



**King County**

**Metropolitan King County Council  
Budget and Fiscal Management Committee**

**AGENDA ITEM** 4 **DATE:** May 18, 2010  
**PROPOSED No.:** 2010-0262 **PREPARED BY:** Amy Tsai

**STAFF REPORT**

**SUBJECT:** AN ORDINANCE setting the sewer rate and capacity charge for 2011.

**SUMMARY:** King County's sewer rates are set for the following year by June 30 of each year. This proposed ordinance would:

- Set the 2011 **monthly sewer rate at \$35.15** per residential customer equivalent (RCE) per month, which is a 10.2 percent or \$3.25 increase over the 2010 rate of \$31.90;
- Set the **monthly capacity charge** for new connections to the regional system occurring in 2011 **at \$50.45**, which is a 2.8 percent or \$1.38 increase over the 2010 rate of \$49.07.

**BACKGROUND:**

**Wastewater Services Contracts**

King County provides wastewater services for 34 municipalities or sewer districts in King County, southern Snohomish County and the northern tip of Pierce County. The municipalities constitute approximately three-fourths of the county's ratepayer base and the sewer districts constitute roughly one fourth of the ratepayer base.

The County does not provide wastewater services directly to residential or business customers. Rather, the County collects wastewater from the cities or utility districts in large interceptor lines, and conveys the wastewater to County treatment plants for treatment and discharge. The sewerage service provided by the County includes construction, operation and maintenance of main trunk and interceptor sewers, pumping stations, and treatment plants.

There are two main sewer charges to customers, a monthly sewer fee and a capacity charge for new connections to the system. The monthly sewer rate collected by the county goes towards all WTD expenses, including operating costs, debt service, and

capital expenses. The capacity charge goes towards capital improvements required to provide capacity for new customers.

The County charges the contracted city and sewer district agencies the monthly sewer rate, who in turn bill the customers to whom they provide sewage collection services. Many residents see these charges on their sewer bills, but they are not paying the County directly. Their utility providers, as direct service providers, set their own rates to recoup the payments to the County for wastewater treatment plus their own "local" cost of service. Unlike the monthly sewer rate, the capacity charge is directly billed by and paid to King County.

The contracts specify that the sewer rate be in place by **June 30<sup>th</sup>** of each year.

### Monthly Sewer Rate

The monthly sewer rate for both residential and commercial customers is calculated on the basis of Residential Customer Equivalents (RCEs). One RCE (750 cubic feet of wastewater) represents the average amount of wastewater a single family residence would generate in a month. Commercial and industrial customers are charged based on the amount of wastewater generated, converted into RCEs.

The Executive's proposal includes raising the monthly sewer rate charge to \$35.15 per RCE per month. Historical sewer rates are provided in the following table, along with the Executive's projections through 2016:

**Table 1. Sewer Rates (1996-2010 Actual; 2011-2016 Projected)**

Year	Rate (\$/RCE/ Month)	% Increase
1996 - 1999	\$19.10	
2000	19.50	2.1%
2001	19.75	1.3%
2002 - 2004	23.40	18.5%
2005 - 2006	25.60	9.4%
2007 - 2008	27.95	9.2%
2009 - 2010	31.90	14.1%
<b>2011</b>	<b>35.15</b>	<b>10.2%</b>
2012	38.25	8.8%
2013	39.10	2.2%
2014	39.90	2.0%
2015	42.52	6.6%
2016	42.81	0.7%

The Executive's proposed sewer rate of \$35.15 is a 10.2 percent increase over the 2010 rate, or an increase of \$3.25. As the Executive noted in his transmittal letter, the proposed rate is \$0.91 less per month than was projected in the 2010 budget.

Most of the sewer rate (61%) goes towards debt service payments. About a quarter of the rate (28%) goes towards operating expenses. The remainder pays for overhead charges from county agencies (4%) and direct capital payments (6%).

### Capacity Charge

New connections to the regional wastewater system are assessed a capacity charge that is payable over a fifteen year period, or it can be paid up front, which is done by 15-20% of customers. The capacity charge along with the monthly sewer rate on new customers is designed to pay for capital improvements required to provide capacity for these new customers. This is in accordance with the adopted policy of “growth pays for growth” (K.C.C. 28.86.160 FP-15 and Ordinance 14219).

The Executive's proposal includes raising the monthly capacity charge to \$50.45 per month. A recent history of the capacity charge along with projections through 2016 is provided in the following table:

**Table 2. Capacity Charge (1996 – 2010 Actual; 2011-2016 Projected)**

Year	Rate/Month/RCE 15-yr. duration	% Increase
1996 - 1997	\$7.00	
1998 - 2001	10.50	50.0%
2002	17.20	63.8%
2003	17.60	2.3%
2004	18.00	2.3%
2005 - 2006	34.05	89.2%
2007	42.00	23.3%
2008	46.25	10.1%
2009	47.64	3.0%
2010	49.07	3.0%
<b>2011</b>	<b>50.45</b>	<b>2.8%</b>
2012	51.96	3.0%
2013	53.52	3.0%
2014	55.13	3.0%
2015	56.78	3.0%
2016	58.49	3.0%

The sharp increase in 2005-2006 was due to a Regional Wastewater Services Plan (RWSP) update, with new cost estimates for all components of the RWSP, including Brightwater.

The executive's proposed capacity charge of \$50.45 is an increase of 2.8%, or \$1.38 from the 2010 capacity charge of \$49.07. The capacity charge is based on 30-year projections and therefore tends to be stable over time.

New connection customers are locked into the capacity charge rate that is in effect at the time they sign their contract with the county. New connection customers are provided the opportunity to pay their capacity charge in advance rather than paying over the fifteen years. The capacity charge as proposed for 2011 at \$50.45 would amount to \$9,081 if paid monthly for the full term of 15 years. An up-front payment, discounted at 5.5% compounded over the 15 years, would amount to \$6,241.

## Budget

The 2010 Wastewater Treatment Division (WTD) budget is 7.6% of the County's total \$5 billion budget, down from being 9% of the County's \$4.9 billion budget in 2009. The WTD budget is comprised of Operations, Debt Service, and CIP, as shown in Table 3.

**Table 3. 2009-2010 Adopted WTD Budget**

Appropriation Unit	2009 Adopted	2009 % of Total	2010 Adopted	2010 % of Total
WTD Operations	\$102,916,802	23.0%	\$108,872,937	28.7%
WTD Debt Service	177,902,230	39.7%	178,569,346	47.1%
WTD CIP	167,601,619	37.4%	91,993,254	24.2%
Total	\$448,420,651	100.0%	\$379,435,537	100.0%

As shown in Table 4 below, the revenue forecast for 2010 is \$304 million (see Attachment A to Proposed Ordinance, WTD Financial Plan for the 2011 Proposed Sewer Rate), as opposed to the \$329 million that was forecast for 2010 at the time of the 2009 rate adoption last year. This difference is due primarily to a different use of the rate stabilization fund, which is used to smooth out rates over time. WTD has a revenue forecast of \$346 million in 2011. **Over 95 percent of the total revenue comes from the monthly sewer rate and capacity charge.**

**Table 4. 2009-2010 Wastewater Treatment Revenue**

Revenue Source	2010 Rate	2010 Revenue Forecast (from 2010)	2010 Revenue Forecast (from 2011)	2011 Proposed Rate	2011 Revenue Forecast
Sewer Rate	\$31.90	\$265,855,634	\$264,698,003	\$35.15	\$290,207,340
Capacity Charge	\$49.07	37,254,755	38,038,070	\$50.45	40,170,818
Other Income		9,466,000	8,740,700		8,048,600
Investment Income		5,033,317	3,146,197		5,236,136
Rate stabilization		11,550,000	(10,650,000)		2,400,000
Total Revenue		\$329,159,706	\$303,972,971		\$346,062,894

The debt service ratio needed for the county's bond covenants is 1.25 for parity bond debt service and 1.15 for total debt service. Maintaining that debt service ratio is one of the primary considerations of the revenue and expenditure balancing decisions. Table 5 shows the debt service ratio for 2010 and 2011.

