

Update on Cost of Service Studies for FY 2019 Charges

*GLWA Audit Committee
January 19, 2018*



Presentation Premise

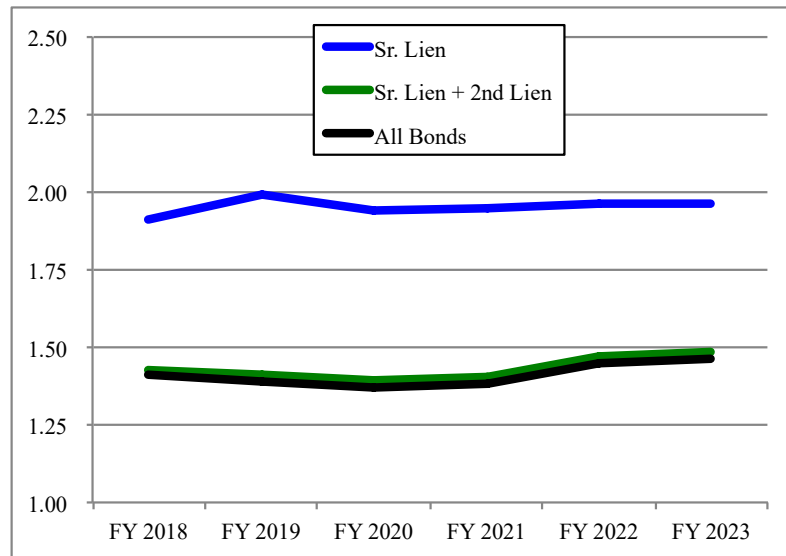
- The material in this presentation has been prepared to provide updates to specific focus areas for the FY 2019 Charges, as set forth in our January 4 memorandum.
- Many of the elements are in near final state, others remain under review, including:
 - ✓ *Capital Improvement Programs for both GLWA and DWSD*
 - ✓ *The portion of the Sewer O&M Budget allocable to:*
 - CSO programs – under review by GLWA and DWSD representatives
 - OMID specific facilities - also under GLWA review
 - The IWC program - also under GLWA review

Five-Year Financial Plan & Debt Service Coverage

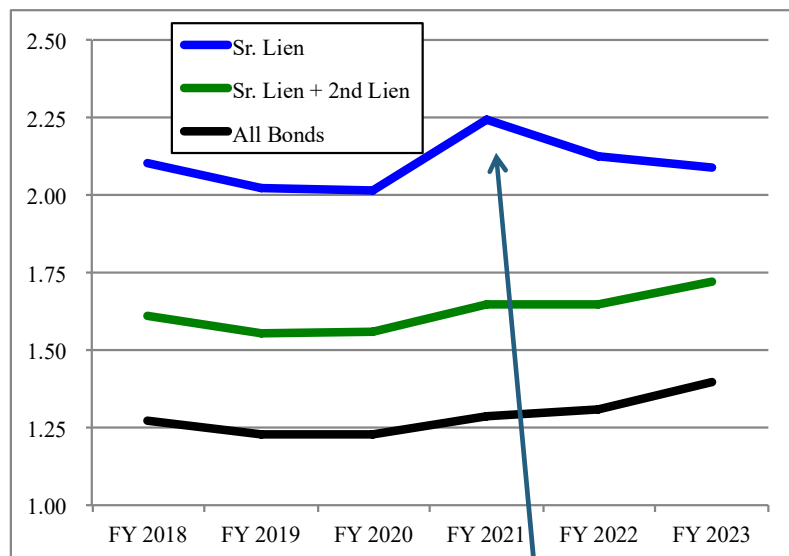
- The preliminary five year financial plans produce stable and rising debt service coverage ratios
 - ✓ *These preliminary projections are impacted by the level of capital investment required by both the Regional GLWA and Local DWSD System. Final CIP plans for both entities remain under development.*

Five-Year Financial Plan & Debt Service Coverage (continued)

