

**City of Carson City
Agenda Report**

Date Submitted: June 7, 2013

Agenda Date Requested: June 20, 2013
Time Requested: 1.5 Hours

To: Mayor and Supervisors
From: Public Works

Subject Title: For Possible Action: To adopt the rate alternative for water and sewer utilities which either includes a 5 or 10 year transition for inclusion of depreciation funding, to adopt the revised rate design to provide equity between classes with a 5-year phase in approach, and increasing water rates from 4% to as high as 6.5% and sewer rates from 13% to as high as 15% for five years and instruct staff to bring forward rate ordinances within 60 days. (*Andrew Burnham*)

Staff Summary: A Water and Sewer Rate Study was done with the objective to evaluate potential changes in customer class cost allocations and design alternative rate structures to meet utility pricing goals assuming a revenue-neutral long range financial forecast for each utility. Connection charges were updated to reflect current and planned system investment. In addition to a revenue neutral baseline analysis, scenarios were developed to project revenue requirements to meet O&M, capital, and fiscal policy needs including funding depreciation in the future. The rate consultant presented the results of the study on April 18, 2013. The Board will now be asked to adopt the study and provide direction for implementation.

Type of Action Requested: (check one)

Resolution Ordinance
 Formal Action/Motion Other (Direction to Staff)

Does This Action Require A Business Impact Statement: Yes No

Recommended Board Action: I move to adopt the rate alternative for water and sewer utilities which includes a (5 or 10) year transition for inclusion of depreciation funding, to adopt the revised rate design to provide equity between classes with a 5-year phase in approach, and to increase water rates (4% or 6.5%) and sewer rates (13% or 15%) for five years and instruct staff to bring forward rate ordinances within 60 days

Explanation for Recommended Board Action: FCS Group is an expert in conducting utility rate studies and currently provides services to many clients in the region including Douglas County, Washoe County, and Sparks. The study included reviewing and analyzing current rate data, cost of service, and policy objectives to determine who should pay what share of the costs to equitably generate adequate revenues. Review of connection charges was also included in the study. A rate model was developed for staff for future planning and analysis and rate adjustments as may be required. The base line of the initial study is revenue neutral; and increased revenue requirements were reviewed to fund depreciation and capital needs.

At the meeting in April the Board asked for staff to bring forward revenue requirements for either a 5 or 10 year phase in of system reinvestment, use a cost of service rate design with a 5-year phased in rate implementation, incorporate additional sample utility bills for review, and add in an Industrial/Manufacturing class for Large Commercial users. The attached presentation includes the above.

Applicable Statute, Code, Policy, Rule or Regulation: NA.

Fiscal Impact: Increase in water rates as much as 6.5% and sewer rates as much as 15% annually for 5 years.

Explanation of Impact: Rates would be adjusted to reflect the rate design changes and increased fund depreciation and capital requirements.

Funding Source: Water and Sewer Fund accounts.

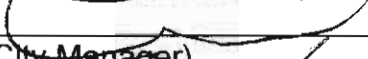
Prepared By: Andrew Burnham, Public Works Director

Reviewed By:




(Public Works Director)

Date: 6-7-13



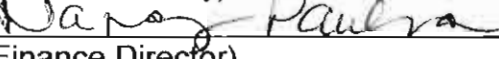
(City Manager)

Date: 6/10/13



(District Attorney)

Date: 6/11/13



(Finance Director)

Date: 6/11/13

Board Action Taken:

Motion: _____ 1) _____ Aye/Nay
2) _____

(Vote Recorded By)

Carson City



Water and Sewer Rate Study

Preliminary Results

June 20, 2013

Policy Direction from April 18 Meeting

- Bring forward revenue requirement scenarios B & C
 - Scenario B: System reinvestment phased in over 10 years
 - Scenario C: System reinvestment phased in over 5 years
- Complete cost of service rate design under both scenarios with a 5-year phased-in rate implementation
- Incorporate additional customer sample bills
- Add Industrial/Manufacturing customer class with rates currently equal to Large Commercial rates
- Develop an additional option for multifamily water connection charges applied by number of units

Major Findings

- Cost of service indicates subsidies among customer classes for both utilities
- Revised rate structures warranted to improve equity and achieve pricing objectives
- Connection charges significantly below indicated level of charges - previously reduced to promote economic development
- Baseline level of service can be maintained at existing rate levels for both utilities
- Future capital impacts require varying levels of rate increases for both utilities

REVENUE REQUIREMENTS

Water: Revenue Requirement Summary

	Base	Scenario A	Scenario B	Scenario C
Current O&M and Debt	Fully Funded			
CIP	None	Full		
Capital Reserve Target	None	2% of fixed assets (\$2.4 million)		
System Reinvestment	None		10-yr phase-in	5-yr phase-in

	Results			
% of CIP Debt Financed	N/A	91%	84%	64%
Ending Capital Fund Balance	\$3.8 million	\$2.8 million	\$4.2 million	\$5.9 million
Ending Debt-to-Equity	30% / 70%	40% / 60%	39% / 61%	35% / 65%
Rate Increases (per year)	0% (\$0 /mo/yr)	2.5% (\$0.98 /mo/yr)	4.0% (\$1.61 /mo/yr)	6.5% (\$2.65 /mo/yr)

Current Debt-to-Equity: 59% / 41%

Sewer: Revenue Requirement Summary

	Base	Scenario A	Scenario B	Scenario C
Current O&M and Debt	Fully Funded			
CIP	None		Full	
Capital Reserve Target	None	2% of fixed assets (\$2.8 million)		
System Reinvestment	None		10-yr phase-in	5-yr phase-in

	Results			
% of CIP Debt Financed	N/A	99%	98%	94%
Ending Capital Fund Balance	None	\$0.6 million	\$5.1 million	\$6.4 million
Ending Debt-to-Equity	8% / 92%	46% / 54%	44% / 56%	42% / 58%
Rate Increases (per year)	0% (\$0 /mo/yr)	9.5% (\$3.02 /mo/yr)	13% (\$4.38 /mo/yr)	15% (\$5.26 /mo/yr)

Current Debt-to-Equity: 24% / 76%

COST OF SERVICE RESULTS

WATER UTILITY

Water: Rate Class Changes

Existing

RESIDENTIAL

**Single Family
Duplex
Quasi-Residential
Senior Discount
Multifamily (condos)**

COMMERCIAL

**Multifamily (apartments)
Commercial
Federal
Municipal
State
State Prison**

Proposed

RESIDENTIAL

**Single Family
Duplex
Quasi-Residential
Senior Discount**

MULTI-FAMILY RESIDENTIAL

Condos / Apartments

COMMERCIAL

**Commercial
Federal
Municipal
State**

**INDUSTRIAL / MANUFACTURING
LARGE COMMERCIAL - OTHER**

>2"Meter, > 3,500 Kgal/Mo

Water: Cost of Service Results

As Presented April 18

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 7,064,430	\$ 8,024,480	13.6%	Combined Residential: 7.1%
Multifamily	1,426,132	1,070,068	-25.0%	
Commercial	3,340,273	2,841,264	-14.9%	Combined Commercial: -16.4%
Large Commercial	341,348	236,371	-30.8%	
TOTAL	\$ 12,172,184	\$ 12,172,184	0.0%	