**Table 5. 2010-2011 Wastewater Treatment Debt Service Ratio**

	2010	2011
Operating Revenue	\$303,973,000	\$346,063,000
Operating Expenses	106,842,000	111,160,000
Debt Service Requirement Parity Debt	146,626,000	172,586,000
Parity Debt Service Coverage Ratio*	1.34	1.36
Total Debt Service Coverage Ratio	1.15	1.15

\* [(Operating Revenue minus Operating Expenses)/Debt Service]

The parity and total debt service ratios are maintained at the appropriate levels (above 1.25 and 1.15, respectively) through 2016 (see Attachment A to Proposed Ordinance, WTD Financial Plan for the 2011 Proposed Sewer Rate).

**ANALYSIS**

With the slowed economy, RCEs and new connections have been down significantly. Decrease in revenue can be offset in a number of ways, including:

1. Reducing projected operating expenses
2. Reviewing and prioritizing all capital projects to determine if any can be delayed
3. Increasing the sewer rate.

The \$35.15 proposed monthly sewer rate is an increase of \$3.25 over last year's adopted rate of \$31.90. The components balanced by the Executive that result in that rate include the following cost increases and decreases.

Increased costs:

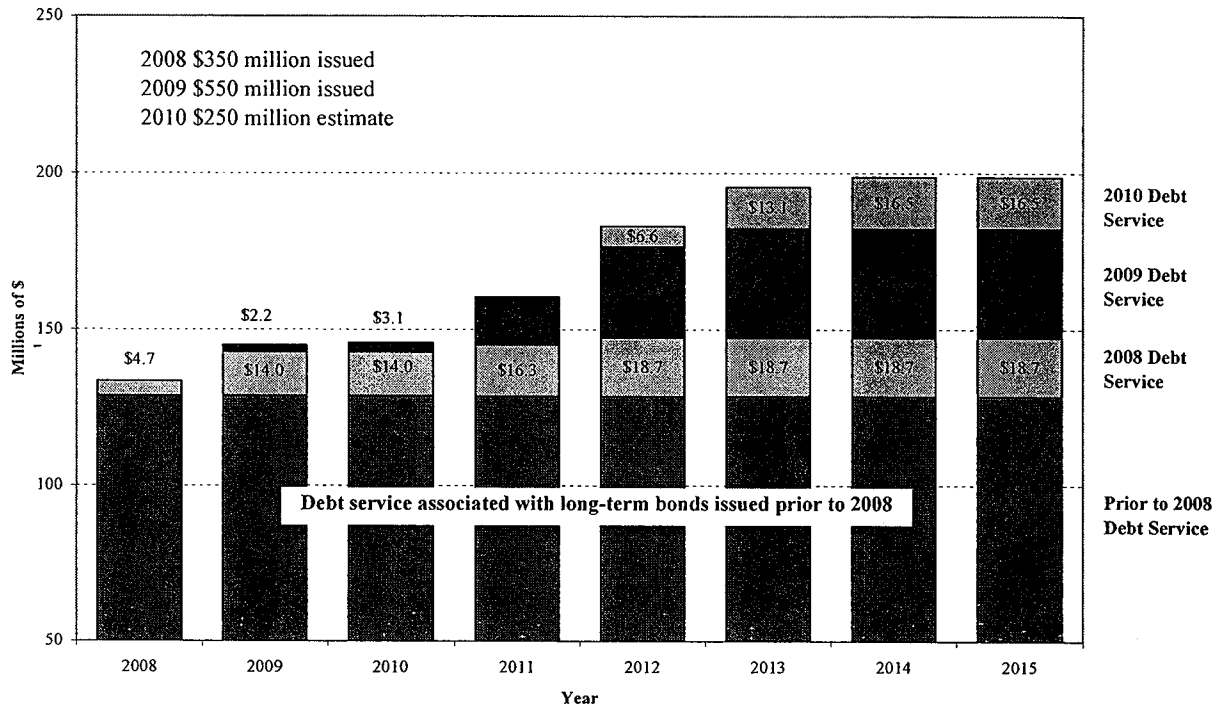
- Debt service from 2008-2009 bond issues \$1.87
- Debt service on 2011 bond issue \$1.37
- Labor (COLA and benefits) \$0.66
- Higher interest on existing subordinate debt \$0.62
- Brightwater operating costs \$0.53
- Lower RCEs \$0.47
- Chemical and energy costs \$0.35

Decreased costs:

- Use of rate stabilization fund (\$1.79)
- Central rate adjustments (\$0.41)
- No Culver funding (\$0.20)
- Reduced transfer to WLRD (\$0.15)
- Capacity charge revenue (\$0.07)

The bad economy, which contributes to lower RCEs and higher interest rates, accounts for over \$1 of the \$3.25 rate increase (as discussed in greater detail below). Debt service obligations account for most of the rest of the rate increase. As shown in the figure below, debt service payments for existing long-term bonds increase over time.

**Figure 1. Cumulative Debt Service Associated with Long-term Bonds Issued through 2010**



The main offset of increasing costs is the use of the rate stabilization fund. Depending on which model the Council adopts (discussed later in this staff report), the rate stabilization fund can be used in varying amounts to help smooth out rates from year to year. The planned use of the reserve goes until 2014 when the forecasted amount of money in the rate stabilization reserve reaches \$0.

Other offsets include changes in how central rates are computed, not funding the Culver program and reducing the transfer to WLRD. The Culver program is a program that has transferred 1.5% of WTD's operating budget to WLRD for over ten years for general water quality and pollution abatement activities. The funds have supported organizations and grants for resource land activities such as community restoration, planting and water quality educational projects. The transfer would normally be \$1.58 million in 2011.

The other reduced transfer to WLRD would be a reduction of \$1.2 million. The services and programs that would be cut due to that reduction are still being discussed between WTD and WLRD with additional details available sometime around July. In their planning WLRD remains cognizant of the continued importance of monitoring.

**Residential Customer Equivalent (RCE) Growth and New Connections**

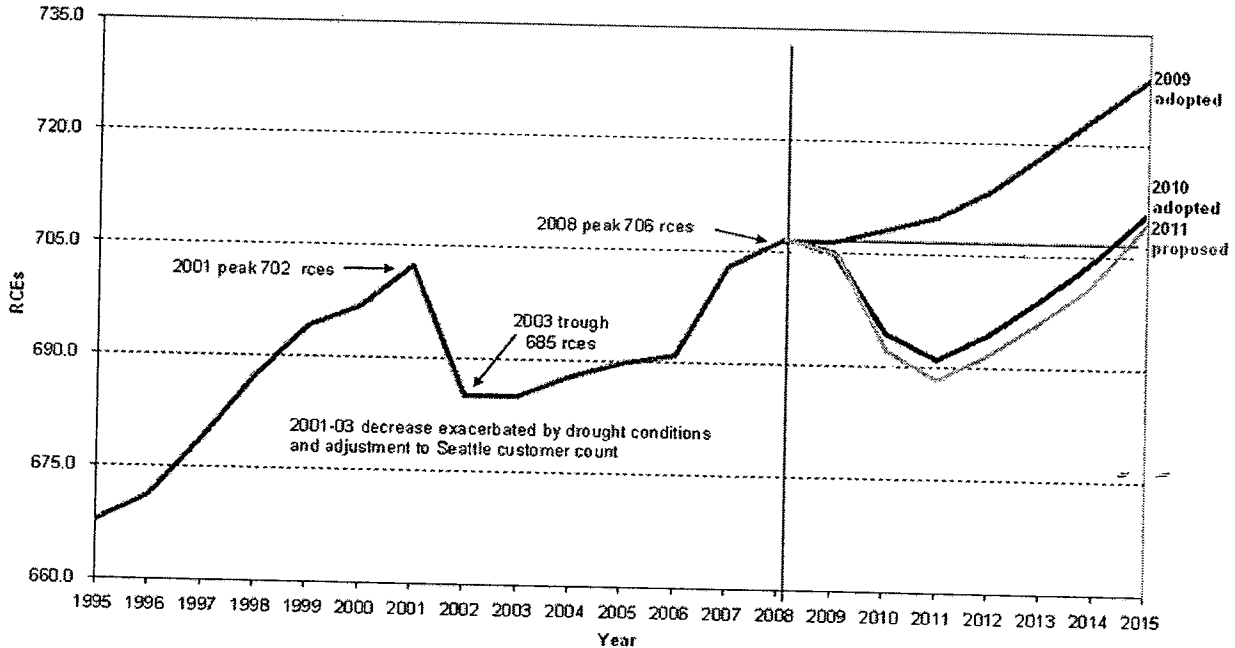
Higher growth in RCEs means more revenue and therefore less need to raise the rate. One RCE is equivalent to 750 cubic feet of wastewater produced in a month.