Water



Sewer



Requirements

Sr. Lien
Sr. Lien + 2nd Lien
All Bonds

MBO Minimum

1.20
1.10
1.00

Prior Policy Minimum

1.35
1.25
1.15

FY 2021 Sewer Debt Service reflects "Drop off" of Sr. Lien SRF Bonds

Operating Expense Budget: *Administrative and Centralized Services*

- The FY 2018 Charges were based on an assumption that 45% of the operating expenses for Administrative and Centralized Services (in total) were allocable to Water and 55% to Sewer.
 - ✓ *The existing Charges were developed based on the preliminary FY 2018 Budget Request*
 - ✓ *Subsequent developments have modified the relative split for actual costs to ~ 43% / 57% (in total)*
- The PRELIMINARY cost allocation plan indicates that approximately 54% should be Water and 46% Sewer.
 - ✓ *Different ratios for Centralized and Administrative Services*

Operating Expense Budget: ***Administrative and Centralized Services***

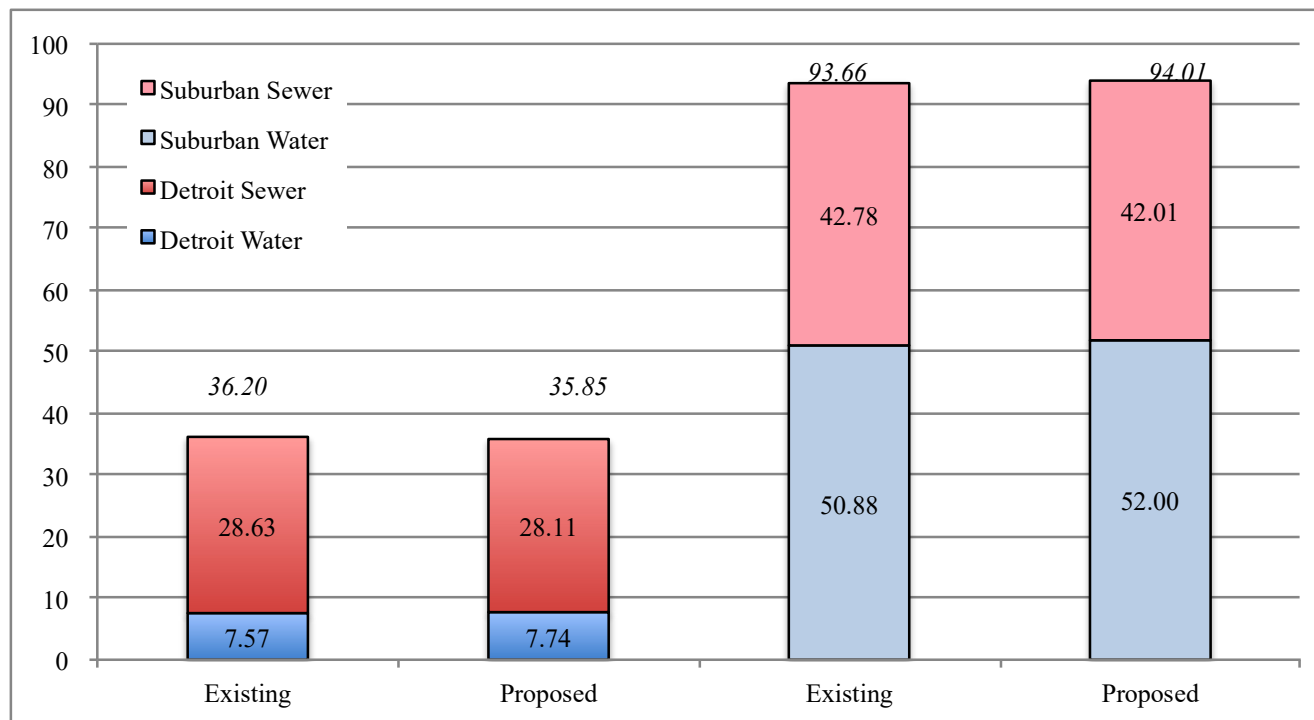
- The PRELIMINARY cost allocation plan is based on a review of a limited data set
- The intent is to continue evaluation as additional data becomes available
- The FY 2019 allocation plan represents a first step, towards this allocation strategy, recognizing that the “end state” may change as a result of ongoing evaluations

