sewer System Maintenance	279,907.81	257,740.00	292,040.00	34,300.00	13.3%
Sewer System Engineering	105,621.81	94,500.00	112,580.00	18,080.00	19.1%
Water Purchases	-	-	-	-	-
Water Maintenance Unit	-	-	-	-	-
Water Systems Engineering	-	-	-	-	-
Septage Unloading Facility	453,114.36	667,860.00	579,120.00	(88,740.00)	-13.3%
Pump Maintenance Unit	632,762.72	517,870.00	614,060.00	96,190.00	18.6%
Systems Control Unit	832,615.26	927,460.00	836,780.00	(90,680.00)	-9.8%
Plan Review and Permitting	96,415.25	40,940.00	66,600.00	25,660.00	62.7%
Inspection	14,437.42	11,600.00	12,540.00	940.00	8.1%
IPP	-	-	-	-	-
Laboratory	-	-	-	-	-
Mapping Unit	16,562.08	26,940.00	25,520.00	(1,420.00)	-5.3%
Miss Dig	379.68	220.00	340.00	120.00	54.5%
Billing Services Unit	-	-	-	-	-
General and Administrative	959,714.57	985,960.00	1,014,310.00	28,350.00	2.9%
Total Operating Expenses	\$ 36,614,054.73	\$ 36,344,810.00	\$ 34,574,700.00	\$ (1,770,110.00)	-4.9%
Net Income	\$ 410,127.57	\$ -	\$ -	\$ -	-
Depreciation	(860,090.49)	(860,410.00)	(860,090.00)	320.00	0.0%
<b><u>Reserves</u></b>					
Non-Operating Revenue	\$ -	\$ -	\$ -	\$ -	-
Non-Operating Expense	104,745.64	-	-	-	-
Major Maintenance Reserve Revenue	1,342,607.28	2,000,000.00	1,000,000.00	(1,000,000.00)	-50.0%
Major Maintenance Reserve Expense	(1,353,709.74)	(1,285,000.00)	(240,000.00)	1,045,000.00	-81.3%
Emergency Reserve Revenue	-	-	-	-	-
Emergency Reserve Expense	(10,301.03)	-	-	-	-
Capital Reserve Revenue	2,000,000.04	2,000,000.00	1,500,000.00	(500,000.00)	-25.0%
Capital Reserve Expense	(93,780.40)	(1,570,000.00)	(1,615,000.00)	(45,000.00)	2.9%
Change in Net Assets	\$ 1,539,598.87	\$ 284,590.00	\$ (215,090.00)	\$ (499,680.00)	-175.6%
<b><u>Rate Revenue</u></b>					
Revenue Requirements:					
Operating Expense	\$ 36,614,054.73	\$ 36,344,810.00	\$ 34,574,700.00	\$ (1,770,110.00)	-4.9%
Non-Operating	-	-	-	-	-
Major Maintenance	1,342,607.28	2,000,000.00	1,000,000.00	(1,000,000.00)	-50.0%
Emergency Maintenance	-	-	-	-	-
Capital	2,000,000.04	2,000,000.00	1,500,000.00	(500,000.00)	-25.0%
Total Revenue Requirements	\$ 39,956,662.05	\$ 40,344,810.00	\$ 37,074,700.00	\$ (3,270,110.00)	-8.1%
Non-Rate Revenue	\$ (1,595,202.15)	\$ (1,327,350.00)	\$ (943,580.00)	\$ 383,770.00	-28.9%
Rate Required Revenue	\$ 38,361,459.90	\$ 39,017,460.00	\$ 36,131,120.00	\$ (2,886,340.00)	-7.4%

**Clinton Oakland Sewage Disposal System, GLWA FY 2020-21**  
**Monthly Charge Breakdown**

	<u>GLWA FY 2020-21</u>
OMIDDD/CRWRRF/Pontiac Fixed Charges	\$ 31,020,810
OCWRC Fixed Charge	\$ 3,553,890
Major Maintenance	\$ 1,000,000
Emergency Maintenance	\$ -
Capital Improvement	\$ 1,500,000
Misc Revenue	\$ (943,580)
Total Charge	<u>\$ 36,131,120</u>

