AUSTIN WATER COST OF SERVICE RATE STUDY WHOLESALE INVOLVEMENT COMMITTEE DECEMBER 13, 2016 – 9:30 A.M. WALLER CREEK CENTER – ROOM #104 625 E. 10TH STREET, AUSTIN, TEXAS



AGENDA

For more information, please visit <u>http://www.austintexas.gov/department/2016-cost-service-rate-study</u>

MISSION: The purpose of the Wholesale Involvement Committee (WIC) is to examine the methodology being developed to determine cost of service for all customer classes with a primary focus on the wholesale customer classes, discuss the impacts of key cost of service factors, and advise the Austin Water Executive Team in their decision-making process.

MEETING GOALS: Discuss the cost allocation process and the development of units of service for each customer class.

CALL TO ORDER

1. CITIZEN COMMUNICATION

The first 10 speakers signed up prior to the meeting being called to order will each be allowed a threeminute allotment to address their concerns regarding items not posted on the agenda.

2. DISCUSSION ITEMS

- a. Previous WIC Meeting Review
- b. Cost allocation of revenue requirements
- c. Costs by demand parameters
- d. Units of service for each customer class
- e. Unit costs by demand parameters

3. STAFF BRIEFINGS, PRESENTATIONS, AND OR REPORTS

- a. Discuss the cost of service process, including cost functionalization and common-to-all or retail only cost allocation of water expenses
- b. Discuss the cost allocation of functional categories to demand parameters
- c. Discuss the development of units of service for each customer class according to demand parameters
- d. Discuss the unit cost development

4. COMMITTEE DISCUSSION

a. WIC Member Questions and Discussion

5. FUTURE AGENDA ITEMS

6. PUBLIC COMMENT

7. ADJOURN

The City of Austin is committed to compliance with the American with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Meeting locations are planned with wheelchair access. If requiring Sign Language Interpreters or alternative formats, please give at least 4 days notice before the meeting date. Please call Felicia Cancino at the Austin Water Utility Department at 512-972-0114, for additional information; TTY users route through Relay Texas at 711 Page 2 of 2



Presentation | WIC







Presentation | WIC

Presentation | WIC

Austin

ATER







WIC COMMENTS FROM LAST MEETING









WATER O&M COST CENTERS

Water Cost Centers

- Water Treatment
- Pipeline Operations
- Distribution System Support
- One Stop Shop
- Support Services
- Conservation & Reuse
- Billing & Customer Services
- Transfers & Other Requirements
- Water Conservation

Key Water Service Functions

- Raw Water
- Treatment
- Pump Stations & Booster Stations
- Pump Stations Power
- Tanks/ Reservoirs
- Transmission Mains
- Distribution Mains
- Direct Fire
- Retail Meters & Services
- Meters & Services
- Customer Service
- Small Calls
- Special Retail Allocations

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WATER O&M COST ALLOCATIONS

Function	Common to All Costs (Retail and Wholesale)	Retail Only Costs	Wholesale Only Costs
Raw Water – LCRA Water Rights	Х		
Raw Water – Watershed Land Purchases		Х	
Treatment	Х		
Pump Stations & Booster Stations	Х		There
Pump Stations Power	Х		are no
Tanks/ Reservoirs	Х		Wholesale
Transmission Mains	Х		Only
Distribution Mains		Х	Costs
Direct Fire		Х	00313
Retail Meters & Services		Х	
Meters & Services	Х		
Customer Service	Х		
Small Calls	Х		
Special Retail Allocations		Х	

WATER CAPITAL COSTS



WATER CAPITAL COST ALLOCATIONS

Function	Common to All Costs (Retail and Wholesale)	Retail Only Costs	Wholesale Only Costs
Raw Water – LCRA Water Rights	Х		
Raw Water – Watershed Land Purchases		Х	
Treatment	Х		
Pump Stations & Booster Stations	Х		There
Pump Stations Power	Х		are no
Tanks/ Reservoirs	Х		Wholesale
Transmission Mains	Х		OBM
Distribution Mains		Х	Costs
Direct Fire		Х	00010
Retail Meters & Services		Х	
Meters & Services	Х		
Customer Service	Х		
Small Calls	Х		
Special Retail Allocations		Х	



