



Financial Services Audit Committee Communication

Date: February 15, 2019

To: Great Lakes Water Authority Audit Committee

From: Nicolette N. Bateson, CPA, Chief Financial Officer/Treasurer

Re: Discussion: FY 2020 & 2021 Biennial Budget and Five-Year Plan

Background: In accordance with service agreements with Great Lakes Water Authority (GLWA) member partners, charges for the next fiscal year are annually presented at the end of January each year. To accommodate that schedule, the budget process for the GLWA begins early in the fiscal year.

Analysis: At the Audit Committee meeting on a December 21, 2018, staff presented a discussion draft of the FY 2020 & 2021 Biennial Budget and Five-Year Plan. This draft focused on a) overall strategy of key budget elements including system-wide service charges and b) proposed operating group budgets.

Additional analysis was provided at the January 4, 2019 and January 19, 2019 Audit Committee meetings. Since that date, staff has been updating the budget document with November 2018 actual numbers (vs. October 2018) as well as working with The Foster Group to obtain and reconcile late adjustments to accommodate charges decisions related to certain Member Partner matters.

Forthcoming for today's meeting, are the following.

1. Top ten budget category increases and decreases
2. Draft biennial budget resolution for review

Attached is a memo from The Foster Group re: Proposed FY 2020 Water Service Charges "Other Impacts" Summary. While this analysis does not impact the budget directly, it will be shared with Member Partners at next week's Charges Work Group meeting to better explain the link between budget priorities and water charges.

Proposed Action: Receive and file reports.

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MEMORANDUM

Proposed FY 2020 Water Service Charges
“Other Impacts” Summary

February 5, 2019

To: Nicolette Bateson

From: Bart Foster

The intent of this memorandum is to present and discuss the “other impacts” category contained on the Water Charge Calculation Sheets distributed to GLWA Customers on January 24. Together with the accompanying exhibits, this discussion provides additional perspective on the proposed water service charges for FY 2020.

Background

At the final FY 2020 charge rollout meeting on January 24, each Customer was presented with a “Charge Calculation Sheet.” The exhibits were designed to set forth how the uniform cost of service allocation and charge methodology produced specific proposed charges for each Customer, and to identify how issues impacting the proposed charges impacted individual Customers. The second page of those charge calculation sheets attempts to “unbundle” the various elements impacting the proposed charges by comparing the results of the FY 2020 Cost of Service Study with those from the FY 2019 study. The specific elements identified as impacting the proposed FY 2020 charges were:

- The original targeted 3.5% increase in the FY 2020 BUDGET request;
- The allocated benefit of increased projected investment income;
- The collective results of the Units of Service (“UoS”) study for Non-Master Metered Customers;
 - *Separated by anticipated Phase 1 impacts and final Phase 2 impacts*
- The results of modified Customer demands emerging from the Contract Alignment Process (“CAP”);
- The final modifications to the FY 2020 BUDGET request.

All other variances between allocated FY 2020 cost of service and allocated FY 2019 cost of service were attributed to “other impacts”. On the charge calculation sheets we described “other impacts” as follows: *“Other impacts are related to the FY 2020 Cost of Service Study, and adjustments made to the FY 2019 charges after the FY 2019 Cost of Service Study was*

completed.” We further noted that this element was impacted by consolidation effects that emerge when the other discretely identified elements are “re-bundled”.

The same approach described above has been applied in prior Cost of Service and Charge studies, and the “other impacts” element is generally quite small in terms of the final results. For the original FY 2020 Charge Calculation Sheets, the impact on specific Customers of this element ranged from an approximate 2% reduction for some Customers to an approximate 2% increase of allocated costs of service for others. Customers expressed an interest in further understanding this element.

Further Unbundling of “Other Impacts”

We have conducted additional analysis designed to more discretely identify additional elements that were identified as “other impacts” in the original presentation. Herewith a brief introduction to those additional elements.

First, let’s discuss the adjustments made to the FY 2019 water service charges after the FY 2019 Cost of Service Study was completed, as noted above. These changes are introduced on Exhibit Page 1. Column 1 shows the original revenue requirements allocated to Customers in the FY 2019 Cost of Service Study, which total \$330.8 million. That study produced the original proposed water service charges for FY 2019, which were submitted for review in late January 2018. The remaining Columns illustrate modifications made between that time and final approval of the FY 2019 BUDGET and charges. The footnotes and annotations on the exhibit adequately introduce the major changes and we’ll not elaborate herein, but rather summarize:

- As noted in Column 4, there were adjustments made to units of service, and to water service charges, for specific Customers that had the effect of reducing the final budgeted FY 2019 revenues. Had the FY 2019 Cost of Service study been recalculated with these adjustments, charges to ALL Customers would have been modified.
- As noted in Column 5, the final adjustments (reductions) to the FY 2019 BUDGET were principally accommodated by a reduction in the operating expense budget, and smaller increase in the capital budget. Since the allocation of these revenue requirements is not uniform, had the FY 2019 Cost of Service study been recalculated with these adjustments, charges to ALL Customers would have been modified.
- *The calculation of the impact of the above two elements are summarized as the “Adjusted FY 2019 BUDGET Allocation” on the supplemental Charge Calculation Sheets that we’ll introduce later.*

Next, let’s introduce the impacts are related to the FY 2020 Cost of Service Study, and specifically the results of the detailed cost pool analysis that are implemented with it. This element was originally introduced in our presentation of the proposed charges on January 24. Referring to slide 33 of that presentation:

Issues Impacting Proposed FY 2020 WATER Service Charges – Cost Pools

- FY 2020 Cost Allocation review increases portion of revenue requirements related to Transmission Mains
- Costs related to Transmission Mains are allocated to Customers based on their peak hour demand and distance factor
- Customers with relatively high peak hour demands and/or distance factors experience a slightly higher than average charge adjustment than Customers with relatively low peak hour demands and/or distance factors, all else being equal

This issue is further introduced starting on Exhibit Page 2, which compares the operating budget by Cost Pool for the FY 2020 Cost of Service Study with that from the FY 2019 Cost of Service Study. As a reminder, the major influence on the operating budget allocation for FY 2020 was the detailed review of activities in GLWA’s Centralized Services group. That review is documented in our “FY 2020 Cost of Service Study and Service Charge Recommendations” report and its accompanying exhibits. In general, significant efforts have been made to specifically align major budgeted programs and contracts with appropriate utility and cost pools. Items of note:

- The overall water O&M budget reflects an increase of approximately \$7.6 million from that utilized for the FY 2019 Cost of Service Study.
- Within the water budget, the increase is largely allocated to the Transmission Mains Cost Pool, which are allocated to Customers based (in part) on distance.
- Cost allocated to the Booster Stations Cost Pool experience a decrease. These costs are allocated to Customer (in part) based on distance AND elevation.
- Since these elements are allocated to Customers based on different units of service, the impact of the refined budget allocation will impact Customers differently.

An example of this nuance is illustrated on Exhibit Page 3, which compares the effect of the cost pool reallocation on two similar Customers. As noted in the units of service comparison at the top of the page, these two Customers have similar profiles, other than the fact that Customer B has a significantly higher elevation factor.

The exhibit illustrates how each Customer is impacted by the changes to the allocation to each cost pool, and summarizes the total impact on Line 24 (*and Line 30*). *The total impact on Line*

24 becomes the “Recognize FY 2020 Cost Pool Variance” element on the supplemental Charge Calculation Sheets introduced below.

As noted on Line 32, almost 40% of Customer B’s allocated revenue requirement is related to elements that include elevation as an allocation factor, compared to only 23% for Customer A. Since the results of the Cost of Service Study lower the relative cost of elevation related elements, Customer B experiences a decrease in that line item that offsets the increase in the distance related element on Line 31. Customer A also is allocated reduced elevation related elements, but the reduction is not enough to offset the increase in distance related elements.

The chart included as Exhibit Page 4 illustrates the calculated impact of the Cost Pool modifications on every Customer, expressed as a percentage of its adjusted allocated FY 2019 Cost of Service.

Supplemental Charge Calculation Sheets for Customer A and Customer B are included as Exhibit Page 5 and Exhibit Page 6, respectively. These exhibits are designed to illustrate the further “unbundling” of the original other impacts figure from the Charge Calculation Sheets previously submitted to Customers. ***We have prepared these supplemental calculation sheets for each Customer and encourage that they be distributed as soon as possible.***

The format of these sheets is similar in nature to the originals. We start with the original “unadjusted” FY 2019 BUDGET allocation to each Customer, and then attempt to illustrate how the various elements discussed herein impact that allocation. Lines 3 and 4 delineate the “Adjusted FY 2019 BUDGET Allocation” originally introduced on Exhibit Page 1. Line 10 presents the impact on cost of service allocations of updating all of the master metered volume projections from the original FY 2019 figures to the FY 2020 figures. The figure for each Customer reflects the change in commodity related allocated costs of service that occur due to projected changes in annual sales volumes. Customers with reduced sales volume projections experience reduced allocated commodity costs, and vice versa. The impact is only related to the first three “commodity” related cost pools.

The impacts of recognizing the FY 2020 Cost Pool Variances (introduced earlier) is shown on Line 11 and the specific calculations of this amount are illustrated in the lengthy footnote (a) of the exhibit. We have attributed remaining original “other impacts” from the original Charge Calculation Sheets to a new, smaller “other impacts” amount on Line 12. This element now is basically limited to the consolidation effects that emerge when the other discretely identified elements are “re-bundled”.