	<u>GLWA FY 2020-21</u>	<u>GLWA F</u>
	<u>Annual Charge</u>	<u>Month</u>
Auburn Hills	\$ 4,247,936	\$
Independence Twp	2,952,636	
Lake Orion	439,716	
Oakland Twp	974,095	
Orion Twp	3,489,183	
Oxford	434,296	
Oxford Twp	1,445,244	
Rochester	2,019,368	
Rochester Hills	8,664,242	
Waterford Twp	9,120,217	
West Bloomfield Twp	2,344,187	
Total	<u>\$ 36,131,120</u>	\$ :

**Clinton Oakland Sewage Disposal System, GLWA FY 2020-21**  
**Share & Monthly Charge Comparison**

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	<b>GLWA FY 2019-20</b>		<b>GLWA FY 2020-21</b>		<b>% Change Mthly Charge</b>
	<b>Share % of System</b>	<b>Monthly Charge</b>	<b>Share % of System</b>	<b>Monthly Charge</b>	
Auburn Hills	12.177%	\$ 395,929.66	11.757%	\$ 353,994.66	-10.6%
Independence Twp	7.975%	259,303.50	8.172%	246,053.00	-5.1%
Lake Orion	1.176%	38,237.09	1.217%	36,643.00	-4.2%
Oakland Twp	2.846%	92,536.42	2.696%	81,174.58	-12.3%
Orion Twp	9.689%	315,033.42	9.657%	290,765.25	-7.7%
Oxford	1.122%	36,481.33	1.202%	36,191.34	-0.8%
Oxford Twp	4.059%	131,976.59	4.000%	120,437.00	-8.7%
Rochester	5.551%	180,488.33	5.589%	168,280.67	-6.8%
Rochester Hills	23.543%	765,490.08	23.980%	722,020.16	-5.7%
Waterford Twp	25.417%	826,422.33	25.242%	760,018.08	-8.0%
West Bloomfield Twp	6.445%	209,556.25	6.488%	195,348.92	-6.8%
Total	100.00%	\$ 3,251,455.00	100.00%	\$ 3,010,926.66	-7.4%

Charges have been rounded

GLWA Fiscal Year 2019		Total True-Up Adjustment Summary						Monthly Charge/Credit			
CVT	Amount Paid/Assigned	Project Cost		Interest Expense		Total Adjustment*	Monthly Charge/Credit				
		True-Up	Adjustment*	Amount Paid	True-up						
Auburn Hills	\$ 326,404.82	\$ 595,635.89	\$ 269,231.07	\$ 193,361.91	\$ 350,687.88	\$ 157,325.97	\$ 426,557.04	\$ 35,546.42			
Independence	326,056.68	387,307.67	61,250.99	224,147.84	278,209.81	54,061.97	115,312.96	9,609.41			
Lake Angelus	3,701.68	-	(3,701.68)	2,544.73	-	(2,544.73)	(6,246.41)	(520.53)			
Lake Orion	68,176.79	60,140.94	(8,035.85)	46,868.16	43,185.11	(3,683.05)	(11,718.90)	(976.57)			
Oakland	199,037.94	133,272.33	(65,765.61)	117,909.90	78,467.22	(39,442.68)	(105,208.29)	(8,767.36)			
Orion	434,791.13	479,684.16	44,893.03	207,271.11	217,223.85	9,952.74	54,845.77	4,570.48			
Oxford Twp	227,898.07	191,969.89	(35,928.18)	108,642.25	86,933.11	(21,709.14)	(57,637.32)	(4,803.11)			
Oxford Vlg	118,567.01	60,140.94	(58,426.07)	81,508.94	43,176.47	(38,332.47)	(96,758.54)	(8,063.21)			
Rochester	299,381.91	270,393.68	(28,988.23)	205,810.25	194,201.25	(11,609.00)	(40,597.23)	(3,383.10)			
Rochester Hills	1,296,569.49	1,116,215.89	(180,353.60)	810,055.69	708,143.75	(101,911.94)	(282,265.54)	(23,522.13)			
Waterford	1,329,039.00	1,210,035.76	(119,003.24)	787,321.44	712,404.61	(74,916.83)	(193,920.07)	(16,160.01)			
West Bloomfield	181,650.87	306,478.24	124,827.37	107,609.82	180,419.04	72,809.22	197,636.59	16,469.72			
<b>Total</b>	<b>\$ 4,811,275.39</b>	<b>\$ 4,811,275.39</b>	<b>\$ 0.00</b>	<b>\$ 2,893,052.04</b>	<b>\$ 2,893,052.10</b>	<b>\$ 0.06</b>	<b>\$ 0.06</b>	<b>0.06</b>			