Due to the recent economic downturn and cutbacks in industrial use, WTD projects a decline in RCEs through 2011, with RCEs gradually increasing thereafter but not bouncing back to 2009 levels until 2014 (see Issue Paper, p. 14, attached to Executive's transmittal letter). The decline in projected RCEs is 0.5% lower for 2010 than had been predicted last year, or 3,020 fewer RCEs (see bolded numbers in Table 6).

**Table 6. WTD Projected RCEs and New Connections (2009-2015)**

RCEs	2009	2010	2011	2012	2013	2014	2015
<b>Proposed 2011</b>	703,800	691,480	688,020	691,460	696,650	702,920	709,240
Percent change	-0.43%	<b>-1.75%</b>	-0.50%	0.50%	0.75%	0.50%	0.90%
<b>Adopted 2010</b>	703,310	694,500	691,030	694,490	699,350	704,590	710,930
Percent change	-0.50%	<b>-1.25%</b>	-0.50%	0.50%	0.70%	0.50%	0.90%
<b>Difference</b>	490	<b>(3,020)</b>	(3,010)	(3,030)	(2,700)	(1,670)	(1,690)
New Connections	2009	2010	2011	2012	2013	2014	2015
<b>Proposed 2011</b>	6,700	5,500	6,500	8,500	9,500	11,000	11,000
<b>Adopted 2010</b>	7,500	6,000	6,000	7,500	9,000	10,500	11,000
<b>Difference</b>	(800)	(500)	500	1,000	500	500	0

**Figure 2. Comparison of RCE Outlook Scenarios**



In the current economic slump, new connections drop off over the next few years and do not bounce back to 2009 levels until 2012. RCE growth and new connections are not directly related, because RCE growth is influenced by customers leaving the system or reducing their "consumption".

Despite a steady decline in new connections through 2010, capacity charges maintain a steady annual increase of 3% based on inflation, because capacity charges are based on a 30-year projection that is updated every three years. The county is currently in year one of the 3-year cycle, and is even slightly under last year's projection with a projected rate increase of 2.8% instead of 3.0%.

**Operating Expenses**

The operating budget, \$108,872,937, is 28% of the total Wastewater Treatment Division budget (Table 3).

The 2011 operating expense projection represents a 4.0% increase compared to 2010. That is similar to the 3.7% increase from 2009 to 2010 (based on the forecasted values, see Attachment A to Proposed Ordinance, WTD Financial Plan for the 2011 Proposed Sewer Rate). The majority of operating expense costs comes from wastewater treatment operations (56%). Administration and central charges make up 21%, down from 34% last year, with the remaining operating expenses coming from Water and Land Resources Division transfers (9%), biosolid resource recovery (7%), project planning and delivery (4%), and environmental and community services (3%).

As noted above, increases in operating expenses are expected from labor (COLA and benefits), Brightwater operating costs as the treatment plant comes on-line, and increases in chemical and energy costs (including switching from chlorine to the safer but more expensive hypochlorite at the West Point plant).

It is worth noting that staffing levels at WTD have remained the same for a long period of time. WTD finds efficiencies by moving staff around as treatment plant needs change. For example, some vacant positions are being held for when Brightwater becomes operational.

**Table 7. 2005-2010 WTD Adopted Staffing Levels**

Staffing	2005	2006	2007	2008	2009	2010
FTEs (full-time)	598.7	598.7	598.7	598.7	598.7	593.7
TLTs (term-limited)	35.0	32.0	34.0	42.0	32.0	33.0

**Capital Expenditures and Accomplishment Rate**

Capital expenditures peaked in 2008 and 2009. The capital program drives the need for cash flow to be provided through short and long-term debt. Debt in turn drives debt service and has a direct impact on both the monthly rate and the capacity charge.



**Table 8. WTD Total CIP (2008-2015) in \$Millions**

<b>Brightwater</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
2010 Adopted	369.8	447.1	228.6	81.9	25.4			
2011 Update	369.8	357.9	312.8	121.7	10.1			
Difference	0	-89.2	84.3	39.8	-15.3			
<b>Other Capital</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
2010 Adopted	106.1	107.7	99.4	109.3	102.0	159.1	159.3	159.7
2011 Update	106.1	97.6	81.5	110.9	102.4	140.4	152.9	207.2
Difference	0	-10.1	-17.9	1.5	0.4	-18.7	-6.4	47.5
<b>Total Capital</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
2010 Adopted	475.9	554.8	327.9	191.2	127.4	159.1	159.3	159.7
2011 Update	475.9	455.5	394.3	232.6	112.5	140.4	152.9	207.2
Difference	0	-99.3	66.4	41.3	-14.9	-18.7	-6.4	47.5

The delay of the Brightwater conveyance system has caused a shifting of costs from 2009 to the outyears, plus there has been an increase in Brightwater costs of \$16.1 million (\$10.5 million for conveyance system and \$5.6 million for treatment plant).

Cost shifting into later years has occurred with some non-Brightwater projects, which helps offset the burden of the peak periods for Brightwater. Those cost shifts include:

- Completion dates for Magnolia, Murray, North Beach and Barton combined sewer overflow (CSO) projects delayed four years
- Southwest Interceptor project split into two projects with the first to be completed in 2013, compared to the originally scheduled completion date of 2010
- Ballard Siphon project completion date moved from 2009 to 2013
- Sunset/Heathfield Pump Station Replacement and Forcemain Upgrade completion date moved from 2014 to 2017
- South Plant Phase III/Odor Control project completion date moved from 2015 to 2017.

In addition, the Regional Wastewater Services Plan Local Systems Inflow and Infiltration project was reduced in scope, and the Black Diamond Storage Facility project was cancelled.

The capital cost reductions are offset somewhat by new projects and updated cost estimates, including the following:

- Fremont Siphon Repair to replace a 98 year old pipe
- Increased cost estimate of about \$30 million for CSO Control and Improvement Projects at Murray and Magnolia (which had previously relied on pre-baseline conceptual planning estimates)
- Influent Screening at West Point Treatment Plant to meet new state biosolids management regulations
- Interbay Pump Station upgrade.

*This staff report does not analyze the merits of the capital project changes; additional information can be researched upon request.*

The capital program accomplishment rate refers to the cash flow requirement generated by the capital program. For example, a capital budget of \$100 at an accomplishment rate of 95% means \$95 of cash must be available. During the past five years, the average accomplishment rate for WTD capital programs has been 87 percent. As the Brightwater major construction projects have gotten underway, the accomplishment rate has risen (95% for Brightwater in 2007 and 88% for non-Brightwater projects).

For 2010 through 2016, the projected Brightwater CIP accomplishment rate is 95% each year. Non-Brightwater rates are assumed to be 85% annually.

### **Rate Stabilization Reserve**

Rate stabilization is a way of reserving operating revenues for use in subsequent years to help smooth out rate increases that would otherwise fluctuate more with the ups and downs in the revenues and expenses that occur. Under the 2011 financial plan, \$10.65 million is put into the reserve in 2010 for a reserve balance of \$45.8 million. Under the proposal, the rate of \$35.15 for 2011 does not generate any additional rate stabilization reserve. The 2011 proposed rate uses \$2.4 million, leaving \$43.4 million in reserves. The reserve would be drawn down to zero by 2014.

