



DWSD-R: POST BIFURCATION OVERVIEW

FRC DISCUSSION
12/21/2015

The conditions precedent for the leasing of water and sewer operating assets to GLWA have been completed; allowing for a January 1 bifurcation of DWSD



- ▶ Bondholder consents have been secured

- ▶ Shared services agreements between DWSDR and GLWA have been approved by the BOWC, Mayor and the GLWA board

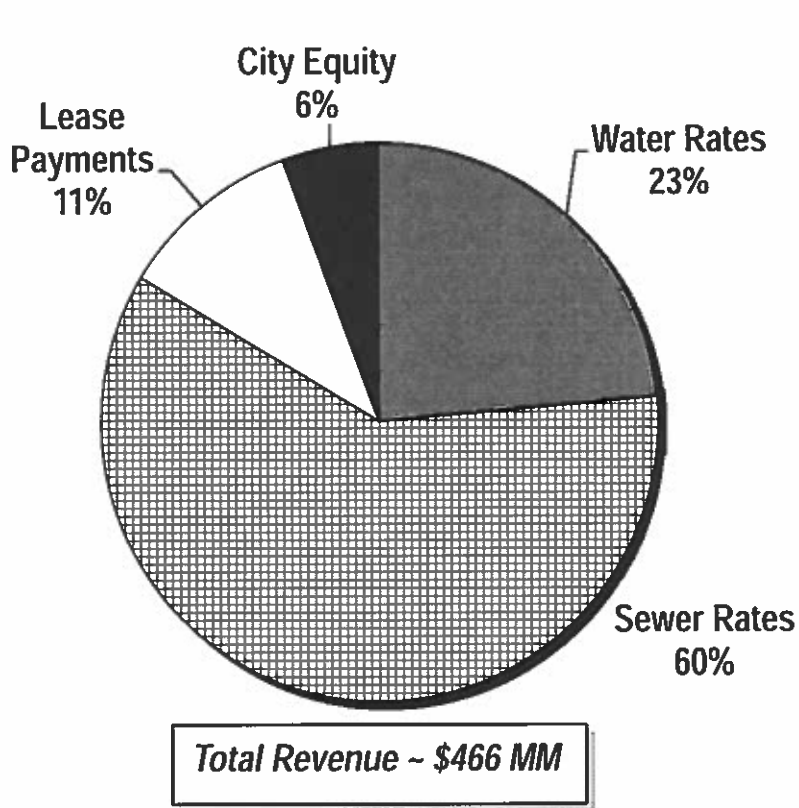
- ▶ Agreement on methodology for allocating pension funding and investment expenses to GLWA / DWSDR has been completed

- ▶ Wholesale customers have agreed to the assignment of contracts from DWSDR to GLWA

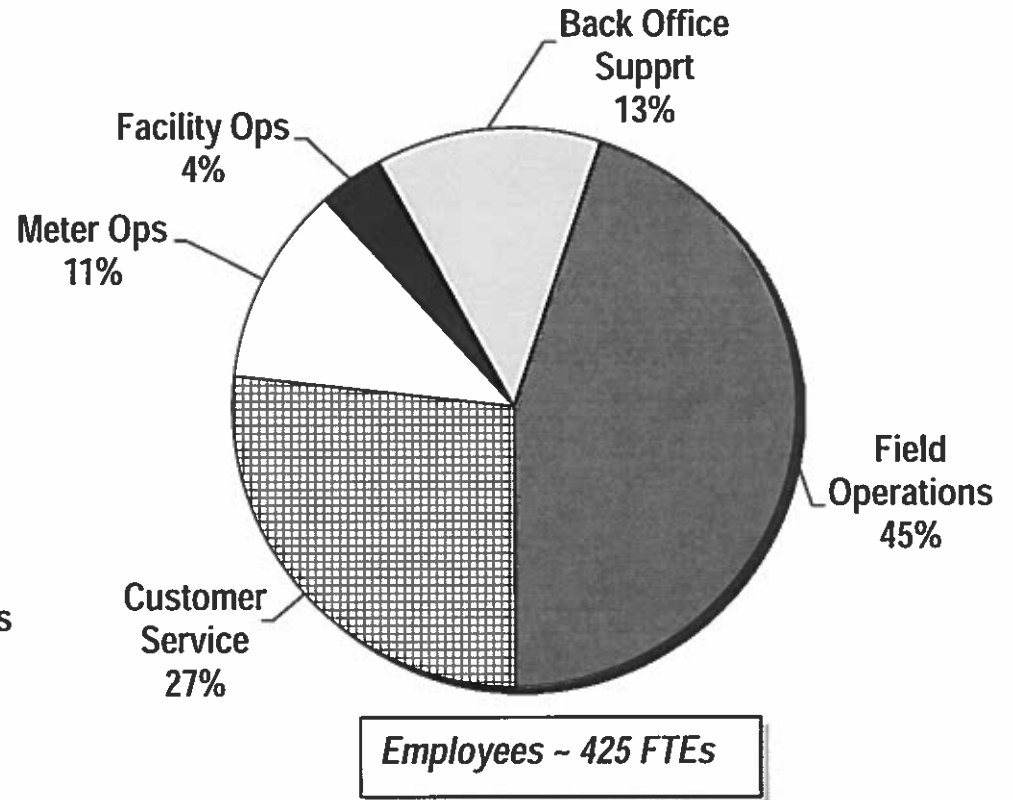
After the 1/1/2016 bifurcation of DWSD the remaining local system will be a 425 employee \$466 million organization