\* Due to the number of calculations, rounding may cause discrepancies in the "Amount Paid" and the "True-up" totals. These can effect the "Total Adjustment" not equating to zero by an insignificant amount.

## **Attachment #II:**

**Series 2020-A Public Debt Schedule issued to Waterford Township from  
OMI (Oakland-Macomb Sewer District)**

1.63%  
True Inv.  
Cost.

**Oakland-Macomb Interceptor Drain Drainage District  
Counties of Oakland and Macomb, State of Michigan  
Bonds (Limited Tax General Obligation), Series 2020A**

Bond Debt Service Schedule - FINAL

Waterford Township

Percentage of Bond Issue: 6.7532%

<i>Maturity Date</i>	<i>Principal Payment</i>	<i>Coupon Rate</i>	<i>Interest Payment</i>	<i>Total Debt Service</i>	<i>Fiscal Year Total (July 1-June 30)</i>
01/01/2021		-	42,763.55	42,763.55	42,763.55
07/01/2021	65,843.70	5.00	65,232.54	131,076.24	
01/01/2022		-	63,586.44	63,586.44	194,662.68
07/01/2022	94,207.14	5.00	63,586.44	157,793.58	
01/01/2023		-	61,231.26	61,231.26	219,024.84
07/01/2023	98,596.72	5.00	61,231.26	159,827.98	
01/01/2024		-	58,766.35	58,766.35	218,594.33
07/01/2024	103,661.62	5.00	58,766.35	162,427.97	
01/01/2025		-	56,174.81	56,174.81	218,602.78
07/01/2025	108,726.52	5.00	56,174.81	164,901.33	
01/01/2026		-	53,456.64	53,456.64	218,357.97
07/01/2026	168,492.34	5.00	53,456.64	221,948.98	
01/01/2027		-	49,244.33	49,244.33	271,193.31
07/01/2027	176,933.84	5.00	49,244.33	226,178.17	
01/01/2028		-	44,820.99	44,820.99	270,999.16
07/01/2028	185,713.00	5.00	44,820.99	230,533.99	
01/01/2029		-	40,178.16	40,178.16	270,712.15
07/01/2029	195,167.48	5.00	40,178.16	235,345.64	
01/01/2030		-	35,298.98	35,298.98	270,644.62
07/01/2030	204,959.62	5.00	35,298.98	240,258.60	
01/01/2031		-	30,174.99	30,174.99	270,433.59
07/01/2031	215,427.08	4.00	30,174.99	245,602.07	
01/01/2032		-	25,866.44	25,866.44	271,468.51
07/01/2032	223,868.58	4.00	25,866.44	249,735.02	
01/01/2033		-	21,389.07	21,389.07	271,124.09
07/01/2033	233,323.06	3.00	21,389.07	254,712.13	
01/01/2034		-	17,889.23	17,889.23	272,601.36
07/01/2034	240,076.26	2.00	17,889.23	257,965.49	
01/01/2035		-	15,488.46	15,488.46	273,453.95
07/01/2035	245,141.16	2.00	15,488.46	260,629.62	
01/01/2036		-	13,037.05	13,037.05	273,666.67
07/01/2036	250,206.06	2.00	13,037.05	263,243.11	
01/01/2037		-	10,534.99	10,534.99	273,778.10
07/01/2037	255,608.62	2.00	10,534.99	266,143.61	
01/01/2038		-	7,978.91	7,978.91	274,122.52
07/01/2038	260,673.52	2.00	7,978.91	268,652.43	
01/01/2039		-	5,372.17	5,372.17	274,024.60
07/01/2039	266,076.08	2.00	5,372.17	271,448.25	
01/01/2040		-	2,711.41	2,711.41	274,159.66
07/01/2040	271,140.98	2.00	2,711.41	273,852.39	273,852.39
	<u>3,863,843.38</u>		<u>1,334,397.45</u>	<u>5,198,240.83</u>	<u>5,198,240.83</u>