Water: Cost of Service Results

Updated per Policy Direction

Scenario B

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 7,064,430	\$ 8,327,803	17.9%	Combined Residential: 11.2%
Multifamily	1,426,132	1,115,782	-21.8%	
Commercial	3,340,273	2,969,390	-11.1%	Combined Commercial: -12.7%
Large Commercial	341,348	246,096	-27.9%	
TOTAL	\$ 12,172,184	\$ 12,659,071	4.0%	

Scenario C

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 7,064,430	\$ 8,525,008	20.7%	Combined Residential: 13.9%
Multifamily	1,426,132	1,143,554	-19.8%	
Commercial	3,340,273	3,042,500	-8.9%	Combined Commercial: -10.5%
Large Commercial	341,348	252,313	-26.1%	
TOTAL	\$ 12,172,184	\$ 12,963,376	6.5%	

 **FCS GROUP**
Solutions-Oriented Consulting

Water: Phase-In Cost of Service

Scenario B

Customer Classes	Phase-In Cost of Service Shift					
	FYE 2014	FYE 2015	FYE 2016	FYE 2017	FYE 2018	Cumulative
Single Family Residential	7.0%	6.8%	6.6%	6.4%	6.3%	37.8%
Multifamily	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-8.1%
Commercial	0.8%	0.8%	0.8%	0.8%	0.8%	4.1%
Large Commercial	-3.2%	-3.2%	-3.2%	-3.2%	-3.2%	-15.1%
TOTAL	4.0%	4.0%	4.0%	4.0%	4.0%	21.7%

Scenario C

Customer Classes	Phase-In Cost of Service Shift					
	FYE 2014	FYE 2015	FYE 2016	FYE 2017	FYE 2018	Cumulative
Single Family Residential	9.5%	9.3%	9.1%	9.0%	8.8%	55.0%
Multifamily	0.7%	0.7%	0.7%	0.7%	0.7%	3.7%
Commercial	3.3%	3.3%	3.3%	3.3%	3.3%	17.4%
Large Commercial	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-4.1%
TOTAL	6.5%	6.5%	6.5%	6.5%	6.5%	37.0%

Water: Unit Cost Comparison

- Unit costs used to develop phase-in strategy

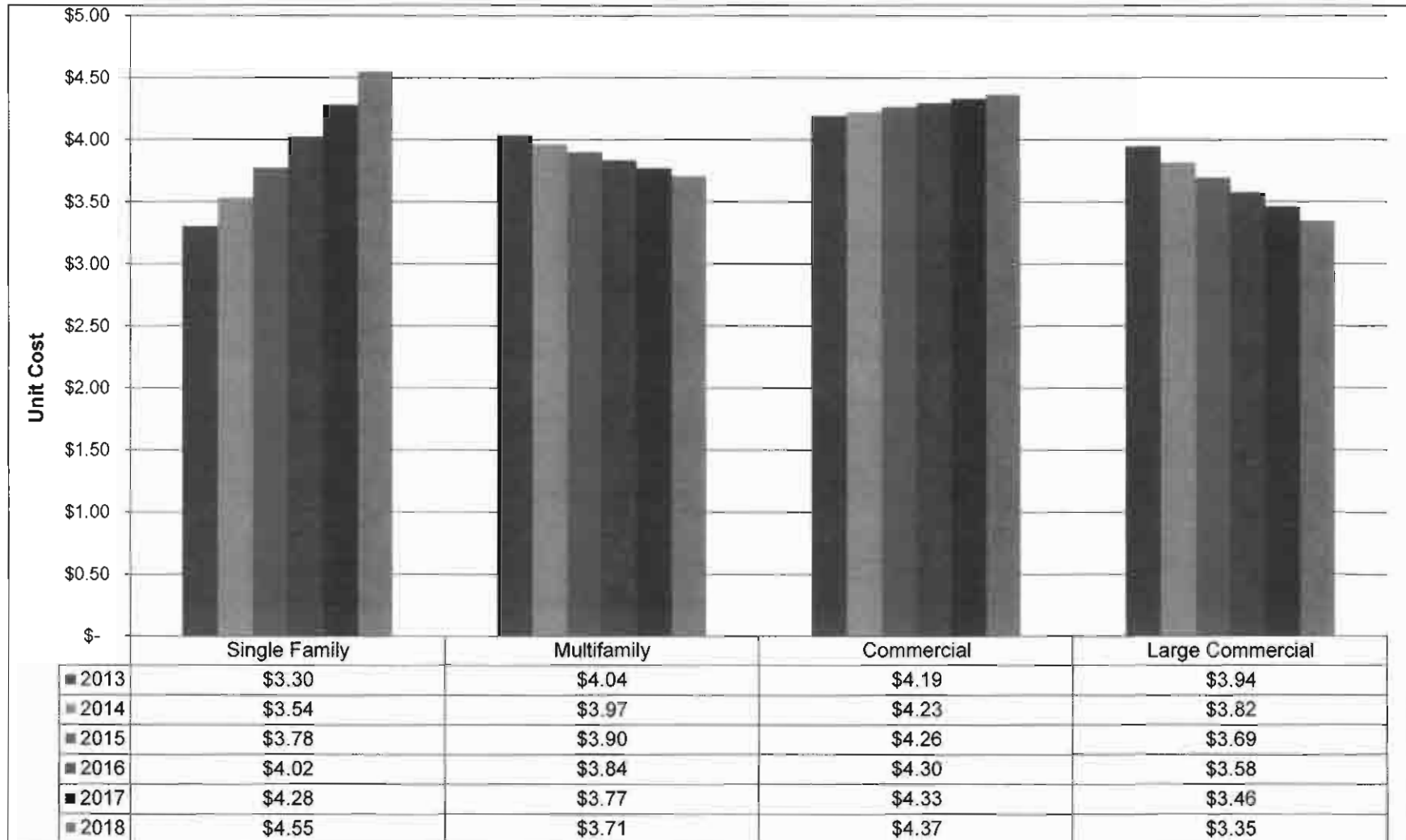
Scenario B

Customer Class	Existing	FYE 2018	% Shift
Single Family	\$ 3.30	\$ 4.55	37.8%
Multifamily	\$ 4.04	\$ 3.71	-8.1%
Commercial	\$ 4.19	\$ 4.37	4.1%
Large Commercial	\$ 3.94	\$ 3.35	-15.1%