FUNCTIONALIZED COST ALLOCATED TO PARAMETER

Example: Transmission Mains





Transmission main must be sized larger to meet max day demand

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» Transmission costs are allocated to the Base and Max Day Demand Parameters

O&M ALLOCATIONS COMMON-TO-ALL (\$ Millions)

Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
Raw Water	6.97							6.97
Treatment Facilities	4.48	2.12						6.60
Chemicals & Power	44.80							44.80
Pump & Booster Stations	6.72							6.72
Tanks/ Reservoirs	0.51	0.24						0.75
Transmission Mains	11.14	5.28						16.42
Distribution Mains								
Fire								
Meters & Services					4.52			4.52
Customer Service				17.42				17.42
Special Retail Allocation								
General Fund Transfer	22.59							22.59
Total Common-To-All	\$97.20	\$7.65	\$0.00	\$17.42	\$4.52	\$0.00	\$0.00	\$126.78
Retail	92.09	6.94		17.41	4.47			120.92
Wholesale	5.11	0.70			0.04			5.86
Total Common-To-All	\$97.20	\$7.65	\$0.00	\$17.42	\$4.52	\$0.00	\$0.00	\$126.78

O&M ALLOCATIONS RETAIL ONLY (\$ Millions)								
Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
Raw Water	5.69							5.69
Treatment Facilities								
Chemicals & Power Pump & Booster Stations								
Tanks/ Reservoirs								
Transmission Mains								
Distribution Mains	8.88	4.06	5.34			1.16		19.44
Fire						2.10		2.10
Meters & Services					3.17			3.17
Customer Service								
Special Retail Allocation							6.98	6.98
General Fund Transfer								
Total Retail Only	\$14.57	\$4.06	\$5.34	\$0.00	\$3.17	\$3.26	\$6.98	\$37.37

O&M ALLOCATIONS SUMMARY (\$ Millions)

Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
<u>Retail</u>								
Common-to All	92.09	6.94		17.41	4.47			120.92
Retail Only	14.57	4.06	5.34		3.17	3.26	6.98	37.37
Total Retail	106.66	11.00	5.34	17.41	7.64	3.26	6.98	158.29
Wholesale								
Common-to-All	5.11	0.70			0.04			5.86
Wholesale Only								
Total Wholesale	5.11	0.70			0.04			5.86
Total System	\$111.77	\$11.71	\$5.34	\$17.42	\$7.68	\$3.26	\$6.98	\$164.15
Retail	9 5%	9 4%	100%	100%	99%	100%	100%	<mark>96%</mark>
Wholesale	5%	6%	0%	0%	1%	0%	0%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%

CAPITAL ALLOCATIONS								
COM	ION-	-TO-	-AL	L (\$ I	Milli	on	s)	
Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
Raw Water								
Treatment Facilities	39.14	18.57						57.71
Chemicals & Power	0.00	0.00						0.00
Pump & Booster Stations	4.03	0.00						4.03
Tanks/ Reservoirs	4.28	2.03						6.31
Transmission Mains	23.12	10.97						34.09
Distribution Mains								0.00
Fire								0.00
Meters & Services					3.75			3.75
Customer Service								0.00
Special Retail Allocation								0.00
General Fund Transfer								0.00
Total Common-To-All	70.58	31.56	\$0.00	\$0.00	3.75	\$0.00	\$0.00	105.89
Retail	66.52	28.66			3.72			98.89
Wholesale	4.06	2.91			0.04			7.00
Total Common-To-All	\$70.6	\$31.6	\$0.00	\$0.00	\$3.8	\$0.00	\$0.00	\$105.9

CAPITAL ALLOCATIONS RETAIL ONLY (\$ Millions)

Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
Raw Water								
Treatment Facilities								
Chemicals & Power								
Pump & Booster Stations								
Tanks/ Reservoirs								
Transmission Mains								
Distribution Mains	8.96	4.10	5.39			1.17		19.62
Fire						1.71		1.71
Meters & Services								
Customer Service								
Special Retail Allocation								
General Fund Transfer								
Total Retail Only	\$8.96	\$4.10	\$5.39	\$0.00	\$0.00	\$2.88	\$0.00	\$21.33
								22

CAPITAL ALLOCATIONS SUMMARY (\$ Millions)								
Function	Base	Max Day	Max Hour	Customer	Meter	Fire	Special Retail	Total
<u>Retail</u>								
Common-to All	66.52	28.66	0.00	0.00	3.72	0.00	0.00	98.89
Retail Only	8.96	4.10	5.39	0.00	0.00	2.88	0.00	21.33
Total Retail	75.48	32.75	5.39	0.00	3.72	2.88	0.00	120.22
<u>Wholesale</u>								
Common-to-All	4.06	2.91	0.00	0.00	0.04	0.00	0.00	7.00
Wholesale Only	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Wholesale	4.06	2.91	0.00	0.00	0.04	0.00	0.00	7.00
Total System	\$79.54	\$35.66	\$5.39	\$0.00	\$3.75	\$2.88	\$0.00	\$127.23
Retail	9 5%	92%	100%	0%	99 %	100%	0%	94%
Wholesale	5%	8%	0%	0%	1%	0%	0%	6%
Total	100%	100%	100%	0%	100%	100%	0%	100%



WATER CUSTOMER CLASSES

Existing Classes

- » Residential
- » Residential CAP
- » Multi-Family
- » Commercial
- » Industrial Customers
- » Wholesale Customers

Potential New Class

- » Small Multi-Family
- » Outside City Retail

WATER CUSTOMER CLASSES

For Each Customer Class:

- » Annual Usage or Base Units
- » Max Day Units
 - Extra Capacity Max Day Units
- » Max Hour Units
 - Extra Capacity Max Hour Units
- » Customer Units:
 - Number of bills
 - Equivalent meters

COS 2016 | WIC

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DETERMINING UNITS



WATER CUSTOMER CLASSES





EQUIVALENT METERS

»	Meter service costs can	Meter Size	Current Meter Ratios
	be distributed to	5/8 – in	1.0
	customers in proportion	3/4 – in	1.5
	to the replacement cost of	1 – in	2.5
	the meter. Capacity	1 ½ – in	5.0
	(Peaking) related costs	2 – in	8.0
	can be distributed to	3 – in	16.0
	to the hydraulic canacity	4 – in	25.0
	of installed meters	6 – in	50.0
		8 – in	80.0

10 – in

115.0





Austin Water Customer Classes' Units of Service

Joseph Gonzales, Utility Budget & Finance Manager



CUSTOMER CLASS SUMMARY

Volume Related Units:

- Base Units Annual Consumption by Class
- Max Day Units
 - Extra Capacity Max Day Units
- Max Hour Units
 - Extra Capacity Max Hour Units

CUSTOMER CLASS SUMMARY

Retail Peaking Factors

Austin

MATER

	MAX DA	Y NCPs		MAX HOUR NCPs				
	COS 2015-16 COS 2016-17			COS 2015-16	COS 2016-17			
	3 Year Average FY 2011-12 to FY 2013-14	3 Year Average FY 2012-13 to FY 2014-15	Percent Change	3 Year Average FY 2011-12 to FY 2013-14	3 Year Average FY 2011-12 to FY 2013-14	Percent Change		
RETAIL								
Residential	154	150	-2.7%	226	226	0.0%		
Residential CAP	175	159	-10.1%	252	222	-13.5%		
Multifamily	137	134	-2.2%	189	179	-5.6%		
Commercial	163	151	-7.9%	212	207	-2.4%		
Large Volume:								
Spansion	131	130	-0.8%	189	181	-4.4%		
NXP - Ed Bluestein	132	125	-5.6%	191	172	-11.0%		
NXP - W William Cannon	132	134	1.5%	191	186	-2.7%		
Samsung	137	141	2.8%	205	197	-4.1%		
Novati	137	129	-6.2%	198	180	-10.0%		
University of Texas	151	142	-6.3%	217	197	-10.2%		
System Average	158	166	4.8%	228	232	1.7%		

