

Lake Whatcom Water & Sewer District



2014 Water and Sewer
Cost of Service and Rate
Design Study



Agenda

- Update from 2010 Study
- Study Goals
- Overall Rate Forecast
- Key Assumptions and Policies
- Sewer Results
- Water Results



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Update from 2010 Study

- 2010 study led to adopted rates through 2015
 - Sewer Utility still in good shape
 - Water Utility needs substantial annual increases as a result of higher than expected expenditures, lower revenues
 - 2010 study projected 5% increases for water, 2-3% for sewer
 - Current study projects:

Utility	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected
Sewer	3.00%	2.50%	2.50%	2.50%	2.50%
Water	8.75%	8.75%	8.75%	8.50%	4.00%

Study Goals

- Forecast revenue requirements
- Perform cost of service analysis
- Provide alternative rate structures & Introduce Low-Income Senior / Disabled rates

Key Economic Assumptions

- Cost Inflation
 - General : 2.50%
 - Construction: 3.5%
 - Labor: 3%
 - Benefits: 6%
- Customer growth: 0.25%

Key Policies Discussion

- Operating Reserves Target
- System Reinvestment Funding (SRF)
- Capital Reserve Target
- Debt Management
 - Coverage
 - Capital Structure
- Maintain separate water and sewer funds
(recommended change for future)

Key Policy Assumptions

Key Policy Assumptions	2014	2015	2016	2017	2018	2019
Minimum Operating Reserve (days of O&M expense)						
Sewer	45 days	45 days	45 days	45 days	45 days	45 days
Water	60 days	60 days	60 days	60 days	60 days	60 days
Target System Reinvestment Funding						
Sewer	\$700,000	\$741,000	\$753,000	\$757,000	\$758,000	\$766,000
Water	\$100,000	\$0	\$0	\$200,000	\$200,000	\$200,000
Target Capital Contingency (% of utility plant replacement cost)	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Debt Service Coverage:						
Revenue Bonds	1.50	1.50	1.50	1.50	1.50	1.50

Allocation of Existing Fund Balances

- Fund 401: Operating
 - Allocate 45 days for Sewer, 90 days for Water; remainder 100% to water
- Fund 425: Sewer / Stormwater: 100% to Sewer
- Fund 470: Water Loan: 100% to Water
- Fund 430 / 460: Bond Funds for 2009 issue
 - Allocated based on share of debt service (91% sewer, 9% water)

Utility Capital Program - Summary

Utility	2014	2015	2016	2017	2018	2019	Total 2014 - 2019
\$ Amounts in Thousands							
Sewer	\$915	\$810	\$899	\$999	\$957	\$1,162	\$5,742
Water	\$526	\$1,876	\$1,751	\$319	\$818	\$773	\$6,063

- Sewer's program is relatively steady
 - Major Projects include: EPA Capacity CMOM Sewer I&I, Rocky Ridge Pump Station Replacement, Agate Bay Pump Station
- Water's program is highly variable, has two peak years in 2015, 2016
 - Major Water projects include: Division 22 Reservoir, Geneva Area AC Main Replacement, Division 7 & Geneva Reservoir Coating & Structural Repairs, and Reservoir Seismic Restraints



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Sewer Results



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Sewer Capital Funding Strategy

Capital Funding Strategy	2014	2015	2016	2017	2018	2019	2014 - 2019 Total
Capital Expenditures (Escalated Dollars)	\$ 914,985	\$ 810,168	\$ 899,240	\$ 999,086	\$ 957,378	\$ 1,162,151	\$ 5,743,039
Capital Funding Strategy:							
Beginning Fund Balance	\$ 990,011	\$ 798,360	\$ 753,950	\$ 633,990	\$ 419,228	\$ 737,945	
plus: General Facilities Charge	22,343	22,343	22,343	22,343	22,343	22,343	\$ 134,081
plus: System Reinvestment Funding	700,000	741,448	753,167	757,226	757,759	765,846	4,475,246
plus: Excess Operating Reserves	-	-	-	-	16,801	43,983	60,784
plus: Interest Earnings	980	1,996	3,770	4,755	4,192	9,224	24,927
plus: Net Debt Proceeds Available for Projects	-	-	-	-	475,000	-	475,000
Total Capital Resources	\$ 1,713,345	\$ 1,564,148	\$ 1,533,229	\$ 1,418,314	\$ 1,695,323	\$ 1,579,142	
less: Capital Expenditures	914,985	810,168	899,240	999,086	957,378	1,162,151	5,743,039
Ending Fund Balance	\$ 798,360	\$ 753,950	\$ 633,960	\$ 419,228	\$ 737,945	\$ 416,991	

- Capital Funding Plan (2014-2019)
 - System Reinvestment Funding 87%
 - Debt / Loans 9%
 - GFCs & Other 4%
- Forecasted \$475,000 debt issue in 2018