Scenario C

Customer Class	Existing	FYE 2018	% Shift
Single Family	\$ 3.30	\$ 5.12	55.0%
Multifamily	\$ 4.04	\$ 4.18	3.7%
Commercial	\$ 4.19	\$ 4.93	17.4%
Large Commercial	\$ 3.94	\$ 3.78	-4.1%

Water: Unit Costs – Scenario B



Water: Rate Structures

EXISTING

- **Class specific base charge by meter size, with 5 kgal usage allowance per month**
- **Class specific, three-tier increasing block volume charge**

PROPOSED

- **Eliminate allowance from base charge for all classes**
- **Revise SFR three-tier blocks to better align with usage patterns**
- **Revise MFR charge by meter size to a reduced charge per dwelling unit**
- **Revise MFR, commercial, large commercial tier blocks to class specific single block volume charge**

Water: Rate Structure Transition Plan

- Single Family Residential
 - Immediately revise blocks to better align with usage patterns (combine top 2 blocks)
 - Reduce allowance over 5-yr period, replacing with low use block (0 – 5 kgal)

- Multifamily Residential & Commercial
 - Immediately revise Multifamily base charge structure
 - Reduce allowance over 5-yr period
 - Condense three blocks to single block rate over 5-yr period

- Large Commercial
 - Immediately eliminate usage allowance & move to single block rate

Proposed Single Family Water Rates

Scenario B

Meter Size	Existing Rates [a]		FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018	
5/8"	\$	22.05	\$	20.79	\$	21.62	\$	22.49	\$	23.39	\$	24.32
1"		33.60		31.64		32.91		34.22		35.59		37.02
1 1/2"		49.88		47.23		49.12		51.09		53.13		55.26
2"		61.43		58.76		61.11		63.56		66.10		68.74
3"		89.25		85.88		89.32		92.89		96.61		100.47
4"		117.60		113.00		117.52		122.22		127.11		132.20
6"		173.25		167.25		173.94		180.89		188.13		195.65
Volume Charge per kgal	0-5	\$ -	0-4	\$ -	0-3	\$ -	0-2	\$ -	0-1	\$ -	0-5	\$ 1.44
	6-30	\$ 1.84	5-5	\$ 0.99	4-5	\$ 1.14	3-5	\$ 1.25	2-5	\$ 1.35	6-30	\$ 2.75
	31-50	\$ 3.15	6-30	\$ 2.30	6-30	\$ 2.45	6-30	\$ 2.56	6-30	\$ 2.66	6-30	\$ 2.75
	Over 50	\$ 4.99	Over 30	\$ 4.14	Over 30	\$ 4.29	Over 30	\$ 4.40	Over 30	\$ 4.50	Over 30	\$ 4.59
Wtd Avg Volume Rate:	\$ 1.50		\$ 1.77		\$ 1.97		\$ 2.17		\$ 2.37		\$ 2.57	
	[a] Base incl. 5 kgal		[b] Base incl. 4 kgal		[c] Base incl. 3 kgal		[d] Base incl. 2 kgal		[e] Base incl. 1 kgal			

Scenario C

Meter Size	Existing Rates [a]		FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018	
5/8"	\$	22.05	\$	21.29	\$	22.68	\$	24.15	\$	25.72	\$	27.39
1"		33.60		32.40		34.51		36.75		39.14		41.68
1 1/2"		49.88		48.37		51.51		54.86		58.43		62.22
2"		61.43		60.17		64.09		68.25		72.69		77.41
3"		89.25		87.95		93.66		99.75		106.24		113.14
4"		117.60		115.72		123.24		131.25		139.78		148.87
6"		173.25		171.27		182.40		194.25		206.88		220.33
Volume Charge per kgal	0-5	\$ -	0-4	\$ -	0-3	\$ -	0-2	\$ -	0-1	\$ -	0-5	\$ 1.76
	6-30	\$ 1.84	5-5	\$ 1.05	4-5	\$ 1.26	3-5	\$ 1.44	2-5	\$ 1.61	6-30	\$ 3.07
	31-50	\$ 3.15	6-30	\$ 2.36	6-30	\$ 2.57	6-30	\$ 2.75	6-30	\$ 2.92	6-30	\$ 3.07
	Over 50	\$ 4.99	Over 30	\$ 4.20	Over 30	\$ 4.41	Over 30	\$ 4.59	Over 30	\$ 4.76	Over 30	\$ 4.91
Wtd Avg Volume Rate:	\$ 1.50		\$ 1.81		\$ 2.06		\$ 2.33		\$ 2.60		\$ 2.88	
	[a] Base incl. 5 kgal		[b] Base incl. 4 kgal		[c] Base incl. 3 kgal		[d] Base incl. 2 kgal		[e] Base incl. 1 kgal			

Note: Rates before right-of-way toll

Proposed Single Family Sample Bills

Scenario B

Customer Type	Current Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				2014 Bill		
				Current Bill	Scenario B	\$ Impact
Low use	Residential	5/8"	5	\$ 22.27	\$ 22.00	\$ (0.27)
Avg use	Residential	5/8"	12	\$ 36.05	\$ 38.26	\$ 2.21
High use	Residential	1"	99	\$ 392.66	\$ 379.55	\$ (13.11)

Scenario C

Customer Type	Current Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				2014 Bill		
				Current Bill	Scenario C	\$ Impact
Low use	Residential	5/8"	5	\$ 22.27	\$ 22.56	\$ 0.29
Avg use	Residential	5/8"	12	\$ 36.05	\$ 39.25	\$ 3.19
High use	Residential	1"	99	\$ 392.66	\$ 386.07	\$ (6.59)

Proposed Multifamily Water Rates

Scenario B

Meter Size	Existing Rates [a]				FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018
	Condominiums (Residential)		Apartments (Commercial)										
5/8"	\$ 22.05	\$ 24.15											
1"	33.60	36.75											
1 1/2"	49.88	54.86											
2"	61.43	68.25											
3"	89.25	99.75											
4"	117.60	131.25											
6"	173.25	194.25											
10"		483.00											
Per Unit					\$ 7.36	\$ 7.66	\$ 7.96	\$ 8.28	\$ 8.61				
Volume Charge per kgal	0 - 5	\$ -	0 - 5	\$ -	0 - 4	\$ -	0 - 3	\$ -	0 - 2	\$ -	0 - 1	\$ -	\$ 1.76
	6 - 30	\$ 1.84	6 - 19	\$ 1.68	5 - 19	\$ 0.85	4 - 19	\$ 1.09	3 - 19	\$ 1.32	2 - 19	\$ 1.54	
	31 - 50	\$ 3.15	20 - 49	\$ 2.52	20 - 49	\$ 1.71	20 - 49	\$ 1.73	20 - 49	\$ 1.75	20 - 49	\$ 1.76	
	Over 50	\$ 4.99	Over 49	\$ 3.89	Over 49	\$ 2.99	Over 49	\$ 2.70	Over 49	\$ 2.39	Over 49	\$ 2.08	
Wtd Avg Volume Rate:	\$ 3.41				\$ 2.30	\$ 2.17	\$ 2.03	\$ 1.90	\$ 1.76				
	[a] Base incl. 5 kgal				[b] Base incl. 4 kgal	[c] Base incl. 3 kgal	[d] Base incl. 2 kgal	[e] Base incl. 1 kgal					