We trust that this additional discussion and material is responsive to the request for more information on the “other impacts” question. This material is intended to serve as an addendum to the original Charge Calculation Sheets and the “FY 2020 Cost of Service Study and Service Charge Recommendations” report and its accompanying exhibits.

We are prepared to present this material at the Water Charges Work Group meeting scheduled for February 21 and to discuss this matter at your convenience.

Evolution of FY 2019 Water Revenue Requirement Budget

	(1)	(2)	(3)	(4)	(5)	(6)
	Budget for	Budget	MOU	Customer	Final	Final
	<u>Charges</u>	<u>Review</u>	<u>Adjustments</u>	<u>Charge</u>	<u>Budget</u>	<u>Approved</u>
	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>	<u>(e)</u>	<u>Budget</u>
1 Regional System O&M Expense	125,311,800	(590,100)			(3,159,100)	121,562,600
2 Pension Obligation - Operating Portion	6,048,000				0	6,048,000
3 Debt Service	133,210,100		1,004,200		300	134,214,600
4 Non-Operating Portion of Pension Oblig	6,268,300				0	6,268,300
5 Transfer to WRAP Fund	1,564,800				108,600	1,673,400
6 Transfer to Extra. Repair and Repl. Fund	250,500		(250,500)		0	0
7 Lease Payment - Transfer to Detroit Local I&E	22,500,000				0	22,500,000
8 Transfer to GLWA Regional I&E Account	38,024,900	590,100	(753,700)	(921,300)	2,193,600	39,133,600
9 Operating Reserves	1,502,700				(1,502,700)	0
10 Total Gross BUDGET	334,681,100	0	0	(921,300)	(2,359,300)	331,400,500
11 less: Non-Operating Revenue	(3,836,600)					(3,836,600)
12 Net BUDGET Req'd from Charges	330,844,500	0	0	(921,300)	(2,359,300)	327,563,900

- (a) Reflects Budget request as of January 5, 2018 as documented in the FY 2019 Cost of Service Study. Overall 2% increase from FY 2018.
- (b) Adjustments made to reflect lower than estimated bids on specific Water O&M contracts ~ 2/2018.
- (c) Adjustments made to implment GLWA/DWSD 2018 Memorandum of Understanding.
- (d) Adjustments made to Charges to Dearborn, Gibraltar, and Inkster without reallocating costs of service to other Customers
- (e) Final adjustments made at Board direction to limit overall 1% revenue requirement increase from FY 2018 and hold O&M budget level.

FY 2019 Cost of Service Results

Could have reallocated this cost responsibility to other Customers

Accommodated via "across the board" reduction in Charges from original Cost of Service results. Not reflected in Cost of Service allocations.



Allocated Operating Budget Comparison

	FY 2019 COS Study \$	FY 2020 COS Study \$	Variance \$ (2) - (1)	% Variance (3) / (1)		
1	Source of Supply Power	478,200	401,100	(77,100)	-16.1%	
2	Source of Supply Other	3,583,100	3,958,800	375,700	10.5%	
3	Low Lift Pumps Power	3,825,300	3,208,200	(617,100)	-16.1%	
4	Low Lift Pumps Other	5,290,300	5,855,800	565,500	10.7%	
5	Purification Chemicals	6,080,700	5,064,300	(1,016,400)	-16.7%	
6	Purification Other	46,809,400	51,195,100	4,385,700	9.4%	
7	High Lift Pumps Power	10,041,400	8,421,600	(1,619,800)	-16.1%	
8	High Lift Pumps Other	8,510,400	9,292,900	782,500	9.2%	
9	Reservoirs	213,300	2,029,800	1,816,500	851.6%	
10	Booster Stations	31,017,300	22,258,400	(8,758,900)	-28.2%	[50% Comm / 50% PH] + Dist/Elev
11	Transmission Mains	7,279,800	19,496,100	12,216,300	167.8%	PH + Distance
12	Suburban Meters	2,183,100	1,739,500	(443,600)	-20.3%	
13	Total	125,312,300	132,921,600	7,609,300	6.1%	

Combination of more refined review of general Centralized Services budget, and focus of specific budgeted contracts for Transmission Main integrity

Effect is to decrease costs allocable based on elevation and increase costs allocable on distance

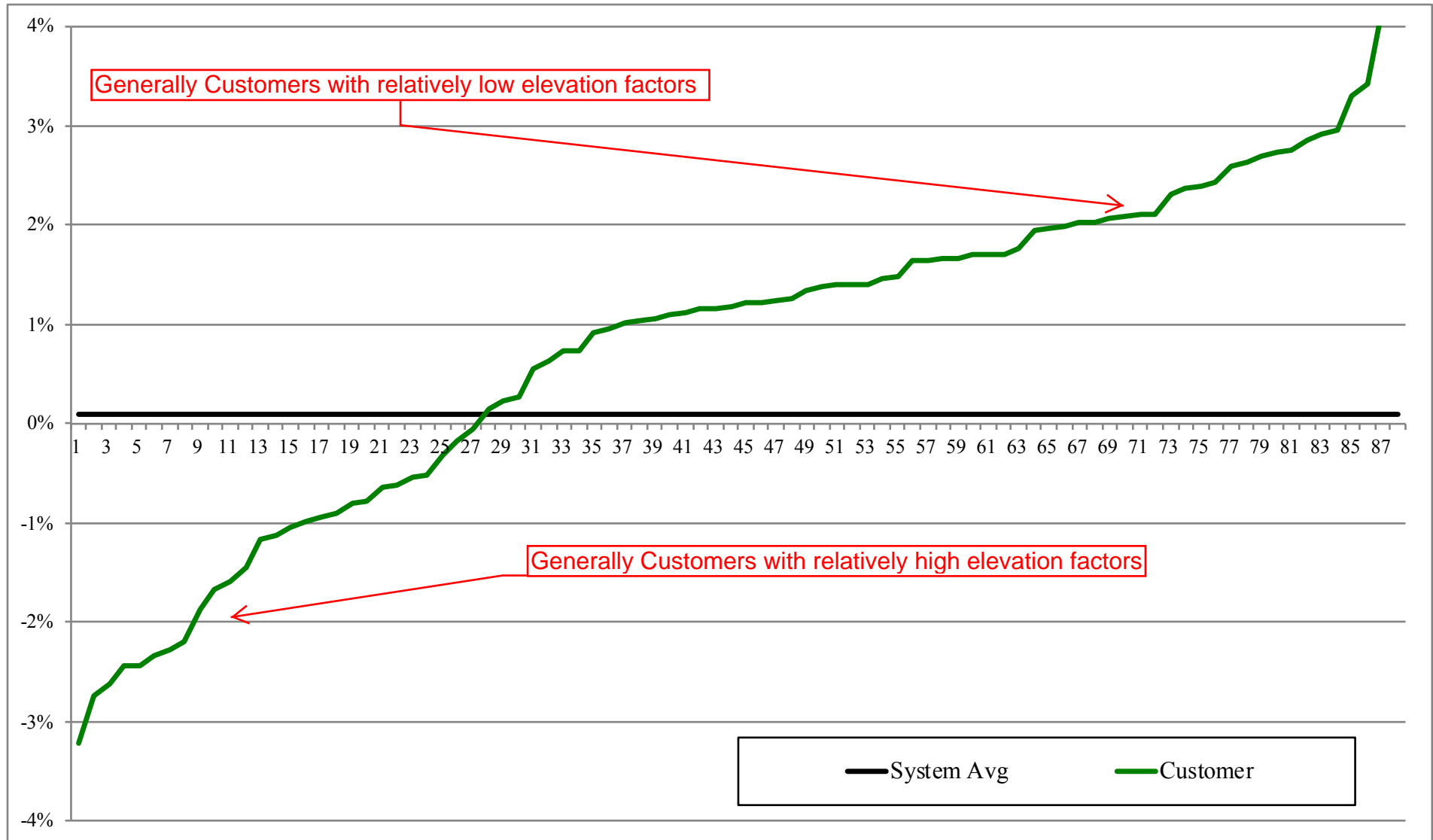
Customer Impact Comparison - FY 2020 Cost Pool Allocations

	FY 2020 System Rev Reqt <u>Variance</u> \$	Customer A <u>~ Rev Reqt</u> \$	Customer B <u>~ Rev Reqt</u> \$	Customer A <u>Variance</u> \$	Customer B <u>Variance</u> \$
<u>Baseline Units</u>					
Annual Sales - <i>Mcf</i>		598,200	277,000		
Average Day Units - <i>mgd</i>		12.26	5.68		
Max Day Units - <i>mgd</i>		33.00	15.50		
Peak Hour Units - <i>mgd</i>		52.50	26.00		
Max Day Peaking Factor		2.69	2.73		
Peak Hour Peaking Factor		4.28	4.58		
Distance - <i>miles</i>		22.3	28.7		
Elevation - <i>feet</i>		632	912		
14 Commodity	(1,464,300)	1.69%	1.18%	(45,900)	(22,000)
15 Max Day Usage	(2,545,200)	40.66%	28.08%	(100,400)	(47,800)
16 Peak Hour Increment	3,555,200	5.21%	4.07%	322,300	173,500
17 Peak Hour Distance	19,617,200	28.08%	26.14%	883,300	566,700
18 Commodity Distance-Elevation	(6,341,800)	3.04%	4.98%	(152,600)	(171,900)
19 Max Day Distance-Elevation	784,800	2.36%	3.83%	22,800	25,500
20 Peak Hour Distance-Elevation	(10,715,500)	12.84%	21.80%	(398,800)	(466,900)
21 Peak Hour Increment Distance-Elevation	(3,171,000)	4.74%	8.70%	(237,800)	(300,700)
22 Subtotal Common-To-All	(280,600)	98.63%	98.78%	292,900	(243,600)
23 Suburban Only - Meter Related	597,300	1.37%	1.22%	28,000	17,300
24 Subtotal BUDGET	316,700	100.00%	100.00%	320,900	(226,300)
25 Commodity	(7,806,100)	4.73%	6.15%	(198,500)	(193,900)
26 Max Day	(1,760,400)	43.02%	31.91%	(77,600)	(22,300)
27 Peak Hour	9,285,900	50.88%	60.71%	569,000	(27,400)
28 Subtotal Demand	7,525,500	93.90%	92.63%	491,400	(49,700)
29 Suburban Only - Meter Related	597,300	1.37%	1.22%	28,000	17,300
30 TOTAL	316,700	100.00%	100.00%	320,900	(226,300)
31 Elements with Distance ONLY	19,617,200	28.08%	26.14%	883,300	566,700
32 Elements with Elevation	(19,443,500)	22.99%	39.31%	(766,400)	(914,000)
33 Net	173,700			116,900	(347,300)
34 Elements without Distance/Elevation	143,000	48.93%	34.55%	204,000	121,000