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Sewer Annual Forecast

Revenue Requirements	2014	2015	2016	2017	2018	2019
Assuming Existing Rates:						
Revenue						
Rate Revenues	\$ 3,495,022	\$ 3,503,759	\$ 3,512,519	\$ 3,521,300	\$ 3,530,103	\$ 3,538,929
Non-Rate Revenues	11,750	12,920	14,929	17,193	19,750	22,722
Total Revenue	\$ 3,506,772	\$ 3,516,680	\$ 3,527,448	\$ 3,538,494	\$ 3,549,854	\$ 3,561,651
Expenses						
Cash Operating Expenses	\$ 2,381,400	\$ 2,452,603	\$ 2,526,288	\$ 2,602,558	\$ 2,681,517	\$ 2,763,277
Existing Debt Service	406,907	407,453	403,085	407,635	407,089	407,117
New Debt Service	-	-	-	-	40,936	40,936
Rate-Funded Capital Replacement	700,000	741,448	753,167	757,226	757,759	765,846
Additions to Operating Reserve	-	-	-	-	-	-
Total Expenses	\$ 3,488,306	\$ 3,601,504	\$ 3,682,539	\$ 3,767,419	\$ 3,887,301	\$ 3,976,976
Cash Surplus / (Deficiency)	\$ 18,465	\$ (84,824)	\$ (155,091)	\$ (228,955)	\$ (337,447)	\$ (415,325)
Annual Rate Adjustment		3.00%	2.50%	2.50%	2.50%	2.50%
Cumulative Annual Rate Adjustment		3.00%	5.58%	8.21%	10.92%	13.69%
After Rate Increases:						
Rate Revenues	\$ 3,495,022	\$ 3,608,872	\$ 3,709,342	\$ 3,810,553	\$ 3,915,581	\$ 4,023,505
Net Cash Flow	18,465	17,723	35,852	53,238	38,622	57,423
Debt Service Coverage - Revenue Bonds	2.77	2.87	2.97	3.00	2.79	2.88
Debt Service Coverage - All Debt	2.77	2.87	2.97	3.00	2.79	2.88

- 3% rate increase in 2015, 2.5% per year through 2019

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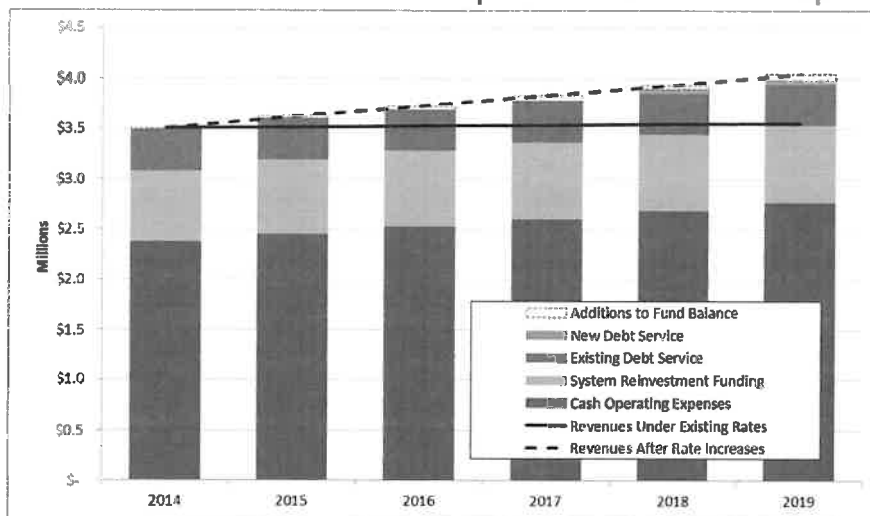
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Sewer Annual Forecast (contd.)

Ending Fund Balances	2014	2015	2016	2017	2018	2019
Operating Reserve	\$ 312,063	\$ 329,786	\$ 365,738	\$ 418,976	\$ 440,797	\$ 454,237
Capital Reserve	798,360	753,950	633,990	418,228	737,945	416,991
Debt Reserve	456,053	456,053	456,053	456,053	496,989	496,989
Total	\$ 1,566,475	\$ 1,539,789	\$ 1,455,780	\$ 1,294,257	\$ 1,675,732	\$ 1,368,217
Operating Reserve (Days of O&M Expense)	48 days	49 days	53 days	59 days	60 days	60 days
Target Capital Contingency	\$ 380,441	\$ 384,492	\$ 388,989	\$ 393,984	\$ 398,771	\$ 404,582
Capital Contingency Deficit (if any)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Structure: % Debt	21%	20%	18%	17%	18%	16%
Capital Structure: % Equity	79%	80%	82%	83%	82%	84%

- Operating reserves build to target max of 60 days
- Debt service coverage remains above 2.77
- Overall % debt level decreases throughout study period

Sewer Revenue Requirements Graph



Sewer Cost of Service Results

- Less 'Customer' related costs due to increases in maintenance workers relative to other staff

Functional Cost Allocation	Previous Study	Current Study
Customer	5.2%	4.4%
Other Costs	94.8%	95.6%

- Customer costs recovered through 'Account' charge
 - Lowers account charge
 - Raises the per dwelling unit charge

Sewer Rate Design Alternatives

- Alternative A: Across the Board (ATB)
 - Apply the annual rate increases to the existing rate structure (3% in 2015, then 2.5% per year)
 - No Low-Income Senior / Disabled rates
- Alternative B: Cost of Service (COS)
 - Incorporates cost of service shifts as well as Low-Income Senior / Disabled rates at 50% discount * **Recommended alternative**

Low-Income Senior/Disabled Rates – Why and How?

- Not based on cost-of-service
- However, authorized by State law and very common
- Rationale: make utility rates more affordable for a vulnerable group of customers
- We are assuming a 50% discount
- “Opt in”; eligibility would be tied to eligibility for County deferred property tax program
- Based on County data, we are assuming 180 eligible single-family customers

Sewer Rate Alternatives

Bi-Monthly Rate Schedule	2014	2015	2016	2017	2018	2019
	Existing	Projected	Projected	Projected	Projected	Projected
Annual System-Wide Rate Increases:		3.00%	2.50%	2.50%	2.50%	2.50%
Across the Board Rate Adjustments - Alternative A						
Account	\$ 8.27	\$ 8.52	\$ 8.73	\$ 8.95	\$ 9.17	\$ 9.40
Volume Charge per Dwelling Unit	\$ 133.07	\$ 137.06	\$ 140.49	\$ 144.00	\$ 147.60	\$ 151.29
Total Charge per Bi-Month	\$ 141.34	\$ 145.58	\$ 149.22	\$ 152.95	\$ 156.77	\$ 160.69