### **Bond and Investment Interest Rates and Earnings**

Bond interest rates cost the county, while investment interest rates provide revenue to the county. Low interest rates therefore help on the bond front while hurting on the investment front. They are both discussed here.

Unfortunately, rates of return continue to be low in the current economy. Investment returns averaged 1.7% in 2009. The Executive's 2011 rate proposal projects investment rates of 1.25% in 2011. They are projected to increase to 2.0% in 2012 and up to 3.5% by 2015.

WTD assumes a bond interest rate of 5.25% through 2010 (down from a 6.0% estimate for 2010 last year), and 5.75% thereafter. WTD's recent \$300 million 30-year bond sale had favorable interest rates of 5.13%, which is within the assumed interest level of 5.75%. WTD also expects to issue an additional \$250 million in bonds later this year.

### **One-Year vs. Two-Year Rate**

King County Code 28.86.160 sets forth the county's financial policies in accordance with the Regional Wastewater Services Plan. Financial Policy 15 specifically states, "**King County should attempt to adopt a multiyear sewer rate to provide stable costs to sewer customers.**"

The multiyear rate adds stability and predictability by allowing clients to plan knowing what the rate costs will be for the next two years. As can be seen by the rates in Table 1, the county has consistently adopted multiyear rates since 2002.

However, the Executive's proposed rate is based on a one-year rate (designed to increase next year instead of hold steady next year), in order to provide economic relief to ratepayers during this poor economy. In his transmittal letter, the Executive notes that the proposed rate would allow ratepayers to retain \$8.7 million during 2011.

The Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC), comprised of King County's wastewater clients, also recommends adoption of a one-year rate. Their reasoning is that a one-year rate provides the flexibility to adapt to changing costs and trends. MWPAAC cites uncertainty regarding financing cost and structure, start-up costs at Brightwater, growth rates and patterns, developing trends in cost containment, and departmental efforts to mitigate upward rate trends. In short, the one-year rate would allow the county to set a rate increase next year based on whatever new information is available at that time.

In deciding whether to adopt a one-year or two-year rate, there are various financing scenarios available to the Council. The types of bonds that are issued (capitalized versus non-capitalized interest) and how the rate stabilization reserve is used leads to different rate possibilities for one-year and two-year rate scenarios.

#### Use of Capitalized Interest

The Executive's proposed rate is based on a single-year rate; interest on 2010 bonds is capitalized through mid-2012; there is no capitalization of 2011 bond issues; bonds used in 2010-2012 are interest-only through 2013; and the rate stabilization reserve is used through 2014.

Table 9 presents the Executive's proposed scenario of no capitalized interest on 2011 bonds for one-year (the proposed rate) and two-year rates. Additional scenarios that use capitalized interest or interest-only bonds are presented on p.4 of the Issue Paper attached to the Executive's transmittal letter.

To put capitalized interest in perspective, for a bond of about \$200 million, capitalized interest would require borrowing \$20 million more upfront, which with interest over time results in a total debt service obligation that is \$25 million greater than a bond without capitalized interest.

**Table 9. One-year vs. Two-Year Rate, Capitalized vs. Non-Capitalized**

<b>Non-Capitalized One-Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	<b>\$35.15</b>	<b>\$38.25</b>	\$39.10	\$39.90	\$42.52	\$42.81
% Change	0%	<b>10.2%</b>	<b>8.8%</b>	2.2%	2.0%	6.6%	0.7%
Difference from 2010 adopted	\$0	-\$0.91	-\$1.54	-\$3.60	-\$3.32	-\$1.12	-\$1.05
<b>Capitalized One-Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	\$34.00	\$36.25	\$38.80	\$41.50	\$42.71	\$42.99
% Change	0%	6.6%	6.6%	7.0%	7.0%	2.9%	0.7%
Difference from 2010 adopted	\$0	-\$2.06	-\$3.54	-\$3.90	-\$1.72	-\$0.93	-\$0.87
<b>Non-Capitalized Two-Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	<b>\$36.25</b>	<b>\$36.25</b>	\$39.90	\$39.90	\$42.53	\$42.81
% Change	0%	<b>13.6%</b>	<b>0%</b>	10.1%	0%	6.6%	0.7%
Difference from 2010 adopted	\$0	\$0.19	-\$3.54	-\$2.80	-\$3.32	-\$1.11	-\$1.05
<b>Capitalized Two-Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	\$35.70	\$35.70	\$39.90	\$39.90	\$42.71	\$42.99
% Change	0%	11.9%	0%	11.2%	0%	7.6%	0.7%
Difference from 2010 adopted	\$0	-\$0.36	-\$4.09	-\$3.00	-\$3.52	-\$0.93	-\$0.87

Use of Rate Stabilization Reserve

Alternatively, the rates per year can be adjusted depending on how one uses the rate stabilization reserve. The following scenarios present the Executive's one-year non-capitalized rate scenario, plus two more scenarios that use the same types of bonds but apportion the rate stabilization funds in equal amounts, or to generate equal percentage increases each year.

**Table 10. Non-Capitalized One-Year with Different Rate Stabilizations**

<b>Exec Proposed</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	<b>\$35.15</b>	<b>\$38.25</b>	\$39.10	\$39.90	\$42.52	\$42.81
% Change	0%	<b>10.2%</b>	<b>8.8%</b>	2.2%	2.0%	6.6%	0.7%
<b>Equal Rate Stabilization Use</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	\$33.97	\$37.76	\$39.65	\$40.64	\$42.55	\$42.83
% Change	0%	6.5%	11.2%	5.0%	2.5%	4.7%	0.7%
<b>Equal Percentage Increases</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Sewer Rate	\$31.90	\$34.25	\$36.70	\$39.30	\$42.10	\$42.52	\$42.81
% Change	0%	7.4%	7.2%	7.1%	7.1%	1.0%	0.7%

## **Rate Reasonableness**

Information on monthly sewer rates in other jurisdictions suggests that King County's rates are in line with other sewer agencies (see, e.g., graphs on p. 16 of issue paper attached to Executive's transmittal letter, showing King County at approximately the average rate compared to other jurisdictions around the country). It is difficult to compare rates because many variables affect the comparison, such as the availability of other sources of funding, whether rates are computed based on actual use or other units of measurement, treatment plant technology, whether rehabilitation of aging equipment is included in the rate, development opportunities for increasing the service area, and the complexity of the terrain.

Nevertheless, as sewer systems age, it is clear that sewer rates everywhere are on the rise (see, e.g., 'Saving U.S. Water and Sewer Systems Would Be Costly', NY Times, 3/14/10).

For example, in Pierce County where sewer rates have remained at \$29.65 for a long time thanks to state and federal funding support for its original capital projects, as they plan for their future expansion needs they project a \$3.93 rate increase in 2010 and exceeding \$40 by 2013. King County would not exceed the \$40 mark until 2015 under the Executive's proposal.

Pierce County is exploring ways to keep their costs down, such as different charges for different areas. As rates continue to rise, King County will need to continue to hunt for new ways of bringing down costs as well.

### **REASONABLENESS:**

Proposed Ordinance 2010-0262 would raise sewer rates from \$31.90 to \$35.15 (10.2% increase) and increase the capacity charge from \$49.07 to \$50.45 (2.8% increase). Operating expenses have been held fairly level. Cashflow needs for capital expenditures have been balanced to keep projects on target through 2015. Approving Proposed Ordinance 2010-0262 appears to be a reasonable and prudent policy decision. However, the Council may wish to consider whether a two-year rate plan is preferred in order to maintain stable multi-year rates in accordance with the wastewater financial policies.