DWSD Annual Revenue Distribution



DWSD Employee Base Distribution



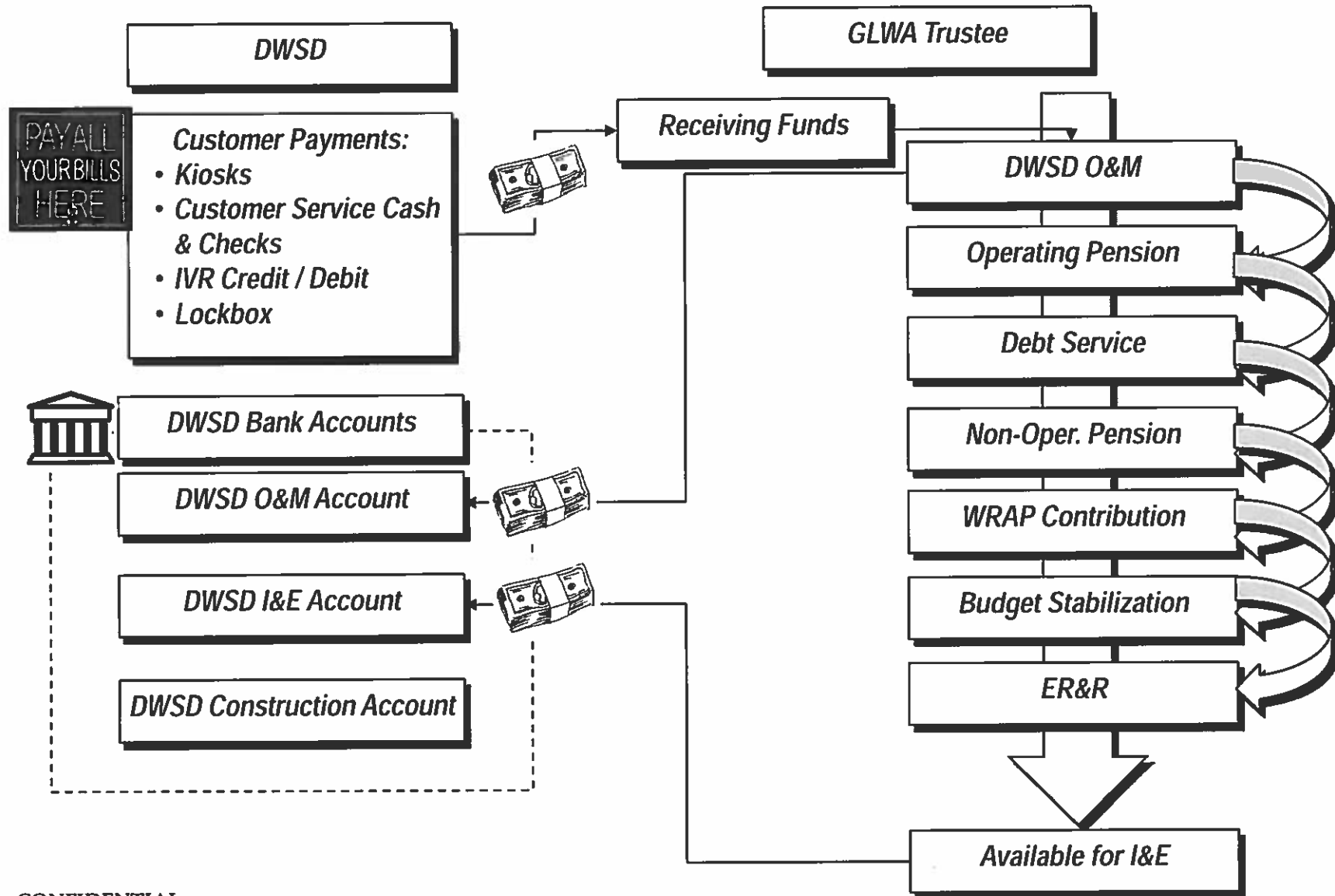
- Currently operating with approximately 394 FTE's
- Biggest headcount gaps in meter operations and customer service

DWSD has assembled an executive team with a broad array of experience to move the operations forward