Per unit charge is 35% of 5/8" SFR charge

Scenario C

Meter Size	Existing Rates [a]				FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018
	Condominiums (Residential)		Apartments (Commercial)										
5/8"	\$ 22.05	\$ 24.15											
1"	33.60	36.75											
1 1/2"	49.88	54.86											
2"	61.43	68.25											
3"	89.25	99.75											
4"	117.60	131.25											
6"	173.25	194.25											
10"		483.00											
Per Unit					\$ 7.54	\$ 8.03	\$ 8.55	\$ 9.11	\$ 9.70				
Volume Charge per kgal	0 - 5	\$ -	0 - 5	\$ -	0 - 4	\$ -	0 - 3	\$ -	0 - 2	\$ -	0 - 1	\$ -	\$ 1.99
	6 - 30	\$ 1.84	6 - 19	\$ 1.68	5 - 19	\$ 0.91	4 - 19	\$ 1.20	3 - 19	\$ 1.48	2 - 19	\$ 1.74	
	31 - 50	\$ 3.15	20 - 49	\$ 2.52	20 - 49	\$ 1.77	20 - 49	\$ 1.85	20 - 49	\$ 1.91	20 - 49	\$ 1.96	
	Over 50	\$ 4.99	Over 49	\$ 3.89	Over 49	\$ 3.05	Over 49	\$ 2.81	Over 49	\$ 2.55	Over 49	\$ 2.28	
Wtd Avg Volume Rate:	\$ 3.41				\$ 2.36	\$ 2.28	\$ 2.19	\$ 2.09	\$ 1.99				
	[a] Base incl. 5 kgal				[b] Base incl. 4 kgal	[c] Base incl. 3 kgal	[d] Base incl. 2 kgal	[e] Base incl. 1 kgal					

Proposed Multifamily Sample Bills

Scenario B

Customer Type	Current Class	Meter Size	Avg Use (kgal)	No. of Units	Bill Impacts		
					Current Bill	2014 Bill Scenario B	\$ Impact
Low user	Commercial	5/8"	17	4	\$ 44.47	\$ 40.75	\$ (3.72)
Low user	Residential	1"	12	4	\$ 46.94	\$ 36.60	\$ (10.34)
Medium user	Commercial	2"	49	16	\$ 170.35	\$ 182.05	\$ 11.70
High user	Residential	4"	544	156	\$ 2,718.58	\$ 2,716.60	\$ (1.98)

Scenario C

Customer Type	Current Class	Meter Size	Avg Use (kgal)	No. of Units	Bill Impacts		
					Current Bill	2014 Bill Scenario C	\$ Impact
Low user	Commercial	5/8"	17	4	\$ 44.47	\$ 42.26	\$ (2.21)
Low user	Residential	1"	12	4	\$ 46.94	\$ 37.81	\$ (9.13)
Medium user	Commercial	2"	49	16	\$ 170.35	\$ 187.58	\$ 17.23
High user	Residential	4"	544	156	\$ 2,718.58	\$ 2,777.56	\$ 58.98

Proposed Commercial Water Rates

Scenario B

Meter Size	Existing Rates [a]		FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018			
5/8"	\$	24.15	\$	20.79	\$	21.62	\$	22.49	\$	23.39	\$ 24.32			
1"		36.75		31.64		32.91		34.22		35.59	37.02			
1 1/2"		54.86		47.23		49.12		51.09		53.13	55.26			
2"		68.25		58.76		61.11		63.56		66.10	68.74			
3"		99.75		85.88		89.32		92.89		96.61	100.47			
4"		131.25		113.00		117.52		122.22		127.11	132.20			
6"		194.25		167.25		173.94		180.89		188.13	195.65			
10"		483.00		415.85		432.49		449.79		467.78	486.49			
Volume Charge per kgal	0-5	\$ -	0-4	\$ -	0-3	\$ -	0-2	\$ -	0-1	\$ -	\$ 3.13			
	6-19	\$ 1.68	5-19	\$ 2.30	4-19	\$ 2.54	3-19	\$ 2.76	2-19	\$ 2.95				
	20-49	\$ 2.52	20-49	\$ 2.70	20-49	\$ 2.83	20-49	\$ 2.94	20-49	\$ 3.05				
	Over 49	\$ 3.89	Over 49	\$ 3.96	Over 49	\$ 3.77	Over 49	\$ 3.57	Over 49	\$ 3.36				
Wtd Avg Volume Rate:		\$ 2.97	\$ 3.06		\$ 3.09		\$ 3.11		\$ 3.12		\$ 3.13			
[a] Base incl. 5 kgal			[b] Base incl. 4 kgal			[c] Base incl. 3 kgal			[d] Base incl. 2 kgal			[e] Base incl. 1 kgal		

Scenario C

Meter Size	Existing Rates [a]		FY 2014 [b]		FY 2015 [c]		FY 2016 [d]		FY 2017 [e]		FY 2018			
5/8"	\$	24.15	\$	21.29	\$	22.68	\$	24.15	\$	25.72	\$ 27.39			
1"		36.75		32.40		34.51		36.75		39.14	41.68			
1 1/2"		54.86		48.37		51.51		54.86		58.43	62.22			
2"		68.25		60.17		64.09		68.25		72.69	77.41			
3"		99.75		87.95		93.66		99.75		106.24	113.14			
4"		131.25		115.72		123.24		131.25		139.78	148.87			
6"		194.25		171.27		182.40		194.25		206.88	220.33			
10"		483.00		425.85		453.53		483.01		514.41	547.84			
Volume Charge per kgal	0-5	\$ -	0-4	\$ -	0-3	\$ -	0-2	\$ -	0-1	\$ -	\$ 3.53			
	6-19	\$ 1.68	5-19	\$ 2.39	4-19	\$ 2.71	3-19	\$ 3.01	2-19	\$ 3.28				
	20-49	\$ 2.52	20-49	\$ 2.79	20-49	\$ 3.00	20-49	\$ 3.19	20-49	\$ 3.37				
	Over 49	\$ 3.89	Over 49	\$ 4.05	Over 49	\$ 3.94	Over 49	\$ 3.82	Over 49	\$ 3.69				
Wtd Avg Volume Rate:		\$ 2.97	\$ 3.14		\$ 3.24		\$ 3.34		\$ 3.44		\$ 3.53			
[a] Base incl. 5 kgal			[b] Base incl. 4 kgal			[c] Base incl. 3 kgal			[d] Base incl. 2 kgal			[e] Base incl. 1 kgal		