Bi-Monthly Rate Schedule	2014	2015	2016	2017	2018	2019
	Existing	Projected	Projected	Projected	Projected	Projected
Annual System-Wide Rate Increases:		3.00%	2.50%	2.50%	2.50%	2.50%
Cost of Service Rates - Alternative B						
With Low-Income Senior / Disabled at 50%						
Regular Customers						
Account	\$ 8.27	\$ 7.06	\$ 7.24	\$ 7.42	\$ 7.61	\$ 7.80
Volume Charge per Dwelling Unit	\$ 133.07	\$ 141.63	\$ 145.17	\$ 148.80	\$ 152.52	\$ 156.33
Total Charge per Bi-Month	\$ 141.34	\$ 148.69	\$ 152.41	\$ 156.22	\$ 160.13	\$ 164.13
Low-Income Senior / Disabled						
Account		\$ 3.53	\$ 3.62	\$ 3.71	\$ 3.80	\$ 3.90
Volume Charge per Dwelling Unit		\$ 70.81	\$ 72.59	\$ 74.40	\$ 76.26	\$ 78.17
Total Charge per Bi-Month		\$ 74.35	\$ 76.21	\$ 78.11	\$ 80.06	\$ 82.06

Sewer Customer Impacts

Unique Account Combos			Calculated Bills			% Change Above Existing	
Account	Dwelling Unit	Number of Accounts	2014 Current Structure	2015 Across the Board	2015 COS + Low-Income Senior / Disabled	2015 Across the Board	2015 COS + Low-Income Senior / Disabled
1	1	3563	\$141.34	\$145.58	\$148.69	3.00%	5.20%
1	1	180	\$141.34	\$145.58	\$74.35	3.00%	-47.40%
1	2	12	\$274.41	\$282.64	\$290.32	3.00%	5.80%
1	3	3	\$407.48	\$419.70	\$431.95	3.00%	6.01%
1	4	21	\$540.55	\$556.77	\$573.58	3.00%	6.11%
1	7	7	\$939.76	\$967.95	\$998.47	3.00%	6.25%
1	8	2	\$1,072.83	\$1,105.01	\$1,140.10	3.00%	6.27%
1	10	1	\$1,338.97	\$1,379.14	\$1,423.36	3.00%	6.30%
1	12	2	\$1,605.11	\$1,653.26	\$1,706.62	3.00%	6.32%
1	21	1	\$2,802.74	\$2,886.82	\$2,981.29	3.00%	6.37%
1	22	1	\$2,935.81	\$3,023.88	\$3,122.92	3.00%	6.37%
1	24	1	\$3,201.95	\$3,298.01	\$3,406.18	3.00%	6.38%
1	25	1	\$3,335.02	\$3,435.07	\$3,547.81	3.00%	6.38%
1	32	1	\$4,266.51	\$4,394.51	\$4,539.21	3.00%	6.39%

= Assumed number of Low-Income Senior / Disabled accounts, assumed one dwelling unit per account

Water Results

Increased Costs & Rate Reduction Efforts

- Rate increases higher than previously projected
 - Increased operating costs
 - Compensation Study increased personnel costs
 - Water Quality Programs in Lake Whatcom Watershed
 - Aggressive capital program, avg \$1M+ per year
 - Lower revenues from less consumption
- Steps to avoid double digit increases in 2015, 2016
 - Reducing, delaying, and eliminating capital projects
 - Temporarily reducing SRF (rely more on debt short term)
 - Reduce operating budget by ~3% per year
 - Allocate larger portion of 401 funds to Water than Sewer

Water Capital Funding Strategy

Capital Funding Strategy:	2014	2015	2016	2017	2018	2019	2014 - 2019 Total
Capital Expenditures (Escalated Dollars)	\$ 526,016	\$ 1,876,369	\$ 1,751,279	\$ 318,832	\$ 818,308	\$ 773,065	\$ 6,063,869
Capital Funding Strategy:							
Beginning Fund Balance	\$ 363,430	\$ 291,434	\$ 245,369	\$ 54,346	\$ 828,578	\$ 236,213	
plus: General Facilities Charge	17,657	17,657	17,657	17,657	17,657	17,657	105,839
plus: System Reinvestment Funding	100,000	-	-	200,000	200,000	200,000	700,000
plus: Excess Operating Reserves	-	39,919	29,373	-	-	-	69,292
plus: Interest Earnings	363	729	1,227	408	8,286	2,953	13,965
plus: Net Debt Proceeds Available for Projects	336,000	1,772,000	1,512,000	875,000	-	540,000	5,035,000
Total Capital Resources	\$ 817,450	\$ 2,121,738	\$ 1,805,626	\$ 1,147,411	\$ 1,054,521	\$ 996,822	
less: Capital Expenditures	526,016	1,876,369	1,751,279	318,832	818,308	773,065	6,063,869
Ending Fund Balance	\$ 291,434	\$ 245,369	\$ 54,346	\$ 828,578	\$ 236,213	\$ 223,757	

- Capital Funding Plan (2014-2019)
 - System Reinvestment Funding 12%
 - Debt / Loans 85%
 - GFCs & Other 3%
- Approximately \$5 million in bonds / loans projected for planning period

