



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

DWSD FY 2012-13 Sewer Rates
Strength of Flow Issue

February 9, 2012

To: Sue McCormick

From: Bart Foster

You have asked for documentation of the alternatives that remain (after considerable deliberation) related to how to apply assumptions regarding strength of various flow types for purposes of computing the FY 2012-13 Sewer Rates. As set forth in my memorandum of January 19 on this topic¹, at a meeting of the Sewer Rates Work Group on that date, a general consensus amongst DWSD and Suburban Wholesale representatives was reached to implement the plan summarized below for the FY 2012-13 Sewer Rates **only**, with a commitment to further evaluate this topic in future rates via forums devoted to exploring “rate simplification” strategies.

- For purposes of allocating wastewater treatment plant (WWTP) revenue requirements **between City of Detroit retail customers and the Suburban Wholesale customer class “at large”**, utilize the premise originally² set forth by DWSD in developing the FY 2011-12 Sewer Rates.
 - *Dry weather infiltration and inflow (DWII) and wet weather are both assumed to have strengths equivalent to 33% of sanitary flows.*
 - *For the final FY 2011-12 Sewer rates, this assumption was subsequently changed from 33% to 45% to balance the rate impact on customer classes.*
- For purposes of allocating WWTP revenue requirements **amongst individual suburban customer communities**, ignore the difference in strength of flow by type.
 - *In effect utilizes total allocation volume only, the premise in place prior to the development of the FY 2011-12 rates.*

This recommendation emerged as a means to balance several technical criteria and options, and various implementation interests. We are confident that all customers and stakeholders

¹ Stakeholders are encouraged to review that document for additional background on this topic.

² This original FY 2011-12 recommendation was not fully implemented, as DWSD opted to only set these flow strengths at 45% of sanitary flow.

in attendance at that meeting were in agreement with the proposal. However, based on conversations with you and your staff, it is our understanding that some stakeholders are now reluctant to support the concept delineated in the second bullet, which would effectively remove strength of flow considerations from individual suburban customer communities.

We understand that you are committed to proposing a FY 2012-13 sewer rate schedule that reflects one of two approaches regarding strength of flow:

1. The original recommendation from the January 19 meeting, which assigns strength of flow for the Detroit / Suburban cost allocation based on the 33% / 33% protocol but allocates costs amongst individual suburban wholesale customers based on contributed volume, irrespective of flow type; or
2. The same general approach, although maintain differential strength of flow amongst individual customers based on the 33% / 33% protocol. This option represents a modified approach from the existing rates, which assigns strength of flow for cost allocation for **ALL** customer based on the 45% / 45% protocol.

The remainder of this memorandum presents relative advantages and disadvantages of each of these two options. In developing this executive summary, we have considered “equitableness”, technical supportability, and implementation perspectives – without advocating either of the approaches. We have also included an exhibit that illustrates the estimated preliminary impact on each customer class.

Option 1

Relative advantages:

- Honors the premise that several technical bases are supportable by and from various stakeholders that (while having similar impacts relative to the cost allocation **between** the Detroit retail class and the Suburban wholesale class at large) arguably have differential impacts **amongst** individual suburban customers that ought to be tabled pending ongoing evaluation.
- Facilitates combating the premise (articulated by a few key stakeholders at the January 19 meeting) that reflecting strength of flow amongst individual suburban customers is creating implementation challenges in developing rate structures for second tier customers.

Relative disadvantages:

- Any approach that recognizes relative strength of flow between Detroit and Suburban but ignores relative strength of flow by individual customers arguably deviates from the long-term premise (supported by rate settlement agreements and general philosophy) of equitableness defined by “proportionality” in cost allocation.

- Deviates from the initial step taken in the FY 2011-12 Sewer Rates that originally reflected recognition of this topic, creating immediate rate volatility while the ultimate resolution of this topic is deliberated.

