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MEMORANDUM

Preliminary Proposed FY 2021 Budget/Charges
Executive Summary

January 20, 2020

To: Nicolette Bateson

From: Bart Foster

This memorandum is intended to provide an executive summary introduction of our preliminary proposed water and sewer service charges for FY 2021. The preliminary proposed service charges are designed to support the proposed FY 2021 GLWA proposed budgets based on cost of service principles. We'll first address the proposed budget, then introduce a summary of the preliminary proposed service charges.

Preliminary Proposed FY 2021 Budget

Our observations and understanding of the proposed budgets is set forth in a memorandum dated December 17, 2019. With minor exceptions noted herein, those budgets have not changed. The overall FY 2021 Water BUDGET (Revenue Requirement) reflects an increase of 1.1 percent compared to FY 2020. The increase in the FY 2021 Sewer BUDGET reflects an increase of 2.5%, which is 0.5% lower than the preliminary budget in order to address feedback received during the review process.

The debt service revenue requirement for both the Water and Sewer Systems in the original budget reflected anticipated savings associated with the upcoming bond refinancing transactions. The presentation of that preliminary budget indicated GLWA's commitment to maintain the "top line" BUDGET amounts irrespective of the refinancing results. In other words, if the transactions did not produce the anticipated savings, GLWA would simply balance the budget by reducing the "bottom line" revenue requirement – the deposit to the Improvement and Extension ("I&E") Fund – and not adjusting charges to Member Partners. Similarly, if the transactions produced greater than anticipated savings, the "bottom line" deposit would be adjusted accordingly without adjusting the charges.

Subsequently, discussions with advisors and stakeholders has indicated that it would be more appropriate to prepare initial budget documents that do not anticipate the refinancing savings, but to be prepared to reflect those savings via a budget amendment when they occur. The overall financial plan still anticipates the savings, and the commitment to maintain the "top line" remains the same. However the presentation of the individual elements is slightly different than in the original document.

Also, as part of the initial planning for the refinancing transactions purposes it became apparent the originally estimated potential debt service savings for the Sewer System may have been conservative. As such, our analysis assumes that GLWA will formally reduced the overall BUDGET increase for Sewer from 3.0% to 2.5%.

The resulting BUDGETs used to establish the proposed FY 2021 Charges are summarized below.

	Water System				Sewer System				Total GLWA			
	FY 2020	FY 2021	Variance	% Variance	FY 2020	FY 2021	Variance	% Variance	FY 2020	FY 2021	Variance	% Variance
Annual BUDGET												
Operation and Maintenance Expense	131.5	137.1	5.6	4.3%	187.1	184.9	(2.1)	-1.1%	318.5	322.1	3.5	1.1%
Debt Service	137.6	143.6	6.0	4.4%	215.7	209.7	(6.0)	-2.8%	353.3	353.3	0.0	0.0%
Master Bond Ordinance ("MBO") Commitments	36.5	36.5	(0.0)	-0.1%	52.3	52.4	0.0	0.1%	88.9	88.9	0.0	0.0%
Deposit to I&E (and other reserve) Funds	34.1	26.2	(7.9)	-23.1%	25.5	45.5	20.1	78.9%	59.6	71.8	12.2	20.5%
Total BUDGET	339.7	343.4	3.7	1.1%	480.6	492.6	12.0	2.5%	820.3	836.0	15.8	1.9%

Preliminary Proposed FY 2021 Service Charges

Our proposed FY 2021 Water and Sewer Service Charges for GLWA have been developed to align with desires expressed by Member Partners: Service Charges that embrace core principles of **simplicity** and **stability**. As we were finalizing our analyses to support a cost of service study in support of proposed FY 2021 Service Charges, we recognized several dynamics that are somewhat unique to the FY 2021 planning period:

- The current (FY 2020) Water and Sewer Service Charges were computed via a detailed cost of service study applied to the FY 2020 BUDGET (Revenue Requirements);
- The overall FY 2021 BUDGET reflects minor changes from FY 2020 in total, and the specifics of GLWA business area budgets are not materially different;
 - *Not likely that cost pool allocations would vary materially if finalized for FY 2021*
- FY 2021 Units of Service are virtually unchanged from those used to compute the FY 2020 Charges;
 - *Only one Water Member Partner (Bruce Township) has a revised Exhibit B demand;*
 - *Estimates of non revenue water and peak demand use for Non Master Metered Water Customers are unchanged from the phase 2 Units of Service ("UoS") study prepared by Black & Veatch, which were used for FY 2020 Charges;*
 - *Sewer SHARES are unchanged from FY 2020 Charges*
- Producing Water and Sewer Service Charges that precisely align with a Cost of Service Study for FY 2021 would not produce results that vary materially from an "average" charge adjustment for any Member Partner;
 - *All charge adjustments would be clustered around the average;*

- This stability opportunity for FY 2021 is not likely to be long lasting;
 - *Sewer* SHARES are anticipated to be adjusted for FY 2022 via adjustments to the “*Sewer* Charge Methodology Review” project and related discussions;
 - GLWA is embarking on a “*Water* Charge Methodology Review” which may introduce material changes as soon as FY 2022¹;

Given these unique circumstances, we believe that a simplified approach to calculating FY 2021 Service Charges is in order. We are proposing that GLWA increase ALL (with the necessary caveats noted herein) Service Charges “across the board” by 3.5% - the amount required to produce revenues that meet revenue requirements of the FY 2021 BUDGET.

We note that there is recent precedence for this general approach. The FY 2014 Sewer Service Charges for the Suburban Wholesale Customer Class were increased “across the board” by 3.7%. Both the FY 2014 and the FY 2015 Water Service Charges grouped Member Partners into two classes. The “Mods” class contained those Member Partners that modified the terms of their Exhibit B contract demands. Charges for these Member Partners reflected the results of the detailed cost of service study on their individual demands. All Member Partners that did not modify their demands were treated uniformly as the “No Mods” class, and received the uniform class average charge adjustment.

Our proposed FY 2021 Water and Sewer Service Charges follow that same general philosophy and approach. There are a few special considerations that must be accommodated to execute the strategy for both the Water and Sewer Service Charges. Specifically, the one Member Partner that modified its units of service should be treated accordingly, and the 3.5% “across the board” adjustment needs to be applied to the full “gross” wholesale revenue requirement for Member Partners that have special contract arrangements. The calculations of the Water and Sewer Service Charges are set forth in the attached exhibits and summarized below.

Water Service Charges are summarized on Exhibit Page 1.