Note: Rates before right-of-way toll

Proposed Commercial Sample Bills

Scenario B

Customer Type	Current Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				Current Bill	Scenario B	2014 Bill \$ Impact
Low user	Commercial	5/8"	6	\$ 26.37	\$ 26.03	\$ (0.34)
Avg user	Commercial	2"	31	\$ 123.65	\$ 125.05	\$ 1.39
High user	Commercial	4"	1,491	\$ 5,896.51	\$ 5,991.49	\$ 94.98

Scenario C

Customer Type	Current Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				Current Bill	Scenario C	2014 Bill \$ Impact
Low user	Commercial	5/8"	6	\$ 26.37	\$ 26.73	\$ 0.36
Avg user	Commercial	2"	31	\$ 123.65	\$ 128.85	\$ 5.20
High user	Commercial	4"	1,491	\$ 5,896.51	\$ 6,129.19	\$ 232.68

Proposed Large Commercial Water Rates

Scenario B

Meter Size	Existing Rates [a]	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
5/8"	\$ 24.15					
1"	36.75					
1 1/2"	54.86					
2"	68.25	58.76	61.11	63.56	66.10	68.74
3"	99.75	85.88	89.32	92.89	96.61	100.47
4"	131.25	113.00	117.52	122.22	127.11	132.20
6"	194.25	167.25	173.94	180.89	188.13	195.65
10"	483.00	415.85	432.49	449.79	467.78	486.49
Volume Charge per kgal	0 - 5	\$ -				
	6 - 19	\$ 1.68	\$ 3.76	\$ 3.63	\$ 3.51	\$ 3.40
	20 - 49	\$ 2.52				
	Over 49	\$ 3.89				

[a] Base charge incl. 5 kgal

Scenario C

Meter Size	Existing Rates [a]	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
5/8"	\$ 24.15					
1"	36.75					
1 1/2"	54.86					
2"	68.25	60.17	64.09	68.25	72.69	77.41
3"	99.75	87.95	93.66	99.75	106.24	113.14
4"	131.25	115.72	123.24	131.25	139.78	148.87
6"	194.25	171.27	182.40	194.25	206.88	220.33
10"	483.00	425.85	453.53	483.01	514.41	547.84
Volume Charge per kgal	0 - 5	\$ -				
	6 - 19	\$ 1.68	\$ 3.85	\$ 3.82	\$ 3.78	\$ 3.74
	20 - 49	\$ 2.52				
	Over 49	\$ 3.89				

[a] Base charge incl. 5 kgal

Proposed Large Commercial Sample Bills

Scenario B

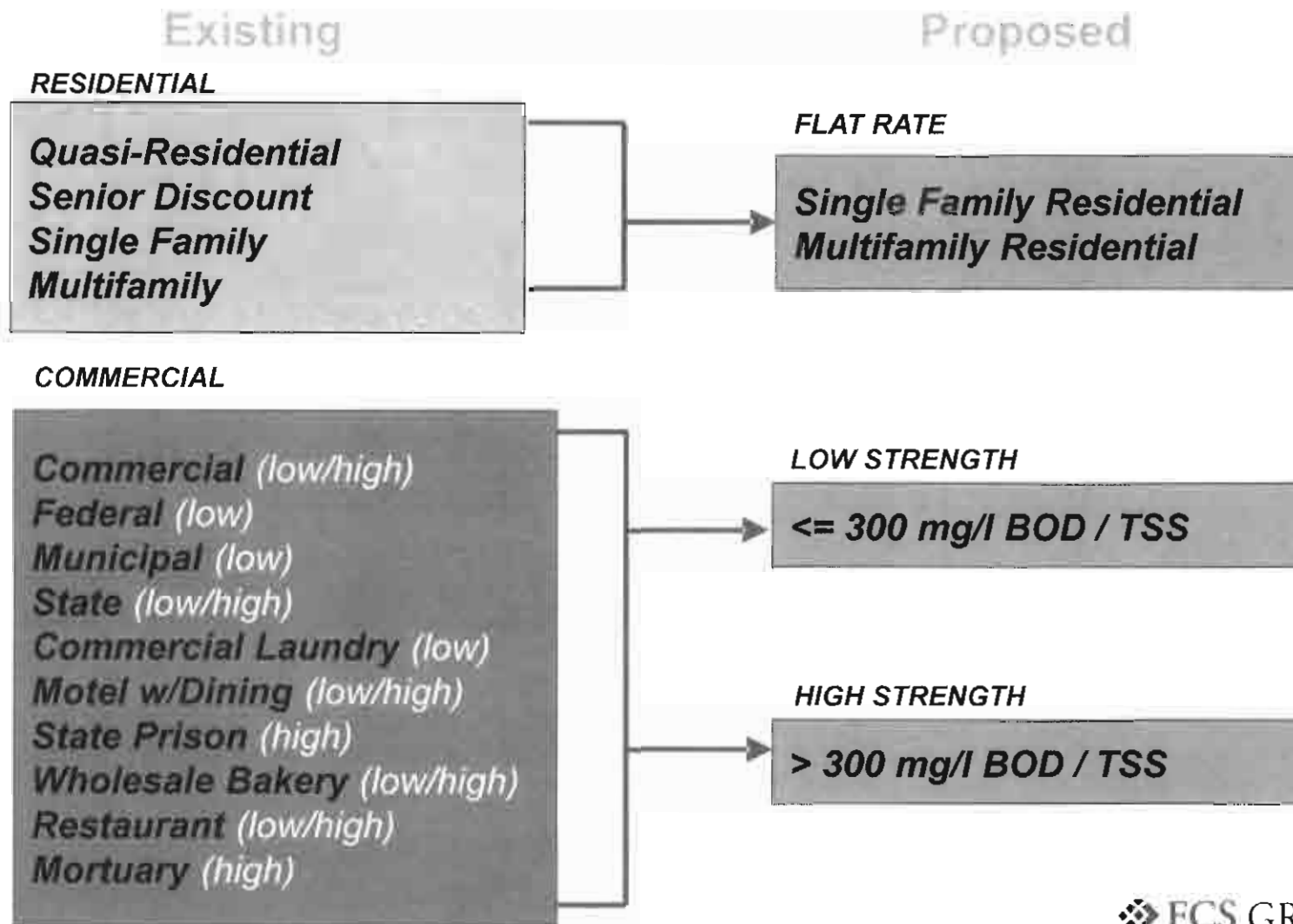
Current Class	New Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				Current Bill	2014 Bill Scenario B	\$ Impact
Commercial	Large Commercial	10"	7,212	\$ 28,730	\$ 27,808	\$ (922)