Team Member	Position	Background
Gary Brown	<ul style="list-style-type: none"> • Executive Director 	<ul style="list-style-type: none"> • BS Degree from Wayne State University • Master's Interdisciplinary Technology - Eastern Michigan University • 26 Years - Detroit Police Executive • 3.5 Years - President Pro Tem - Detroit City Council • 18 Months Chief Operating Officer - City of Detroit (Bankruptcy) • 2 Years Chief Operating Officer - Mayor Michael Duggan Administration • 18 Months - Member of Root Cause Committee for DWSD under Judge Sean Cox • Vice Chair of Great Lakes Water Authority • Interim Director of DWSD
Rob Presnell	<ul style="list-style-type: none"> • Chief Operating Officer 	<ul style="list-style-type: none"> • Tier One Consulting background in Strategy, Operations and Technology • MBA from Ross School of Business at the University of Michigan • Served as Chief of Staff and Special Projects for Detroit COO during bankruptcy • Experience with both public and private entities delivering multi-million dollar transformation projects
Palencia Mobley	<ul style="list-style-type: none"> • Deputy Director / Chief Engineer 	<ul style="list-style-type: none"> • 15 Years of Engineering Planning, Design and Construction Experience for municipal water and wastewater utilities • Licensed for 10 Years as Professional Engineer in the State of Michigan • BS Chemical Engineering (University of Michigan) and MS Civil Engineering (Wayne State University) • Specializes in Asset Mgmt. and Capital Improvement Program Mgmt. • Focused on data driven decision making for optimal organizational efficiency
Marcus Hudson	<ul style="list-style-type: none"> • Chief Financial Officer 	<ul style="list-style-type: none"> • 23 Years of Financial, Operational, and Strategy experience • MBA from University of Michigan • Extensive restructuring experience • CPA, CMA, Certified Turnaround Professional, Certified Insolvency & Restructuring Advisor • Served as VP of Purchasing / Supply Chain and Treasurer for \$1 billion public company

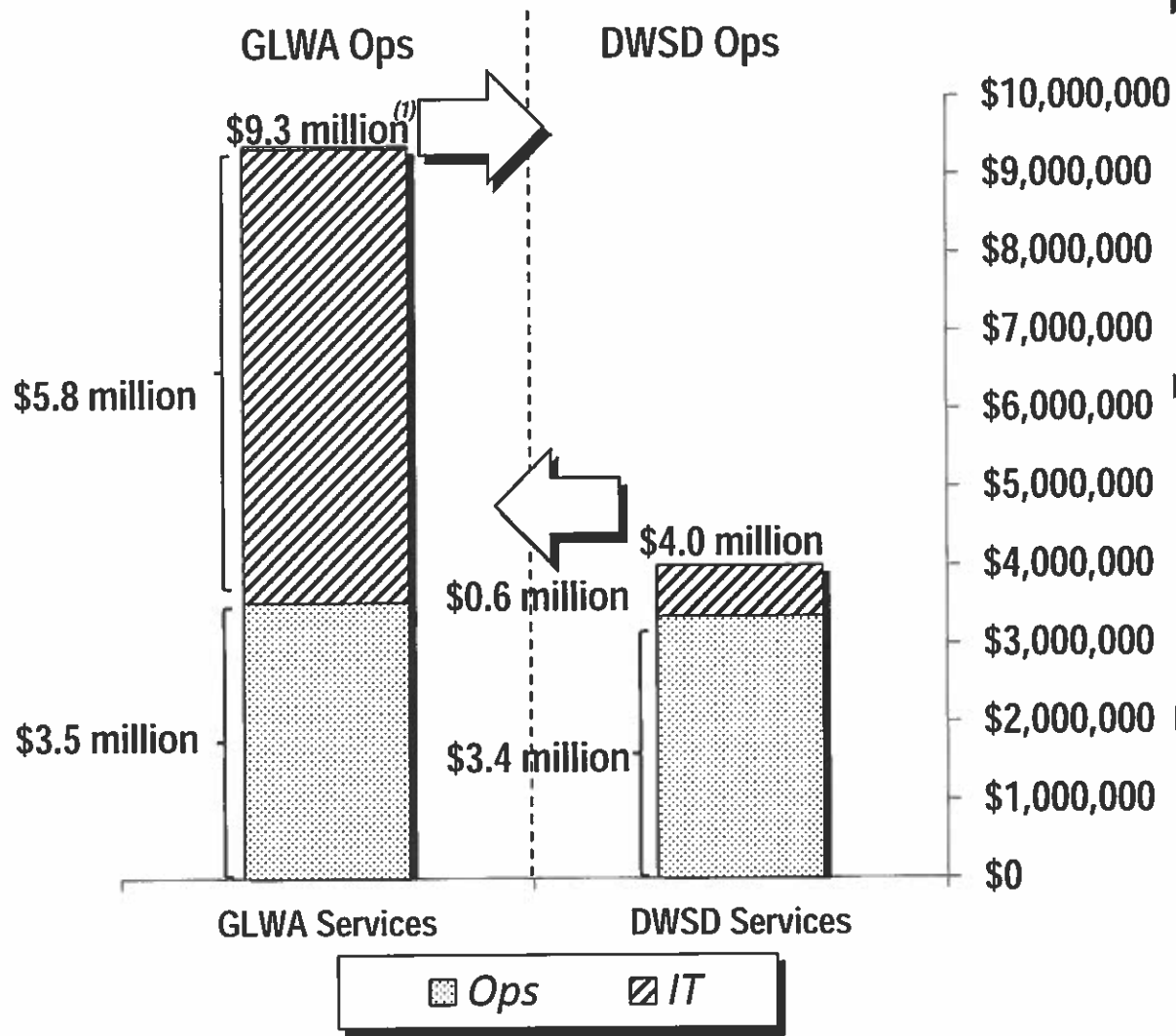
DWSD continues to collect retail revenues; however, collections are pledged to GLWA and run through a “flow of funds” before DWSD can use for I&E