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Austin CUSTOMER CLASS SUMMARY

Wholesale Peaking Factors

	MAX DA	Y NCPs		MAX HO		
	COS 2015-16	COS 2015-16 COS 2016-17		COS 2015-16	COS 2016-17	
	3 Year Average FY 2011-12 to FY 2013-14	3 Year Average FY 2012-13 to FY 2014-15	Percent Change	3 Year Average FY 2011-12 to FY 2013-14	3 Year Average FY 2011-12 to FY 2013-14	Percent Change
WHOLESALE *						
Creedmoor-Maha	160	151	-6.0%	231	211	-9.5%
High Valley W.S.C.	175	175	0.0%	251	244	-2.9%
Marsha W.S.C.	158	179	11.7%	272	249	-9.2%
Mid Tex Utilities	0	236	100.0%	0	330	100.0%
Morningside	227	209	-8.6%	377	291	-29.6%
Night Hawk W.S.C.	150	165	9.1%	250	230	-8.7%
North Austin MUD #1	170	172	1.2%	246	240	-2.5%
Northtown MUD	146	140	-4.3%	211	195	-8.2%
Rivercrest MUD	183	186	1.6%	264	260	-1.5%
Rollingwood, City of	205	200	-2.5%	304	279	-9.0%
Shady Hollow MUD	215	235	8.5%	308	328	6.1%
Sunset Valley, City of	158	161	1.9%	228	226	-0.9%
Village of San Leanna	138	132	-4.5%	200	184	-8.7%
Travis Co. WCID #10	184	190	3.2%	265	266	0.4%
Wells Branch MUD	157	154	-1.9%	226	215	-5.1%
Southwest Water	179	162	-10.5%	261	226	-15.5%
System Average	158	166	4.8%	228	232	1.7%



Non-Volume Related Units:

- Customer Units:
 - Number of accounts
 - Equivalent meters
 - Equivalent fires services



RECAP OF TODAY'S DISCUSSION

I. Cost Allocation

II. Conceptual Units of Service

III. AW's Customer Classes' Units

WIC -SCHEDULE & TOPICS

Meeting	Day	Date	<u>Objective</u>
4	Tues	27-Sep	Orientation
2	₩ed	5-Oct	Revenue requirements
3	Tues	8-Nov	Revenue requirements - Cont'd
4	Tues	29-Nov	Water Cost Allocation
5	Tues	13-Dec	Water Cost Allocation
6	Wed	4-Jan	Wastewater Cost Allocation
7	Tues	17-Jan	Rates and Customer Impacts
8	Tues	31-Jan	Rates and Customer Impacts- Cont'd
9	Tues	21-Feb	Overview of Results and Wrap-up

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Customer Class 2017 Units|WIC

Customer Class 2017 Units WIC





Customer Class 2017 Units|WIC

Customer Class 2017 Units WIC



Table 64	
Austin Water Utility	
Water Cost of Service Model - Base/Extra-Capacity Method	
Percentage of Annual Water Demands by Customer Class	

