

**tFg**  
**THE FOSTER GROUP**

P.O. BOX 26282  
LEAWOOD, KS 66225  
TEL: (913) 345-1410  
FAX: (913) 345-1640

**THE FOSTER GROUP, LLC**  
BART FOSTER, PRESIDENT  
CELL: (913) 530-6240  
BFOSTER@FOSTERGROUPLLC.COM

**MEMORANDUM**

GLWA Sewer “Charge Stability Adjustment”

March 13, 2018

To: Nicolette Bateson

From: Bart Foster

You have asked for commentary and observations regarding the potential implementation of a “Charge Stability Adjustment” for certain aspects of GLWA’s Sewer service charge schedule. This concept was originally introduced in presentation to the GLWA Board at its February 2018 workshop. We’ve prepared some sample hypothetical implementation scenarios to illustrate how it might work.

To review, in the GLWA sewer cost of service methodology, the vast majority of annual revenue requirements are allocated to Customers based on their relative SHARE of the costs allocated to the “common to all” (CTA) Cost Pool. There are two major “Customer specific” Cost Pools that are solely or primarily allocated to specific Customers:

- Oakland Macomb Interceptor (OMID) – directly allocable to OMID; and
- Combined Sewer Overflow (CSO) – of which 83% is allocable to the Detroit Customer Class.

The nature of these two Customer specific Cost Pools are similar, and methods for assigning indirect costs to both are under review as part of the Cost Allocation Project<sup>1</sup>. However there are unique circumstances for these two Cost Pools:

- The OMID Cost Pool is related to facilities that entirely serve one GLWA Customer, and could arguably be defined as “local” facilities for that Customer;
- The CSO Cost Pool is related to regional facilities that (while predominantly allocated to service for one Customer) are still a “common to all” wholesale service.

Both of the “Customer specific” Cost Pools are experiencing “unique” circumstances with respect to the FY 2019 Cost of Service Study, that have the effect of increasing costs allocated to them. The increases reflect a combination of refined budgetary awareness, new maintenance programs, and the recognition of new information from the capital asset inventory and valuation project. The increased allocation of costs to the OMID Cost Pool has the effect of increasing the OMID Wholesale Service Charge by approximately 2%, which is net of an offsetting reduction in costs allocable to the CTA Cost Pool. The increased

---

<sup>1</sup> For instance, the methods of assigning Centralized Services operating expenses, etc.

allocation of costs to the CSO Cost Pool has the effect of increasing the total Detroit allocated wholesale sewer revenue requirement by approximately 3.5%, which is also net of an offsetting reduction in costs allocable to the CTA Cost Pool.

The ***Charge Stability Adjustment*** concept seeks to stabilize potential variances in these two Customer specific Cost Pools, and the resulting possible irregular impacts in charges to specific Customers. It embraces a notion of comparing actual Cost Pool expenditures to budgeted amounts, and making adjustments to future charges to reflect actual cost activity. Under this approach, Sewer Service Charges would be established at 100% of the BUDGET assigned to the Customer specific (OMID / CSO) Cost Pools, with the understanding that:

- Actual costs to these Cost Pools would be tracked and compared to original budgets;
- Potentially, adjustments to future charges (for FY 2020 and/or beyond) would be made to reflect actual vs. budget performance in “Customer specific” Cost Pools.

This “Charge Stability Adjustment” concept is consistent with the overall equity and stability strategy that is fundamental to the GLWA Strategic Charge Initiatives. The concept may provide a valuable tool for GLWA to address potentially volatile expenditures in these unique Cost Pools, and avoid unintended consequences to the directly impacted Customers. ***This approach is NOT being considered for budget/actual variances in revenues or “CTA SHARES” revenue requirements.***

The concept is demonstrated in the accompanying exhibits to this memorandum for two separate scenarios. The first example Exhibit Page 1

Lines 1 through 8 illustrate the allocation of the FY 2019 budgeted revenue requirements to cost pools, and the use of the SHARES concept to allocate cost of service to Customers. For purposes of this discussion we’ve grouped Customers into (1) OMID; (2) All Other Suburban Wholesale; and (3) Detroit Customer Class. The amounts shown in Column 5 for Lines 5 through 7 represent the proposed FY 2019 annual sewer service charges for each of these Customer groupings.