Operating Expense Budget: *Administrative and Centralized Services*

- The FY 2019 Implementation Plan uses a universal allocation factor of 46% Water / 54% Sewer for both Administrative and Centralized Services
- With respect to Charges, this will shift approximately \$1.3 million of operating expenses from Sewer to Water
- Important to recognize that this impact is not directly meaningful without evaluating the entirety of the budget impacts
 - ✓ *Both BUDGETs include a 2.0% increase, irrespective of any specific allocation of the elements that make up the budgets*

Operating Expense Budget: *Administrative and Centralized Services*

FY 2019 Implementation Impact on Customer Classes - \$ millions



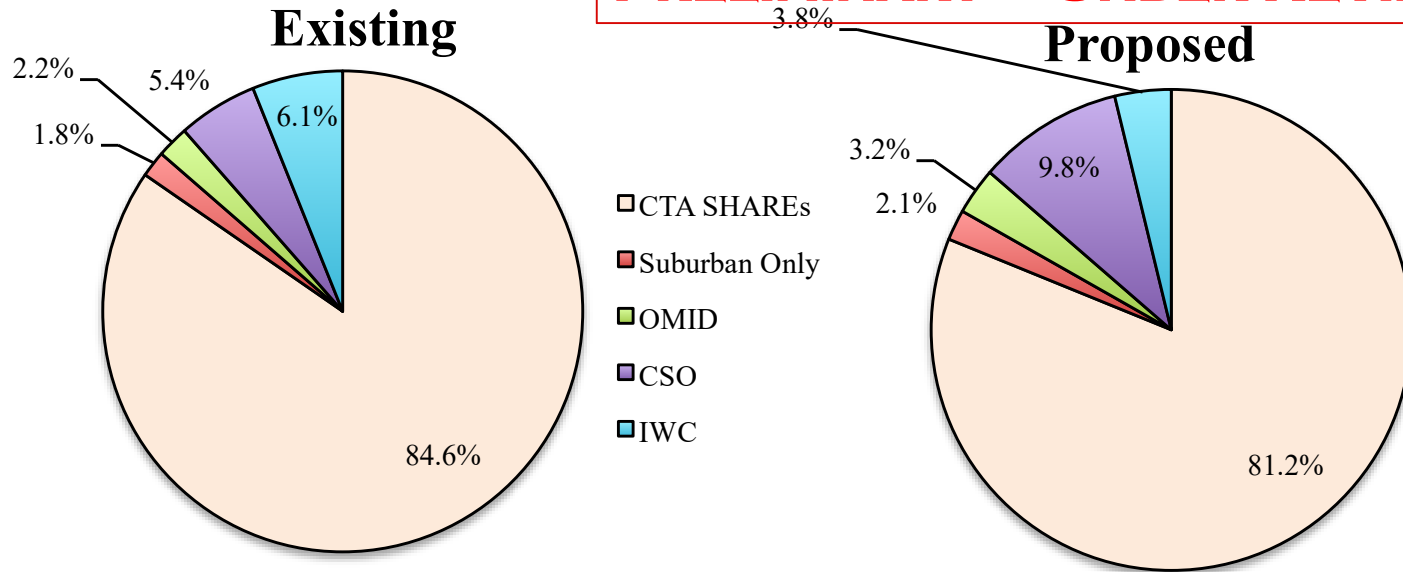
Sewer Operating Expense Budget: CSO and OMID Cost Pools

PRELIMINARY – UNDER REVIEW

- A detailed review of the FY 2019 Sewer Operating Expense Budget indicates a shift of expenses away from Common-to-All (“CTA”) costs allocated based on SHAREs
 - ✓ *CTA SHARE costs – **Decrease** of ~ \$7.1 million*
 - ✓ *CSO program costs – **Increase** of ~ \$9.2 million*
 - ✓ *OMID specific costs – **Increase** of ~ \$2.1 million*
 - ✓ *IWC program costs – **Decrease** of ~ \$4.7 million*