Water Annual Forecast

Revenue Requirements	2014	2015	2016	2017	2018	2019
Assuming Existing Rates:						
Revenue						
Rate Revenues	\$ 1,719,989	\$ 1,724,289	\$ 1,728,600	\$ 1,732,921	\$ 1,737,254	\$ 1,741,597
Non-Rate Revenues	109,958	110,446	111,959	113,281	114,158	115,505
Total Revenue	\$ 1,829,957	\$ 1,834,735	\$ 1,840,558	\$ 1,846,202	\$ 1,851,412	\$ 1,857,102
Expenses						
Cash Operating Expenses	\$ 1,713,696	\$ 1,720,055	\$ 1,775,317	\$ 1,832,702	\$ 1,862,305	\$ 1,954,225
Existing Debt Service	105,657	104,676	103,210	102,625	101,537	100,505
New Debt Service	-	22,407	220,090	295,499	295,499	342,037
Rate-Funded Capital Replacement	100,000	-	-	200,000	200,000	200,000
Additions to Operating Reserve	-	-	-	-	-	-
Total Expenses	\$ 1,919,353	\$ 1,847,138	\$ 2,098,616	\$ 2,430,826	\$ 2,469,341	\$ 2,596,767
Cash Surplus / (Deficiency)	\$ (89,396)	\$ (12,403)	\$ (258,058)	\$ (584,624)	\$ (637,928)	\$ (739,665)
Annual Rate Adjustment		8.75%	8.75%	8.75%	8.50%	4.00%
Cumulative Annual Rate Adjustment		8.75%	18.27%	28.81%	39.55%	45.13%
After Rate Increases:						
Rate Revenues	\$ 1,719,989	\$ 1,875,164	\$ 2,044,339	\$ 2,228,777	\$ 2,424,259	\$ 2,527,543
Net Cash Flow	(89,396)	130,885	41,803	(113,705)	14,537	6,755
Debt Service Coverage - Revenue Bonds	2.90	4.13	5.88	3.51	4.49	3.53
Debt Service Coverage - All Debt	1.10	2.04	1.13	1.22	1.56	1.47

- 8.75% rate increases in 2015-2017, 8.5% in 2018, 4% in 2019

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Water Annual Forecast (contd.)

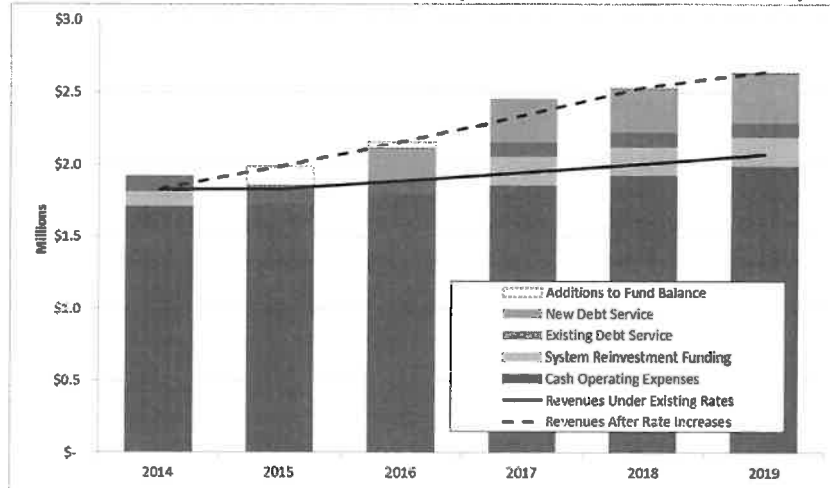
Ending Fund Balances	2014	2015	2016	2017	2018	2019
Operating Reserve	\$ 333,158	\$ 424,123	\$ 436,553	\$ 322,849	\$ 337,385	\$ 344,141
Capital Reserve	291,434	245,365	54,346	828,578	236,213	223,757
Debt Reserve	45,178	67,585	67,585	142,994	142,994	189,533
Total	\$ 669,769	\$ 737,073	\$ 558,485	\$ 1,294,421	\$ 716,593	\$ 757,430
Operating Reserve (Days of O&M Expense)	71 days	90 days	80 days	64 days	65 days	64 days
Target Capital Contingency	\$ 222,909	\$ 232,291	\$ 241,047	\$ 242,641	\$ 246,733	\$ 250,598
Capital Contingency Deficit (if any)	\$ -	\$ -	\$ (188,701)	\$ -	\$ (10,520)	\$ (28,641)
Capital Structure: % Debt	7%	8%	28%	33%	30%	32%
Capital Structure: % Equity	93%	92%	72%	67%	70%	68%

- Operating deficit in 2014
- Operating reserves within targets throughout study
- Debt service coverage remains above 2.90 for bonded debt, as low as 1.10 for all debt however (large SRF loan)
- Overall % debt increases but remains below industry benchmark of 60% debt / 40% equity

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Water Revenue Requirements Graph

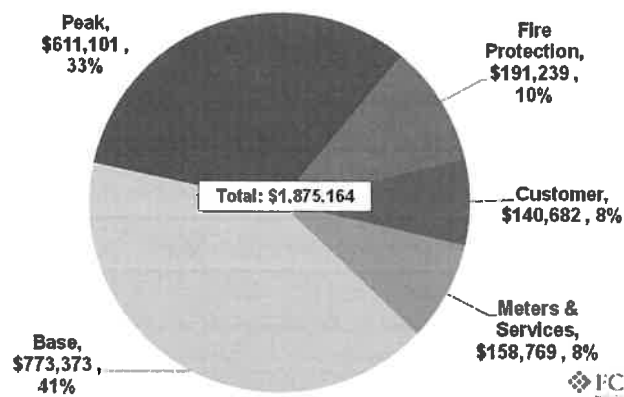


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Water Cost of Service

- The revenue requirement was allocated to each of these functional categories
 - Result: Shifts cost recovery away from customers with 5/8" meter size and average usage, toward customers with larger meters and higher usage



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Water Rate Design Alternatives

- **Alternative A** – Across-The-Board (ATB) Adjustments to Existing Structure
- Alternatives B through E incorporate cost-of-service adjustment and low-income senior/disabled rates
 - **Alternative B** – Maintain Existing Usage Allowance: 600 cf per two months
 - **Alternative C** – Reduce Existing Usage Allowance: From 600 cf to 400 cf per two months. **Recommended alternative**
 - **Alternative D** – Eliminating Usage Allowance:
 - **Alternative E** – Three-tiered Block Rates while eliminating the existing allowance
- Recommend District adopt Alternative C, Alternative B close second

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Water Rate Design Alternatives