	Annual Demand	Average Day	
Customer Class	(MG)	Demand (MGD)	Percent of Total
Residential	13,244.1	36.3	32.58%
Multi-Family	9,392.1	25.7	23.10%
Commercial	11,212.8	30.7	27.58%
Residential CAP	1,321.8	3.6	3.25%
Creedmore-Maha	77.1	0.2	0.19%
High Valley	6.5	0.0	0.02%
Manor, City of	0.0	0.0	0.00%
Mid Tex Utilities	21.9	0.1	0.05%
Marsha Water	11.8	0.0	0.03%
Morningside	1.9	0.0	0.00%
Nighthawk	12.3	0.0	0.03%
North Austin MUD	293.0	0.8	0.72%
Northtown MUD	277.4	0.8	0.68%
Rivercrest	112.2	0.3	0.28%
Rollingwood	110.0	0.3	0.27%
Shady Hollow	152.5	0.4	0.38%
Sunset Valley MUD	105.1	0.3	0.26%
Village of San Leanna	4.5	0.0	0.01%
Water District 10	726.9	2.0	1.79%
Wells Branch MUD	421.5	1.2	1.04%
Southwest Water	4.8	0.0	0.01%
Spansion	301.3	0.8	0.74%
NXP - Ed Bluestein Blvd	432.2	1.2	1.06%
NXP - W William Cannon	303.3	0.8	0.75%
Samsung	1,689.7	4.6	4.16%
Novati	67.0	0.2	0.16%
University of Texas	349.3	1.0	0.86%
Total	40,652.9	111.4	100.00%

Austin Water Peaking Factors FY 2017

MAX DAY NCPs

MAX HOUR NCPs

	COS 2015-16	COS 2016-17		COS 2015-16	COS 2016-17	
	FY 2011-12 to FY 2013-14	FY 2012-13 to FY 2014-15	Percent Change	FY 2011-12 to FY 2013-14	FY 2011-12 to FY 2013-14	Percent Change
RETAIL						
Residential	154	150	-2.7%	226	226	0.0%
Residential CAP	175	159	-10.1%	252	222	-13.5%
Multifamily	137	134	-2.2%	189	179	-5.6%
Commercial	163	151	-7.9%	212	207	-2.4%
Large Volume:						
Spansion	131	130	-0.8%	189	181	-4.4%
NXP - Ed Bluestein	132	125	-5.6%	191	172	-11.0%
NXP - W William Cannon	132	134	1.5%	191	186	-2.7%
Samsung	137	141	2.8%	205	197	-4.1%
Novati	137	129	-6.2%	198	180	-10.0%
University of Texas	151	142	-6.3%	217	197	-10.2%
System Average	158	166	4.8%	228	232	1.7%

MAX DAY NCPs

MAX HOUR NCPs

	COS 2015-16 3 Year Average FY 2011-12 to FY 2013-14	COS 2016-17 3 Year Average FY 2012-13 to FY 2014-15	Percent	COS 2015-16 3 Year Average FY 2011-12 to FY 2013-14	COS 2016-17 3 Year Average FY 2011-12 to FY 2013-14	Percent
WHOLESALE *	112013-14	112014-13	Change	112013-14	112013-14	onange
Croadmaar Maha	160	151	6 O9/	004	011	0.5%
	100	101	-0.0%	231	211	-9.5%
High Valley W.S.C.	175	175	0.0%	251	244	-2.9%
Marsha W.S.C.	158	179	11.7%	272	249	-9.2%
Mid Tex Utilities	0	236	100.0%	0	330	100.0%
Morningside	227	209	-8.6%	377	291	-29.6%
Night Hawk W.S.C.	150	165	9.1%	250	230	-8.7%
North Austin MUD #1	170	172	1.2%	246	240	-2.5%
Northtown MUD	146	140	-4.3%	211	195	-8.2%
Rivercrest MUD	183	186	1.6%	264	260	-1.5%
Rollingwood, City of	205	200	-2.5%	304	279	-9.0%
Shady Hollow MUD	215	235	8.5%	308	328	6.1%
Sunset Valley, City of	158	161	1.9%	228	226	-0.9%
Village of San Leanna	138	132	-4.5%	200	184	-8.7%
Travis Co. WCID #10	184	190	3.2%	265	266	0.4%
Wells Branch MUD	157	154	-1.9%	226	215	-5.1%
Southwest Water	179	162	-10.5%	261	226	-15.5%
System Average	158	166	4.8%	228	232	1.7%