Now let’s introduce how reviewing actual costs incurred could be considered under the concept under review. On Exhibit Page 1, Scenario 1 assumes varying levels of actual cost savings compared to budget for each Cost Pool. The SHARES concept can be used to allocate of the resulting actual costs of service to Customers (Lines 11 through 14) and compared to the originally allocated budgeted revenue requirements, as summarized by the variances on Lines 16 through 19. Under the ***Charge Stability Adjustment*** concept any actual to budget variances in the “regular” Cost Pools shown in Columns 1 and 2 would not result in charge modifications, but rather would impact GLWA reserve balances. However, the variances in the Customer specific Cost Pools would potentially modify future charges.

Now let’s illustrate how this might work in subsequent charges. For purposes of discussion, we’ll assume that the FY 2020 budget reflects a 4% increase uniformly for all Cost Pools. The budget increase for each Cost Pool is shown on Line 24. The ***Charge Stability***

*Adjustments* computed earlier on Line 21 are carried down to Line 25 before computing charges. In this example the net impact on the OMID and CSO Cost Pools is actually a 6% reduction compared to the original FY 2019 Charges. The reduction to the OMID Cost Pool accrues directly to OMID, and the decrease in the CSO Cost Pool is shared by all Customers, although principally to the Detroit Customer Class. As shown in Column 5 on Lines 31 through 34, this results in FY 2020 “charge increases” that are slightly *lower* for OMID and the Detroit Customer Class than for All Other Suburban Wholesale Customers. It also results in “charge increase” that is *lower* than the budget increase, since charges are being set to reflect activity from a prior budget year.

A second scenario is presented on Exhibit Page 2. The analysis is identical, except that in this instance we’ve assumed that actual costs exceed budgeted levels by varying amounts. (*See Line 9.*) The results can be traced through the rest of the exhibit, and in effect this scenario results in FY 2020 “charge increases” that are slightly *higher* for OMID and the Detroit Customer Class than for All Other Suburban Wholesale Customers. It also results in “charge increase” that is *higher* than the budget increase.

Any implementation of the “Charge Stability Adjustment” concept will require further analysis and policy development, including:

- Understanding that the OMID “Charge Stability Adjustment” (at least as referenced in this commentary) is suggested to be limited to the potential recognition of a successfully negotiated operating agreement for the Northeast Sewer Pump Station;
- Acknowledging that OMID Cost Pool adjustments are applicable to the OMID Customer only, while CSO Cost Pool adjustments are subject to the 83 / 17 allocation agreement;
- Establishing material thresholds for implementing “Charge Stability Adjustments”;
- Understanding how I&E Funds are generated, included in charges, committed, and expended;
- Understanding that there may be a need to delay implementation of the concept by a year to allow for actual cost to be reviewed.

We are prepared to discuss this matter at your convenience.