Alternative	Description	Low-Income Senior / Disabled Rates?	Allowance	Revenue Profile (Fixed / Variable)	2015 Rates		
					5/8" Fixed Rate + Variable Rate	Bi-Monthly Sample Bill 5/8", 5 ccf / mo.	% above 2014
Existing	2014 Existing Rates	No	600 cf	58% / 42%	\$50.05 \$6.32 per ccf	\$75.33	
A	Across the Board Rate Increase to Existing Rates in 2014	No	600 cf	58% / 42%	\$54.43 \$6.87 per ccf	\$81.92	8.75%
B	Cost of Service - Maintain Allowance	Yes	800 cf	55% / 45%	\$52.97 \$7.55 per ccf	\$83.16	10.40%
C	Cost of Service - Decrease Allowance	Yes	400 cf	48% / 51%	\$48.63 \$6.75 per ccf	\$87.15	15.69%
D	Cost of Service - Eliminate Allowance	Yes	0 cf	40% / 60%	\$37.37 \$5.28 per ccf	\$89.95	19.41%
E	Cost of Service - Eliminate Allowance + Block Rates	Yes	0 cf	40% / 60%	\$37.37 B1: \$4.19 per ccf B2: \$6.28 per ccf B3: \$8.39 per ccf	\$87.70	16.42%

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Water Alternative A

- Across the Board Increase to existing structure

Across the Board Rate Adjustments		Fixed: 58%		Variable: 42%			
No Low-Income Senior / Disabled		2014	2015	2016	2017	2018	2019
Fixed Charge by Meter Size							
0.625	\$	50.05	\$ 54.43	\$ 59.19	\$ 64.37	\$ 69.84	\$ 72.64
1.00	\$	62.84	\$ 68.34	\$ 74.32	\$ 80.82	\$ 87.69	\$ 91.20
1.50	\$	86.31	\$ 93.86	\$ 102.08	\$ 111.01	\$ 120.44	\$ 125.26
2.00	\$	109.78	\$ 119.39	\$ 129.83	\$ 141.19	\$ 153.19	\$ 159.32
3.00	\$	212.05	\$ 230.60	\$ 250.78	\$ 272.73	\$ 295.91	\$ 307.74
Volume Charge							
Allowance (cf)		600 cf	600 cf	600 cf	600 cf	600 cf	600 cf
Usage Over Allowance (per cf)	\$	0.0632	\$ 0.0687	\$ 0.0747	\$ 0.0813	\$ 0.0882	\$ 0.0917
Usage Over Allowance (per ccf)	\$	6.32	\$ 6.87	\$ 7.47	\$ 8.13	\$ 8.82	\$ 9.17
System - Wide Rate Increases			8.75%	8.75%	8.75%	8.50%	4.00%

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Water Alternative B

- Cost of Service with 600 cf per bi-month allowance
- Close second to recommended Alternative C

Cost of Service - Maintain Existing Allowance		Fixed: 55%		Variable: 45%			
With Low-Income Senior / Disabled		2014	2015	2016	2017	2018	2019
Fixed Charge							
0.625	\$	50.05	\$ 52.97	\$ 57.60	\$ 62.64	\$ 67.97	\$ 70.69
1.00	\$	62.84	\$ 70.25	\$ 76.40	\$ 83.09	\$ 90.15	\$ 93.75
1.50	\$	86.31	\$ 96.91	\$ 105.39	\$ 114.61	\$ 124.36	\$ 129.33
2.00	\$	109.78	\$ 133.90	\$ 145.62	\$ 158.36	\$ 171.82	\$ 178.69
3.00	\$	212.05	\$ 264.81	\$ 287.99	\$ 313.18	\$ 339.80	\$ 353.40
Volume Charge							
Allowance (cf)		600 cf	600 cf	600 cf	600 cf	600 cf	600 cf
Usage Over Allowance (per cf)	\$	0.0632	\$ 0.0755	\$ 0.0821	\$ 0.0893	\$ 0.0969	\$ 0.1007
Usage Over Allowance (per ccf)	\$	6.32	\$ 7.55	\$ 8.21	\$ 8.93	\$ 9.69	\$ 10.07
System - Wide Rate Increases			8.75%	8.75%	8.75%	8.50%	4.00%

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Water Alternative C

- Cost of Service with 400 cf per bi-month allowance
- Recommended Alternative

Cost of Service - Move to 400 cf Allowance With Low-Income Senior / Disabled		Fixed: 49%		Variable: 51%			
		2014	2015	2016	2017	2018	2019
Fixed Charge							
0.625	\$	50.05	\$ 46.63	\$ 50.71	\$ 55.15	\$ 59.83	\$ 62.23
1.00	\$	62.84	\$ 63.91	\$ 69.51	\$ 75.59	\$ 82.01	\$ 85.29
1.50	\$	86.31	\$ 90.57	\$ 98.50	\$ 107.12	\$ 116.22	\$ 120.87
2.00	\$	109.78	\$ 127.56	\$ 138.73	\$ 150.86	\$ 163.69	\$ 170.23
3.00	\$	212.05	\$ 258.48	\$ 281.09	\$ 305.69	\$ 331.67	\$ 344.94
Volume Charge							
Allowance (cf)		600 cf	400 cf	400 cf	400 cf	400 cf	400 cf
Usage Over Allowance (per cf)	\$	0.0632	\$ 0.0675	\$ 0.0734	\$ 0.0799	\$ 0.0867	\$ 0.0901
Usage Over Allowance (per ccf)	\$	6.32	\$ 6.75	\$ 7.34	\$ 7.99	\$ 8.67	\$ 9.01
System - Wide Rate Increases			8.75%	8.75%	8.75%	8.50%	4.00%