*City of Manor was exculded from this table

Table 67 Austin Water Utility Water Cost of Service Model - Base/Extra-Capacity Method Percentage of Accounts by Customer Class

	Number of	
Customer Class	Accounts	Percent of Total
Residential	184,490	81.37%
Multi-Family	5,954	2.63%
Commercial	17,860	7.88%
Residential CAP	18,344	8.09%
Creedmore-Maha	3	0.00%
High Valley	1	0.00%
Manor, City of	1	0.00%
Mid Tex Utilities	1	0.00%
Marsha Water	1	0.00%
Morningside	1	0.00%
Nighthawk	1	0.00%
North Austin MUD	7	0.00%
Northtown MUD	7	0.00%
Rivercrest	2	0.00%
Rollingwood	3	0.00%
Shady Hollow	2	0.00%
Sunset Valley MUD	7	0.00%
Village of San Leanna	1	0.00%
Water District 10	4	0.00%
Wells Branch MUD	7	0.00%
Southwest Water	1	0.00%
Spansion	2	0.00%
NXP - Ed Bluestein Blvd	1	0.00%
NXP - W William Cannon	1	0.00%
Samsung	3	0.00%
Novati	1	0.00%
University of Texas	19	0.01%
Total	226,725	100.00%

Table 68	
Austin Water Utility	
Water Cost of Service Model - Base/Extra-Capacity Met	thod
Percentage of Equivalent Meters by Customer Class	

	Number of	
Customer Class	Equivalent Meters	Percent of Total
Residential	202,141	56.79%
Multi-Family	44,111	12.39%
Commercial	84,114	23.63%
Residential CAP	20,099	5.65%
Creedmore-Maha	41	0.01%
High Valley	8	0.00%
Manor, City of	16	0.00%
Mid Tex Utilities	80	0.02%
Marsha Water	8	0.00%
Morningside	8	0.00%
Nighthawk	16	0.00%
North Austin MUD	740	0.21%
Northtown MUD	700	0.20%
Rivercrest	230	0.06%
Rollingwood	150	0.04%
Shady Hollow	100	0.03%
Sunset Valley MUD	446	0.13%
Village of San Leanna	16	0.00%
Water District 10	385	0.11%
Wells Branch MUD	405	0.11%
Southwest Water	50	0.01%
Spansion	195	0.05%
NXP - Ed Bluestein Blvd	80	0.02%
NXP - W William Cannon	80	0.02%
Samsung	345	0.10%
Novati	115	0.03%
University of Texas	1,283	0.36%
Total	355,961	100.00%

Table 69
Austin Water Utility
Water Cost of Service Model - Base/Extra-Capacity Method
Fire by Customer Class

	Fire Allocation			
	Basis - Equivalent			
Customer Class	Fire Services	Percent of Total		
Residential	211,766.03	36.12%		
Multi-Family	162,078.11	27.64%		
Commercial	176,242.15	30.06%		
Residential CAP	21,056.05	3.59%		
Creedmore-Maha	0.00	0.00%		
High Valley	0.00	0.00%		
Manor, City of	0.00	0.00%		
Mid Tex Utilities	0.00	0.00%		
Marsha Water	0.00	0.00%		
Morningside	0.00	0.00%		
Nighthawk	0.00	0.00%		
North Austin MUD	0.00	0.00%		
Northtown MUD	0.00	0.00%		
Rivercrest	0.00	0.00%		
Rollingwood	0.00	0.00%		
Shady Hollow	0.00	0.00%		
Sunset Valley MUD	0.00	0.00%		
Village of San Leanna	0.00	0.00%		
Water District 10	0.00	0.00%		
Wells Branch MUD	0.00	0.00%		
Southwest Water	0.00	0.00%		
Spansion	1,700.00	0.29%		
NXP - Ed Bluestein Blvd	800.00	0.14%		
NXP - W William Cannon	800.00	0.14%		
Samsung	2,700.00	0.46%		
Novati	900.00	0.15%		
University of Texas	8,301.84	1.42%		
Total	586,344.18	100.00%		