DWSD and GLWA will continue to share certain back office functions; each party will pay the other for services received



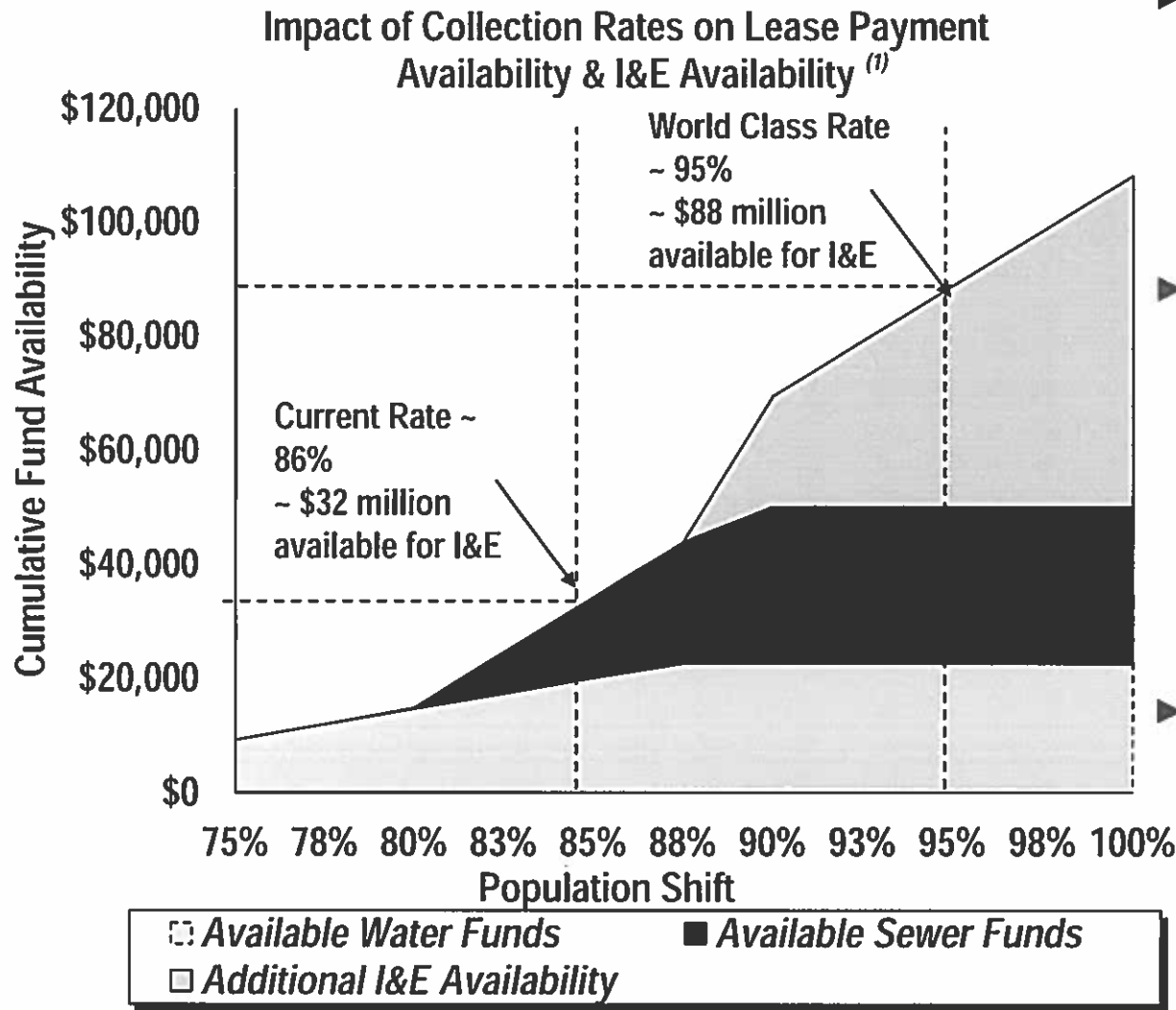
GLWA vs. DWSD Shared Service Costs



- ▶ On balance, DWSD will pay GLWA \$5.3 million, most of this relates to IT services
 - IT servers transferred to GLWA
 - Requisition and inventory management systems transferred to GLWA
 - Required IT personnel support
- ▶ Payments for shared services will be netted on a monthly basis
 - Invoices will be created listing all shared service charges
 - CFO's of GLWA and DWSDR will confer on appropriate net payment for the month
- ▶ The shared services agreements contain true-up provisions
 - Cost allocations will be evaluated by an independent third party
 - Under or overpayments will be settled in cash

(1) Excludes approximately \$38,000 in payment for procurement services

DWSD's ability to generate funds for system improvement will ride on our ability to improve and sustain our collection rate above 85%