Option 2

Relative advantages:

- Approach that recognizes relative strength of flow amongst ALL customers honors overarching premise of equitableness for ALL customers defined by “proportionality” in cost allocation.
- Corresponds to initial recognition (in the FY 2011-12 Sewer Rates) of this topic, ensuring a bit of continuity and avoiding potential volatility in rate changes in the FY 2012-13 Sewer Rates.

Relative disadvantages:

- May result in implementation challenges for some first tier customers in setting rates for their second tier customers.
- Arguably “honors” a simplified technical approach that (while similar in results) is not consistent with several competing technical approaches, potentially subjecting the recommendation to specific stakeholder objection.

The impact on individual customers of implementing each of the options is illustrates in the attached exhibit. The schedule includes a combined impact for the last two years to provide some context on the cumulative effect of the last two years of incorporating strength of flow into the sewer rate development process.

We are available to discuss this matter at your convenience.

DWSD FY 2012-13 Sewer Cost of Service Analyses
Illustration of Impact of Alternative Impact of Strength of Flow Options

	FY 2012-13 Cost Allocation Impact			Combined FY12 + FY13 2-yr Impact		
	Option 1	Option 2	Variance	Option 1	Option 2	Variance
City of Detroit Retail Total (a)	9.9%	9.9%	0.0%	21.4%	21.4%	0.0%
Suburban Wholesale (b)	6.8%	6.8%	0.0%	18.4%	18.4%	0.0%
Industrial Specific	14.1%	14.1%	0.0%	24.8%	24.8%	0.0%
Total System	8.5%	8.5%	0.0%	20.1%	20.1%	0.0%
(a) Includes Suburban Individual						
(b) Detailed Suburban Wholesale						
<u>Billing Meter Customers</u>						
Allen Park	16.5%	12.1%	-4.4%	23.7%	19.3%	-4.4%
Center Line	11.9%	6.2%	-5.7%	20.5%	14.8%	-5.7%
Dearborn East	11.3%	4.6%	-6.7%	21.5%	14.8%	-6.7%
Dearborn West	14.8%	2.9%	-12.0%	18.9%	6.9%	-12.0%
Evergreen-Farmington	5.2%	6.6%	1.4%	17.1%	18.5%	1.4%
Farmington	9.7%	8.4%	-1.3%	18.9%	17.6%	-1.3%
Grosse Pointe Park	4.8%	-1.8%	-6.6%	14.3%	7.7%	-6.6%
OMID	6.4%	11.1%	4.7%	19.2%	23.9%	4.7%
Melvindale	9.1%	8.8%	-0.3%	21.2%	20.9%	-0.3%
N.E. Wayne County	12.9%	4.9%	-8.0%	21.6%	13.6%	-8.0%
Rouge Valley	3.8%	6.5%	2.6%	18.7%	21.4%	2.6%
George W Kuhn Drainage Dist	7.5%	3.5%	-4.0%	20.0%	16.0%	-4.0%
Subtotal	6.9%	6.9%	0.0%	19.2%	19.2%	0.0%
<u>System Meter Customers</u>						
Dearborn E. (Storm Only)	5.7%	-1.3%	-7.0%	21.7%	14.7%	-7.0%
Dearborn N.E.	10.3%	7.2%	-3.1%	7.8%	4.7%	-3.1%
Grosse Pointe	-6.3%	2.9%	9.2%	-14.3%	-5.1%	9.2%
Grosse Pointe Farms	-6.7%	3.9%	10.5%	-11.3%	-0.8%	10.5%
Hamtramck	10.2%	5.5%	-4.7%	8.8%	4.2%	-4.7%
Harper Woods	10.7%	9.6%	-1.1%	19.8%	18.8%	-1.1%
Highland Park	2.6%	3.0%	0.4%	15.5%	15.9%	0.4%
Redford Township	13.7%	4.2%	-9.5%	5.6%	-3.8%	-9.5%
Wayne County #3	18.7%	4.9%	-13.9%	14.7%	0.8%	-13.9%
Wayne County #6	2.5%	3.9%	1.4%	1.4%	2.8%	1.4%
Subtotal	3.9%	3.9%	0.0%	7.7%	7.7%	0.0%