1. Bruce Township is treated as a “Mod” Member Partner in a manner that reflects the units of service indicated by their updated Exhibit B Demands. Our analyses indicate that their charges would be reduced by 1.0% as a result, and their proposed FY 2021 Water Service Charges reflect that premise. *See Line 2.*
2. The 3.5% “across the board” adjustment is applied to the full “gross” wholesale revenue requirement for Detroit, prior to the \$20.7 million ownership benefit adjustment. *See Lines 10 through 12.*
3. The 3.5% “across the board” adjustment is applied to the full “gross” wholesale revenue requirement for Flint, prior to the \$6.65 million KWA debt service adjustment. *See Lines 13 through 15.*

¹ At the very least, we know that some change will occur once the existing methodology for distance factor units of service is recalculated to remove the Northeast Water Plant.

4. Revenue requirements for all other Member Partners are increased uniformly by applying the 3.5% “across the board” adjustment to the proforma revenues associated with the current (FY 2020) Water Service Charges. *See Line 1.*
5. This approach results in projected revenues from Water Service Charges that fully recover the budgeted revenue requirements, with a minor positive variance of \$9,100. *See Line 8.* We suggest that the budgeted investment income be modified by that amount to result in a fully balanced BUDGET.

Calculations of Water Service Charges for each individual Member Partner are set forth on Exhibit Pages 3 through 6. The Water Service Charges continue to be designed to recover 60% of the allocated revenue requirements from fixed monthly charges, and the remaining 40% from commodity charges. In effect, both charge elements are increased uniformly by the 3.5% “across the board” adjustment.

Sewer Service Charges are summarized on Exhibit Page 2. In order to execute the uniform adjustment strategy it is necessary to separate the “bad debt recovery” element in the suburban wholesale service charges from the amounts related to the budgeted wholesale revenue requirements.

1. The 3.5% “across the board” adjustment is applied to the “common to all” wholesale revenue requirement for OMID. The OMID specific revenue requirement responsibility is set by contract. *See Lines 11 through 13.*
2. The 3.5% “across the board” adjustment is applied to the full “gross” wholesale revenue requirement for Detroit, prior to the \$5.5 million ownership benefit adjustment. *See Lines 14 through 16.*
3. Wholesale revenue requirements for all other Member Partners are increased uniformly by applying the 3.5% “across the board” adjustment to the proforma revenues associated with the current (FY 2020) Sewer Service Charges. *See Line 1.*
4. The bad debt recovery element of the current Sewer Service Charges is treated separately. The current charges include additional amounts for all suburban wholesale Member Partners designed to recover \$2.26 million related to prospective FY 2020 Highland Park bad debt expense. The proposed FY 2021 charges have been calculated to eliminate this amount, as discussed under separate cover². *See Columns 2 and 7.*
5. This approach results in projected revenues from Sewer Service Charges that fully recover the budgeted revenue requirements, with a minor negative variance of \$18,300. *See Line 9.* We suggest that the budgeted investment income be modified by that amount to result in a fully balanced BUDGET.

² See “Highland Park Bad Debt Expense Review” attached at the end of this document.

Calculations of Sewer Service Charges for each individual Member Partner are set forth on Exhibit Page 7. The Sewer Service Charges continue to be consist entirely of fixed monthly charges. The charges are separated into “budget” recovery and “bad debt” recovery for suburban wholesale Member Partners. The budget charge element for Member Partners without contract adjustments reflects the 3.5% “across the board” adjustment. The elimination of the bad debt recovery element for FY 2021 results in a reduction of 0.9% from that amount for the Suburban Wholesale class.

Proposed Industrial Waste Control Charges and Industrial Surcharges also reflect the uniform 3.5% “across the board” adjustment. See Exhibit Page 8.

We continue diligent review of the proposed charges and preparation of additional materials to present our findings. We are prepared to discuss this matter at your convenience.

FY 2021 Water Supply System Wholesale Service Charges
Calculation of "Across the Board" Charge Adjustments for "Mod" and "No Mod" Member Partners

	(1)	(2)	(3)	(4)	(5)
	Proforma Revenue Existing Charges \$	"No Mod" Across the Board Chg Adj 3.50%	Effective Across the Board Chg Adj \$	Revenue Req'd from Proposed Charges \$	Effective Charge Adjustment
			(1) * (2)	(1) + (3)	(3) / (1)
1 "No Mod" Member Partners w/o Contract Adjs	301,307,400	3.50%	10,545,800	311,853,200	3.5%
2 "Mod" Member Partners with Contract Adjs	323,600	-1.0%	(3,300)	320,300	-1.0%
3 "Net" from Member Partners with Adjs (a)	25,755,200		1,858,700	27,613,900	7.2%
4 Total System	327,386,200		12,401,200	339,787,400	3.8%
5 less: Bad Debt Expense	(1,171,200)		(41,000)	(1,212,200)	3.5%
6 Adjusted System Revenue from Charges	326,215,000		12,360,200	338,575,200	3.8%
7 Revenues Required from Charges				338,566,100	
8 Revenue Requirement Recovery - \$				9,100	
9 Revenue Requirement Recovery - %				100.0%	
<u>(a) Adjusted Member Partner Detail</u>					
10 Detroit "Gross" Revenues	41,995,500	3.50%	1,469,800	43,465,300	3.5%
11 less: Ownership Benefit Credit	(20,700,000)		0	(20,700,000)	0.0%
12 Detroit "Net" Revenue Requirement	21,295,500		1,469,800	22,765,300	6.9%
13 Flint "Gross" Revenues	11,111,900	3.50%	388,900	11,500,800	3.5%
14 less: KWA Debt Service Credit	(6,652,200)		0	(6,652,200)	0.0%
15 Flint "Net" Revenue Requirement	4,459,700		388,900	4,848,600	8.7%
16 Combined "Gross" Revenues	53,107,400		1,858,700	54,966,100	3.5%
17 less: Combined Credit	(27,352,200)		0	(27,352,200)	0.0%
18 Combined "Net" Revenues	25,755,200		1,858,700	27,613,900	7.2%

FY 2021 Sewage Disposal System Wholesale Service Charges
 Calculation of "Across the Board" Charge Adjustments Reflecting Member Partner Contract Adjustments