- ▶ DWSD lease payments can be used for one of three purposes
 - Paydown of debt in support of rates
 - Improvement & extension of the local system
 - Monetization for construction
- ▶ In FY 2016, DWSD used approximately \$22 million to support rates; without improvement in collection rates this amount is likely to continue
 - Volumes are flat to declining
 - Organization has already reduced headcount significantly
 - Costs are likely to rise, not fall going forward
- ▶ World class collection rates exceed 95%; achieving this rate would raise an additional \$56 million for investment
 - Cut system replacement time from 50 years to 20
 - Improve self funding viability
 - Improve pipe leakage issues; reducing customer costs

(1) All figures calculated assuming 4% maximum rate increase
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Shut-offs will only take us so far – optimizing the collection rate requires redefining DWSD as a customer oriented organization; this is our mission



Refocusing DWSD Priorities

- ▶ **While shut-offs can be somewhat successful in driving increased collection; it's limited in its ability to drive sustainable value**
 - Expensive to conduct
 - Promotes conflict between the utility and the customer and a desire to “beat the system”
 - Doesn't address root causes of non-payment including accessibility and affordability

- ▶ **Reaching the goal of making DWSD a world class organization will require a different approach: the customer has to be first. Accordingly, we are redefining the priorities of our organization...**

- ▶ **...First priority: Improve customer service**

- ▶ **...Second priority: See our first priority**

- ▶ **...Third priority: See the first two priorities**

To hit the ground running, we have already begun formulating projects around the “three A’s” of customer management to support our mission



DWSD Project Focus / Thought Starters

Three A's	Purpose	Projects / Studies	Potential Impact
Accountability	<ul style="list-style-type: none"> • Drive personal accountability to customers that have an ability to pay 	<ul style="list-style-type: none"> • Upgrading of IT systems to become PCI compliant • Linking of accounts to names and social security numbers • Changes in account opening process • Examination of landlord / tenant requirements 	<ul style="list-style-type: none"> • Tie accounts to responsible parties; decreasing ability to “walk away” from bad debt • Redirect bills to parties ultimately responsible for properties • Decrease bad debts built into rate structure
Accessibility	<ul style="list-style-type: none"> • Improve convenience of paying for customers • Increase customers ability to contact DWSD 	<ul style="list-style-type: none"> • Leverage of DTE payment Kiosk infrastructure • Upgrading / improving of IVR system • Centralized complaint system 	<ul style="list-style-type: none"> • Increased customer payment touch points • Quicker / focused response to customer complaints • Improvement in cash collections
Affordability	<ul style="list-style-type: none"> • Minimize cost of service for all customer classes and ensure equitable allocation of costs between classes 	<ul style="list-style-type: none"> • Blue Ribbon Panel study • Examination of rate allocations & wholesale rate advocacy • Investment in green infrastructure • Investigation into broader fund source for plumbing retrofit • Revision of drainage charges 	<ul style="list-style-type: none"> • Lower costs for low usage customers • Improve efficiency of system • Improve efficiency of extended infrastructure; i.e., housing stock • Reduce allocation of fixed charges to retail customers

Though there is some low hanging fruit, implementation of projects and “fixing” the department will take time



- ▶ **Significant data clean-up issues must be resolved**
 - Billing / customer data
 - Fixed asset data

- ▶ **System upgrades / modifications required to billing system to support potential changes in rate calculations**
 - Multiple rates blocks
 - Impervious area charges

- ▶ **System requirements for integration into DTE kiosks yet to be defined**

- ▶ **Cost studies required to support changes in rate structure and allocation methodology**

- ▶ **Legal review of any proposed changes in landlord / tenant arrangements and drainage revisions**



Appendix: Detroit Resident Dynamics

In hopes of facilitating an affordability solution, we have analyzed the Detroit customer base to answer several basic questions



DETROIT RESIDENTIAL ANALYSIS OVERVIEW

<p>The Data</p>	<ul style="list-style-type: none"> • Monthly CCF usage of 128,000 Households out of 217,000 retail customers with focus on 1” pipe size and lower <ul style="list-style-type: none"> – Eliminated churches – Eliminated residential businesses – Eliminated outliers • Households grouped into 1,017 census tracts for regression analysis 	
<p>Questions</p>	<p>Why Its Important</p>	<p>What We Found</p>
<p>What are the drivers of water usage?</p>	<ul style="list-style-type: none"> • Determines focus, design, and potential effectiveness of varying water affordability programs 	<ul style="list-style-type: none"> • Income, household population, structural age major drivers of usage
<p>What is the basic level of water use in the typical Detroit?</p>	<ul style="list-style-type: none"> • Points to most basic level of monthly usage; i.e., lifeline usage • Determines potential starting point for inclining blocks 	<ul style="list-style-type: none"> • Base water usage appears to approximate 2.5 CCF for a household of two at the lowest income levels
<p>What is the distribution of water usage for Detroit customers</p>	<ul style="list-style-type: none"> • Determines reach of potential solutions; i.e., who is aided by water affordability programs and who isn't • Determines magnitude of potential issues • Highlights other issues that may be important to providing affordable rates 	<ul style="list-style-type: none"> • Wide distribution of water usage across and within income classes suggesting “cheap” water isn't the sole issue
<p>What is the probability of customer payment given income and water prices?</p>	<ul style="list-style-type: none"> • Highlights other issues that may be important to providing affordable water 	<ul style="list-style-type: none"> • Strong relationship between income and probability to pay and days outstanding