Relatively similar profiles, other than Distance and Elevation, particularly Elevation

Higher relative elevation -> higher relative rev reqt based on elevation categories -> less impact of FY 2020 cost allocation review / FY 2020 Cost of Service Study

FY 2020 Wholesale Water Service Charge Impact Analysis - Cost Pool Variance Impacts



FY 2020 Wholesale Water Service Charge Impact Analysis - "Other Impacts"

Customer A

	(1)	(2)	(3)	(4)	
	Allocated BUDGET \$	Alternative BUDGET Allocation \$	Alternative Variance \$		Impact % of Original BUDGET
FY 2019 BUDGET Allocation Impacts					
1 Original Allocated FY 2019 BUDGET	13,394,000	13,394,000	0		
Adjustments to Budget					
2 Customer Specific Adjustments	0	0	0		0.0% Only applies to Dearborn, Gibraltar, Inkster
3 Reflect COS Allocation for Dearborn, Gibraltar, Inskt	NA	51,500	51,500		0.4% Reallocation of "after Cost of Svc" adjustments
4 Final Budget Modifications	(104,900)	(123,500)	(18,600)		-0.1% More refined allocation of final budget adjs.
5 Total Adjustments	(104,900)	(72,000)	32,900		0.2%
6 Adjusted FY 2019 BUDGET Allocation	13,289,100	13,322,000	32,900		0.2% Ln (1) + Ln (5)
7 Original Adjustments (Detroit, Flint, GP)	1,311,600	1,311,600	0		0.0%
8 Step #1 of Phase 1 UoS Study for NMM Customers	265,800	265,800	0		0.0%
9 Final Adjusted Total FY 2019 Revenue Requireme	14,866,500	14,899,400	32,900		0.2%
FY 2020 "Other" Adjustments					
10 Recognize FY 2020 Projected Sales Volumes			(33,300)		-0.2% Impact of updated sales projection on cost of svc
11 Recognize FY 2020 Cost Pool Variances (a)			320,900		2.4% See below
12 Other Impacts			36,400		0.3% Consolidation of all other impacts
13 Original Charge Calculation Sheet "Other Impacts"			356,900		2.7%

(a) Illustration of FY 2020 Cost Pool Allocation Impact

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Cost Pool Allocation Summary				Customer A SHARE		
	FY 2019 COS Study \$	FY 2020 COS Study \$	Variance \$	% Variance	Adj FY 2019 % Share	Allocated Variance \$	~ Rev Req ~ Ln (11)
			(2) - (1)	(3) / (1)		(3) * (5)	
14 Commodity	8,870,300	7,406,000	(1,464,300)	-16.5%	3.131%	(45,900)	1.69%
15 Max Day Usage	144,157,600	141,612,400	(2,545,200)	-1.8%	3.943%	(100,400)	40.66%
16 Peak Hour Increment	4,343,500	7,898,700	3,555,200	81.9%	9.066%	322,300	5.21%
17 Peak Hour Distance	66,035,600	85,652,800	19,617,200	29.7%	4.503%	883,300	28.08%
18 Commodity Distance-Elevation	23,713,600	17,371,800	(6,341,800)	-26.7%	2.406%	(152,600)	3.04%
19 Max Day Distance-Elevation	10,386,800	11,171,600	784,800	7.6%	2.902%	22,800	2.36%
20 Peak Hour Distance-Elevation	52,080,900	47,365,400	(4,715,500)	-9.1%	3.722%	(398,800)	12.84%
21 Peak Hour Increment Distance-Elevation	11,856,700	8,685,700	(3,171,000)	-26.7%	7.500%	(237,800)	4.74%
22 Subtotal Common-To-All	327,445,000	327,164,400	(280,600)	-0.1%	4.140%	292,900	98.63%
23 Suburban Only - Meter Related	3,399,900	3,997,200	597,300	17.6%	4.691%	28,000	1.37%
24 Subtotal BUDGET	330,844,900	331,161,600	316,700	0.1%	4.147%	320,900	100.00%
25 Commodity	32,583,900	24,777,800	(7,806,100)	-24.0%	2.623%	(198,500)	4.73%
26 Max Day	154,544,400	152,784,000	(1,760,400)	-1.1%	3.867%	(77,600)	43.02%
27 Peak Hour	140,316,700	149,602,600	9,285,900	6.6%	4.670%	569,000	50.88%
28 Subtotal Demand	294,861,100	302,386,600	7,525,500	2.6%	4.264%	491,400	93.90%
29 Suburban Only - Meter Related	3,399,900	3,997,200	597,300	17.6%	4.691%	28,000	1.37%
30 TOTAL	330,844,900	331,161,600	316,700	0.1%	4.147%	320,900	100.00%
31 Elements with Distance ONLY (17)	66,035,600	85,652,800	19,617,200	29.7%	4.503%	883,300	28.08%
32 Elements with Elevation (18) thru (21)	104,038,000	84,594,500	(19,443,500)	-18.7%	3.731%	(766,400)	22.99%
33 Total / Net	170,073,600	170,247,300	173,700	0.1%	4.119%	116,900	51.07%
34 Elements without Dist/Elev (14) thru (17)	160,771,300	160,914,300	143,000	0.1%	4.176%	204,000	48.93%

FY 2020 Cost of Service Study results in a shift of costs allocable based on Elevation to those allocable based on Distance Only

Hypothetical impact of reallocating responsibility for FY 2019 "post Cost of Service" adjustments

FY 2020 Wholesale Water Service Charge Impact Analysis - "Other Impacts"

Customer B

	(1)	(2)	(3)	(4)	
	Allocated BUDGET \$	Alternative BUDGET Allocation \$	Alternative Variance \$		Impact % of Original BUDGET
FY 2019 BUDGET Allocation Impacts					
1 Original Allocated FY 2019 BUDGET	9,625,900	9,625,900	0		
Adjustments to Budget					
2 Customer Specific Adjustments	0	0	0		0.0% Only applies to Dearborn, Gibraltar, Inkster
3 Reflect COS Allocation for Dearborn, Gibraltar, Inskt	NA	29,300	29,300		0.3% Reallocation of "after Cost of Svc" adjustments
4 Final Budget Modifications	(74,700)	(98,600)	(23,900)		-0.2% More refined allocation of final budget adjs.
5 Total Adjustments	(74,700)	(69,300)	5,400		0.1%
6 Adjusted FY 2019 BUDGET Allocation	9,551,200	9,556,600	5,400		0.1% Ln (1) + Ln (5)
7 Original Adjustments (Detroit, Flint, GP)	943,100	943,100	0		0.0%
8 Step #1 of Phase 1 UoS Study for NMM Customers	186,500	186,500	0		0.0%
9 Final Adjusted Total FY 2019 Revenue Requirement	10,680,800	10,686,200	5,400		0.1%
FY 2020 "Other" Adjustments					
10 Recognize FY 2020 Projected Sales Volumes			36,600		0.4% Impact of updated sales projection on cost of svc
11 Recognize FY 2020 Cost Pool Variances (a)			(226,300)		-2.4% See below
12 Other Impacts			(25,900)		-0.3% Consolidation of all other impacts
13 Original Charge Calculation Sheet "Other Impacts"			(210,200)		-2.2%