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Proforma Revenue - Existing Charges			Across the Board	Revenue from Charge Adjustments			Proforma Revenue - Proposed Charges			Effective Charge Adjustment		
	FY 2020	Bad Debt			FY 2021	Bad Debt		FY 2021	Bad Debt		FY 2021	Bad Debt	
	BUDGET	Recovery	Total	Chg Adj	BUDGET	Recovery	Total	BUDGET	Recovery	Total	BUDGET	Recovery	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
				3.50%		0							
1 Member Partners w/o Contract Adjs	197,072,400	1,759,200	198,831,600	3.50%	6,897,500	0	6,897,500	203,969,900		203,969,900	3.5%	0.9%	2.6%
2 "Net" from Member Partners with Adjs (a)	261,064,100	501,600	261,565,700	0.2%	9,079,000	0	9,079,000	270,143,100		270,143,100	3.5%	0.2%	3.3%
3 Total System	458,136,500	2,260,800	460,397,300	0.5%	15,976,500	0	15,976,500	474,113,000	0	474,113,000	3.5%	0.5%	3.0%
4 less: Bad Debt Expense	(2,260,800)		(2,260,800)	0.0%	0		0	(1,310,000)	0	(1,310,000)	-42.1%	0.0%	-42.1%
5 Subtotal Member Partner Charge Revenue	455,875,700	2,260,800	458,136,500		15,976,500	0	15,976,500	472,803,000	0	472,803,000	3.7%	0.5%	3.2%
6 Industrial Specific Charges	13,729,300		13,729,300	3.50%	480,500		480,500	14,209,800	0	14,209,800	3.5%	0.0%	3.5%
7 Adjusted System Revenue from Charges	469,605,000	2,260,800	471,865,800	0.5%	16,457,000	0	16,457,000	487,012,800	0	487,012,800	3.7%	0.5%	3.2%
8 Revenues Required from Charges										487,031,100			
9 Revenue Requirement Recovery - \$										(18,300)			
10 Revenue Requirement Recovery - %										100.00%			
<u>(a) Adjusted Member Partner Detail</u>													
11 OMID "CTA" Revenues	67,205,400	501,600	67,707,000	3.50%	2,352,200	0	2,352,200	69,557,600		69,557,600	3.5%	0.8%	2.7%
12 plus: OMID Specific	8,051,400	0	8,051,400		30,500	0	30,500	8,081,900		8,081,900	0.4%	0.0%	0.4%
13 Total OMID Revenues	75,256,800	501,600	75,758,400		2,382,700	0	2,382,700	77,639,500		77,639,500	3.2%	0.7%	2.5%
14 Detroit "Gross" Revenues	191,323,300		191,323,300	3.50%	6,696,300		6,696,300	198,019,600		198,019,600	3.5%	0.0%	3.5%
15 less: Ownership Benefit Credit	(5,516,000)		(5,516,000)		0		0	(5,516,000)		(5,516,000)	0.0%	0.0%	0.0%
16 Detroit "Net" Revenue Requirement	185,807,300		185,807,300		6,696,300		6,696,300	192,503,600		192,503,600	3.6%	0.0%	3.6%
17 Combined Adjusted Charge Revenue	261,064,100	501,600	261,565,700		9,079,000	0	9,079,000	270,143,100		270,143,100			

FY 2021 Water Supply System Wholesale Service Charges
Calculation of "Across the Board" Charge Adjustments for "Mod" and "No Mod" Member Partners

	(1)	(2)	(3)	(4)	(5)	(6)	(7) - (10)				
	Proforma Revenue Existing Charges	"No Mod" Across the Board Chg Adj	Effective Across the Board Chg Adj	Revenue Req'd from Proposed Charges	Projected Sales Volume	Effective Unit Cost	Charge Design		Fixed Monthly Charges	Commodity Charges	
	\$	3.50%	\$ (1) * (2)	\$ (1) + (3)	Mcf	\$/Mcf (4) / (5)	Recover Via Monthly Charges	Commodity Charges	\$ (7) / 12	\$/Mcf (8) / (5)	
							60%	40%			
							~ (4) *	~ (4)			
1	Allen Park	2,377,000	3.5%	83,200	2,460,200	125,500	19.60	1,476,000	984,200	123,000	7.84
2	Almont Village	237,100	3.5%	8,300	245,400	9,300	26.39	147,600	97,800	12,300	10.52
3	Ash Township	823,600	3.5%	28,800	852,400	41,000	20.79	511,200	341,200	42,600	8.32
4	Belleville	310,700	3.5%	10,900	321,600	13,100	24.55	193,200	128,400	16,100	9.80
5	Berlin Township	727,000	3.5%	25,400	752,400	26,300	28.61	451,200	301,200	37,600	11.45
6	Brownstown Township	3,639,500	3.5%	127,400	3,766,900	138,600	27.18	2,259,600	1,507,300	188,300	10.88
7	Bruce Twp	323,600	-1.0%	(3,300)	320,300	1,870	171.28	192,000	128,300	16,000	68.61
8	Canton Township	10,244,800	3.5%	358,600	10,603,400	346,700	30.58	6,362,400	4,241,000	530,200	12.23
9	Center Line	464,700	3.5%	16,300	481,000	30,800	15.62	289,200	191,800	24,100	6.23
10	Chesterfield Township	4,225,400	3.5%	147,900	4,373,300	168,600	25.94	2,624,400	1,748,900	218,700	10.37
11	Clinton Township	7,574,200	3.5%	265,100	7,839,300	400,300	19.58	4,704,000	3,135,300	392,000	7.83
12	Commerce Township	3,561,600	3.5%	124,700	3,686,300	101,200	36.43	2,211,600	1,474,700	184,300	14.57
13	Dearborn	10,483,300	3.5%	366,900	10,850,200	596,700	18.18	6,510,000	4,340,200	542,500	7.27
14	Dearborn Heights	3,673,100	3.5%	128,600	3,801,700	196,500	19.35	2,281,200	1,520,500	190,100	7.74
15	Eastpointe	1,564,800	3.5%	54,800	1,619,600	104,800	15.45	972,000	647,600	81,000	6.18
16	Ecorse	1,529,800	3.5%	53,500	1,583,300	146,300	10.82	950,400	632,900	79,200	4.33
17	Farmington	1,015,600	3.5%	35,500	1,051,100	45,300	23.20	631,200	419,900	52,600	9.27
18	Farmington Hills	8,950,400	3.5%	313,300	9,263,700	361,700	25.61	5,558,400	3,705,300	463,200	10.24
19	Ferndale	1,014,600	3.5%	35,500	1,050,100	67,400	15.58	630,000	420,100	52,500	6.23
20	Flat Rock	1,369,300	3.5%	47,900	1,417,200	61,500	23.04	850,800	566,400	70,900	9.21
21	Flint (a) - Gross, prior to credit	11,111,900	3.5%	388,900	11,500,800	522,600	22.01	6,900,000	4,600,800	575,000	8.80
22	Fraser	1,226,200	3.5%	42,900	1,269,100	59,300	21.40	762,000	507,100	63,500	8.55
23	Garden City	1,706,300	3.5%	59,700	1,766,000	84,700	20.85	1,059,600	706,400	88,300	8.34
24	Gibraltar	335,700	3.5%	11,700	347,400	16,600	20.93	208,800	138,600	17,400	8.35
25	Grosse Ile Township	1,113,300	3.5%	39,000	1,152,300	39,400	29.25	691,200	461,100	57,600	11.70
26	Grosse Pt. Park	1,488,500	3.5%	52,100	1,540,600	55,500	27.76	924,000	616,600	77,000	11.11
27	Grosse Pt. Shores	657,700	3.5%	23,000	680,700	19,900	34.21	408,000	272,700	34,000	13.70
28	Grosse Pt. Woods	1,431,500	3.5%	50,100	1,481,600	64,600	22.93	889,200	592,400	74,100	9.17
29	Hamtramck	793,400	3.5%	27,800	821,200	60,600	13.55	493,200	328,000	41,100	5.41