Sewer Operating Expense Budget: Cost Pool Allocations

PRELIMINARY – UNDER REVIEW

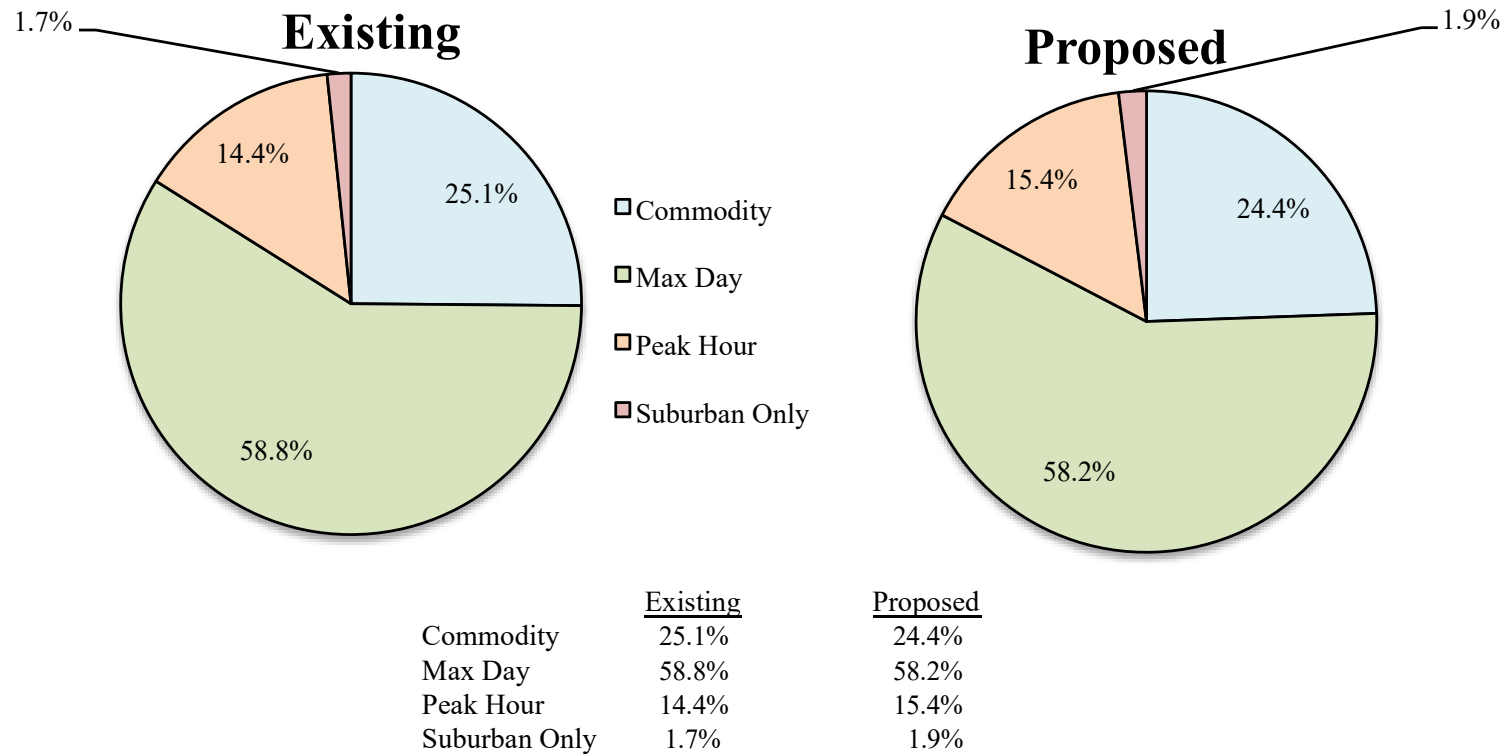


	Existing	Proposed
CTA SHAREs	84.6%	81.2%
Suburban Only	1.8%	2.1%
OMID	2.2%	3.2%
CSO	5.4%	9.8%
IWC	6.1%	3.8%

Water Operating Expense Budget: *Cost Pool Allocation*

- A detailed review of the FY 2019 Water Operating Expense Budget indicates less of a shift between Cost Pools
 - ✓ *Variances do not materially impact cost of service allocations*