### **INVITED:**

- Bob Burns, Interim Director, Department of Natural Resources and Parks (DNRP)
- Christie True, Director, Wastewater Treatment Division, DNRP
- Tim Aratani, Manager, Finance and Administrative Services, Wastewater Treatment Division, DNRP
- Tom Lienesch, Economist, Wastewater Treatment Division, DNRP
- Dwight Dively, Director, Office of Management and Budget

### **ATTACHMENTS:**

1. Proposed Ordinance 2010-0262 (with Attachment)
  - A. WTD Financial Plan for the 2011 Proposed Sewer Rate
2. Fiscal Note
3. Executive's Transmittal Letter and Attachments



KING COUNTY

Signature Report

April 22, 2010

Ordinance



Proposed No. 2010-0262.1

Sponsors Patterson

1 AN ORDINANCE determining the monetary requirements  
 2 for the disposal of sewage for the fiscal year beginning  
 3 January 1, 2011, and ending December 31, 2011, setting  
 4 the sewer rate for the fiscal year beginning January 1, 2011,  
 5 and ending December 31, 2011, and approving the amount  
 6 of the sewage treatment capacity charge for 2011, in  
 7 accordance with RCW 35.58.570; and amending Ordinance  
 8 12353, Section 2, as amended, and K.C.C. 4.90.010, and  
 9 Ordinance 11398, Section 1, as amended, and K.C.C.  
 10 28.84.055.

11 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

12 SECTION 1. Ordinance 12353, Section 2, as amended, and K.C.C. 4.90.010 are  
 13 each hereby amended to read as follows:

14 A. Having determined the monetary requirements for the disposal of sewage, the  
 15 council hereby adopts a ((2010)) 2011 sewer rate of thirty-five dollars and fifteen cents  
 16 per residential customer equivalent per month. Once a sewer rate ordinance becomes  
 17 effective, the clerk of the council is directed to deliver a copy of that ordinance to each  
 18 agency having an agreement for sewage disposal with King County.

19 B. The King County council approves the application of Statement of Financial  
20 Accounting Standards No. 71 (FAS 71) to treat pollution remediation obligations and the  
21 first year start-up costs after construction on new plants as regulatory assets, and establish  
22 a rate stabilization reserve for the purpose of leveling rates between years.

23 C. As required for FAS 71 application, amounts are to be placed in the rate  
24 stabilization reserve from operating revenues and removed from the calculation of debt  
25 service coverage. The reserve balance shall be an amount at least sufficient to maintain a  
26 level sewer rate between ~~((2009 and 2010))~~ 2011 and 2012, and shall be used solely for  
27 the purposes of: maintaining the level sewer rate in ~~((2010))~~ 2012; and if additional  
28 reserve balance is available, moderating future rate increases beyond ~~((2010))~~ 2012. If  
29 the estimated amount of the reserve, as shown in the financial forecast, Attachment A to  
30 ~~((Ordinance 16554))~~ this ordinance, needs to be reduced to meet debt service coverage  
31 requirements for ~~((2009))~~ 2010, the county executive shall notify the council of the  
32 change by providing an updated financial forecast.

33 D. The executive shall provide monthly cost reports to the council on Brightwater  
34 as outlined in K.C.C. 28.86.165.

35 SECTION 2. Monetary requirements for the disposal of sewage as defined by  
36 contract with the component sewer agencies for the fiscal year beginning January 1,  
37 2011, and ending December 31, 2011. The council hereby determines the monetary  
38 requirements for the disposal of sewage as follows:

39 Administration, operating, maintenance repair and replace (net of other income):  
40 \$62,940,569.

41 Establishment and maintenance of necessary working capital reserves:



42 \$4,646,190.

43 Requirements of revenue bond resolutions (not included in above items and net of  
44 interest income): \$228,939,223.

45 TOTAL: \$296,526,983.

46 SECTION 3. Ordinance 11398, Section 1, as amended, and K.C.C. 28.84.055 are  
47 each hereby amended as follows: .

48 A. The amount of the 1994 metropolitan sewage facility capacity charge adopted  
49 by K.C.C. 28.84.050.O. shall be seven dollars per month per residential customer or  
50 residential customer equivalent for fifteen years.

51 B. The amount of the 1995 metropolitan sewage facility capacity charge adopted  
52 by K.C.C. 28.84.050.O. shall be seven dollars per month per residential customer or  
53 residential customer equivalent for fifteen years.

54 C. The sewage treatment capacity charge shall be seven dollars per month per  
55 residential customer or equivalent for fifteen years for sewer connections occurring  
56 between and including January 1, 1996, and December 31, 1996.

57 D. The amount of the sewage treatment capacity charge adopted by K.C.C.  
58 28.84.050.O. shall be seven dollars per month per residential customer or equivalent for  
59 fifteen years for sewer connections occurring between and including January 1, 1997, and  
60 December 31, 1997.

61 E. The amount of the sewage treatment capacity charge adopted by K.C.C.  
62 28.84.050.O. shall be ten dollars and fifty cents per month per residential customer or  
63 equivalent for fifteen years for sewer connections occurring between and including  
64 January 1, 1998, and December 31, 1998.

65 F. The amount of the sewage treatment capacity charge adopted by K.C.C.  
66 28.84.050.O. shall be ten dollars and fifty cents per month per residential customer or  
67 equivalent for fifteen years for sewer connections occurring between and including  
68 January 1, 1999, and December 31, 1999.

69 G. The amount of the sewage treatment capacity charge adopted by K.C.C.  
70 28.84.050.O. shall be ten dollars and fifty cents per month per residential customer or  
71 equivalent for fifteen years for sewer connections occurring between and including  
72 January 1, 2000, and December 31, 2000.

73 H. The amount of the sewage treatment capacity charge adopted by K.C.C.  
74 28.84.050.O. shall be ten dollars and fifty cents per month per residential customer or  
75 equivalent for fifteen years for sewer connections occurring between and including  
76 January 1, 2001, and December 31, 2001.

77 I. The amount of the sewage treatment capacity charge adopted by K.C.C.  
78 28.84.050.O. shall be seventeen dollars and twenty cents per month per residential  
79 customer or equivalent for fifteen years for sewer connections occurring between and  
80 including January 1, 2002, and December 31, 2002.

81 J. The amount of the sewage treatment capacity charge adopted by K.C.C.  
82 28.84.050.O. shall be seventeen dollars and sixty cents per month per residential  
83 customer or equivalent for fifteen years for sewer connections occurring between and  
84 including January 1, 2003, and December 31, 2003.

85 K. The amount of the sewage treatment capacity charge adopted by K.C.C.  
86 28.84.050.O. shall be eighteen dollars per month per residential customer or equivalent

87 for fifteen years for sewer connections occurring between and including January 1, 2004,  
88 and December 31, 2004.

89 L. The amount of the sewage treatment capacity charge adopted by K.C.C.  
90 28.84.050.O. shall be thirty-four dollars and five cents per month per residential customer  
91 or equivalent for fifteen years for sewer connections occurring between and including  
92 January 1, 2005, and December 31, 2005.

93 M. The amount of the sewage treatment capacity charge adopted by K.C.C.  
94 28.84.050.O. shall be thirty-four dollars and five cents per month per residential customer  
95 or equivalent for fifteen years for sewer connections occurring between and including  
96 January 1, 2006, and December 31, 2006.

97 N. The amount of the sewage treatment capacity charge adopted by K.C.C.  
98 28.84.050.O. shall be forty-two dollars per month per residential customer or equivalent  
99 for fifteen years for sewer connections occurring between and including January 1, 2007,  
100 and December 31, 2007.

101 O. The amount of the sewage treatment capacity charge adopted by K.C.C.  
102 28.84.050.O. shall be forty-six dollars and twenty-five cents per month per residential  
103 customer or equivalent for fifteen years for sewer connections occurring between and  
104 including January 1, 2008, and December 31, 2008.

105 P. The amount of the sewage treatment capacity charge adopted by K.C.C.  
106 28.84.050.O. shall be forty-seven dollars and sixty-four cents per month per residential  
107 customer or equivalent for fifteen years for sewer connections occurring between and  
108 including January 1, 2009, and December 31, 2009.

109 Q. The amount of the sewage treatment capacity charge adopted by K.C.C.  
110 28.84.050.O. shall be forty-nine dollars and seven cents per month per residential  
111 customer or equivalent for fifteen years for sewer connections occurring between and  
112 including January 1, 2010, and December 31, 2010.