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FY 2021 Water Supply System Wholesale Service Charges
Calculation of "Across the Board" Charge Adjustments for "Mod" and "No Mod" Member Partners

	(1)	(2)	(3)	(4)	(5)	(6)	(7) (8) (9) (10)				
	Proforma	"No Mod"	Effective	Revenue	Projected	Effective	Charge Design				
	Revenue	Across	Across	Req'd from	Sales		Recover Via		Fixed		
	Existing	the Board	the Board	Proposed	Volume	Unit Cost	Monthly	Commodity	Monthly	Commodity	
	Charges	Chg Adj	Chg Adj	Charges	Mcf	\$/Mcf	Charges	Charges	Charges	Charges	
	\$	3.50%	\$	\$		\$/Mcf	60%	40%	\$	\$/Mcf	
			(1) * (2)	(1) + (3)		(4) / (5)	~ (4) *	~ (4)	(7) / (9)	(8) / (10)	
30	Harper Woods	826,000	3.5%	28,900	854,900	50,400	16.96	512,400	342,500	42,700	6.80
31	Harrison Township	1,536,300	3.5%	53,800	1,590,100	92,800	17.13	954,000	636,100	79,500	6.85
32	Hazel Park	741,900	3.5%	26,000	767,900	51,100	15.03	460,800	307,100	38,400	6.01
33	Highland Park	1,171,200	3.5%	41,000	1,212,200	104,600	11.59	727,200	485,000	60,600	4.64
34	Huron Township	1,475,900	3.5%	51,700	1,527,600	60,300	25.33	916,800	610,800	76,400	10.13
35	Imlay City	1,449,300	3.5%	50,700	1,500,000	44,200	33.94	900,000	600,000	75,000	13.57
36	Imlay Twp	16,200	3.5%	600	16,800	180	93.33	9,600	7,200	800	40.00
37	Inkster	1,239,200	3.5%	43,400	1,282,600	93,700	13.69	769,200	513,400	64,100	5.48
38	Keego Harbor	300,500	3.5%	10,500	311,000	10,000	31.10	187,200	123,800	15,600	12.38
39	Lapeer	1,558,600	3.5%	54,600	1,613,200	54,200	29.76	968,400	644,800	80,700	11.90
40	Lenox Township	297,100	3.5%	10,400	307,500	14,900	20.64	184,800	122,700	15,400	8.23
41	Lincoln Park	2,250,400	3.5%	78,800	2,329,200	151,400	15.38	1,398,000	931,200	116,500	6.15
42	Livonia	11,549,800	3.5%	404,200	11,954,000	479,600	24.92	7,172,400	4,781,600	597,700	9.97
43	Macomb Township	12,678,900	3.5%	443,800	13,122,700	325,900	40.27	7,873,200	5,249,500	656,100	16.11
44	Madison Heights	1,929,600	3.5%	67,500	1,997,100	116,600	17.13	1,198,800	798,300	99,900	6.85
45	Mayfield Twp	48,000	3.5%	1,700	49,700	840	59.17	30,000	19,700	2,500	23.45
46	Melvindale	651,500	3.5%	22,800	674,300	43,000	15.68	404,400	269,900	33,700	6.28
47	New Haven, Village of	397,900	3.5%	13,900	411,800	24,300	16.95	247,200	164,600	20,600	6.77
48	N O C W A	22,205,600	3.5%	777,200	22,982,800	895,500	25.66	13,789,200	9,193,600	1,149,100	10.27
49	Northville	895,400	3.5%	31,300	926,700	31,500	29.42	555,600	371,100	46,300	11.78
50	Northville Township	5,633,200	3.5%	197,200	5,830,400	136,900	42.59	3,498,000	2,332,400	291,500	17.04
51	Novi	9,102,700	3.5%	318,600	9,421,300	295,500	31.88	5,653,200	3,768,100	471,100	12.75
52	Oak Park	1,391,800	3.5%	48,700	1,440,500	95,100	15.15	864,000	576,500	72,000	6.06
53	Oakland Co. Drain Comm.	84,300	3.5%	3,000	87,300	10,700	8.16	52,800	34,500	4,400	3.22
54	Plymouth	1,078,000	3.5%	37,700	1,115,700	43,400	25.71	669,600	446,100	55,800	10.28
55	Plymouth Township	4,463,900	3.5%	156,200	4,620,100	162,600	28.41	2,772,000	1,848,100	231,000	11.37
56	Redford Township	3,208,900	3.5%	112,300	3,321,200	164,400	20.20	1,993,200	1,328,000	166,100	8.08
57	River Rouge	676,400	3.5%	23,700	700,100	37,000	18.92	420,000	280,100	35,000	7.57
58	Riverview	872,900	3.5%	30,600	903,500	45,900	19.68	542,400	361,100	45,200	7.87

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FY 2021 Water Supply System Wholesale Service Charges
 Calculation of "Across the Board" Charge Adjustments for "Mod" and "No Mod" Member Partners