Illustration of Potential GLWA *Charge Stabilization Adjustment* Strategy

	(1)	(2)	(3)	(4)	(5)
	Cost Pool Allocation (* Excluding Industrial Waste Control)				
	Common to All	Suburban Wholesale	OMID Specific	CSO Facilities	TOTAL
<u>SHAREs</u>					
1 OMID	16.436%	22.182%	100.000%	2.651%	
2 Other Suburban Wholesale	46.623%	77.818%		14.349%	
3 Detroit Customer Class	36.942%			83.000%	
4 FY 2019 <b>BUDGET</b> Revenue Req'ts	375,967,300	9,704,200	10,502,500	59,801,600	455,975,600
<u>Allocated to Customers - CHARGES</u>					
5 OMID	61,793,400	2,152,600	10,502,500	1,585,500	76,034,000
6 Other Suburban Wholesale	175,285,600	7,551,600	0	8,580,800	191,418,000
7 Detroit Customer Class	138,888,300	0	0	49,635,300	188,523,600
8 Total Allocated for CHARGES	375,967,300	9,704,200	10,502,500	59,801,600	455,975,600
9 What if Actual Costs are ___ % of Budget?	98%	98%	90%	90%	<b>Scenario 1</b>
10 FY 2019 <b>ACTUAL</b> Revenue Req'ts	368,448,000	9,510,100	9,452,300	53,821,400	441,231,800
<u>Allocated to Customers - CHARGES</u>					
11 OMID	60,557,500	2,109,500	9,452,300	1,426,900	73,546,200
12 Other Suburban Wholesale	171,779,900	7,400,600	0	7,722,700	186,903,200
13 Detroit Customer Class	136,110,600	0	0	44,671,800	180,782,400
14 Total Allocated for CHARGES	368,448,000	9,510,100	9,452,300	53,821,400	441,231,800
15 <b>ACTUAL</b> Variance from <b>BUDGET</b>	(7,519,300)	(194,100)	(1,050,200)	(5,980,200)	(14,743,800)
<u>Allocated to Customers - Variance</u>					
16 OMID	(1,235,900)	(43,100)	(1,050,200)	(158,600)	(2,487,800)
17 Other Suburban Wholesale	(3,505,700)	(151,000)	0	(858,100)	(4,514,800)
18 Detroit Customer Class	(2,777,700)	0	0	(4,963,500)	(7,741,200)
19 Total Allocated for CHARGES	(7,519,300)	(194,100)	(1,050,200)	(5,980,200)	(14,743,800)
20 Charge Stability Strategy:	(a)	(a)	(b)	(b)	
21 Impact on Subsequent Charges	NA	NA	(1,050,200)	(5,980,200)	(7,030,400)
22 Impact on I&E / Reserves	(7,519,300)	(194,100)	NA	NA	(7,713,400)
23 FY 2020 Rev Req't Adjustment	4.0%	4.0%	4.0%	4.0%	4.0%
24 FY 2020 <b>BUDGET</b> Revenue Req'ts	15,038,700	388,200	420,100	2,392,100	18,239,100
25 FY 2020 <b>Charge Stability Adjustment</b>	NA	NA	(1,050,200)	(5,980,200)	(7,030,400)
26 FY 2020 Rev Req't for Charges	15,038,700	388,200	(630,100)	(3,588,100)	11,208,700
<u>Impact on Customers - CHARGES</u>					
27 OMID	2,471,700	86,100	(630,100)	(95,100)	1,832,600
28 Other Suburban Wholesale	7,011,400	302,100	0	(514,800)	6,798,700
29 Detroit Customer Class	5,555,500	0	0	(2,978,100)	2,577,400
30 Total Allocated for CHARGES	15,038,600	388,200	(630,100)	(3,588,000)	11,208,700
<u>Impact on Customers - % Adjustment</u>					
31 OMID	4.0%	4.0%	-6.0%	-6.0%	2.4%
32 Other Suburban Wholesale	4.0%	4.0%		-6.0%	3.6%
33 Detroit Customer Class	4.0%			-6.0%	1.4%
34 Total Allocated for CHARGES	4.0%	4.0%	-6.0%	-6.0%	2.5%

(a) Variances in these cost pools are not reflected in subsequent charges, but rather impact GLWA reserve balances.

(b) Variances in these cost pools result in adjustments to Customer charges in a subsequent year.