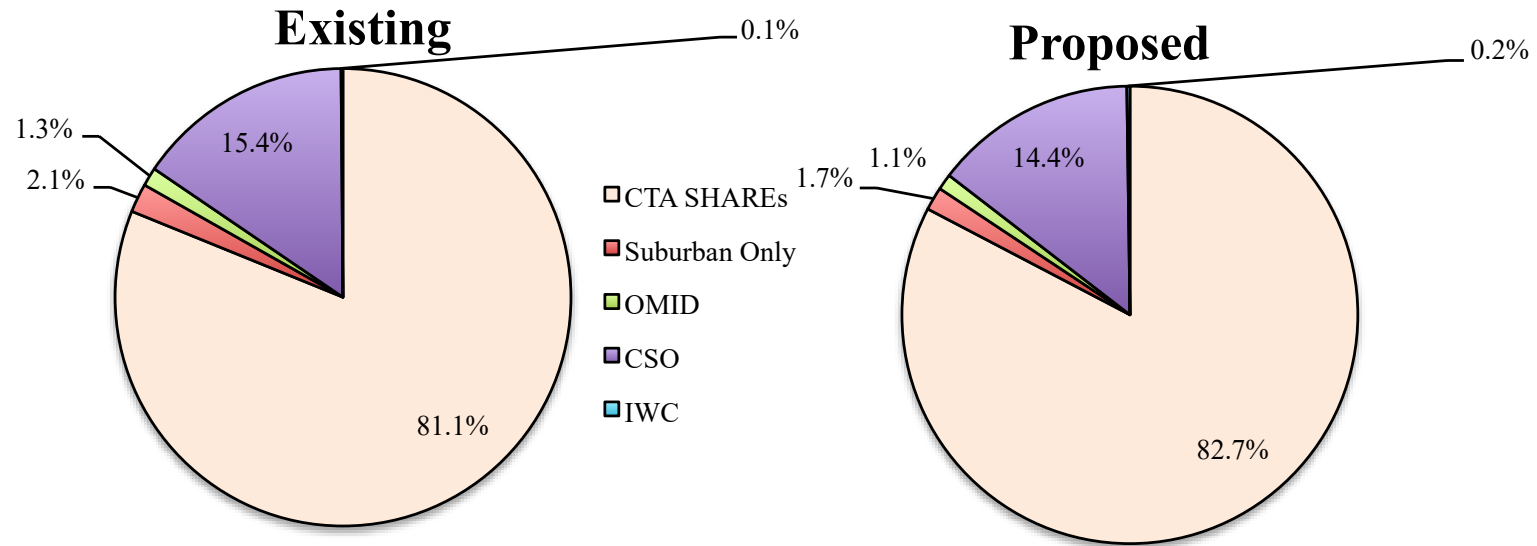
Water Operating Expense Budget: Cost Pool Allocations



Fixed Asset Inventory and Valuation: *Impact on Cost Pools*

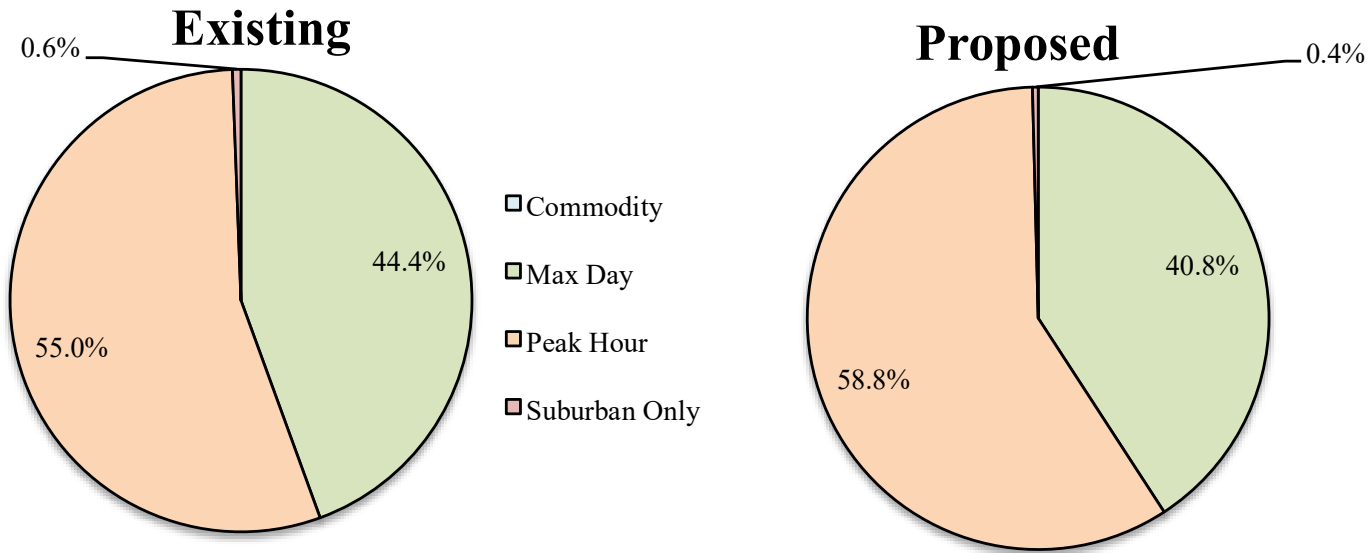
- The new fixed asset inventory and valuation analysis shifts capital revenue requirement cost of service allocations
- The Sewer capital revenue requirement shift is similar to, but less material than, the operating expense shift
- The Water capital revenue requirement shifts moderately from Max Day to Peak Hour Cost Pools