	(1)	(2)	(3)	(4)	(5)	(6)	(7) (8)		(9)	(10)	
	Proforma Revenue Existing Charges	"No Mod" Across the Board Chg Adj	Effective Across the Board Chg Adj	Revenue Req'd from Proposed Charges	Projected Sales Volume	Effective Unit Cost	Charge Design		Fixed Monthly Charges	Commodity Charges	
	\$	3.50%	\$ (1) * (2)	\$ (1) + (3)	Mcf	\$/Mcf (4) / (5)	Recover Via Monthly Charges	Commodity Charges	\$ (7) / 12	\$/Mcf (8) / (5)	
							60%	40%			
							~ (4) *	~ (4)			
59	Rockwood	278,800	3.5%	9,800	288,600	9,900	29.15	172,800	115,800	14,400	11.70
60	Romeo	252,000	3.5%	8,800	260,800	5,700	45.75	156,000	104,800	13,000	18.39
61	Romulus	4,202,600	3.5%	147,100	4,349,700	210,500	20.66	2,610,000	1,739,700	217,500	8.26
62	Roseville	2,694,000	3.5%	94,300	2,788,300	188,000	14.83	1,672,800	1,115,500	139,400	5.93
63	Royal Oak Township	204,300	3.5%	7,200	211,500	11,800	17.92	127,200	84,300	10,600	7.14
64	S O C W A	23,162,200	3.5%	810,700	23,972,900	1,258,300	19.05	14,383,200	9,589,700	1,198,600	7.62
65	Shelby Township	14,069,000	3.5%	492,400	14,561,400	382,600	38.06	8,737,200	5,824,200	728,100	15.22
66	South Rockwood	116,100	3.5%	4,100	120,200	4,800	25.04	72,000	48,200	6,000	10.04
67	Southgate	2,224,800	3.5%	77,900	2,302,700	116,000	19.85	1,381,200	921,500	115,100	7.94
68	St. Clair County-Burtchville Twp	326,200	3.5%	11,400	337,600	7,200	46.89	202,800	134,800	16,900	18.72
69	St. Clair County-Greenwood	466,400	3.5%	16,300	482,700	15,000	32.18	289,200	193,500	24,100	12.90
70	St. Clair Shores	3,073,200	3.5%	107,600	3,180,800	189,500	16.79	1,908,000	1,272,800	159,000	6.72
71	Sterling Heights	15,243,100	3.5%	533,500	15,776,600	571,400	27.61	9,465,600	6,311,000	788,800	11.04
72	Sumpter Township	669,500	3.5%	23,400	692,900	28,600	24.23	415,200	277,700	34,600	9.71
73	Sylvan Lake	234,900	3.5%	8,200	243,100	6,400	37.98	146,400	96,700	12,200	15.11
74	Taylor	4,687,300	3.5%	164,100	4,851,400	266,600	18.20	2,911,200	1,940,200	242,600	7.28
75	Trenton	1,683,600	3.5%	58,900	1,742,500	85,600	20.36	1,045,200	697,300	87,100	8.15
76	Troy	13,606,800	3.5%	476,200	14,083,000	461,800	30.50	8,450,400	5,632,600	704,200	12.20
77	Utica	579,400	3.5%	20,300	599,700	25,600	23.43	360,000	239,700	30,000	9.36
78	Van Buren Township	3,440,100	3.5%	120,400	3,560,500	127,200	27.99	2,136,000	1,424,500	178,000	11.20
79	Walled Lake	809,200	3.5%	28,300	837,500	31,300	26.76	502,800	334,700	41,900	10.69
80	Warren	10,291,200	3.5%	360,200	10,651,400	615,200	17.31	6,391,200	4,260,200	532,600	6.92
81	Washington Township	2,269,100	3.5%	79,400	2,348,500	74,800	31.40	1,408,800	939,700	117,400	12.56
82	Wayne	3,097,800	3.5%	108,400	3,206,200	95,400	33.61	1,923,600	1,282,600	160,300	13.44
83	West Bloomfield Township	10,447,200	3.5%	365,700	10,812,900	264,200	40.93	6,487,200	4,325,700	540,600	16.37
84	Westland	6,245,700	3.5%	218,600	6,464,300	330,000	19.59	3,878,400	2,585,900	323,200	7.84
85	Wixom	2,477,200	3.5%	86,700	2,563,900	74,300	34.51	1,538,400	1,025,500	128,200	13.80
86	Woodhaven	1,683,000	3.5%	58,900	1,741,900	58,200	29.93	1,045,200	696,700	87,100	11.97
87	Ypsilanti Comm Util Auth	10,502,200	3.5%	367,600	10,869,800	493,800	22.01	6,522,000	4,347,800	543,500	8.80



FY 2021 Water Supply System Wholesale Service Charges
Calculation of "Across the Board" Charge Adjustments for "Mod" and "No Mod" Member Partners

	(1)	(2)	(3)	(4)	(5)	(6)	(7) (8) (9) (10)				
	Proforma Revenue Existing Charges	"No Mod" Across the Board Chg Adj	Effective Across the Board Chg Adj	Revenue Req'd from Proposed Charges	Projected Sales Volume	Effective Unit Cost	Charge Design				
	\$	3.50%	\$	\$	Mcf	\$/Mcf	Recover Via Monthly Charges	Commodity Charges	Fixed Monthly Charges	Commodity Charges	
			(1) * (2)	(1) + (3)		(4) / (5)	60% ~ (4) *	40% ~ (4)	\$ (7) / 12	\$/Mcf (8) / (5)	
88	Total Suburban Wholesale Billed Revenue	312,742,900	3.5%	10,931,700	323,674,600	13,552,890	23.88	194,206,800	129,467,800	16,183,900	9.55
89	Detroit Customers (a) - Gross, prior to credit	41,995,500	3.5%	1,469,800	43,465,300	4,339,100	10.02	43,465,300		3,622,100	
90	Total (a) - Gross, prior to credits	354,738,400	3.5%	12,401,500	367,139,900	17,891,990	20.52	237,672,100	129,467,800	19,806,000	
91	less: KWA Debt Svc Credit to Flint	(6,652,200)	0.0%	0	(6,652,200)			(6,652,200)		(554,400)	
92	less: Ownership Adj Credit to Detroit	(20,700,000)	0.0%	0	(20,700,000)			(20,700,000)		(1,725,000)	
93	less: Bad Debt Expense	(1,171,200)	3.5%	(41,000)	(1,212,200)			(1,212,200)		(101,000)	
94	Adjusted System Revenue	326,215,000	3.8%	12,360,500	338,575,500	17,891,990	18.92	209,107,700	129,467,800	17,425,600	
95	Suburban Wholesale Revenue	312,742,900	3.5%	10,931,700	323,674,600	13,552,890	23.88	194,206,800	129,467,800	16,183,900	
96	less: KWA Debt Svc Credit to Flint	(6,652,200)	0.0%	0	(6,652,200)			(6,652,200)		(554,400)	
96	less: Bad Debt Expense	(1,171,200)	3.5%	(41,000)	(1,212,200)			(1,212,200)		(101,000)	
97	Net Suburban Wholesale Revenue	304,919,500	3.6%	10,890,700	315,810,200	13,552,890	23.30	186,342,400	129,467,800	15,528,500	
	<u>(a) Flint / Detroit Adjusted Impacts</u>										
98	Flint "Gross" Revenues	11,111,900	3.5%	388,900	11,500,800	522,600	22.01	6,900,000	4,600,800	575,000	8.80
99	less: KWA Debt Service Credit	(6,652,200)		0	(6,652,200)	522,600	(12.73)	(6,652,200)		(554,400)	0.00
100	Flint "Net" Revenue Requirement	4,459,700	8.7%	388,900	4,848,600	522,600	9.28	247,800	4,600,800	20,600	8.80
101	Detroit "Gross" Revenues	41,995,500	3.5%	1,469,800	43,465,300	4,339,100	10.02	43,465,300		3,622,100	
102	less: Ownership Benefit Credit	(20,700,000)		0	(20,700,000)	4,339,100	(4.77)	(20,700,000)		(1,725,000)	
103	Detroit "Net" Revenue Requirement	21,295,500	6.9%	1,469,800	22,765,300	4,339,100	5.25	22,765,300		1,897,100	