Scenario C

Current Class	New Class	Meter Size	Avg Use (kgal)	Bill Impacts		
				Current Bill	2014 Bill Scenario C	\$ Impact
Commercial	Large Commercial	10"	7,212	\$ 28,730	\$ 28,473	\$ (257)

SEWER UTILITY

Sewer: Rate Class Changes



Sewer: Cost of Service Results

As Presented April 18

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 3,965,692	\$ 3,490,001	-12.0%	Combined Residential -8.0%
Multifamily Residential	1,119,818	1,186,658	6.0%	
Low-Strength Commercial	1,150,504	1,202,114	4.5%	Combined Commercial 17.6%
High-Strength Commercial	1,168,442	1,525,684	30.6%	
TOTAL	\$ 7,404,456	\$ 7,404,456	0.0%	

Sewer: Cost of Service Results

Updated per Policy Direction

Scenario B

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 3,965,692	\$ 3,805,281	-4.0%	Combined Residential:
Multifamily Residential	\$ 1,119,818	\$ 1,301,291	16.2%	0.4%
Low-Strength Commercial	\$ 1,150,504	\$ 1,420,931	23.5%	Combined Commercial:
High-Strength Commercial	\$ 1,168,442	\$ 1,839,533	57.4%	40.6%
TOTAL	\$ 7,404,456	\$ 8,367,036	13.0%	

Scenario C

Customer Classes	Revenue under Existing Rates	Cost of Service	Increase / (Decrease)	
Single Family Residential	\$ 3,965,692	\$ 3,872,631	-2.3%	Combined Residential:
Multifamily Residential	\$ 1,119,818	\$ 1,324,323	18.3%	2.2%
Low-Strength Commercial	\$ 1,150,504	\$ 1,446,080	25.7%	Combined Commercial:
High-Strength Commercial	\$ 1,168,442	\$ 1,872,091	60.2%	43.1%
TOTAL	\$ 7,404,456	\$ 8,515,125	15.0%	

 **FCS GROUP**
Solutions-Oriented Consulting

Sewer: Phase-In Cost of Service

- Cost of service shifts are phased in over the 5-year study period to mitigate customer impacts

Scenario B

Customer Classes	Phase-In Cost of Service Shift					Cumulative
	FYE 2014	FYE 2015	FYE 2016	FYE 2017	FYE 2018	
Single Family Residential	9.9%	9.6%	9.3%	9.0%	8.6%	55.9%
Multifamily Residential	13.7%	13.7%	13.7%	13.7%	13.7%	90.0%
Low-Strength Commercial	15.1%	15.1%	15.1%	15.1%	15.1%	101.8%
High-Strength Commercial	20.8%	20.8%	20.8%	20.8%	20.8%	157.6%
TOTAL	13.0%	13.0%	13.0%	13.0%	13.0%	84.2%

Scenario C

Customer Classes	Phase-In Cost of Service Shift					Cumulative
	FYE 2014	FYE 2015	FYE 2016	FYE 2017	FYE 2018	
Single Family Residential	11.8%	11.5%	11.2%	10.9%	10.5%	70.0%
Multifamily Residential	15.7%	15.7%	15.7%	15.7%	15.7%	107.6%
Low-Strength Commercial	17.1%	17.1%	17.1%	17.1%	17.1%	120.4%
High-Strength Commercial	23.0%	23.0%	23.0%	23.0%	23.0%	181.6%
TOTAL	15.0%	15.0%	15.0%	15.0%	15.0%	101.1%

Sewer: Rate Structures

EXISTING

- Monthly fixed capitalization charge (same for all classes)
- Class-specific, single-block volume charge
 - Variable capitalization charge
 - User charge (Strength related)

PROPOSED

- Residential:
 - Revise from volume-based to class-specific flat rates per dwelling unit
- Non-Residential:
 - Set monthly fixed charge equal to SFR flat rate
 - Consolidate volume rates by strength category

Sewer: Rate Structure Transition Plan

- Impact of recommended rate structure change
 - Immediate alignment of non-residential base rate with SFR flat rate materially impacts commercial customers with relatively low volume / strength
- Proposed transition plan
 - Gradually transition from current base charge to SFR flat rate over study period

Sewer: Proposed FY 2014 Rates

Existing

Proposed FY 2014:

Scenario B

Scenario C

RESIDENTIAL Volume-Based Rates

\$8.32 base + \$3.34 volume

RESIDENTIAL Flat Rates

SFR	\$26.15	\$26.61
MFR	\$14.88	\$15.15

COMMERCIAL – Class Based Rates

\$8.32 base – all classes plus...

Commercial Class	Strength	Volume
Commercial Federal Municipal State	Low/high Low Low Low/high	\$3.34
Commercial Laundry	Low	\$3.17
Motel w/Dining State Prison	Low/high High	\$4.31
Wholesale Bakery	Low/high	\$6.44
Restaurant	Low/high	\$5.53
Mortuary	High	\$6.57

COMMERCIAL – Strength Based Rates

All classes **\$14.08 base plus...** **\$14.75 base plus...**

LOW STRENGTH

\$3.87 volume **\$3.92 volume**

HIGH STRENGTH

\$5.17 volume **\$5.26 volume**

Sewer: Proposed Rate Schedule

SCENARIO B

Customer Class	FY 2014 Rates	FY 2015 Rates	FY 2016 Rates	FY 2017 Rates	FY 2018 Rates
Flat Rates					
Single Family Residential	\$ 26.15	\$ 28.67	\$ 31.34	\$ 34.16	\$ 37.10
Multifamily Residential	\$ 14.88	\$ 16.92	\$ 19.24	\$ 21.88	\$ 24.87
Metered Rates					
Low-Strength Commercial					
Base Charge	\$ 14.08	\$ 19.83	\$ 25.59	\$ 31.34	\$ 37.10
Volume Charge	\$ 3.87	\$ 4.29	\$ 4.80	\$ 5.44	\$ 6.21
High-Strength Commercial					
Base Charge	\$ 14.08	\$ 19.83	\$ 25.59	\$ 31.34	\$ 37.10
Volume Charge	\$ 5.17	\$ 6.22	\$ 7.50	\$ 9.06	\$ 10.96