(a) Illustration of FY 2020 Cost Pool Allocation Impact

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Cost Pool Allocation Summary				Customer B SHARE		
	FY 2019 COS Study \$	FY 2020 COS Study \$	Variance \$	% Variance	Adj FY 2019 % Share	Allocated Variance \$	~ Rev Req ~ Ln (11)
			(2) - (1)	(3) / (1)		(3) * (5)	
14 Commodity	8,870,300	7,406,000	(1,464,300)	-16.5%	1.503%	(22,000)	1.18%
15 Max Day Usage	144,157,600	141,612,400	(2,545,200)	-1.8%	1.877%	(47,800)	28.08%
16 Peak Hour Increment	4,343,500	7,898,700	3,555,200	81.9%	4.881%	173,500	4.07%
17 Peak Hour Distance	66,035,600	85,652,800	19,617,200	29.7%	2.889%	566,700	26.14%
18 Commodity Distance-Elevation	23,713,600	17,371,800	(6,341,800)	-26.7%	2.711%	(171,900)	4.98%
19 Max Day Distance-Elevation	10,386,800	11,171,600	784,800	7.6%	3.245%	25,500	3.83%
20 Peak Hour Distance-Elevation	52,080,900	47,365,400	(4,715,500)	-18.4%	4.357%	(466,900)	21.80%
21 Peak Hour Increment Distance-Elevation	11,856,700	8,685,700	(3,171,000)	-26.7%	9.484%	(300,700)	8.70%
22 Subtotal Common-To-All	327,445,000	327,164,400	(280,600)	-0.1%	2.858%	(243,600)	98.78%
23 Suburban Only - Meter Related	3,399,900	3,997,200	597,300	17.6%	2.896%	17,300	1.22%
24 Subtotal BUDGET	330,844,900	331,161,600	316,700	0.1%	2.859%	(226,300)	100.00%
25 Commodity	32,583,900	24,777,800	(7,806,100)	-24.0%	2.350%	(193,900)	6.15%
26 Max Day	154,544,400	152,784,000	(1,760,400)	-1.1%	1.977%	(22,300)	31.91%
27 Peak Hour	140,316,700	149,602,600	9,285,900	6.6%	3.842%	(27,400)	60.71%
28 Subtotal Demand	294,861,100	302,386,600	7,525,500	2.6%	2.900%	(49,700)	92.63%
29 Suburban Only - Meter Related	3,399,900	3,997,200	597,300	17.6%	2.897%	17,300	1.22%
30 TOTAL	330,844,900	331,161,600	316,700	0.1%	2.859%	(226,300)	100.00%
31 Elements with Distance ONLY (17)	66,035,600	85,652,800	19,617,200	29.7%	2.889%	566,700	26.14%
32 Elements with Elevation (18) thru (21)	104,038,000	84,594,500	(19,443,500)	-18.7%	4.399%	(914,000)	39.31%
33 Total / Net	170,073,600	170,247,300	173,700	0.1%	3.639%	(347,300)	65.45%
34 Elements without Dist/Elev (14) thru (17)	160,771,300	160,914,300	143,000	0.1%	2.033%	121,000	34.55%

FY 2020 Cost of Service Study results in a shift of costs allocable based on Elevation to those allocable based on Distance Only

Hypothetical impact of reallocating responsibility for FY 2019 "post Cost of Service" adjustments

FY 2020 Requested Budget Compared to FY 2018 Actual Expenses

FY 2018 actual expenses represent the GLWA’s second full fiscal year of activity. One way to better understand the proposed budget is by comparing it with the prior year actual. Below are explanations of the top ten highest and lowest expense category variances based on those parameters (see attached schedule of all variances). The explanations are in order as they appear on the status report.

Top Ten Categories with Highest Dollar Increase Variance from FY 2018 Actual to FY 2020 Budget (note: the Top Eleven are presented since one item, “Unallocated Reserve” is not an expense.)

1. **Salaries & Wages (\$13 million)** - The variance is due to the number of vacancies at June 30, 2018 versus the staffing plan for FY 2020. The table below provides an analytical analysis of the variance.

Salaries & Wages Increase		Actual FY 2018	Budget FY 2020	Increase
		\$55,174,400	\$ 68,301,400	\$13,127,000
Actual Number of Employees				
	6/30/2017	873		
	6/30/2018	978		
Average Actual		926 A		
Budgeted Number of Employees		1167	1187 B	
Avg Salary/Employee		\$ 59,616	\$ 57,541	
2018 Actual vs 2020 Budget # of Employees Variance (B - A)			262	
Variance @ Average Rate			\$ 15,047,023	
<i>(Note: as of 2/15/2019 there are 984 current employees on file)</i>				

2. **Contractual Operating Services (\$8.6 million)** - Contractual operating services are dependent on several factors such as, delays in estimated start and end dates, environmental constraints, and other unforeseen circumstances that can cause the expenses to fluctuate from fiscal year to fiscal year.
 - a. **Toolles Contracting Group LLC:** Contract WS-695C (Valve Exercising) began in June 2018 with a duration of 2 years (approximately \$3.7 million contract. The majority of the expenses will be captured in FY 2019 and FY 2020. The total amount of this contract is \$3.7 million (roughly \$1.8 million per year).
 - b. **Mobile Dredging & Piping:** Contract CON-170 (Alum Sludge Hauling) which began during FY 2018 and is currently underway and extends through FY 2021. The total amount of this contract is \$15.3 million (roughly \$3.8 million per year).
 - c. **Contractual Services for CSO Basins:** After review of the individual CSO facilities concerning their ages, it was identified that ongoing assessments and inspections were required in order to continuously observe the conditions of the facilities. The need for these ongoing services (basin annual cleaning, roof inspections, engineering services, electrical services) increased the budget beginning in FY 2019. FY 2020 is approximately \$2.7 million.

3. **Contractual Professional Services (\$7.4 million)** - Contractual professional services are on an as-needed basis and required for the improvement in capital program delivery for the GLWA.
 - a. **Lakeshore Global Corporation:** A portion of the **professional** services related to contract CON-158 (Specialized Services) was transferred to Field Services Operations from Systems Control which increased **contractual professional** services by \$1.8 million.
 - b. **CH2M Hill Engineers Inc.:** Contract GLWA-CS-198 (Asset Management Planning Project) began in October 2018. The total for this contract over a three-year period is \$4.1 million. The FY 2020 budgeted share for these different project tasks are: Strategic Asset Management Plan (SAMP) \$1.68 million; Wastewater Asset Management Plan (WAMP 2019) \$513k; Water Asset Management Plan (WAMP 2020) \$515k; System Wide Programs to Support AMPs \$517k; Asset Management Advisory Services and Team Management \$890k.
 - c. **Capital Program Management:** This is a new initiative for process, technology, and staff development (approximate total of \$3.2 million for FY 2020). Potential award of a contract in February 2019 will also provide capital delivery support services.
4. **Unallocated Reserve (\$6.9 million)** - A reasonable amount of unallocated reserve provides for unforeseen expenditures and helps to ensure that adequate cash flow is available to meet the expected cost of Operations & Maintenance. The nature of this category is that there would be \$0 recorded to this as an expense. Instead a budget reallocation is used to decrease the Unallocated Reserve and increase the cost center and category that will need to incur the actual expense.
5. **Capital Outlay over \$5k (O&M-NonCapitlzd) (\$3.1 million)** – This expense category is largely comprised of Information Technology which includes software licensing services, fees for cloud-based solutions, hardware, software, project management, equipment upgrades, networking applications and new technology.
 - a. **DES Electric:** Contract CON-167 (Low Voltage Wiring) is accommodating an increasing demand for audio/video, data lines and telephones services. This increased demand poses a challenge to not only maintain, but to continuously develop the communications infrastructure which reflects an increase in budget for FY 2020 of \$2 million.
6. **Operating Supplies – Chemicals (\$2.8 million)** - Variable expenses such as chemicals fluctuate with changes in production, treatment volume, consumption, pumping, customer growth or infrastructure issues (pipe leaks). Water use declines in cold, wet weather which decreases chemical use and increases in hot, dry seasons which increases chemical use.
 - a. **Wastewater Secondary Process** - The budget to actuals variance for chemicals is directly attributable to the River Rouge Outfall (RRO). The diversion from the Detroit River Outfall (DRO) to the River Rouge Outfall (RRO) began in January 2019. Therefore, the increase of \$1.2 million is related to the estimated usage of Sodium Bisulfite and Hypochlorite subsequent to FY 2018.
 - b. **Wastewater Primary Process** – The budget to actuals variance for chemicals is attributable to a higher demand for Ferric Chloride in the wastewater primary treatment process. The increase of \$728k is related to this higher usage.
7. **Shared Services Reimbursement (\$2.7 million)** - The shared services reimbursement contra expenses are related to and based on a department's direct deliverables to a list of shared services arrangements. It is anticipated that the IT shared services agreement will be reduced in FY 2020. Projected expenses are provided by the shared services team and can fluctuate from fiscal year to fiscal year upon review with Detroit Water & Sewerage Department (subscriber).

- a. **ITS-003 See Click Fix:** Reduced shared services (\$138k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - b. **ITS-004 WAM:** Reduced shared services (\$1 million) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - c. **ITS-005 Service Link:** Reduced shared services (\$211k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - d. **ITS-008 TIBCO:** Reduced shared services (\$78k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - e. **ITS-006 AMR and Meter Operations maintaining CCUs:** Reduced shared services (\$678k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - f. **ITS-002 Customer Service:** Reduced shared services (\$496k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
8. **Employee Benefits (\$2.6 million)** - Employee benefits are based on the number of full-time equivalents and salaries & wages. This increase is directly correlated with #1 above.
9. **Contract Services-Information Technology (\$1.6 million)** - The information technology contract services include application development services for custom applications and custom web-sites, information management and information technology consulting. Two new projects are scheduled to launch in FY 2020. The budget impact is listed below.
- a. Improvement projects that require GIS Professionals (\$720k).
 - b. ERP project which will require ERP PM Services (\$333k).
10. **Shared Services: Salaries & Wages Reimb (\$1.3 million)** - The shared services reimbursement contra expenses are related to and based on a department's direct deliverables to a list of shared services agreements. It is anticipated that the IT shared services agreement will be reduced in FY 2020. Projected expenses are provided by the shared services team and can fluctuate from fiscal year to fiscal year upon review with Detroit Water & Sewerage Department (subscriber).
- a. **ITS-002 Customer Service Tech Suite:** Reduced shared services (\$474k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - b. **ITS-001 AMR and Meter Operations maintaining CCUs:** Reduced shared services (\$224k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
 - c. **ITS-009 IT Infrastructure:** Reduced shared services (\$208k) information technology reimbursement due to planned separation of systems. The staff and contractual resources will be reassigned to meet GLWA's growing technology needs.
11. **Repairs & Maintenance-Facilities (\$1.2 million)** - The repairs & maintenance-facilities budget to actuals increase is related to a new contract CON-219 (\$2.25 million) for sludge removal from effluent pipe and cleaning of the influent tunnels and headworks at Baby Creek Combined Sewer Overflow (CSO).