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FY 2021 Sewage Disposal System Wholesale Service Charges
 Calculation of "Across the Board" Charge Adjustments Reflecting Member Partner Contract Adjustments

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Proforma Revenue - Existing Charges			Across the Board	Revenue from Charge Adjustments			Proforma Revenue - Proposed Charges			Effective Charge Adjustment		
	FY 2020	Bad Debt		the Board	FY 2021	Bad Debt		FY 2021	Bad Debt		FY 2021	Bad Debt	
	BUDGET	Recovery	Total	Chg Adj	BUDGET	Recovery	Total	BUDGET	Recovery	Total	BUDGET	Recovery	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
				3.50%		0							
<u>Suburban Wholesale</u>													
1 OMID	75,256,800	501,600	75,758,400		2,382,700	0	2,382,700	77,639,500		77,639,500	3.2%	0.7%	2.5%
2 Rouge Valley	53,702,400	459,600	54,162,000	3.50%	1,879,600	0	1,879,600	55,582,000		55,582,000	3.5%	0.9%	2.6%
3 Oakland GWK	44,842,800	421,200	45,264,000	3.50%	1,569,500	0	1,569,500	46,412,300		46,412,300	3.5%	1.0%	2.5%
4 Evergreen Farmington	34,551,600	288,000	34,839,600	3.50%	1,209,300	0	1,209,300	35,760,900		35,760,900	3.5%	0.9%	2.6%
5 SE Macomb San Dist	24,610,800	226,800	24,837,600	3.50%	861,400	0	861,400	25,472,200		25,472,200	3.5%	0.9%	2.6%
6 Dearborn	19,320,000	182,400	19,502,400	3.50%	676,200	0	676,200	19,996,200		19,996,200	3.5%	1.0%	2.5%
7 Grosse Pointe Farms	2,726,400	24,000	2,750,400	3.50%	95,400	0	95,400	2,821,800		2,821,800	3.5%	0.9%	2.6%
8 Grosse Pointe Park	1,795,200	16,800	1,812,000	3.50%	62,800	0	62,800	1,858,000		1,858,000	3.5%	1.0%	2.5%
9 Melvindale	1,520,400	13,200	1,533,600	3.50%	53,200	0	53,200	1,573,600		1,573,600	3.5%	0.9%	2.6%
10 Farmington	1,141,200	9,600	1,150,800	3.50%	39,900	0	39,900	1,181,100		1,181,100	3.5%	0.9%	2.6%
11 Center Line	1,024,800	8,400	1,033,200	3.50%	35,900	0	35,900	1,060,700		1,060,700	3.5%	0.8%	2.7%
12 Allen Park	847,200	7,200	854,400	3.50%	29,700	0	29,700	876,900		876,900	3.5%	0.9%	2.6%
13 Highland Park	5,620,800	49,200	5,670,000	3.50%	196,700	0	196,700	5,817,500		5,817,500	3.5%	0.9%	2.6%
14 Hamtramck	3,955,200	39,600	3,994,800	3.50%	138,400	0	138,400	4,093,600		4,093,600	3.5%	1.0%	2.5%
15 Grosse Pointe	884,400	9,600	894,000	3.50%	31,000	0	31,000	915,400		915,400	3.5%	1.1%	2.4%
16 Harper Woods	217,200	2,400	219,600	3.50%	7,600	0	7,600	224,800		224,800	3.5%	1.1%	2.4%
17 Redford Township	261,600	1,200	262,800	3.50%	9,200	0	9,200	270,800		270,800	3.5%	0.5%	3.0%
18 Wayne County #3	50,400	0	50,400	3.50%	1,800	0	1,800	52,200		52,200	3.6%	0.0%	3.6%
19 Subtotal Suburban Wholesale	272,329,200	2,260,800	274,590,000		9,280,300	0	9,280,300	281,609,500	0	281,609,500	3.4%	0.9%	2.6%
20 Detroit "Gross" Revenues	191,323,300		191,323,300	3.50%	6,696,300		6,696,300	198,019,600		198,019,600	3.5%	0.0%	3.5%
21 less: Ownership Benefit	(5,516,000)		(5,516,000)		0		0	(5,516,000)		(5,516,000)	0.0%	0.0%	0.0%
22 Detroit Retail Customers (Net)	185,807,300		185,807,300		6,696,300	0	6,696,300	192,503,600		192,503,600	3.6%	0.0%	3.6%
23 SUBTOTAL	458,136,500	2,260,800	460,397,300		15,976,600	0	15,976,600	474,113,100	0	474,113,100	3.5%	0.5%	3.0%
<u>Industrial Specific Charges</u>													
24 Industrial Waste Control	8,582,300		8,582,300	3.50%	300,400	0	300,400	8,882,700		8,882,700	3.5%	0.0%	3.5%
25 Industrial Surcharges	5,147,000		5,147,000	3.50%	180,100	0	180,100	5,327,100		5,327,100	3.5%	0.0%	3.5%
26 Subtotal	13,729,300	0	13,729,300		480,500	0	480,500	14,209,800	0	14,209,800	3.5%	0.0%	3.5%
27 Total	471,865,800	2,260,800	474,126,600		16,457,100	0	16,457,100	488,322,900	0	488,322,900	3.5%	0.5%	3.0%
28 less: Bad Debt	(2,260,800)	0	(2,260,800)		0	0	0	(1,310,000)	0	(1,310,000)			
29 Total System Revenue	469,605,000	2,260,800	471,865,800		16,457,100	0	16,457,100	487,012,900	0	487,012,900	3.7%	0.5%	3.2%