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Water Alternative D

- Cost of Service, eliminates allowance

Cost of Service - Eliminate Usage Allowance With Low-Income Senior / Disabled		Fixed: 40%		Variable: 60%			
		2014	2015	2016	2017	2018	2019
Fixed Charge							
0.625	\$	50.05	\$ 37.37	\$ 40.64	\$ 44.19	\$ 47.95	\$ 49.87
1.00	\$	62.84	\$ 73.69	\$ 80.14	\$ 87.15	\$ 94.55	\$ 98.34
1.50	\$	86.31	\$ 132.07	\$ 143.63	\$ 156.20	\$ 169.47	\$ 176.25
2.00	\$	109.78	\$ 207.13	\$ 225.26	\$ 244.97	\$ 265.79	\$ 276.42
3.00	\$	212.05	\$ 426.88	\$ 464.23	\$ 504.85	\$ 547.76	\$ 569.68
Volume Charge							
Allowance (cf)		600 cf	0 cf	0 cf	0 cf	0 cf	0 cf
Usage Charge (per cf)	\$	0.0632	\$ 0.0526	\$ 0.0572	\$ 0.0622	\$ 0.0675	\$ 0.0702
Usage Over Allowance (per ccf)	\$	6.32	\$ 5.26	\$ 5.72	\$ 6.22	\$ 6.75	\$ 7.02
System - Wide Rate Increases			8.75%	8.75%	8.75%	8.50%	4.00%

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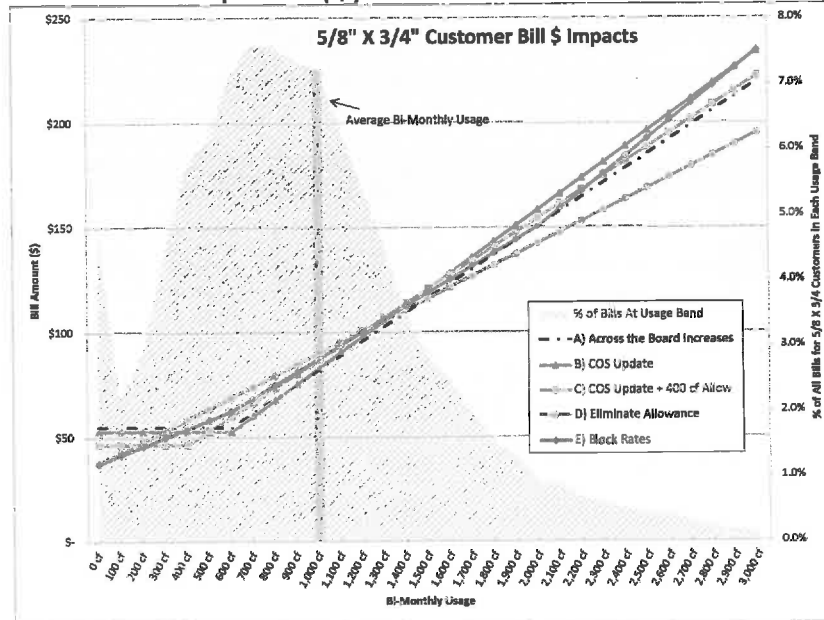
Water Alternative E

- Cost of Service, eliminates allowance, introduces block rates

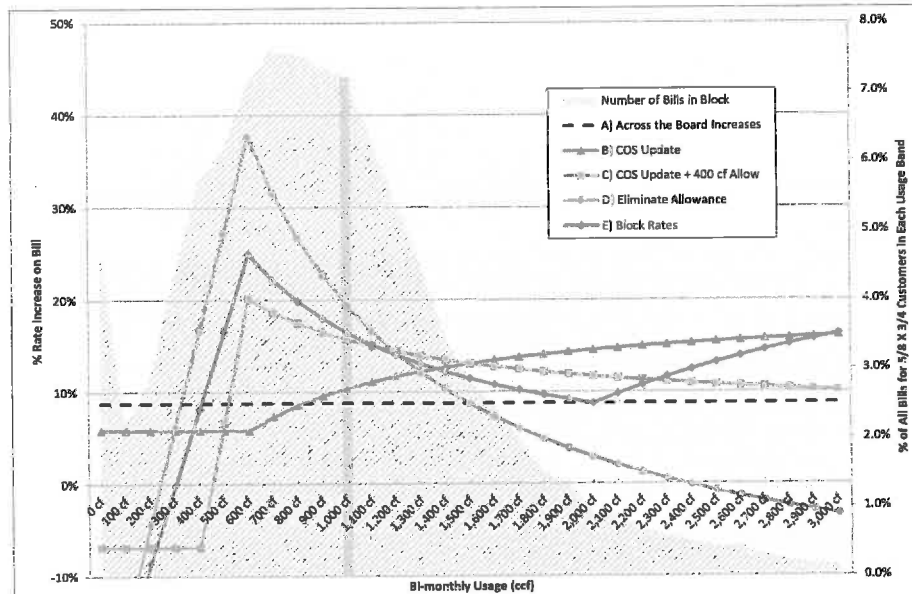
Cost of Service - Three-Tiered Increasing Block				Fixed: 40%		Variable: 60%				
With Low-Income Senior / Disabled		2014		2015		2016		2017	2018	2019
Fixed Charge										
0.625	\$	50.05	\$	37.37	\$	40.64	\$	44.19	\$	49.87
1.00	\$	62.84	\$	73.69	\$	80.14	\$	87.15	\$	94.55
1.50	\$	86.31	\$	132.07	\$	143.63	\$	156.20	\$	169.47
2.00	\$	109.78	\$	207.13	\$	225.26	\$	244.97	\$	265.79
3.00	\$	212.05	\$	426.88	\$	464.23	\$	504.85	\$	547.76
Volume Charge										
(100 cubic feet)										
Block 1		\$		4.19	\$	4.56	\$	4.96	\$	5.38
Block 2		\$		6.29	\$	6.84	\$	7.44	\$	8.07
Block 3		\$		8.39	\$	9.12	\$	9.92	\$	10.76
Non Single Family Uniform Charge (per ccf)			\$	5.32	\$	5.78	\$	6.29	\$	6.82
System - Wide Rate Increases					8.75%	8.75%	8.75%	8.50%		4.00%