12. Key Changes (Top 10 decreases)

- **Capital Program: Employee Benefits (\$81k)** - The capital program contra expenses are related to and based on employees' direct deliverables to capital projects. It is not unexpected for capital program expenses to fluctuate from fiscal year to fiscal year. Expense tracking for capital program allocation has greatly improved as a result of a new time keeping application (BigTime). This new application makes it easier for team members to report their time spent on direct capital delivery.
 - **Water Engineering:** Improved information was obtained from the new time keeping application (BigTime) in order to provide a more accurate budgeted forecast for FY 2020 compared to the resources that were available for FY 2018.
- **Property Taxes (\$116k)** - FY 2017 property taxes final installment posted in FY 2018 which caused FY 2018's activity to increase by \$128,804.87. The budget for FY 2020 is a true reflection of the anticipated property taxes expense.
 - **Fighting Island** – Property tax payment for Southwest Water Plant intake paid in two installments yearly.
- **Rentals-Buildings (\$199k)** – The reduction of \$199k in comparison of the FY 2020 budget to FY 2018 actuals is a result of the scheduled move of the wastewater analytical laboratory from the Michigan Center to the water resource recovery facility (WRRF).
 - **New Technology Development:** Contract LA-1519 (Analytical Lab at Michigan Center) rent for wastewater laboratories will end.
- **Capital Outlay over \$5k (O&M-Capitalized) (\$411k)** - A budget amendment is underway for FY 2019 - FY 2024 to transfer the Capital Outlay budget over \$5k for all affected cost centers to Improvement & Extension (I&E). It was determined that all Capital Outlay over \$5k should be budgeted under the same funding source to ensure that tracking is accurate.
- **Capital Outlay less than \$5,000 (\$548k)** - A reduction in the purchase of computer related hardware and software is anticipated for the upcoming fiscal year. Computer related hardware and software requests are largely driven by the current level of full-time equivalents which is reaching a steady state. These types of purchases generally occur on an as needed basis.
- **Capital Program: Nonpersonnel (\$1.8 million)** - The capital program contra expenses are related to and based on a department's direct deliverables to capital projects. It is not unexpected for capital program expenses to fluctuate from fiscal year to fiscal year. Expense tracking for capital program allocation has greatly improved as a result of a new time keeping application (BigTime).
 - **Capital Improvement Planning** - Improved information was obtained from the new time keeping application (BigTime) in order to provide a more accurate budgeted forecast for FY 2020 compared to the resources that were available for FY 2018.
- **Capital Program: Salaries & Wages-Direct (\$1.8 million)** - The capital program contra expenses are related to and based on employees' direct deliverables to capital projects. It is not unexpected for capital program expenses to fluctuate from fiscal year to fiscal year. Expense tracking for capital program allocation has greatly improved as a result of a new time keeping application (BigTime). This new application makes it easier for team members to report their time spent on direct capital delivery.

- **Water Engineering (\$848k):** Improved information was obtained from the new time keeping application (BigTime) in order to provide a more accurate budgeted forecast for FY 2020 compared to what was available for FY 2018.
- **Wastewater Engineering (\$612k):** Improved information was obtained from the new time keeping application (BigTime) in order to provide a more accurate budgeted forecast for FY 2020 compared to the resources that were available for FY 2018.
- **Legal (\$2 million) -** Legal contains the outside counsel for a wide range of matters including, expert witnesses, environmental, labor, contract review, land matters, non-transactional bond counsel, and other matters. Legal matters are on an as-needed basis and the expenses are expected to vary from fiscal year to fiscal year.
 - **Legal matters (settlements and claims):** Several legal matters were resolved and ended in FY 2018 which resulted in a budget decrease of \$2 million for FY 2020 in comparison to FY 2018 actuals.
- **Damage Claims (\$5.1 million) –** Where appropriate, year-end adjustments of legal reserves for settlements and claims is captured under damage claims. This is not an unexpected expense and can fluctuate from fiscal year to fiscal year. Therefore, no budget has been designated for FY 2020.
- **Contractual Transition Services (\$6.5 million) -** Contractual transition services are steadily decreasing as a result of staff vacancies, previously filled by individuals on a contractual basis, transitioning to GLWA employees. The decrease in contractual transition services in some cost centers is an offset to the increase in salaries & wages. Two specific examples are below.
 - **Systems Operations Control (\$1.5 million):**
 - **Lakeshore Global Corporation:** Budget related to contract CON-158 (Specialized Services) was transferred to Contractual Professional Services which decreased contractual transition services by \$1.5 million. Contractors that will never transition to GLWA employees are considered contractual professionals.
 - **Field Services Director (\$1.2 million):**
 - Two cost centers (Field Service Director and Field Service Engineering) were combined with Field Service Operations in FY 2019. The result of the merged cost centers is a decrease in Contractual Transition Services which is reflected in the FY 2020 requested budget (\$1.2 million).

Great Lakes Water Authority
Account Categories with the Highest and Lowest Difference
FY 2020 Requested vs. FY 2018 Actual
As of 1.17.2019

DESCRIPTION	FY 2017 Activity	FY 2018 Activity	FY 2019 Annualized Based on 11.30.2018 Close	FY 2020 Department Requested	FY 2020 Requested Less FY 2018 Actual	FY 2021 Department Requested
Salaries & Wages	46,042,700	55,174,400	59,505,600	68,301,400	13,127,000	69,412,100
Contractual Operating Services	53,827,700	60,256,400	64,385,280	68,819,800	8,563,400	69,680,300
Contractual Professional Services	4,062,700	11,630,800	16,189,680	19,000,700	7,369,900	18,972,300
Unallocated Reserve	-	-	-	6,912,300	6,912,300	8,619,200
Capital Outlay over \$5k(O&M-NonCapitlzd)	888,200	1,812,500	4,060,560	4,890,500	3,078,000	4,470,300
Operating Supplies-Chemicals	14,765,300	12,877,700	13,755,840	15,698,600	2,820,900	16,030,900
Shared Services Reimbursement	(7,666,200)	(6,867,300)	(5,633,760)	(4,177,000)	2,690,300	(1,623,000)
Employee Benefits	19,654,800	20,432,100	25,028,880	23,005,300	2,573,200	23,838,100
Contract Services-Information Technology	7,463,000	5,781,700	4,250,160	7,389,300	1,607,600	6,627,600
Shared Services : Salaries & Wages Reimb	(3,010,300)	(2,194,800)	(1,240,080)	(877,900)	1,316,900	(414,600)
Repairs & Maintenance-Facilities	1,223,600	4,424,400	2,628,720	5,662,600	1,238,200	5,527,600
Telecom, Managed Security & Network Svcs	16,787,200	12,840,400	12,522,480	14,013,400	1,173,000	14,289,300
Repairs & Maintenance-Hardware	2,058,400	1,585,000	780,480	2,410,000	825,000	2,424,700
Shared Services: Employee Benefit Reimb	(1,027,900)	(846,000)	(473,760)	(351,200)	494,800	(166,000)
Repairs & Maintenance-Equipment	10,036,200	8,581,900	7,146,960	9,026,200	444,300	9,494,200
Repairs & Maintenance-Software	2,404,300	2,586,900	1,142,160	3,026,600	439,700	2,832,700
Salaries & Wages - Workforce Development	-	604,900	724,800	1,014,000	409,100	1,014,000
Auditing	733,200	57,900	324,240	450,000	392,100	450,000
Training and Internal Meetings	621,800	819,000	600,000	1,157,600	338,600	1,157,500
Utilities-Gas	6,449,600	6,611,500	4,769,280	6,943,600	332,100	7,058,600
Utilities-Water	5,469,400	4,493,100	4,169,040	4,757,800	264,700	4,843,000
Utilities-Sewage	2,230,300	1,715,600	1,914,960	1,946,600	231,000	1,962,800
Operating Supplies	1,976,500	2,490,500	2,260,320	2,708,900	218,400	2,740,600
Travel	121,500	208,700	367,680	417,100	208,400	436,200
Advertising	72,600	55,800	35,520	263,800	208,000	269,800
Penalties	129,600	31,200	-	200,000	168,800	200,000
Memberships, Licenses & Subscriptions	263,500	705,000	618,240	841,900	136,900	835,100
Utilities-Electricity	41,512,600	40,873,800	42,444,960	40,985,700	111,900	41,428,600
Printing	38,600	37,600	4,800	149,400	111,800	157,200
Office Supplies	340,800	433,900	561,840	528,200	94,300	528,800
Repairs & Maintenance-Buildings & Ground	136,900	459,300	229,920	542,700	83,400	551,600
Uniforms, Laundry, Cleaning	86,000	73,100	106,080	154,200	81,100	157,400
Employee Uniform Expense	171,100	197,200	188,880	272,200	75,000	276,900
Contractual Buildings & Grounds Maint	4,416,400	4,767,000	3,090,720	4,841,300	74,300	4,830,600
Inspection and Permit Fees	407,100	396,700	1,680	451,200	54,500	456,100
Postage	312,100	19,500	27,120	60,400	40,900	63,500
Mileage and Parking	84,900	110,600	118,800	145,200	34,600	148,200
Rentals-Miscellaneous	2,200	18,100	173,280	48,100	30,000	48,100
Repairs & Maintenance-Automotive	4,800	49,900	18,000	76,500	26,600	78,000
Repairs & Maintenance-Miscellaneous	76,500	24,300	5,760	50,200	25,900	50,700
Operating Supplies-Janitorial	41,900	49,900	78,480	72,200	22,300	72,700
Tuition Refund	38,100	32,800	53,040	49,500	16,700	49,700
Operating Supplies-Automotive	2,400	10,000	23,040	25,000	15,000	25,000
Contractual Security Services	122,100	-	-	10,200	10,200	10,400
Miscellaneous Expense	2,500	1,700	-	7,300	5,600	7,400
Telecommunications-Data Com Equip	-	-	-	-	-	-
Contractual Vehicle Services	-	-	-	-	-	-
Major Repairs-Plant Equipment	-	-	-	-	-	-
Construction: Contractual Engineering Sv	-	-	-	-	-	-
Do Not Use Employee Parking	-	-	-	-	-	-
Rentals- Office Equipment	-	-	-	-	-	-
Major Repairs-Other Equip	-	-	-	-	-	-