Sewer Capital Revenue Requirements: Cost Pool Allocations



	Existing	Proposed
CTA SHAREs	81.1%	82.7%
Suburban Only	2.1%	1.7%
OMID	1.3%	1.1%
CSO	15.4%	14.4%
IWC	0.1%	0.2%

Water Capital Revenue Requirements: Cost Pool Allocations



	<u>Existing</u>	<u>Proposed</u>
Commodity	0.0%	0.0%
Max Day	44.4%	40.8%
Peak Hour	55.0%	58.8%
Suburban Only	0.6%	0.4%

Water Cost of Service Allocations: *Impact of GCDC's Customer status change*

- GCDC's status change from full service to reciprocal backup service will create a \$3.7 million negative revenue variance in the FY 2019 Budget
- Anticipated revenue from Flint is somewhat lower than FY 2018, which accentuates this challenge
- However, projected sales revenue for other Customers reflects a minor increase, as does projected non-operating revenue
- Net impact is a negative revenue variance of \$2.2 million must be met from increased service charges to Customers, even without a BUDGET increase

Water Cost of Service Allocations: Impact of GCDC's Customer status change

- The net \$2.2 million negative revenue variance equates to a 0.7% Charge increase

Revenue Profile @ FY 2018 Charges

	<u>FY 2018 Budget</u> \$ millions	<u>FY 2018 Estimate</u> \$ millions	<u>Variance</u> \$ millions	<u>FY 2019 Proforma</u> \$ millions	<u>Variance</u> \$ millions	<u>Adj Needed</u>
GLWA Contract Customers	317.5	317.5	0.0	318.3	0.8	
Flint	3.9	6.9	3.0	3.7	(0.2)	
Subtotal - Revenue from Contract Customers	321.4	324.4	3.0	322.0	0.6	-0.20%
GCDC	3.7	4.8	1.1	0.0	(3.7)	1.15%
Total Revenue from Charges	325.1	329.2	4.1	322.0	(3.1)	
Non-Operating Revenue	3.0	3.0	0.0	3.8	0.9	-0.27%
Total Revenue Variance	328.0	332.2	4.1	325.8	(2.2)	
Revenue from GLWA Contract Customers					2.2	0.7%

Water Units of Service: *Impact of UoS Study for non master metered Customers*

- The Preliminary FY 2019 Cost of Service Allocations incorporate the results of the Black & Veatch Study, and the GLWA Administrative Implementation recommendation, which:
 - ✓ *Increases max day and peak hour demands for Detroit and Highland Park by 10% - similar to the approach applied to **model** contract Customers who re-opened during 2017*
 - ✓ *Increases Dearborn's max day and peak hour demands by 20% - consistent with the manner that demands for other Customers under "old" contract formats are treated*

Water Units of Service: *Impact of UoS Study for non master metered Customers* (\$ millions)