113 R. The amount of the sewage treatment capacity charge adopted by K.C.C.  
114 28.84.050.O. shall be fifty dollars and forty-five cents per month per residential customer  
115 or equivalent for fifteen years for sewer connections occurring between and including  
116 January 1, 2011, and December 31, 2011.

117 In accordance with adopted policy FP-15.3.d. in the Regional Wastewater  
118 Services Plan, K.C.C. 28.86.160.C., it is the council's intent to base the capacity charge  
119 upon the costs, customer growth and related financial assumptions used in the Regional  
120 Wastewater Services Plan.

121 In accordance with adopted policy FP- 6 in the Regional Wastewater Services  
122 Plan, K.C.C. 28.86.160.C, the council hereby approves the cash balance and reserves as  
123 contained in the attached financial plan for ~~((2010))~~ 2011.

124 In accordance with adopted policy FP- 15.3.c., King County shall pursue changes  
125 in state legislation to enable the county to require payment of the capacity charge in a

cc ii

126 single payment, while preserving the option for new ratepayers to finance the capacity  
127 charge.  
128

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON

---

Robert W. Ferguson, Chair

ATTEST:

---

Anne Noris, Clerk of the Council

APPROVED this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

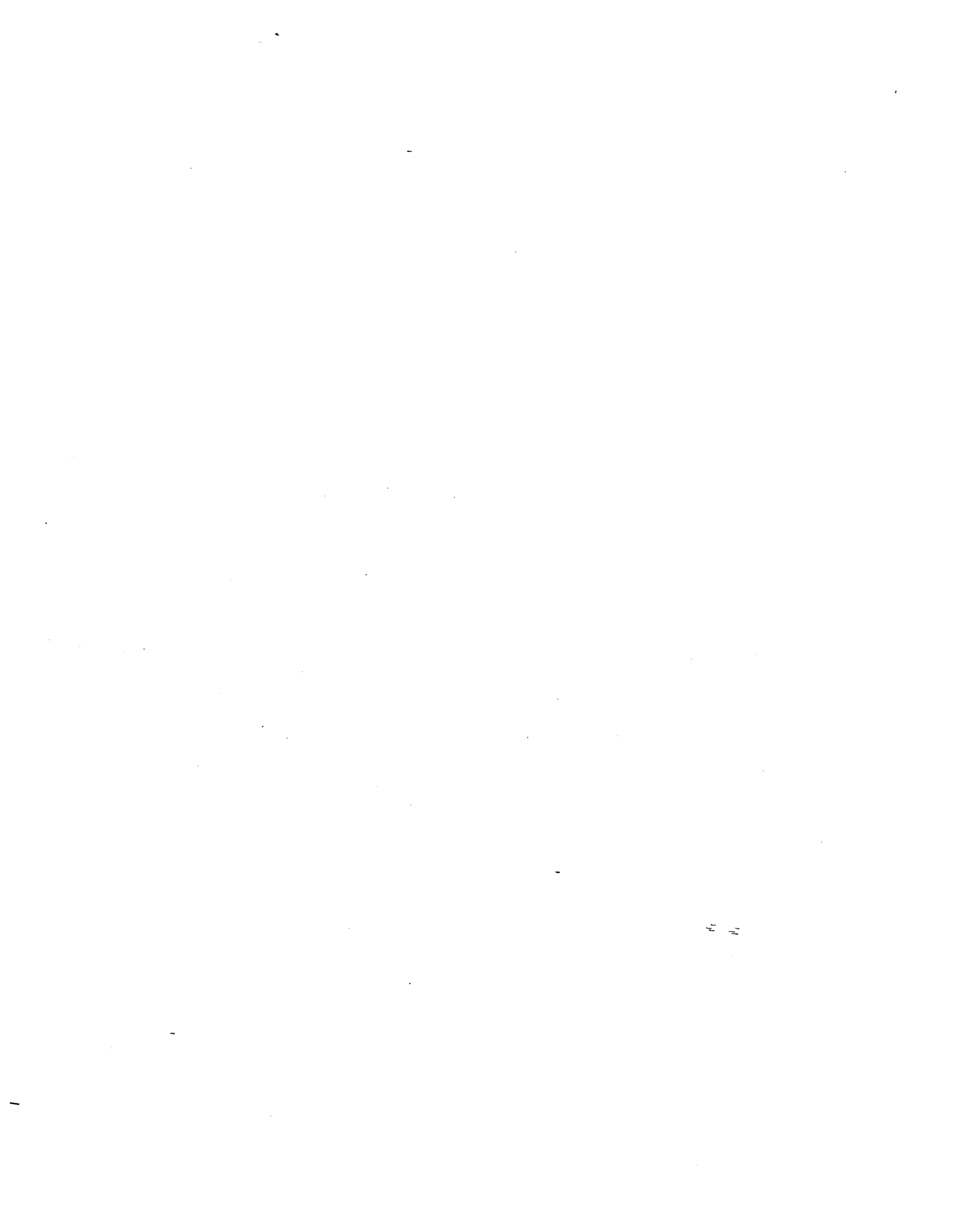
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Dow Constantine, County Executive

**Attachments:** A. Water Treatment Division Financial Plan for the 2011 Proposed Sewer Rate









## FISCAL NOTE

Ordinance/Motion No. 2010-XXXX  
 Title: 2011 Sewer Rate Monetary Requirements  
 Affected Agency and/or Agencies: Wastewater Treatment Division, Department of Natural Resources and Parks  
 Note Prepared By: Greg Holman  
 Note Reviewed By: Tim Aratani

Impact of the above legislation on the fiscal affairs of King County is estimated to be:  
**Revenue to: (000's)**

Fund/Agency	Fund Code	Revenue Source	2010	2011	2012	2013
Water Quality/WTD	4610	Customer Charges		26,833	26,967	27,169
Water Quality/WTD	4610	Capacity Charge		1,323	4,575	4,217
<b>TOTAL</b>	<b>4610</b>		<b>0</b>	<b>28,155</b>	<b>31,542</b>	<b>31,386</b>

**Expenditures:**

Fund/Agency	Fund Code	Department Code	2010	2011	2012	2013
<b>TOTAL</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Expenditures by Category**

	2010	2011	2012	2013
Salaries & Benefits				
Supplies and Services				
Capital Outlay				
Other				
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Assumptions: This legislation increases the sewer rate to \$35.15 for 2011. Fiscal impacts for 2012-13 are based on the \$35.15 rate. The capacity charge would increase from \$49.07 to \$50.45 per residential customer equivalent for 15 years for customers that connect in 2011. Most of the revenue impact is delayed until after 2010 due to a lag in the beginning of the 15 year billing period. Revenues increase sharply in 2012 as a portion of the new customers choose to make a lump sum payoff of their future payments. The capacity charge for customers connecting in previous years remains fixed at rates established for their year of

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**King County**

**Dow Constantine**  
King County Executive  
401 Fifth Avenue, Suite 800  
Seattle, WA 98104-1818  
**206-263-9600** Fax 206-296-0194  
TTY Relay: 711  
www.kingcounty.gov

**Attachment 3**

RECEIVED  
2010 APR 15 PM 3:54  
CLERK  
KING COUNTY COUNCIL

**2010-262**

April 15, 2010

The Honorable Bob Ferguson  
Chair, King County Council  
Room 1200  
COURTHOUSE

Dear Councilmember Ferguson:

I am transmitting a proposal for the consideration of the King County Council to establish a 2011 monthly sewer rate of \$35.15 per residential customer equivalent, which represents an increase of 10.2 percent over the current rate that was adopted by the council in 2008 and 2009. Additionally, I am proposing a monthly capacity charge of \$50.45 for 2011, an increase of 2.8 percent from the current 2010 rate.