SCENARIO C

Customer Class	FY 2014 Rates	FY 2015 Rates	FY 2016 Rates	FY 2017 Rates	FY 2018 Rates
Flat Rates					
Single Family Residential	\$ 26.61	\$ 29.68	\$ 33.01	\$ 36.61	\$ 40.45
Multifamily Residential	\$ 15.15	\$ 17.53	\$ 20.29	\$ 23.48	\$ 27.18
Metered Rates					
Low-Strength Commercial					
Base Charge	\$ 14.75	\$ 21.17	\$ 27.60	\$ 34.03	\$ 40.45
Volume Charge	\$ 3.92	\$ 4.41	\$ 5.03	\$ 5.82	\$ 6.78
High-Strength Commercial					
Base Charge	\$ 14.75	\$ 21.17	\$ 27.60	\$ 34.03	\$ 40.45
Volume Charge	\$ 5.26	\$ 6.44	\$ 7.91	\$ 9.73	\$ 11.98

Note: Rates before right-of-way toll

Proposed Single Family Sample Bills

Scenario B

Customer Type	Avg Use (kgal)	Bill Impacts		
		Current Bill	2014 Bill	
			Scenario B	\$ Impact
Low use	3	\$ 18.52	\$ 26.41	\$ 7.89
Medium use	8	\$ 35.39	\$ 26.41	\$ (8.98)
High use	48	\$ 169.48	\$ 26.41	\$ (143.07)

Scenario C

Customer Type	Avg Use (kgal)	Bill Impacts		
		Current Bill	2014 Bill	
			Scenario C	\$ Impact
Low use	3	\$ 18.52	\$ 26.88	\$ 8.35
Medium use	8	\$ 35.39	\$ 26.88	\$ (8.51)
High use	48	\$ 169.48	\$ 26.88	\$ (142.61)

Proposed Multifamily Sample Bills

Scenario B

Customer Type	No. of Units	Avg Use/ Unit (kgal)	Bill Impacts		
			2014 Bill		
			Current Bill	Scenario B	\$ Impact
Low use, low units	4	2	\$ 35.39	\$ 60.12	\$ 24.72
Low use, high units	36	3	\$ 420.80	\$ 541.04	\$ 120.24
High use, low units	5	14	\$ 246.23	\$ 75.14	\$ (171.08)
High use, high units	180	8	\$ 5,085.37	\$ 2,705.18	\$ (2,380.19)

Scenario C

Customer Type	No. of Units	Avg Use/ Unit (kgal)	Bill Impacts		
			2014 Bill		
			Current Bill	Scenario C	\$ Impact
Low use, low units	4	2	\$ 35.39	\$ 61.21	\$ 25.82
Low use, high units	36	3	\$ 420.80	\$ 550.85	\$ 130.05
High use, low units	5	14	\$ 246.23	\$ 76.51	\$ (169.72)
High use, high units	180	8	\$ 5,085.37	\$ 2,754.27	\$ (2,331.10)

Proposed Commercial Sample Bills

Scenario B

Customer Type	Current Class	Strength Category	Avg Use (kgal)	Bill Impacts		
				Current Bill	2014 Bill Scenario B	\$ Impact
Low use	Commercial	Low	3	\$ 17.12	\$ 24.32	\$ 7.20
Medium use	Commercial	Low	31	\$ 113.26	\$ 135.72	\$ 22.46
High use	Commercial	Low	487	\$ 1,650.12	\$ 1,916.45	\$ 266.33
Low use	Restaurant	Low	4	\$ 33.07	\$ 31.48	\$ (1.59)
Medium use	Bakery	Low	38	\$ 255.57	\$ 162.75	\$ (92.82)
High use	Laundry	Low	1,491	\$ 4,780.80	\$ 5,840.46	\$ 1,059.66
Low use	Commercial	High	2	\$ 13.74	\$ 22.49	\$ 8.74
Medium use	Commercial	High	57	\$ 201.25	\$ 312.73	\$ 111.48
High use	Commercial	High	245	\$ 834.61	\$ 1,293.10	\$ 458.50
Low use	Mortuary	High	2	\$ 22.23	\$ 25.10	\$ 2.87
Medium use	Restaurant	High	30	\$ 175.96	\$ 170.87	\$ (5.09)
High use	State Prison	High	5,770	\$ 25,125	\$ 30,143	\$ 5,018

Proposed Commercial Sample Bills

Scenario C

Customer Type	Current Class	Strength Category	Avg Use (kgal)	Bill Impacts		
				Current Bill	2014 Bill Scenario B	\$ Impact
Low use	Commercial	Low	3	\$ 17.12	\$ 25.13	\$ 8.01
Medium use	Commercial	Low	31	\$ 113.26	\$ 137.96	\$ 24.70
High use	Commercial	Low	487	\$ 1,650.12	\$ 1,941.71	\$ 291.58
Low use	Restaurant	Low	4	\$ 33.07	\$ 32.38	\$ (0.69)
Medium use	Bakery	Low	38	\$ 255.57	\$ 165.35	\$ (90.22)
High use	Laundry	Low	1,491	\$ 4,780.80	\$ 5,916.42	\$ 1,135.61
Low use	Commercial	High	2	\$ 13.74	\$ 23.31	\$ 9.56
Medium use	Commercial	High	57	\$ 201.25	\$ 318.60	\$ 117.35
High use	Commercial	High	245	\$ 834.61	\$ 1,316.04	\$ 481.44
Low use	Mortuary	High	2	\$ 22.23	\$ 25.97	\$ 3.74
Medium use	Restaurant	High	30	\$ 175.96	\$ 174.28	\$ (1.69)
High use	State Prison	High	5,770	\$ 25,125	\$ 30,668	\$ 5,543

Combined Single Family Bill Impacts FY 2014 Scenario B

Customer Classes	Revenue Under Existing Rates	Revenue Under 2014 Phase-In	Cost of Service Shift
Single Family Residential			
Water	\$ 7,064,430	\$ 7,559,503	7.0%
Sewer	\$ 3,965,692	\$ 4,357,961	9.9%
Combined	\$ 11,030,122	\$ 11,917,464	8.0%

Average Monthly Bill	Existing Rates	2014 Rates	\$ Bill Impact	% Bill Impact
Water [a]	\$ 35.28	\$ 38.26	\$ 2.98	8.4%
Sewer [b]	\$ 26.28	\$ 26.41	\$ 0.13	0.5%
Combined	\$ 61.56	\$ 64.67	\$ 3.11	5.0%

[a] Assumes 5/8" meter with average monthly use of 12,000 gallons; includes right-of-way toll

[b] Assumes winter monthly average of 5,300 gallons; includes right-of-way toll

Combined Single Family Bill Impacts FY 2014 Scenario C

Customer Classes	Revenue Under Existing Rates	Revenue Under 2014 Phase-In	Cost of Service Shift
Single Family Residential			
Water	\$ 7,064,430	\$ 7,738,988	9.5%
Sewer	\$ 3,965,692	\$ 4,434,341	11.8%
Combined	\$ 11,030,122	\$ 12,173,328	10.4%