FY 2021 Sewage Disposal System Industrial Specific Service Charges
Calculation of "Across the Board" Charge Adjustments

		(1)	(2)	(3)
		FY 2020 <u>Charge</u>	Across the Board <u>Chg Adj</u>	FY 2021 <u>Charge</u>
			3.50%	
<u>Industrial Waste Control Charges - \$/mo</u>				
	Meter <u>Size</u>	Equivalency <u>Ratio</u>		
	5/8	1.0	3.37	3.50%
	3/4	1.5	5.06	5.24
	1	2.5	8.43	8.73
	1-1/2	5.5	18.54	19.20
	2	8.0	26.96	27.92
	3	14.5	48.87	50.61
	4	20.0	67.40	69.80
	6	30.0	101.10	104.70
	8	50.0	168.50	174.50
	10	70.0	235.90	244.30
	12	80.0	269.60	279.20
	14	100.0	337.00	349.00
	16	120.0	404.40	418.80
	18	140.0	471.80	488.60
	20	160.0	539.20	558.40
	24	180.0	606.60	628.20
	30	200.0	674.00	698.00
	36	220.0	741.40	767.80
	48	240.0	808.80	837.60
<u>Industrial Surcharges - \$/lb</u>				
	BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l		0.491	3.50%
	TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l		0.499	3.50%
	PHOSPHORUS (P) for concentrations > 12 mg/l		7.354	3.50%
	FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l		0.473	3.50%
	SEPTAGE DISPOSAL FEE Per 500 gallons of disposal		47.00	3.50%

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MEMORANDUM

Highland Park Bad Debt Expense Review

January 15, 2020

To: Nicolette Bateson

From: Bart Foster

You have asked for observations regarding the level of Highland Park bad debt expense recognized in the FY 2018 audited financial statements, and a review of how such amounts impact charges to other GLWA Customers. The attached exhibit summarizes our initial analysis, which reflects an update of the approach we've been applying for several years. Herewith a brief introduction:

The year-end working papers supporting the FY 2019 audit reveal an "allowance for doubtful accounts" for Highland Park totaling approximately \$41.1 million, and a resulting FY 2019 bad debt expense of approximately \$2.3 million, as summarized below.

	<u>6/30/18</u>	<u>6/30/19</u>	<u>Change</u>
			<i>(a)</i>
Sewer	30,938,511	31,940,744	1,002,233
Sewer Industrial Waste Control <i>(b)</i>	<i>1,584,564</i>	1,679,364	<i>94,800</i>
Water	<u>6,221,815</u>	<u>7,455,747</u>	<u>1,233,932</u>
Total <i>(b)</i>	38,744,890	41,075,855	2,330,965

(a) The change in the allowance is equivalent to the bad debt expense during the fiscal year, unless any accounts receivable were written off during the year.

(b) Estimated - prior balance includes a small amount not related to Highland Park.

The table indicates the amount for the Sewer System and Water System separately, and also identifies the portion of the Sewer bad debt expense related to Industrial Waste Control ("IWC") charges. Let's address each the Sewer and Water elements separately in terms of how they impact charges to GLWA Customers.

Sewer

At the risk of complicating the instant discussion, some historical background is important to provide context to the discussion.

Terms of the original 1995 **Sewer** Rate Settlement Agreement between the predecessor DWSD and the Suburban Wholesale Contract Customers stipulated that any bad debt expense incurred by City of Detroit Customers would be charged to Detroit Customers, and that any bad debt expense incurred by a Suburban Wholesale Customer would be charged to all Suburban Wholesale Customers. This requirement was originally implemented by including an estimated amount for bad debt expense for the Detroit customer class in prospective charges, and then “trueing it up” via the old Look-Back process. The same approach was applied to Suburban Wholesale Customer bad debt, although originally no prospective amounts were included in charges – rather the actual amounts were recovered via the Look-Back process.

The terms of the 1995 Rate Settlement Agreement were effectively made part of the service agreements when the Federal Court oversight ended, and the bad debt true up provisions were maintained as part of the Rate Simplification Initiative adopted for the FY 2015 sewer charges. However, the old Look-Back process was discontinued as part of Rate Simplification, and the only “true-up” notion carried forward was that related to prospective and actual bad debt expense. Upon formation of GLWA, the “bad debt true up” requirement was included in the water and sewer services agreement between GLWA and the City of Detroit. That agreement also introduced additional provisions to ensure collections from the Detroit customer class, including establishment of a Budget Stabilization Fund and monitoring of actual collections compared to actual revenue requirements.

When GLWA and DWSD representatives were negotiating the 2018 Memorandum of Understanding (the “2018 MOU”) they recognized that the Budget Stabilization Fund and monthly monitoring aspects of the agreements were adequate to ensure full collections from the Detroit customer class. The parties realized that the bad debt true-up requirement served only to confuse the issue and create unnecessary volatility. The 2018 MOU eliminated that bad debt true-up aspect - as it relates to the Detroit customer class - from the agreements. However, the original true-up requirement for Suburban Wholesale bad debt expense technically remains in the service agreements with GLWA’s Suburban Wholesale Sewer Customers. Which brings us to the discussion of Highland Park sewer bad debt expense . . .

First, let’s examine the recent payment history for the Highland Park sewer charges. As shown in the table below, payment performance has improved over the past two fiscal years. After averaging 33% from FY 2013 through FY 2017, the average collection rate in FYs 2018 and 2019 was 83%.