TFG

Illustration of Potential GLWA *Charge Stabilization Adjustment* Strategy

	(1)	(2)	(3)	(4)	(5)
	Cost Pool Allocation (* Excluding Industrial Waste Control)				
	Common to All	Suburban Wholesale	OMID Specific	CSO Facilities	TOTAL
<u>SHAREs</u>					
1 OMID	16.436%	22.182%	100.000%	2.651%	
2 Other Suburban Wholesale	46.623%	77.818%		14.349%	
3 Detroit Customer Class	36.942%			83.000%	
4 FY 2019 <b>BUDGET</b> Revenue Req'ts	375,967,300	9,704,200	10,502,500	59,801,600	455,975,600
<u>Allocated to Customers - CHARGES</u>					
5 OMID	61,793,400	2,152,600	10,502,500	1,585,500	76,034,000
6 Other Suburban Wholesale	175,285,600	7,551,600	0	8,580,800	191,418,000
7 Detroit Customer Class	138,888,300	0	0	49,635,300	188,523,600
8 Total Allocated for CHARGES	375,967,300	9,704,200	10,502,500	59,801,600	455,975,600
9 What if Actual Costs are % of Budget?	<b>101%</b>	<b>101%</b>	<b>105%</b>	<b>105%</b>	<b>Scenario 2</b>
10 FY 2019 <b>ACTUAL</b> Revenue Req'ts	379,727,000	9,801,200	11,027,600	62,791,700	463,347,500
<u>Allocated to Customers - CHARGES</u>					
11 OMID	62,411,300	2,174,100	11,027,600	1,664,700	77,277,700
12 Other Suburban Wholesale	177,038,400	7,627,100	0	9,009,900	193,675,400
13 Detroit Customer Class	140,277,200	0	0	52,117,100	192,394,300
14 Total Allocated for CHARGES	379,726,900	9,801,200	11,027,600	62,791,700	463,347,400
15 <b>ACTUAL</b> Variance from <b>BUDGET</b>	3,759,700	97,000	525,100	2,990,100	7,371,900
<u>Allocated to Customers - Variance</u>					
16 OMID	617,900	21,500	525,100	79,200	1,243,700
17 Other Suburban Wholesale	1,752,800	75,500	0	429,100	2,257,400
18 Detroit Customer Class	1,388,900	0	0	2,481,800	3,870,700
19 Total Allocated for CHARGES	3,759,600	97,000	525,100	2,990,100	7,371,800
20 Charge Stability Strategy:	(a)	(a)	(b)	(b)	
21 Impact on Subsequent Charges	NA	NA	525,100	2,990,100	3,515,200
22 Impact on I&E / Reserves	3,759,600	97,000	NA	NA	3,856,600
23 FY 2020 Rev Req't Adjustment	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>
24 FY 2020 <b>BUDGET</b> Revenue Req'ts	15,038,700	388,200	420,100	2,392,100	18,239,100
25 FY 2020 <b>Charge Stability Adjustment</b>	NA	NA	525,100	2,990,100	3,515,200
26 FY 2020 Rev Req't for Charges	15,038,700	388,200	945,200	5,382,200	21,754,300
<u>Impact on Customers - CHARGES</u>					
27 OMID	2,471,700	86,100	945,200	142,700	3,645,700
28 Other Suburban Wholesale	7,011,400	302,100	0	772,300	8,085,800
29 Detroit Customer Class	5,555,500	0	0	4,467,200	10,022,700
30 Total Allocated for CHARGES	15,038,600	388,200	945,200	5,382,200	21,754,200
<u>Impact on Customers - % Adjustment</u>					
31 OMID	4.0%	4.0%	9.0%	9.0%	4.8%
32 Other Suburban Wholesale	4.0%	4.0%		9.0%	4.2%
33 Detroit Customer Class	4.0%			9.0%	5.3%
34 Total Allocated for CHARGES	4.0%	4.0%	9.0%	9.0%	4.8%

(a) Variances in these cost pools are not reflected in subsequent charges, but rather impact GLWA reserve balances.

(b) Variances in these cost pools result in adjustments to Customer charges in a subsequent year.

TFG