Average Monthly Bill	Existing Rates	2014 Rates	\$ Bill Impact	% Bill Impact
Water [a]	\$ 35.28	\$ 39.25	\$ 3.97	11.3%
Sewer [b]	\$ 26.28	\$ 26.88	\$ 0.60	2.3%
Combined	\$ 61.56	\$ 66.13	\$ 4.57	7.4%

[a] Assumes 5/8" meter with average monthly use of 12,000 gallons; includes right-of-way toll

[b] Assumes winter monthly average of 5,300 gallons; includes right-of-way toll

Comparison of Combined Rates



Assumes 12,000 gallons/month water use; all sewer rates are flat rates other than Carson City Existing; Includes right-of-way toll where applicable

CONNECTION CHARGES

Water: Connection Charge Results

Water Equivalent Residential Customer (WERC)	WERC [a]	Previous Charge [b]	Existing Charge
Single Family Residence	1.00	\$ 4,543	\$ 454
Duplex (each living unit)	1.00	4,543	454
Apartment (each living unit)	0.50	2,272	227
Mobile Home Individual lot	1.00	4,543	454
Mobile Home Park (each pad)	0.50	2,272	227
All others, per WERC	1.00	4,543	454

[a] Each WERC is equal to 550 gallons, per 12.02.030

[b] Policy direction as of 10/1/09 to reduce charge to promote economic development

Meter Size	Meter Equivalency Factors [a]	Proposed Charge
5/8-inch	1.00	\$ 2,198
1-inch	2.50	5,494
1 1/2-inch	5.00	10,988
2-inch	8.00	17,580
3-inch	16.00	35,161
4-inch	25.00	54,938
8-inch	50.00	109,877
10-inch	115.00	252,717
Multifamily per unit [b]:		\$ 1,538

[a] AWWA meter capacity equivalent ratios

[b] Alt. multifamily option: 70% of 5/8" meter charge per unit

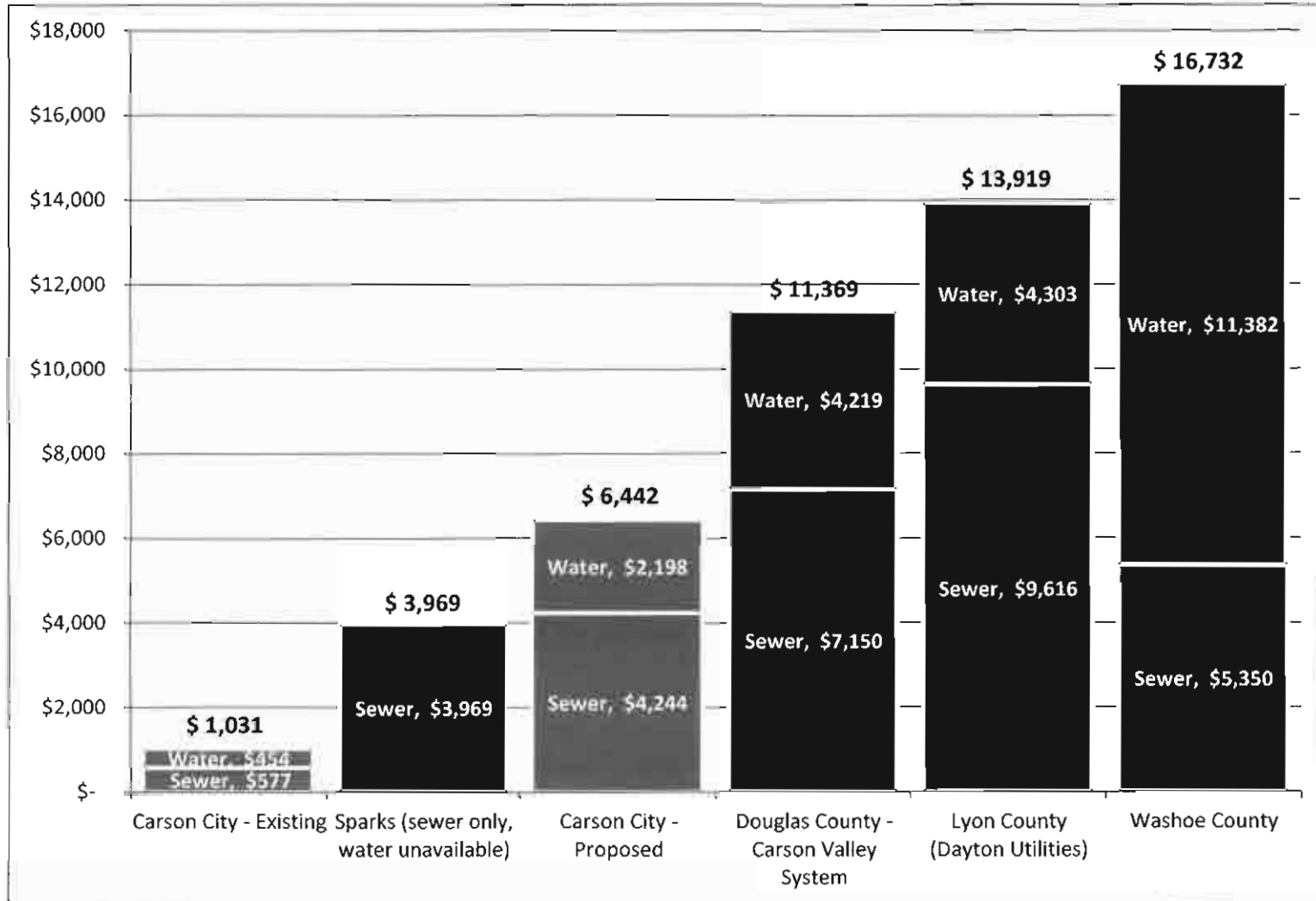
Sewer: Connection Charge Results

Sewer Equivalent Residential Customer (SERC)	SERC [a]	Previous Charge [b]	Existing Charge	Proposed Charge
Single Family Residence	1.00	\$ 5,770	\$ 577	\$ 4,244
Duplex (each living unit)	1.00	5,770	577	4,244
Apartment (each living unit)	0.50	2,885	289	2,122
Mobile Home Individual lot	1.00	5,770	577	4,244
Mobile Home Park (each pad)	0.50	2,885	289	2,122
All others, per WERC	1.00	5,770	577	4,244

[a] Each SERC is equal to 250 gallons per day, per 12.03.030

[b] Policy direction as of 10/1/09 to reduce charge to promote economic development

Connection Charge Comparison



Recommended Action

- Adopt revenue requirement Scenario B or C
- Adopt 5-year phased-in rate structures
- Adopt calculated connection charges
 - Choose a multifamily option (by meter size or number of units)