This proposal introduces a new level of fiscal discipline that enables me to propose rates that are **significantly lower than our original rate forecast in the 2010 Budget**. This proposal was developed pursuant to the county's adopted financial policies for the wastewater utility and reflects the county's commitment to building and operating facilities that protect public health, support regional environmental goals, and bolster the creation of public and private sector jobs during an economic recovery. It also carefully considers the recommendations of the 34 customer agencies that contract with the county for wastewater treatment services.

The contracts with our component sewer agencies require that King County adopt the 2011 sewer rate by June 30, 2010.

My proposal emphasizes three key objectives:

- 1. Establishing a one-year rate to provide economic relief to ratepayers.** It is only appropriate for our ratepayers to keep their money in their pockets until the Wastewater Treatment Division (WTD) requires the additional revenue. Under my proposal, the monthly sewer rate is approximately \$1.10 less per month in 2011 than it would be as a two-year rate and \$0.91 less per month than projected in the 2010 Budget. This measure keeps approximately \$8.7 million dollars with the ratepayers in 2011.

2. **Emphasis on prudent financing methods that helps protect our bond ratings.** I directed WTD to move toward more conservative financing practices. Previously, it was assumed that interest from the 2011 bond sale would be capitalized as a means of managing rate patterns. While capitalized interest has served as a powerful tool in shaping the profile of rate increases, discontinuing this strategy not only protects the current strong bond ratings, but it also results in lower costs and rates in the long run. Maintaining our credit ratings will help to ensure favorable interest rates when we go to market with new bonds this year. I expect the proposal of \$35.15 for the monthly rate and \$50.45 for the capacity charge will generate the necessary revenue and debt service coverage to preserve the utility's credit ratings of Aa3 by Moody's and AA+ by Standard and Poor's.
  
3. **Reduction of capital and operating expenditures while protecting the public health and environment.** Between 2009 and 2014, WTD has reduced planned capital spending by over \$30 million by reprioritizing project schedules and requesting funding only for projects with a critical need to proceed during this time frame. The division lowered planned operating expenditures by \$5.8 million in 2011 and \$8 million in 2012, achieving these savings in part by operating new facilities in Vashon and Carnation with no net increase in full-time employees (FTEs). The savings will continue when we open Brightwater while maintaining the same number of FTEs we had in 2000. Additional reductions and efficiencies include chemical reductions at the treatment plants; efficiencies in digester cleaning and disposal; implementation of a new technology equipment replacement plan; reduced travel; reduced number of vehicles in WTD's fleet; and decentralizing billing processes for sewer, septage and industrial waste customers. These efforts, in addition to WTD's continued sound financial management, provide for significantly lower rates than those projected in the 2010 Budget.

Under my proposal, WTD will continue to implement its capital program. During the next two years, WTD will complete several major projects including the odor control facilities near Qwest Field and the Bellevue pump station. As spending winds down on these projects, new spending will commence on others, such as the Fremont Siphon repair and improvements to the influent screening equipment at West Point. These and the dozens of other projects now being carried out by the county's clean-water utility inject millions of dollars into the economy each year and support creation of private sector jobs. The infrastructure also supports planned growth and economic development over the long term.

I have proposed the elimination of the Culver program, which receives funding from WTD's operating program. **This change will save approximately \$1.6 million a year**, or about 20 cents on the rate. Finally, I have directed the prudent use of rate stabilization funds and more conservative financing to better manage the sewer rate increases between now and 2016, when rate increases are expected to moderate as the amount of borrowing declines.

The Honorable Bob Ferguson

April 15, 2010

Page 3

Another important component of the proposal is that it reflects the valuable input I have received from the Metropolitan Water Pollution Abatement Advisory Committee, which represents the 34 customer agencies that contract with the county for wastewater treatment services. (See enclosure.)

Attached you will find an ordinance as required by King County Code (KCC) 28.86.160, Financial Policy 13, which includes several attachments to provide the council with detailed information to understand our rate setting methodology. A current detailed financial forecast for the wastewater utility for the period 2010-2016 is enclosed. Also included is an issue paper that includes a discussion of critical forecasting parameters, assumptions, and policy options in accordance with Financial Policy 16.

If you have any questions, please feel free to contact Christie True, Division Director of the Wastewater Treatment Division in the Department of Natural Resources and Parks, at 206-684-1236, or at [christie.true@kingcounty.gov](mailto:christie.true@kingcounty.gov).

Thank you for your consideration of this ordinance. I welcome the opportunity to assist you as you deliberate on the 2011 sewer rate and capacity charge.

Sincerely,



Dow Constantine  
King County Executive

Enclosures

cc: King County Councilmembers  
    ATTN: Tom Bristow, Chief of Staff  
          Anne Noris, Clerk of the Council  
Rob Shelley, Financial Advisor, Seattle NW Securities  
Dwight Dively, Director, Office of Management and Budget  
Caroline Whalen, County Administrative Officer, Department of Executive  
    Services (DES)  
Ken Guy, Director, Finance and Business Operations, DES  
Bob Burns, Interim Director, Department of Natural Resources and Parks (DNRP)  
Christie True, Division Director, Wastewater Treatment Division, DNRP





# Metropolitan Water Pollution Abatement Advisory Committee

King Street Center, 201 South Jackson Street, MS KSC-NR-0512  
Seattle, WA 98104 206-263-6070

April 9, 2010

The Honorable Dow Constantine  
King County Executive  
401 Fifth Ave., Suite 800  
Seattle, WA 98104

**SUBJECT: Wastewater Treatment Division 2011 Rate Recommendation**

Dear Executive Constantine:

The Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC) remains concerned with the trend in wastewater treatment rates. While the funding of the Brightwater Treatment Facility remains the primary cause of rate increases, other financing, funding and cost imposition decisions of the County contribute to the escalating regional wastewater rates. The inevitable prospect of a sewer rate and capacity charge that combined will exceed \$100 for new homes and equivalent businesses in King County is extraordinary by both local and national standards and threatens to further inhibit a slow economic recovery. With this perspective in mind, MWPAAC and its Finance and Rates Subcommittee have reviewed preliminary rate forecasts and scenarios. Based on this review, MWPAAC recommends the following regarding rates and finance and specifically for rate strategies for 2011 and beyond:

- 1) **One Year Rate.** MWPAAC recommends adoption of a one year rate, rather than a multi-year rate or adoption of a series of increases, given uncertainty regarding financing cost and structure, start-up costs at Brightwater, growth rates and patterns, developing trends in cost containment, and related Department efforts to further mitigate upward rate trends. Adopting a one year rate provides the necessary funding to continue essential programs and maintain the utility's fiscal health while providing the flexibility to adapt subsequent increases to changing costs and trends.

- 2) **Rate Stabilization Reserve.** MWPAAC recommends that the projected rate stabilization reserve balance of \$40 million be utilized as intended to mitigate rate increases during the current rate transition period. The purpose of the rate stabilization reserve (RSR) is to mitigate and attenuate near-term rate increases, and the current rate transition is a clear application of this intent. The RSR should be materially exhausted for this purpose during the 2011-2013 rate periods.
- 3) **Structure New Debt to Phase in Impacts.** In addition to the RSR, new issues can be structured to defer or phase in full debt service payments as a means to manage rate progressions. We applaud the Wastewater Treatment Division's (WTD) continued attention to this option, especially during a low growth period, and conclude that a structure with progressive payments during early years, such as interest only or reduced near-term maturities, can provide a reasonable mechanism for shifting costs into the future when more project beneficiaries are connected and supporting related costs. At the same time, we have philosophical concerns with the use of capital interest as a tool that both defers and increases costs. While recognizing that current economic conditions coupled with the need for substantial rate increases may warrant consideration of this tool at present, we also observe that rate stabilization funds are earning minimal interest far below the cost of borrowing new funds. Given this, we strongly favor more aggressive near-term use of available reserves in lieu of deferral of growing debt obligations.
- 4) **Revisit the Culver Fund policy.** The current policy allows up to 1.5% of the WTD's operating budget to be used for non-wastewater programs. For 2010, we strongly recommend limiting awards under this program and utilizing the savings to mitigate one-time costs such as the Green River flood protection costs borne by the division and escalating program costs. For the future, we recommend eliminating funding this program for reasons of economy and consistency with recent court actions (see *Lane v. Seattle*).
- 5) **Continue and Enhance Cost Containment Programs.** We applaud the WTD's efforts and accomplishments in cost containment, particularly as related to staffing, and encourage continued efforts in cost containment related to WTD activities and County overhead.
- 6) **Enhance Returns of Debt Reserves.** As bond reserves increase in value due to increasing debt load and market conditions, securing adequate returns on these invested funds is material to the resulting rate. We support the WTD's evaluation of methods for enhancing investment returns, possibly including removal of such funds from the King County Investment Pool and direct investment in longer term maturities, and wish to remain active in the review and evaluation of this option.