		Unadjusted	Technical Recommendations			GLWA Implementation Plan		
		Revenue Req	Adjusted	Variance	% Variance	Adjusted	Variance	% Variance
<u>Non Master Metered Customers</u>								
1	Detroit	36.3	39.7	3.4	9.3%	41.9	5.5	15.3%
2	Dearborn	8.8	9.3	0.5	5.9%	10.8	2.0	22.2%
3	Highland Park	1.1	1.3	0.1	13.0%	1.4	0.2	20.1%
4	Total NMM Customers	46.3	50.3	4.1	8.8%	54.0	7.7	16.7%
5	Master Metered Customers	284.6	280.5	(4.1)	-1.4%	276.8	(7.7)	-2.7%
6	Total System	330.8	330.8	(0.0)	0.0%	330.8	(0.0)	0.0%

Water Units of Service: *Impact of Customer “Re-Opener” Demand Changes*

- Recognition of updated customer demands from the contract re-openers will result in a cost allocation shift
- All else being equal, adjustments to contract demands would re-allocate approximately \$5.9 million in annual revenue requirements from Re-opener Customers to all other Customers

Water Units of Service: *Impact of Customer “Re-Opener” Demand Changes* (\$ millions)

	<u>Customers</u>	Allocated Rev Req't <i>@ Existing</i> <u>Demands</u>	Allocated Rev Req't <i>@ Updated</i> <u>Demands</u>	<u>Variance</u>	<u>% Variance</u>
Re-opener Customers	31	109.5	103.6	(5.9)	-5.4%
All Other Customers	57	221.3	227.2	5.9	2.7%
Total System	<u>88</u>	<u>330.8</u>	<u>330.8</u>	<u>0.0</u>	<u>0.0%</u>

Water Cost of Service Allocations: *Treatment of Flint & Highland Park*

- Flint and Highland Park will initially be allocated cost of service in the same manner as all other Customers
- Subsequently, two adjustments will be required to reflect:
 - ✓ *The credit to Flint associated with KWA Debt Service;*
 - ✓ *The expected collection rate for Highland Park*
 - We are currently continuing to assume no collections of bills issued to Highland Park for Water service
- These adjustments are similar to that made for Detroit's "Ownership Benefit"

Water Cost of Service Allocations: Treatment of Flint & Highland Park (\$ millions)

	Initially Allocated Rev Req't	Adjustments			Adjusted Allocated Rev Req't	Revenue Requirement for Charges	"Gross" Revenue Requirement
		DWSD Own Benefit	KWA Debt Svc Credit	Highland Park Bad Debt			
Flint	10.45	0.75	(6.87)	0.05	4.38	4.38	11.25
Highland Park	1.40	0.10	0.03	(1.53)	0.00	1.53	
Detroit	42.86	(20.70)	0.93	0.20	23.29	23.29	43.99
All Other Customers	276.14	19.85	5.92	1.28	303.18	303.18	
Total System	330.84	(0.00)	(0.00)	0.00	330.84	332.38	

Highland Park Charges will be
computed to bill full Revenue
Requirement

Sewer Cost of Service Allocations: ***Phase II of FY 2018 SHAREs***

- The preliminary FY 2019 Sewer Cost of Service Study implements Phase 2 of the implementation plan for the FY 2018 Sewer SHAREs – without any further adjustment
- However, as noted earlier the allocation of costs to various cost pools does impact

Sewer Cost of Service Allocations:

Impact of Highland Park Collection Assumptions

- The preliminary FY 2019 Sewer Cost of Service and Charges Study assumes a 50% collection rate for Highland Park, compared with 20% in FY 2018
- The FY 2017 Bad Debt Expense for Highland Park is lower than that included in prospective FY 2017 charges
- These developments lower the amount in Suburban Wholesale Sewer Charges associated with Highland Park Bad Debt

Sewer Cost of Service Allocations: Impact of Highland Park Collection Assumptions (\$ millions)

	<u>Existing Charges</u>	<u>Proposed Charges</u>	<u>Variance</u>	<u>% Variance</u>
Projected Bad Debt Expense	4.39	2.78	(1.61)	-36.7%
Bad Debt True-Up	2.82	1.87	(0.94)	-33.5%
Total	<u>7.20</u>	<u>4.65</u>	<u>(2.55)</u>	-35.4%
Relative % of Suburban Revenue	2.7%	1.7%	-1.0%	

DWSD Local System Budget

- Review and incorporation of DWSD Local System revenue requirements, including capital improvement program
✓ Details still under development