<u>Highland Park Sewer Payment History</u>	<u>Billings</u>	<u>Payments</u>	<u>Net</u>	<u>Balance</u>	<u>Collection Rate</u>
FY 2012				10,207,956	
FY 2013	4,987,635	2,206,211	2,781,424	12,989,380	44%
FY 2014	6,980,442	1,612,633	5,367,809	18,357,189	23%
FY 2015	5,553,123	1,444,623	4,108,500	22,465,689	26%
FY 2016	5,612,167	2,022,335	3,589,832	26,055,521	36%
FY 2017	5,802,000	2,309,186	3,492,814	29,548,335	40%
FY 2018	5,657,101	4,108,108	1,548,993	31,097,328	73%
FY 2019	<u>5,642,400</u>	<u>5,241,583</u>	<u>400,817</u>	31,498,145	93%
Cumulative	40,234,868	18,944,679	21,290,189		47%
<i>FY 2013 - FY 2017</i>	<i>28,935,367</i>	<i>9,594,988</i>	<i>19,340,379</i>		<i>33%</i>
<i>FY 2018 + FY 2019</i>	<i>11,299,501</i>	<i>9,349,691</i>	<i>1,949,810</i>		<i>83%</i>

Next, a nutshell summary of the impact on Customer charges, as illustrated in the exhibit below.

	(1)	(2)	(3)	(4)	(5)	(6)
True-Up Recovery Amounts	<u>Pre-2016</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Total</u>
1 Bad Debt in Prospective Charges	0	5,569,200	5,600,000	4,390,000	2,780,000	18,339,200
2 Actual Bad Debt	17,295,300	2,975,200	2,782,200	2,100,800	1,002,200	26,155,700
3 True-Up Variance	17,295,300	(2,594,000)	(2,817,800)	(2,289,200)	(1,777,800)	7,816,500
True-Up Recovery History	Balance to Recover (Ln 3)	Recovered via True-Ups in:				Remaining Balance
		<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Total > 2019</u>	
4 Pre-2016 Bad Debt "True-Up"	17,295,300	3,459,100	3,459,100	3,459,100	10,377,300	6,918,000
5 FY 2016 True-Up	(2,594,000)		(648,500)	(648,500)	(1,297,000)	(1,297,000)
6 FY 2017 True-Up	(2,817,800)			(939,300)	(939,300)	(1,878,500)
7 FY 2018 True-Up	(2,289,200)				0	(2,289,200)
8 FY 2019 True-Up	(1,777,800)				0	(1,777,800)
9 Subtotal thru 2019	7,816,500	3,459,100	2,810,600	1,871,300	8,141,000	(324,500)

- The FY 2019 Sewer bad debt expense for Highland Park was \$1.0 million compared to the \$2.78 million prospective amount included in Charges to suburban wholesale Customers; *See Lines 1 and 2, Column 5.*
- This creates a \$1.77 million “credit” due to suburban wholesale Customer related to FY 2019 activity; *See Line 3, Column 5.*
- Cumulatively since we started this approach after the old 5-year look-back was terminated, the running “true-up” total (the variance between prospective bad debt included in charges and actual bad debt experienced) is \$7.82 million; *See Line 5.*
 - This amount includes the \$17.3 million that remained at the conclusion of the old Look-Back process; *See Column 1.*
- GLWA had originally embarked on a “phased” recovery of the original amounts, designed to run through FY 2022;
- Through the end of FY 2019, \$8.14 million will have been recognized via the true up amounts included in Charges; *See Line 9, Column 5.*

- As a result of this mechanism, through FY 2019 GLWA has effectively recovered approximately \$324,500 more in charges for Highland Park bad debt expense than actual bad debt expense incurred. *See Line 9, Column 6.* This amount is technically due to suburban wholesale customers via a credit to their allocated FY 2021 revenue requirements.

Finally, let’s examine the amounts that included the current (FY 2020) Charges for this matter, and potential amounts to include in the FY 2021 Charges, as introduced below. *Please note that some of these assumptions are preliminary pending final charge calculations.*

	<u>FY 2020</u>	<u>FY 2021</u>	<u>Change</u>
		(a)	
1 Allocated Revenue Requirement	5,620,600	5,828,600	208,000
2 Assumed Collection Rate	60%	77.5%	18%
3 Projected Bad Debt Expense	2,250,000	1,310,000	(940,000)
4 Bad Debt True Up Adjustment thru FY 2019	0	(324,500)	(324,500)
5 Subtotal Bad Debt Expense Revenue Req't	2,250,000	985,500	(1,264,500)
6 <i>Relative Impact on Wholesale Charges</i>	0.83%	0.35%	-0.48%
7 <u>Potential</u> FY 2020 Collection Rate (a)	77.5%		
8 <u>Potential</u> FY 2020 Bad Debt	1,266,000		
9 <u>Potential</u> FY 2020 Bad Debt True-Up (8) - (3)	(984,000)	(984,000)	
10 Potential FY 2021 Bad Debt Expense Revenue Req't		1,500	

(a) Preliminary, subject to change during final charge development.

- The current charges are designed to recover estimated FY 2020 Highland Park bad debt expense of \$2.25 million; *See Line 3.*
- The current charges do not contain any amounts related to bad debt true up adjustments;
- Assuming a collection rate of 77.5% (*moderately lower than the recent average presented earlier*), a potential credit adjustment totaling approximately \$984,000 **could** occur for FY 2020; *See Line 9.*
- At that same assumed collection rate, it would be appropriate to include projected FY 2021 bad debt expense of \$1.31 million in the FY 2021 Charges; *See Line 3.*
- Together with the \$324,500 (*see Line 4*) bad debt true up credit introduced earlier, this combination of assumptions results in a net FY 2021 “bad debt revenue requirement” of \$1,500; *See Line 10.*
- To the extent these assumptions are validated via final charge development, I would recommend not including **any** bad debt (projected nor true-up) in the FY 2021 Charges.

If accepted, these recommendations would eliminate the \$2.25 million charged to Suburban Wholesale Sewer Customers related to Highland Park prospective and true-up bad debt from

the preliminary FY 2021 Charges. This would have the effect of offsetting approximately 0.8% of the preliminary 3.7% charge increase.

One final comment - given the apparent historical balance in bad debt “true ups”, and the fact that the original “true-up” notion has been removed from the agreement with the Detroit customer class, it would seem to be reasonable to revisit the application of the true-up concept for Suburban Wholesale bad debt expense.

Water

There are not any contractual nor other agreements on how bad debt expense related to water service to Highland Park should be treated. Starting with the FY 2017 Water service charges, we began effectively increasing charges to ALL Customers (including Detroit) by amounts equivalent to Highland Park’s allocated revenue requirement. This approach recognized an assumption that the entire amount of billings for water service to Highland Park would go unpaid. The FY 2019 Water bad debt expense for Highland Park was \$1.23 million, which was consistent with the amount we included in the FY 2019 charges. The FY 2021 Water Charges will include the entire revenue requirement allocated to Highland Park as a “bad debt revenue requirement” allocable to all customers, including Highland Park.

We are prepared to discuss this matter at your convenience.