## 2020A OMID BONDS

Waterford Township Portion

### Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price	YTM	Call Date	Call Price	Dollar Price
07/01/2021	Serial Coupon	5.000%	0.200%	65,843.70	103.967%	-	-	-	68,455.72
07/01/2022	Serial Coupon	5.000%	0.250%	94,207.14	108.656%	-	-	-	102,361.71
07/01/2023	Serial Coupon	5.000%	0.300%	98,596.72	113.224%	-	-	-	111,635.15
07/01/2024	Serial Coupon	5.000%	0.350%	103,661.62	117.664%	-	-	-	121,972.41
07/01/2025	Serial Coupon	5.000%	0.400%	108,726.52	121.972%	-	-	-	132,615.91
07/01/2026	Serial Coupon	5.000%	0.500%	168,492.34	125.814%	-	-	-	211,986.95
07/01/2027	Serial Coupon	5.000%	0.620%	176,933.84	129.236%	-	-	-	228,662.22
07/01/2028	Serial Coupon	5.000%	0.760%	185,713.00	132.161%	-	-	-	245,440.16
07/01/2029	Serial Coupon	5.000%	0.840%	195,167.48	135.322%	-	-	-	264,104.54
07/01/2030	Serial Coupon	5.000%	0.950%	204,959.62	137.913%	-	-	-	282,665.96
07/01/2031	Serial Coupon	4.000%	1.100%	215,427.08	126.942%	c 1.321%	07/01/2030	100.000%	273,467.44
07/01/2032	Serial Coupon	4.000%	1.220%	223,868.58	125.671%	c 1.608%	07/01/2030	100.000%	281,337.88
07/01/2033	Serial Coupon	3.000%	1.600%	233,323.06	112.683%	c 1.882%	07/01/2030	100.000%	262,915.42
07/01/2034	Serial Coupon	2.000%	1.800%	240,076.26	101.793%	c 1.852%	07/01/2030	100.000%	244,380.83
07/01/2035	Serial Coupon	2.000%	1.850%	245,141.16	101.341%	c 1.896%	07/01/2030	100.000%	248,428.50
07/01/2036	Serial Coupon	2.000%	1.900%	250,206.06	100.891%	c 1.934%	07/01/2030	100.000%	252,435.40
07/01/2038	Term 1 Coupon	2.000%	2.000%	516,282.14	100.000%	-	-	-	516,282.14
07/01/2040	Term 2 Coupon	2.000%	2.050%	537,217.06	99.187%	-	-	-	532,849.49
<b>Total</b>		-	-	<b>\$3,863,843.38</b>	-	-	-	-	<b>\$4,381,997.83</b>

#### Bid Information

Par Amount of Bonds	\$3,863,843.38
Reoffering Premium or (Discount)	518,154.45
Gross Production	\$4,381,997.83
 Bid (113.410%)	 4,381,997.83
Total Purchase Price	\$4,381,997.83
 Bond Year Dollars	 \$47,030.72
Average Life	12.172 Years
Average Coupon	2.8372888%
 Net Interest Cost (NIC)	 1.7355527%
True Interest Cost (TIC)	1.6344214%