Great Lakes Water Authority
Account Categories with the Highest and Lowest Difference
FY 2020 Requested vs. FY 2018 Actual
As of 1.17.2019

DESCRIPTION	FY 2017 Activity	FY 2018 Activity	FY 2019 Annualized Based on 11.30.2018 Close	FY 2020 Department Requested	FY 2020 Requested Less FY 2018 Actual	FY 2021 Department Requested
Repairs & Maintenance-Damage Recovery	1,753,200	-	84,240	-	-	-
City - Utilities-PLD Steam	-	-	-	-	-	-
City - Utilities - PLD Electricity	-	-	-	-	-	-
Asset Impairment	-	-	-	-	-	-
Personnel Transition Adjustment	-	-	-	-	-	-
Operating Services - Other	-	-	-	-	-	-
Insurance	-	-	-	-	-	-
Car Lease	-	-	-	-	-	-
(blank)	-	-	-	-	-	-
Operating Supplies-Fuel	-	-	-	-	-	-
Contract Services-Building Maintenance	618,400	517,500	438,000	508,000	(9,500)	518,100
Overtime	7,242,800	6,161,600	7,454,400	6,139,800	(21,800)	6,246,600
Capital Program: Salaries & Wages-Indire	-	-	-	(46,500)	(46,500)	(47,400)
Operating Supplies – Fuel	199,400	509,700	444,720	447,000	(62,700)	455,800
Capital Program: Employee Benefits	(469,000)	(467,000)	(929,520)	(547,600)	(80,600)	(549,800)
Property Taxes	139,400	391,300	7,920	275,700	(115,600)	280,900
Rentals-Buildings	490,100	484,400	556,080	285,500	(198,900)	61,100
Capital Outlay over \$5k(O&M-Capitalized)	-	411,000	-	-	(411,000)	-
Capital Outlay less than \$5,000	1,309,200	2,834,300	1,769,280	2,286,300	(548,000)	1,813,800
Capital Program: Nonpersonnel	(486,800)	(43,600)	(56,640)	(1,831,000)	(1,787,400)	(1,867,600)
Capital Program: Salaries & Wages-Direct	(1,172,100)	(1,172,700)	(2,309,280)	(2,989,200)	(1,816,500)	(3,005,700)
Legal	2,104,900	4,025,300	1,420,080	2,075,100	(1,950,200)	2,116,100
Damage Claims	(5,418,900)	5,103,900	-	-	(5,103,900)	-
Contractual Transition Services	13,216,000	13,152,800	7,947,840	6,630,300	(6,522,500)	5,406,900
Grand Total	252,901,300	285,333,200	283,786,800	325,154,800	39,821,600	331,353,000

..Title

Resolution Adopting the FY 2020 & FY 2021 Biennial Budget

..Body

Agenda of: February 27, 2019

Item No.: **2019-___**

Amount: N/A

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer
Great Lakes Water Authority

DATE: February 27, 2019

RE: Resolution Adopting the FY 2020 & FY 2021 Biennial Budget

MOTION

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, The Board of Directors (Board) of the Great Lakes Water Authority (GLWA):

- 1) Concludes the Public Hearing related to the FY 2020 and FY 2021 Biennial Budget held on February 27, 2019;**
- 2) Pending public comment, adopts the attached resolution, 2019-___ adopting the FY 2020 and 2021 Biennial Budget for the GLWA;**
- 3) Notes that the GLWA By-Laws Article X, Section 5, requires a super-majority affirmative vote of at least five (5) members of the Board is necessary for the approval of the operating budget; and**
- 4) Authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote. and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the Regional Water and Sewer systems on January 1, 2016 (the “Effective Date”) pursuant to the Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015. Section 5.6 of the Lease Agreements require the Authority to adopt a two-year budget for the Regional Water and Sewer Systems that sets forth budgeted revenues and expenses for each such Fiscal Year.

JUSTIFICATION

The Board has received a proposed Budget for FY 2020 and FY 2021 which was reviewed at Audit Committee meetings on December 1, 2018, January 4, 2019, January 18, and February 15, 2019; Board meetings of January 9, 2019 and January 23, 2019; and Member Partner meetings on January 10, 2019, January 24, 2019, and February 21, 2019 as it relates to the proposed Schedule of Charges.

BUDGET IMPACT

This action establishes a budget for FY 2020 and 2021.

COMMITTEE REVIEW

The GLWA Audit Committee reviewed the budget and supplemental analysis at the meetings noted above.



DRAFT

FY 2020 & FY 2021

Biennial Budget

February 15, 2019



**GREAT LAKES WATER AUTHORITY
NOTICE OF PUBLIC HEARING
PROPOSED BIENNIAL BUDGET
For the Two-Year Period ended June 30, 2021
(FY 2020 and FY 2021)**

Notice is hereby given that the Great Lakes Water Authority Board of Directors will hold a Public Hearing on the FY 2020 and FY 2021 Biennial budget.

DATE: Wednesday, February 27, 2019

TIME: 2:00 p.m.

**PLACE: 5th Floor Board Room
735 Randolph
Detroit, Michigan 48226**

The proposed budget is scheduled to take effect on July 1, 2019. The budget is available for public inspection at the office of the Authority, Water Board Building, 735 Randolph, Detroit, Michigan 48226. A copy of the budget may also be found online at <https://www.glwater.org/financials/>.

Individuals or groups wishing to make oral presentations or submit prepared statements pertaining to the proposed budget may do so at the Public Hearing. Individuals or groups giving oral presentations are encouraged to have their presentations in writing, with a copy to be submitted for the record to the Great Lakes Water Authority Board of Directors. Oral presentations should be brief to allow all parties the opportunity to participate. A time limit may be imposed based upon registration at the hearing.

Interested parties who are unable to attend the Public Hearing may submit their comments in writing to:

Sue F. McCormick, Chief Executive Officer
Great Lakes Water Authority
735 Randolph
Detroit, Michigan, 48226

Great Lakes Water Authority
PROPOSED Resolution 2019 -
Resolution Adopting the Biennial FY 2020 & FY 2021 Budget

By Board Member: _____

WHEREAS The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the regional water and sewer systems on January 1, 2016 (the “Effective Date”) pursuant to Water System and Sewer System Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and

WHEREAS In accordance with the by-laws of the GLWA, the Board shall adopt a two-year (Biennial) operating budget for the Regional Water and Sewer Systems; and

WHEREAS The Authority, through the terms of the Leases, committed to an annual increase in revenue requirement budget of no more than 4% though the fiscal year ending June 30, 2025; and

WHEREAS The GLWA Board is now adopting its fourth fiscal year budget demonstrating its ability to achieve and excel in meeting that commitment with a Regional Water System annual revenue requirement budget increase of 3.1% which equates to an average 1.1% increase in revenues from Water Service Charges and a Regional Sewer System annual revenue requirements budget increase of 2.3% which equates to an average 1.8% increase in revenues from Sewer Service Charges; and

WHEREAS The budgeted expenses for each such Fiscal Year shall equal the sum of the Projected expenses and revenue requirements for the Regional Water System and the Regional Sewer System for each such Fiscal Year; and

WHEREAS The budgeted annual revenue requirements for the Regional Water System for FY 2020 is \$341,682,900 and for FY 2021 is \$355,350,200 as shown on “Schedule 1A – Water System Revenue Requirements” of the budget document; and

WHEREAS The budgeted annual revenue requirements for the Regional Sewer System for FY 2020 is \$482,823,000 and for FY 2021 is \$502,135,800 as shown on “Schedule 1B – Sewer System Revenue Requirements” of the budget document; and

WHEREAS The operations and maintenance budget for the Regional Water System for FY 2020 is \$133,490,500 and for FY 2021 is \$136,160,300 as shown on

“Schedule 1A – Water System Revenue Requirements” of the budget document; and

WHEREAS The operations and maintenance budget for the Regional Sewer System for FY 2020 is \$187,968,700 and for FY 2021 is \$191,728,100 as shown on Schedule 1B – Sewer System Revenue Requirements” of the budget document; and

WHEREAS The amounts necessary to pay the principal of and interest on all Regional Water System bonds and to restore any reserves therefore established in the Master Bond ordinance is \$174,668,300 for FY 2020 and \$192,231,900 for FY 2021 as shown on “Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance” of the budget document; and

WHEREAS The amounts necessary to pay the principal of and interest on all Regional Sewer System bonds and to restore any reserves therefore established in the Master Bond Ordinance is \$247,388,600 for FY 2020 and \$247,835,400 for FY 2021 as shown on “Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance” of the budget document; and