City of Detroit Water & Sewerage Department
Local Water & Sewer System Budget
January 1, 2016 through June 30, 2016

Exhibit A

Appropriation Categories (2)	Initial Budget for New DWSD Funds (1)		BOWC Approved Budget		Cash on Day 1	Budget Submission to FRC	Comments
	FTEs	Budget	FTEs	Budget			
Water Revenues							
1 20173 - WDWS-D-R Operating Revenue		\$ -		\$ 49,703,100	\$ 36,547,876	\$ 86,250,976	
2 20176 - WDWS-D-R Non-Operating Revenue		\$ -		\$ -	\$ -	\$ -	
3 Total Water Revenues		\$ -		\$ 49,703,100	\$ 36,547,876	\$ 86,250,976	
Water Expenditures							
4 20166 - WDWS-D-R Administration		\$ -		\$ 4,342,006	\$ -	\$ 4,342,006	Includes Pension Reimbursement
5 20167 - WDWS-D-R Operations		\$ -		\$ 18,404,738	\$ -	\$ 18,404,738	Includes \$5.65 million of Allocated Expenses
6 20168 - WDWS-D-R Compliance		\$ -		\$ 2,194,735	\$ -	\$ 2,194,735	
7 20169 - WDWS-D-R Finance		\$ -		\$ 860,259	\$ -	\$ 860,259	
8 20170 - WDWS-D-R Customer Svc		\$ -		\$ 4,412,992	\$ -	\$ 4,412,992	
9 20171 - WDWS-D-R Planning		\$ -		\$ 27,169	\$ -	\$ 27,169	
9 Total Water O&M		\$ -		\$ 30,241,900	\$ -	\$ 30,241,900	
10 20172 - WDWS-D-R Debt Svc & Amort		\$ -		\$ 16,192,900	\$ 15,100,000	\$ 31,292,900	
11 20173 - WDWS-D-R Operating Revenue		\$ -		\$ 211,100	\$ 111,382	\$ 322,482	WRAP payment
12 20174 - WDWS-D-R Long-Term Planning		\$ -		\$ 1,893,700	\$ 20,172,981	\$ 22,066,681	Net Lease Payment to I&E
13 20175 - WDWS-D-R Reserves		\$ -		\$ 1,163,500	\$ 1,163,513	\$ 2,327,013	Budget Stabilization
14 Total Water Non-O&M		\$ -		\$ 19,461,200	\$ 36,547,876	\$ 56,009,076	
15 Total Water Expenditures Budget		\$ -		\$ 49,703,100	\$ 36,547,876	\$ 86,250,976	
Capital Funds							
16 13522 - Water Bond Fund Series 2011 Revenue				\$ 15,000,000		\$ 15,000,000	
17 13522 - Water Bond Fund Series 2011 Expense				\$ 15,000,000		\$ 15,000,000	
Sewer Revenues							
18 20184 - SDWS-D-R Operating Revenue		\$ -		\$ 122,622,500	\$ 55,967,279	\$ 178,589,779	
19 20187 - SDWS-D-R Non-Operating Revenue		\$ -		\$ -	\$ -	\$ -	
19 Total Sewerage Revenues		\$ -		\$ 122,622,500	\$ 55,967,279	\$ 178,589,779	
Sewer Expenditures							
20 20177 - SDWS-D-R Administration		\$ -		\$ 3,307,762	\$ -	\$ 3,307,762	Includes Pension Reimbursement
21 20178 - SDWS-D-R Operations		\$ -		\$ 90,282,218	\$ -	\$ 90,282,218	Includes \$82.3 million of Allocated Expenses
22 20179 - SDWS-D-R Compliance		\$ -		\$ 2,045,909	\$ -	\$ 2,045,909	
23 20180 - SDWS-D-R Finance		\$ -		\$ 689,218	\$ -	\$ 689,218	
24 20181 - SDWS-D-R Customer Svc		\$ -		\$ 4,412,992	\$ -	\$ 4,412,992	
25 Total Sewer O&M		\$ -		\$ 100,738,100	\$ -	\$ 100,738,100	
26 20183 - SDWS-D-R Debt Svc & Amort		\$ -		\$ 16,760,200	\$ 35,100,000	\$ 51,860,200	Includes \$5.6 million of Budget Stabilization
27 20184 - SDWS-D-R Operating Revenue		\$ -		\$ 3,643,300	\$ 6,542,518	\$ 10,185,818	Includes WRAP & Share of Lease Payment
28 20185 - SDWS-D-R Long-Term Planning		\$ -		\$ 1,480,900	\$ 11,529,026	\$ 13,009,926	Additional Reserves From Lease payment
29 20186 - SDWS-D-R Reserves		\$ -		\$ -	\$ 2,795,735	\$ 2,795,735	
30 Total Sewer Non-O&M		\$ -		\$ 21,884,400	\$ 55,967,279	\$ 77,851,679	
31 Total Sewerage Expenditures Budget		\$ -		\$ 122,622,500	\$ 55,967,279	\$ 178,589,778	
Capital Funds							
32 13723 - Water Bond Fund Series 2015 Revenue				\$ -		\$ -	
33 13723 - Water Bond Fund Series 2015 Expense				\$ -		\$ -	
34 Total Water & Sewer O&M		\$ -		\$ 130,980,000	\$ -	\$ 130,980,000	
35 Total Water & Sewer Non-O&M		\$ -		\$ 41,346,600	\$ 92,516,154	\$ 133,860,754	
36 Total Budgeted Expenditures		\$ -		\$ 172,326,600	\$ 92,516,154	\$ 264,840,754	