Customer Impact of Water Rate Alternatives

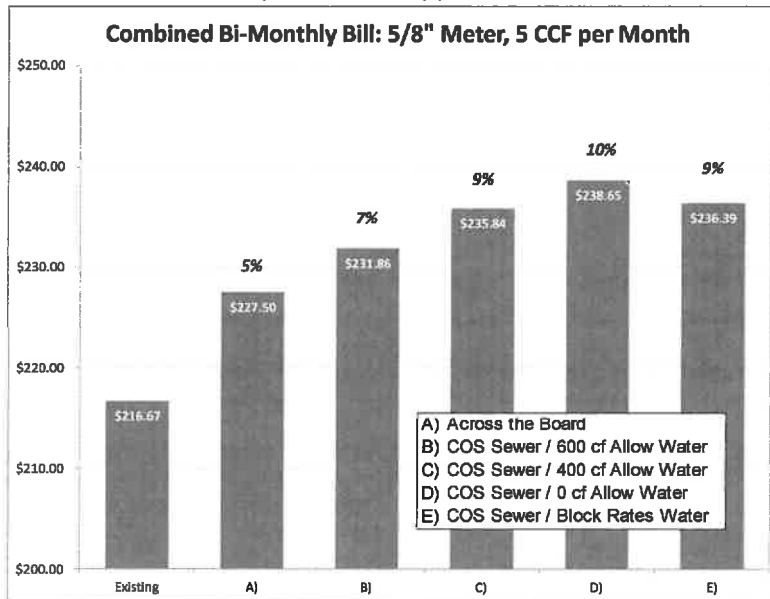
Impact (\$) on Customer Bills



Impact (%) on Customer Bills



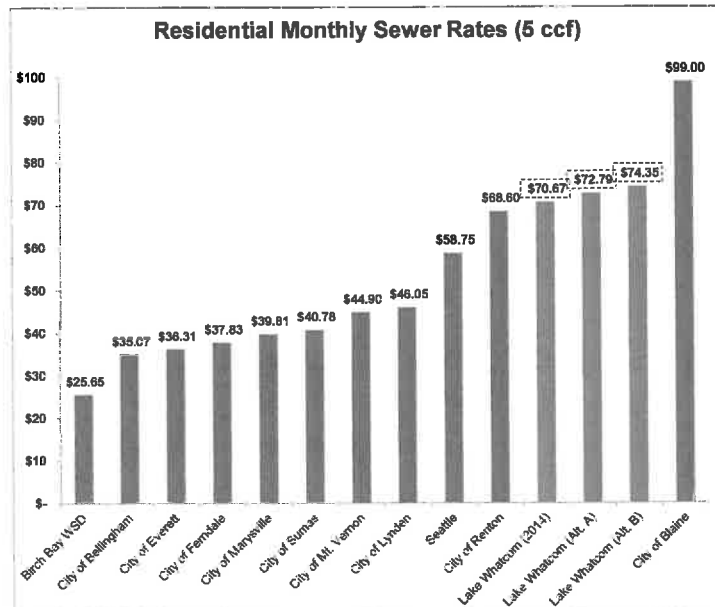
Combined Bill Impacts for Typical LWWS Customer



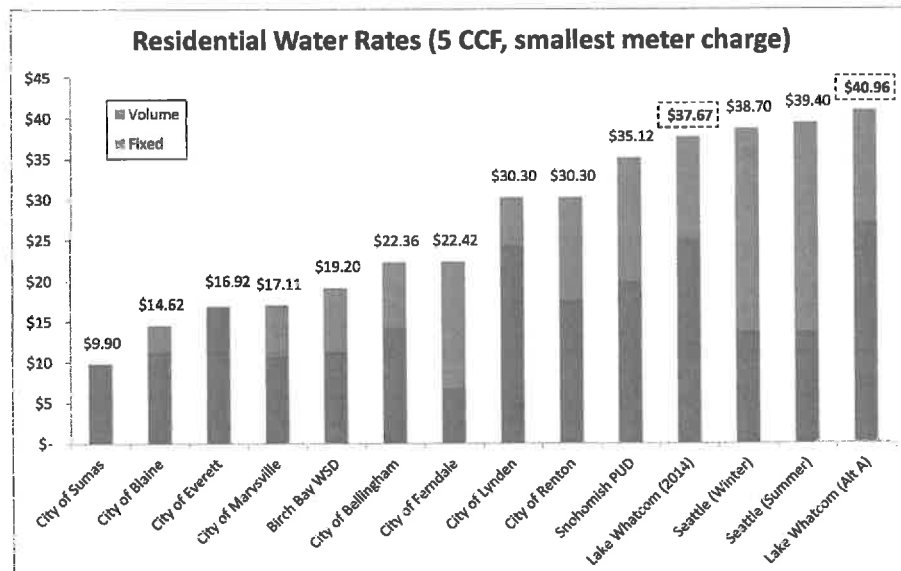
Why Alternative C?

- It includes cost-of-service adjustment and low-income senior/disabled rates
 - Alternatives B-E all share these characteristics
- Lowering allowance improves equity, reducing by nearly half the number of customers paying for water they are not using
- Compared to either A or B, it lowers bill for those within 400 cf per bi-month
- Revenue stability is protected, with 49% from fixed charge (present 58%, Alternatives D and E 40%)
- Tradeoff: Usage in 400 – 600 cf range would be charged, so medium users would see larger bills

Jurisdictional Survey – Sewer Rates



Jurisdictional Survey – Water Rates



Note: Alternatives B – E would be higher than Alternative A

Recommendation Summary

- Adopt System Wide Rate Increases of:

Utility	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected
Sewer	3.00%	2.50%	2.50%	2.50%	2.50%
Water	8.75%	8.75%	8.75%	8.50%	4.00%

- Separate Water and Sewer into separate funds
- Implement low-income senior/disabled rates
- Implement updated cost-of-service analysis
- For Water, reduce usage allowance from 600 to 400 cubic feet per bi-month.