WHEREAS The amounts necessary to fund the annual water system capital expenditures of \$107,435,300 in FY 2020 and \$124,949,300 in FY 2021 for the capital improvement plan in accordance with the Schedule 5C - Water Construction Bond Fund budget with those capital amounts reflecting a 75% Capital Spending Ratio applied to FY 2020 and FY 2021 as shown in the proposed FY 2020 though FY 2024 Capital Improvement Plan; and

WHEREAS The amounts necessary to fund the annual sewer system capital expenditures of \$121,110,000 in FY 2020 and \$99,322,500 in FY 2021 for the capital improvement plan in accordance with Schedule 5D - Sewer Construction Bond Fund budget with those capital amounts reflecting a 75% Capital Spending Ratio applied to FY 2020 and FY 2021 as shown in the proposed FY 2020 though FY 2024 Capital Improvement Plan; and

WHEREAS The amounts necessary to fund the annual water system capital expenditures of \$10,125,300 in FY 2020 and \$9,235,300 in FY 2021 for capital outlay in accordance with the 5A - Water Improvement and Extension Fund budget; and

WHEREAS The amounts necessary to fund the annual sewer system capital expenditures of \$20,122,200 in FY 2020 and \$19,875,600 in FY 2021 for the capital outlay in accordance with the 5B - Sewer Improvement and Extension Fund budget; and

WHEREAS The GLWA Audit Committee began review of the budget and five-year financial plan document developed for FY 2020 through FY 2024 at its meeting on January 4, 2019; with updates at its meetings on January 18, 2019, and February 15, 2019; and

WHEREAS The GLWA Board conducted a public hearing on the proposed budget in accordance with the provisions of Public Act No. 43 of the Acts of the State Legislature of 1963 (“Budget Hearings of Local Governments”); and

WHEREAS A notice for the public hearing on the proposed budget scheduled for February 27, 2019 at 2:00 pm at the Water Board Building, 735 Randolph, Detroit, Michigan was published in The Detroit Legal News announcing a public hearing on the budget in addition to posting the notice and proposed budget on glwater.org/financials; and

WHEREAS An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution,

NOW THEREFORE BE IT:

RESOLVED That the GLWA Board conducted a public hearing on February 27, 2019 to receive public comment regarding the proposed budget for the Fiscal Years 2020 and 2021; and be it further

RESOLVED That the GLWA Board approves the budget for Fiscal Years 2020 and 2021; and be it finally

RESOLVED That the Chief Executive Officer, and the Chief Financial Officer/Treasurer are authorized to take such other action as may be necessary to accomplish the intent of this resolution.

Schedule 1A - Water System Revenue Requirements Budget

Water System Revenue Requirements	Current Year		Biennial Budget					
	FY 2019 Adopted	FY 2019 Amended	FY 2020 Requested	FY 2020 \$ Change	% Change	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change
Revenues								
11 Revenues from Charges	\$ 327,563,900	\$ 327,563,900	\$ 331,160,700	\$ 3,596,800	1.1%	\$ 345,917,300	\$ 14,756,600	4.5%
11.1 Revenues from Internal Charges			1,438,000	1,438,000	NA	1,502,100	64,100	4.5%
10.1 Non-Operating Revenue	3,836,600	9,425,400	9,084,200	5,247,600	136.8%	7,930,800	(1,153,400)	-12.7%
Total Revenues	331,400,500	336,989,300	341,682,900	10,282,400	3.1%	355,350,200	13,667,300	4.0%
Revenue Requirements								
1 Operations & Maintenance (O&M) Expense	\$121,562,600	\$121,562,600	\$133,490,500	\$11,927,900	9.8%	\$136,160,300	\$2,669,800	2.0%
2 O&M Legacy Pension Allocation	6,048,000	6,048,000	6,048,000	-	0.0%	6,048,000	-	0.0%
3 Debt Service Allocation	134,214,600	131,241,800	137,557,600	3,343,000	2.5%	150,314,300	12,756,700	9.3%
4 Accelerated Legacy Pension Allocation	6,268,300	6,268,300	6,268,300	-	0.0%	6,268,300	-	0.0%
5 Water Residential Assistance Program	1,673,400	1,673,400	1,743,900	70,500	4.2%	1,776,800	32,900	1.9%
6 Lease Payment to Local System I&E Account	22,500,000	22,500,000	22,500,000	-	0.0%	22,500,000	-	0.0%
7 Improvement & Extension Fund Allocation	39,133,600	47,695,200	30,098,600	(9,035,000)	-23.1%	31,392,600	1,294,000	4.3%
8 Operating Reserve Deposit	-	-	3,976,000	3,976,000	NA	889,900	(3,086,100)	-77.6%
9 Extraordinary Repair & Replacement Deposi	-	-	-	-	NA	-	-	NA
Annual Budgeted Revenue Requirements	\$ 331,400,500	\$ 336,989,300	\$ 341,682,900	\$ 10,282,400	3.1%	\$ 355,350,200	\$ 13,667,300	4.0%

Schedule 1B - Sewer System Revenue Requirements Budget

Sewer System Revenue Requirements	Current Year		Biennial Budget					
	FY 2019 Adopted	FY 2019 Amended	FY 2020 Requested	FY 2020 \$ Change	FY 2020 % Change	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change
Revenues								
11 Revenues from Charges <i>(prior to adjustment)</i>	\$ 465,585,100	\$ 465,585,100	\$ 474,092,200	\$ 8,507,100	1.8%	\$ 493,104,100	\$ 19,011,900	4.0%
Regional Bad Debt True-Up Adjustment	1,871,300	1,871,300	-	(1,871,300)	-100.0%	-	-	NA
Subtotal Revenues from Charges	467,456,400	467,456,400	474,092,200	6,635,800	1.4%	493,104,100	19,011,900	4.0%
10.1 Non-Operating Revenue	4,570,900	8,750,000	8,730,800	4,159,900	91.0%	9,031,700	300,900	3.4%
Total Revenues	472,027,300	476,206,400	482,823,000	10,795,700	2.3%	502,135,800	19,312,800	4.0%
Revenue Requirements								
1 Operations & Maintenance (O&M) Expense	\$191,079,400	\$191,079,400	\$187,968,700	\$ (3,110,700)	-1.6%	\$191,728,100	\$3,759,400	2.0%
2 O&M Legacy Pension Allocation	10,824,000	10,824,000	10,824,000	-	0.0%	10,824,000	-	0.0%
3 Debt Service Allocation	214,600,700	208,389,200	215,738,800	1,138,100	0.5%	216,181,700	442,900	0.2%
4 Accelerated Legacy Pension Allocation	11,620,700	11,620,700	11,620,700	-	0.0%	11,620,700	-	0.0%
5 Water Residential Assistance Program	2,374,100	2,374,100	2,464,400	90,300	3.8%	2,510,700	46,300	1.9%
6 Lease Payment to Local System	27,500,000	27,500,000	27,500,000	-	0.0%	27,500,000	-	0.0%
7 Improvement & Extension Fund Allocation	12,157,100	22,547,700	26,706,400	14,549,300	119.7%	40,517,500	13,811,100	51.7%
8 Operating Reserve Deposit	-	-	-	-	NA	1,253,100	1,253,100	NA
9 Extraordinary Repair & Replacement Deposit	-	-	-	-	NA	-	-	NA
Annual Budgeted Revenue Requirements	470,156,000	474,335,100	482,823,000	12,667,000	2.7%	502,135,800	19,312,800	4.0%
I&E Fund Allocation - Regional Bad Debt True-Up Adj.	1,871,300	1,871,300	-	(1,871,300)	-100.0%	-	-	NA
Adjusted Annual Revenue Requirements	\$ 472,027,300	\$ 476,206,400	\$ 482,823,000	\$ 10,795,700	2.3%	\$ 502,135,800	\$ 19,312,800	4.0%

Schedule 1C - Combined Water and Sewer System Revenue Requirements Budget

Sewer System Revenue Requirements	Current Year		Biennial Budget					
	FY 2019 Adopted	FY 2019 Amended	FY 2020 Requested	FY 2020 \$ Change	FY 2020 % Change	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change
Revenues								
11 Revenues from Charges <i>(prior to adjustment)</i>	\$ 793,149,000	\$ 793,149,000	\$ 805,252,900	\$ 12,103,900	1.5%	\$ 839,021,400	\$ 33,768,500	4.2%
11.1 Revenues from Internal Charges			\$ 1,438,000	\$ 1,438,000	NA	\$ 1,502,100	\$ 64,100	4.5%
Regional Bad Debt True-Up Adjustment	1,871,300	1,871,300	-	(1,871,300)	-100.0%	-	-	NA
Subtotal Revenues from Charges	795,020,300	795,020,300	806,690,900	11,670,600	1.5%	840,523,500	33,832,600	4.2%
10.1 Non-Operating Revenue	8,407,500	18,175,400	17,815,000	9,407,500	111.9%	16,962,500	(852,500)	-4.8%
Total Revenues	803,427,800	813,195,700	824,505,900	21,078,100	2.6%	857,486,000	32,980,100	4.0%
Revenue Requirements								
1 Operations & Maintenance (O&M) Expense	\$312,642,000	\$312,642,000	\$321,459,200	\$8,817,200	2.8%	\$327,888,400	\$6,429,200	2.0%
2 O&M Legacy Pension Allocation	16,872,000	16,872,000	16,872,000	-	0.0%	16,872,000	-	0.0%
3 Debt Service Allocation	348,815,300	339,631,000	353,296,400	4,481,100	1.3%	366,496,000	13,199,600	3.7%
4 Accelerated Legacy Pension Allocation	17,889,000	17,889,000	17,889,000	-	0.0%	17,889,000	-	0.0%
5 Water Residential Assistance Program	4,047,500	4,047,500	4,208,300	160,800	4.0%	4,287,500	79,200	1.9%
6 Lease Payment to Local System I&E Account	50,000,000	50,000,000	50,000,000	-	0.0%	50,000,000	-	0.0%
7 Improvement & Extension Fund Allocation	51,290,700	70,242,900	56,805,000	5,514,300	10.8%	71,910,100	15,105,100	26.6%
8 Operating Reserve Deposit	-	-	3,976,000	3,976,000	NA	2,143,000	(1,833,000)	-46.1%
9 Extraordinary Repair & Replacement Deposit	-	-	-	-	NA	-	-	NA
Annual Budgeted Revenue Requirements	801,556,500	811,324,400	824,505,900	22,949,400	2.9%	857,486,000	32,980,100	4.0%
I&E Fund Allocation - Regional Bad Debt True-Up Adj.	1,871,300	1,871,300	-	(1,871,300)	-100.0%	-	-	NA
Adjusted Annual Revenue Requirements	\$ 803,427,800	\$ 813,195,700	\$ 824,505,900	\$ 21,078,100	2.6%	\$ 857,486,000	\$ 32,980,100	4.0%