Note 1: All amounts are zero as this is the initial budget.
Note 2: "R" indicates the local "retail" system.

City of Detroit Water & Sewerage Department
Comparison of FY16 Budgets

Exhibit A

	BOWC Approved Full Year Budget		DWSD Half Year Budget	Stub Year DWSD-R Budget***	Stub Year GLWA Budget****	
	FTEs	Budget				
Water Revenues						
1	04826 - Revenue - Water Receiving	\$ 402,093,889	201,046,945	\$ 49,703,100	\$ 151,343,845	20173 - WDWSD-R Operating Revenue
2	04827 - Revenue - Water Operation - Maintenance	94,700	47,350	-	47,350	20178 - WDWSD-R Non-Operating Revenue
3	00183 - Debt Service and Maintenance	1,035,700	517,850	-	517,850	
4	00164 - Water System Improvements	404,500	202,250	-	202,250	
5	00583 - Water Extraordinary Repair and Replacement	170,500	85,250	-	85,250	
6	12140 - Water Bond Fund Series 2007	-	-	-	-	
7	Total Water Revenues	\$ 403,799,289	\$ 201,899,645	\$ 49,703,100	\$ 152,196,548	Total Water Revenues
Water Expenditures						
8	00085 - Administration	105 \$ 22,601,250	\$ 11,400,625.16	\$ 4,369,175	\$ 7,031,450	20186 - WDWSD-R Administration
9	00086 - Financial Services	98 \$ 4,152,832	\$ 2,076,418	\$ 860,260	\$ 1,216,158.00	20189 - WDWSD-R Finance
10	00087 - Asset Maintenance	293 \$ 35,851,009	\$ 17,925,504	\$ -	\$ 17,925,504.48	
11	00088 - Water Operations	151 \$ 57,702,082	\$ 28,851,041	\$ 18,404,738	\$ 10,446,303.20	20187 - WDWSD-R Operations
12	12448 - Information Technology & Systems Integration & Operations	88 \$ 29,999,065	\$ 14,999,533	\$ 2,194,735	\$ 12,804,797.52	20188 - WDWSD-R Compliance
13	12758 - Public Affairs	187 \$ 11,475,318	\$ 5,737,659	\$ 4,412,692	\$ 1,324,667.10	20110 - WDWSD-R Customer Svc
14	13314 - Process and Quality Control	14 \$ 783,732	\$ 391,866	\$ -	\$ 391,866.00	20171 - WDWSD-R Planning
15	Total Water O&M	916 \$ 162,765,289	\$ 81,382,644.48	\$ 30,241,900	\$ 51,140,744	Total Water O&M
17	00163 - Debt Service and Maintenance	\$ 193,362,800	\$ 96,681,400.00	\$ 16,192,900	\$ 80,488,500	20172 - WDWSD-R Debt Svc & Amort
18	00164 - Water System Improvements	20,568,100	10,283,050	1,893,700	8,389,350	20174 - WDWSD-R Long-Term Planning
19	04826 - Water Receiving	1,881,200	990,600	211,100	778,500	20173 - WDWSD-R Operating Revenue
20	04827 - Water Operation - Maintenance	22,500,000	11,250,000	-	11,250,000	
21	00583 - Water Extraordinary Repair and Replacement	-	-	-	-	
22	05733 - Reserve Deposit	2,623,900	1,311,950.00	1,163,500	148,450	20175 - WDWSD-R Reserves
23	Total Water Non-O&M	241,034,000	\$ 120,517,000.00	\$ 19,461,200	\$ 101,055,800	Total Water Non-O&M
24	Total Water Expenditures Budget	\$ 403,799,289	\$ 201,899,644	\$ 49,703,100	\$ 152,196,548	Total Water Expenditures Budget
Capital Funds**						
26	13522 - Water Bond Fund Series 2011 - Revenue	\$ 203,587,500	\$ 101,793,750.00	\$ 15,000,000	\$ 86,793,750	13522 - Water Bond Fund Series 2011 Revenue
28	13522 - Water Bond Fund Series 2011 - Expense	203,587,500	101,793,750.00	15,000,000	86,793,750	13522 - Water Bond Fund Series 2011 Expense
Sewer Revenues						
27	00838 - State Revenue Sharing - State Revolt	\$ -	\$ -	\$ -	\$ -	Sewer Revenues
28	04828 - Revenue - Sewerage Receiving	527,302,247	263,651,124	122,622,500	141,028,624	20184 - SDWSD-R Operating Revenue
29	04829 - Revenue - Sewerage Operation - Maintenance	135,900	67,950	-	67,950	20187 - SDWSD-R Non-Operating Revenue