Supplemental Slides(If needed)

Adopted Water Rates

Bi-Monthly Rate Schedule		2014	2015
		Existing	Adopted
Adopted Rate Increases (Res. 774)			5.00%
Fixed Charge by Meter Size			
0.625	\$	50.05	\$ 52.55
1.00	\$	62.84	\$ 65.98
1.50	\$	86.31	\$ 90.63
2.00	\$	109.78	\$ 115.27
3.00	\$	212.05	\$ 222.65
Volume Charge			
Allowance (cf)		600 cf	600 cf
Usage Over Allowance (per cf)	\$	0.063	\$ 0.066
Usage Over Allowance (per ccf)	\$	6.32	\$ 6.64

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Adopted Sewer Rates

Bi-Monthly Rate Schedule		2014	2015
		Existing	Adopted
Annual System-Wide Rate Increases:			3.00%
Adopted Rate Increases (Res. 774)			
Account	\$	8.27	\$ 8.52
Volume Charge per Dwelling Unit	\$	133.07	\$ 137.06
Billing Cycle Charge	\$	141.34	\$ 145.58

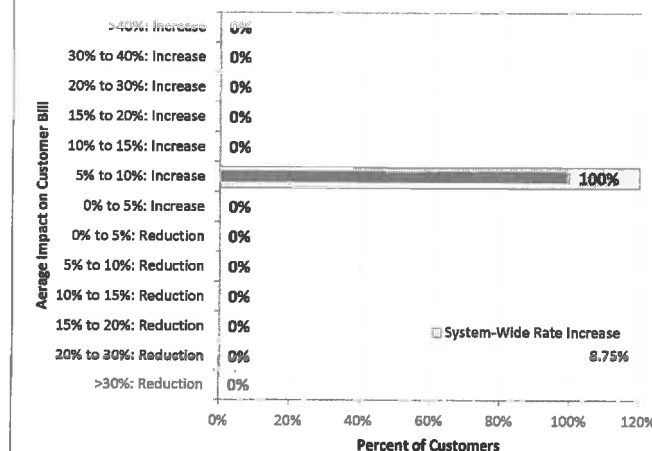
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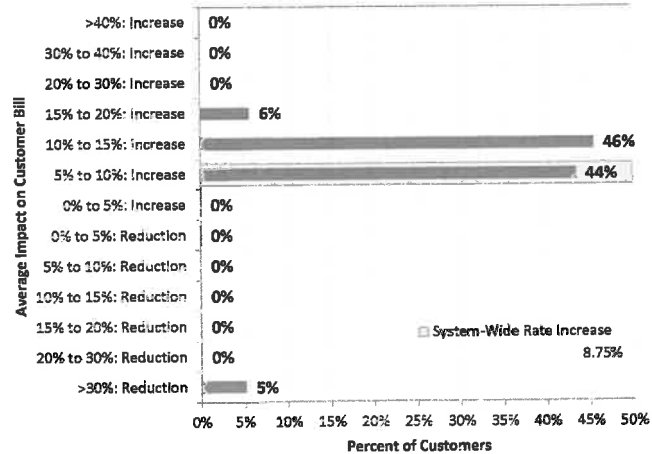
Impact of Water Rate Design Alternatives

- Average bill impact for each water rate design alternative, banded into 5% or 10% increments of rate increases or decreases
- Length of bars indicates the percentage of total bills falling into each increment

Alt. A - Across the Board



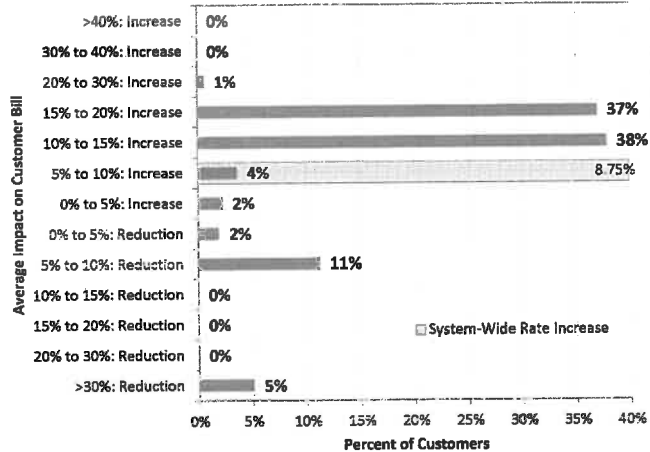
Alt. B - COS | 600 cf Allowance



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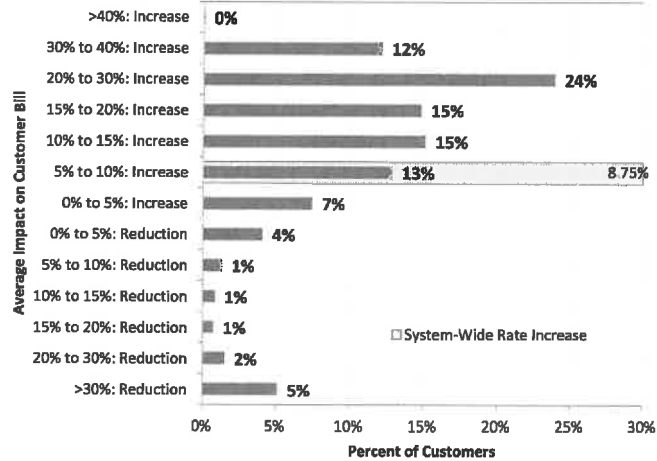
Alt C - COS | 400 cf Allowance



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Alt D - COS | 0 cf Allowance



Alt E - COS | Block Rates