There is no Schedule 3 for purposes of the Budget Resolution.

Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance

Flow of Funds Basis		FY 2020 Water Fund	FY 2020 Sewer Fund	FY 20 Combined (Informational Only)	FY 2021 Water Fund	FY 2021 Sewer Fund	FY 21 Combined (Informational Only)
Revenues							
1	Regional System Wholesale Revenues	\$ 332,598,700	\$ 474,092,200	\$ 806,690,900	\$ 347,419,400	\$ 493,104,100	\$ 840,523,500
2	Local System Revenues	73,985,800	106,009,200	179,995,000	75,873,300	125,417,700	201,291,000
3	Miscellaneous Revenue (Local System)	2,200,000	500,000	2,700,000	2,200,000	500,000	2,700,000
4	Non-Operating Revenue (Regional System)	9,083,300	8,730,600	17,813,900	7,930,800	9,031,700	16,962,500
5	Total Revenues	\$ 417,867,800	\$ 589,332,000	\$ 1,007,199,800	\$ 433,423,500	\$ 628,053,500	\$ 1,061,477,000
Revenue Requirements							
Operations & Maintenance Expense							
6	Regional System Wholesale Expenses (a)	\$ 133,490,500	\$ 187,968,700	\$ 321,459,200	\$ 136,160,300	\$ 191,728,100	\$ 327,888,400
7	Local System Expenses	36,654,600	72,472,800	109,127,400	37,764,000	74,627,200	112,391,200
8	GRS Pension allocable to Regional System	6,048,000	10,824,000	16,872,000	6,048,000	10,824,000	16,872,000
9	GRS Pension allocable to Local System	4,272,000	2,856,000	7,128,000	4,272,000	2,856,000	7,128,000
10	Total Operations & Maintenance Expense	180,465,100	274,121,500	454,586,600	184,244,300	280,035,300	464,279,600
11	Net Revenues after Operations & Maintenance Expense	\$ 237,402,700	\$ 315,210,500	\$ 552,613,200	\$ 249,179,200	\$ 348,018,200	\$ 597,197,400
Debt Service by Lien							
12	Senior Lien Bonds	123,909,900	148,568,300	272,478,200	130,866,400	139,541,600	270,408,000
13	Second Lien Bonds	47,849,300	45,878,900	93,728,200	49,280,800	54,642,100	103,922,900
14	SRF Junior Lien Bonds	2,909,100	52,941,400	55,850,500	12,084,700	53,651,700	65,736,400
15	Total Debt Service	\$ 174,668,300	\$ 247,388,600	\$ 422,056,900	\$ 192,231,900	\$ 247,835,400	\$ 440,067,300
Debt Service Coverage (a)							
15	Senior Lien Bonds (11)/(12)	1.92	2.12		1.90	2.49	
16	Second Lien Bonds (11) / [(12)+(13)]	1.38	1.62		1.38	1.79	
17	SRF Junior Lien Bonds (11) / (15)	1.36	1.27		1.30	1.40	

Schedule 5A - Water Improvement & Extension Fund

Inflows & Outflows	Current Year	Biennial Budget		Forecast		
	FY 2019 Projected	FY 2020 Requested	FY 2021 Requested	FY 2022 Forecast	FY 2023 Forecast	FY 2024 Forecast
Fund						
Water System Revenue Transfers	\$47,695,200	\$30,098,600	\$31,392,600	\$45,274,100	\$49,446,900	\$67,336,100
Grant Revenues	-	-	-	-	-	-
Earnings on Investments, Net	-	-	-	-	-	-
Capital Outlay	(22,133,400)	(10,125,300)	(9,235,300)	(8,223,000)	(4,460,400)	(4,798,300)
Revenue Financed Capital - Strategic	(13,172,000)	(45,000,000)	(75,000,000)	(100,000,000)	(43,000,000)	(49,000,000)
Increase (Decrease) in I&E Reserves	\$12,389,800	(\$25,026,700)	(\$52,842,700)	(\$62,948,900)	\$1,986,500	\$13,537,800
Beginning Year Balance	220,475,500	232,865,300	207,838,600	154,995,900	92,047,000	94,033,500
Projected Ending Balance	\$232,865,300	\$207,838,600	\$154,995,900	\$92,047,000	\$94,033,500	\$107,571,300

Schedule 5B - Sewer Improvement & Extension Fund

Inflows & Outflows	Current Year	Biennial Budget		Forecast		
	FY 2019 Projected	FY 2020 Requested	FY 2021 Requested	FY 2022 Forecast	FY 2023 Forecast	FY 2024 Forecast
Sewer Improvement & Extension Fund						
Sewer System Revenue Transfers	\$24,419,000	\$26,706,400	\$40,517,500	\$46,034,700	\$65,614,400	\$90,590,000
Grant Revenues	-	-	-	-	-	-
Earnings on Investments, Net	-	-	-	-	-	-
Capital Outlay	(5,957,000)	(20,122,200)	(19,875,600)	(24,692,200)	(8,812,400)	(10,881,900)
Revenue Financed Capital - Specific	-	-	-	-	-	-
Revenue Financed Capital - Strategic	(8,312,000)	-	(10,000,000)	(20,000,000)	(60,000,000)	(80,000,000)
Increase (Decrease) in I&E Reserves	\$10,150,000	\$6,584,200	\$10,641,900	\$1,342,500	(\$3,198,000)	(\$291,900)
Beginning Year Balance	68,931,000	79,081,000	85,665,200	96,307,100	97,649,600	94,451,600
Projected Ending Balance	\$79,081,000	\$85,665,200	\$96,307,100	\$97,649,600	\$94,451,600	\$94,159,700

Schedule 5C - Water Construction Bond Fund

Inflows & Outflows	Current Year	Biennial Budget		Forecast		
	FY 2019 Projected	FY 2020 Requested	FY 2021 Requested	FY 2022 Forecast	FY 2023 Forecast	FY 2024 Forecast
Water Construction Bond Fund						
Bond Proceeds, Net	\$0	\$ -	\$0	\$ 58,280,000	\$54,520,000	\$63,920,000
Earnings on Investments, Net	2,857,500	1,487,700	258,300	-	188,900	73,200
Transfer from Improvement & Extension Fund	13,172,000	45,000,000	75,000,000	100,000,000	43,000,000	49,000,000
Grant Revenues	-	5,531,000	18,367,000	24,115,000	29,615,000	29,994,000
Project Expenditures	(66,038,000)	(107,435,300)	(124,949,300)	(136,946,300)	(126,754,500)	(143,149,500)
Increase (Decrease) in Construction Funds	(50,008,500)	(55,416,600)	(31,324,000)	45,448,700	569,400	(162,300)
Beginning Year Balance	140,732,200	90,723,700	35,307,100	3,983,100	49,431,800	50,001,200
Projected Ending Balance	\$90,723,700	\$35,307,100	\$3,983,100	\$49,431,800	\$50,001,200	\$49,838,900

Schedule 5D - Sewer Construction Bond Fund

Inflows & Outflows	Current Year	Biennial Budget		Forecast		
	FY 2019 Projected	FY 2020 Requested	FY 2021 Requested	FY 2022 Forecast	FY 2023 Forecast	FY 2024 Forecast
Sewer Construction Bond Fund						
Bond Proceeds, Net	\$0	\$ 78,960,000	\$81,780,000	\$ 90,240,000	\$60,160,000	\$16,920,000
Earnings on Investments, Net	1,351,800	41,100	119,300	99,300	489,300	1,041,000
Transfer from Improvement & Extension Fund	8,312,000	-	10,000,000	20,000,000	60,000,000	80,000,000
Grant Revenues	55,213,000	29,342,000	8,280,000	1,343,000	-	-
Project Expenditures	(105,183,000)	(121,110,000)	(99,322,500)	(112,632,800)	(119,538,000)	(97,619,300)
Increase (Decrease) in Construction Funds	(40,306,200)	(12,766,900)	856,800	(950,500)	1,111,300	341,700
Beginning Year Balance	102,506,300	62,200,100	49,433,200	50,290,000	49,339,500	50,450,800
Projected Ending Balance	\$62,200,100	\$49,433,200	\$50,290,000	\$49,339,500	\$50,450,800	\$50,792,500