30	00168 - Interest and Bond Redemption	1,387,300	693,650	-	693,650	
31	00169 - Sewerage System Improvements	365,400	182,700	-	182,700	
32	00443 - Extraordinary Repairs and Replacement	244,700	122,350	-	122,350	
33	13773 - Sewerage Bond Fund Series 2015	See 'Capital Fund' section	See 'Capital Fund' section	-	-	
34	Total Sewerage Revenues	\$ 529,435,547	\$ 264,717,774	\$ 122,622,500	\$ 142,095,274	Total Sewerage Revenues
Sewer Expenditures						
35	00089 - Administration	\$ 33,030,424	\$ 16,515,212.24	\$ 3,307,762	\$ 13,207,450	Sewer Expenditures
36	00090 - Financial Services	\$ 6,229,241	\$ 3,114,621	\$ 689,218	\$ 2,425,400	20177 - SDWSD-R Administration
37	00161 - Asset Maintenance	\$ 19,314,387	\$ 9,657,194	\$ -	\$ 9,657,194	20180 - SDWSD-R Finance
38	00162 - Wastewater Plant Operations	442 \$ 116,690,401	\$ 58,345,200	\$ 38,508,205	\$ 19,936,995	20178 - SDWSD-R Operations
39	12449 - Information Technology & Systems Integration & Operations	\$ 28,897,005	\$ 14,448,503	\$ -	\$ 14,448,503	
40	12759 - Public Affairs	\$ 10,726,750	\$ 5,363,375	\$ 4,412,692	\$ 950,383	20181 - SDWSD-R Customer Svc
41	13315 - Process and Quality Control	\$ 1,605,438	\$ 802,719	\$ -	\$ 802,719	
42	Total Sewer O&M	442 \$ 218,893,647	\$ 108,346,823	\$ 48,964,067	\$ 59,382,737	Total Sewer O&M
44	00168 - Interest and Bond Redemption	\$ 253,468,400	\$ 126,734,200.00	\$ 68,534,213	\$ 58,199,987	20183 - SDWSD-R Debt Svc & Amort
45	00169 - Sewerage System Improvements	\$ 25,958,300	\$ 12,979,150.00	\$ 1,480,900	\$ 11,498,250	20185 - SDWSD-R Long-Term Planning
46	04828 - Sewerage Receiving	\$ 2,610,800	\$ 1,305,400.00	\$ -	\$ 1,305,400	
47	04829 - Sewerage Operation - Maintenance	\$ 27,500,000	\$ 13,750,000.00	\$ 3,843,300	\$ 10,198,700	20184 - SDWSD-R Operating Revenue
48	05735 - Sewerage Reserve Deposit	\$ 3,204,400	\$ 1,602,200.00	\$ -	\$ 1,602,200	20186 - SDWSD-R Reserves
49	12139 - Sewerage Bond Fund Series 2007	-	-	-	-	
50	Total Sewer Non-O&M	312,741,900	\$ 156,370,950.00	\$ 73,658,413	\$ 82,712,537	Total Sewer Non-O&M
51	Total Sewerage Expenditures Budget	\$ 529,435,547	\$ 264,717,774	\$ 122,622,500	\$ 142,095,274	Total Sewerage Expenditures Budget
Capital Funds**						
52	13723 - Sewerage Bond Fund Series 2015 - Revenue	\$ 6,000,000	\$ 3,000,000	\$ -	\$ 3,000,000	
53	13723 - Sewerage Bond Fund Series 2015 - Expense	\$ 6,000,000	\$ 3,000,000	\$ -	\$ 3,000,000	
54	Total Water & Sewer O&M	1,358 \$ 379,456,936	\$ 189,729,468	\$ 79,209,967	\$ 110,523,481	
55	Total Water & Sewer Non-O&M	\$ 653,776,900	\$ 278,887,950	\$ 93,119,613	\$ 183,788,337	
56	Total Budgeted Expenditures	933,234,036	468,617,418	172,329,600	294,291,818	
57						
58	Water & Sewer Capital Funds**	209,587,500	104,793,750	15,000,000	86,793,750	

* Noted that the Terminal Budget published by the City has discrepancies between the high-level summary and detailed amounts of FTEs. The total from the detailed listing is shown here for comparison. The high-level summaries stated 1,161 FTEs for Water and 683 FTEs for Sewer.

**The capital funds are identified in a separate section of the BOWC approved budget. Capital funds were included in non-O&M expenditures budget in the FRC approved budget.

***This is a guideline only. There may be additional adjustments between appropriations.

****The GLWA budget represents the budget amount to be zeroed out.