- 7) **Avoid Short-term Budget Actions that Increase Overall Costs.** Any decision to defer costs should be made with a purpose of stabilizing rates and finances. Recent decisions such as the deferral of PERS contributions have exacerbated the peak rate increases by deferring costs into, rather than out of, a critical rate period. MWPAAC recommends that management of cost trends is only valid in the context of a coherent rate policy that looks beyond immediate cost avoidance and considers the overall impacts of such decisions. We are fully aware that several such options are noted above in this letter, and note that these are targeted toward mitigating and attenuating rate trends, and not avoiding financial realities.

MWPAAC makes these recommendations with an eye toward a stable, affordable and predictable rate strategy. We hope you will give them due consideration.

MWPAAC would also like to express its appreciation of the time and effort put forth by the WTD staff in support of and as part of our evaluation.

Sincerely,



Dave Christensen, Vice Chair  
for Scott Thomasson, MWPAAC Chair

cc: MWPAAC Members  
Bob Burns, Interim Director, Department of Natural Resources and Parks (DNRP)  
Christie True, Division Director, Wastewater Treatment Division, DNRP

100



**King County**

Department of Natural Resources and Parks  
**Wastewater Treatment Division**

# **2011 Monthly Sewer Rate and Capacity Charge Issue Paper**

---

**Funding Our Clean-Water Utility**

**April 15, 2010**

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10. Summary of Rate Components of Change	13
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12. Comparison of King County Rates with Comparable Jurisdictions	15

As the King County Executive, I am proposing a 2011 monthly sewer rate of \$35.15 per residential customer equivalent (RCE), which represents an increase of ten and two-tenths percent over the current rate that was adopted by the King County Council in 2008 and 2009. Additionally, I am proposing a monthly capacity charge of \$50.45 for 2011, an increase of two and eight-tenths percent from the current 2010 rate.

This paper presents a discussion of the key factors in developing this 2011 rate and capacity charge proposal. It also discusses compliance with the financial policies adopted by the council and included in the King County Code, Section 28.86.160.

### **1. 2011 Monthly Sewer Rate Options**

The last sewer rate increase was approved in June 2008, resulting in a rate of \$31.90 effective January 1, 2009. At that time, the Executive had presented several rate scenarios and proposed a single-year rate of \$30.20. The proposed single-year rate was based on debt service structures for bonds to be issued in 2008 and 2009 as follows: 1) the debt service would be interest only (principal deferred) through 2013, and 2) a portion of the interest from the 2008 and 2009 bonds would be capitalized until the start of Brightwater, estimated to be June 2011. The final element was the use of the rate stabilization reserve to mitigate the volatility in future rates. The council preferred a "stable-rate" option with a rate that would be maintained in both 2009 and 2010. The resulting adopted two-year rate of \$31.90 required the same debt service structures as the Executive's single-year proposal while incorporating a different pattern of rate stabilization use.

These same rate management tools were assessed in various combinations before arriving at the current proposal. The basic alternatives analyzed included varying levels of rate management ranging from a minimum rate to managing rate patterns through 2015. Each of these alternatives are characterized by their planned one-year or two-year duration, and the relative use of debt service structures including level principal and interest; interest-only payments; and capitalized interest. The characteristics of the basic alternatives are summarized in the following table.

==

**Wastewater Treatment Division 2011 Monthly Sewer Rate Options**

Option	Description
1. Single-year rates with level principal and interest and rate stabilization	Bonds issued from 2010 on are level principal and interest without attempting to affect the rate pattern. Available rate stabilization is evenly divided among 2011 to 2014.
2. Single-year rates with interest-only bonds and rate stabilization	Bonds issued 2010 to 2012 are interest-only through 2013; rate stabilization to smooth out rate patterns 2011 to 2014.
3. 2-year rates with interest-only bonds and rate stabilization	Bonds issued 2010 to 2012 are interest-only through 2013; rate stabilization used to equalize( two year) rate increases in 2011 and 2013.
4. Single-year rates with capitalized interest, interest-only bonds, rate stabilization	Interest on 2010-11 bonds is capitalized through mid-2012; bonds issued 2010-12 are interest-only through 2013; rate stabilization to smooth out rate patterns 2011 to 2014.
5. Executive's proposed single-year rates with reduced capitalized interest, interest-only bonds, rate stabilization	Interest on 2010 bonds is capitalized through mid-2012; No capitalization of 2011 bond issues; bonds issued 2010-12 are interest-only through 2013; rate stabilization through 2014.
6. Two-year rates with capitalized interest, interest-only bonds, rate stabilization	Interest on 2010-11 bonds is capitalized through mid-2012; bonds issued 2010-12 are interest-only through 2013; rate stabilization to equalize (two year) rate increases in 2011 and 2013.
7. Two-year rates with reduced capitalized interest, interest-only bonds, rate stabilization	Interest on 2010 bonds is capitalized through mid-2012; No capitalization of 2011 bond issues; bonds issued 2010-12 are interest-only through 2013; rate stabilization through 2014.
<p><b>Assumptions common to all options:</b></p> <p>Interest rates                      2010 bond rates of 5.25%; 2011 on 5.75%</p> <p>Bond terms                            2010 and 2011 have 35 year term; 40 year term thereafter</p> <p>Debt Service                         All bonds issued in 2013 and beyond are level principal and interest</p> <p>Bond reserves                        All contributions are cash funded, no surety bonds</p>	

The resulting sewer rates associated with these options are presented in the following table.

Wastewater Treatment Division 2011 Preliminary Rate Scenarios, April 12, 2010								
	2009	2010	2011	2012	2013	2014	2015	2016
<b>Previous Benchmarks</b>								
2010 Adopted Budget (November 2009)	\$31.90	\$31.90	\$36.06	\$39.79	\$42.70	\$43.22	\$43.64	\$43.86
% change	14.1%	0.0%	13.0%	10.3%	7.3%	1.2%	1.0%	0.5%
<b>2011 Monthly Sewer Rate Options</b>								
		2010	2011	2012	2013	2014	2015	2016
<b>1. Single-year Rates (level principal and interest)</b>								
Monthly Sewer Rate		\$31.90	\$36.60	\$39.49	\$40.45	\$40.63	\$42.09	\$42.39
% change		0.0%	14.7%	7.9%	2.4%	0.4%	3.6%	0.7%
difference from 2010 Adopted Budget		\$0.00	\$0.54	-\$0.30	-\$2.25	-\$2.59	-\$1.55	-\$1.47
<b>2. Smoothed Single Year Rates (interest only)</b>								
Monthly Sewer Rate		\$31.90	\$35.25	\$38.60	\$40.10	\$41.40	\$42.23	\$42.52
% change		0.0%	10.5%	9.5%	3.9%	3.2%	2.0%	0.7%
difference from 2010 Adopted Budget		\$0.00	-\$0.81	-\$1.19	-\$2.60	-\$1.82	-\$1.41	-\$1.34
<b>3. Two-year Rates (interest only)</b>								
Monthly Sewer Rate		\$31.90	\$36.55	\$36.55	\$41.10	\$41.10	\$42.23	\$42.52
% change		0.0%	14.6%	0.0%	12.4%	0.0%	2.7%	0.7%
difference from 2010 Adopted Budget		\$0.00	\$0.49	-\$3.24	-\$1.60	-\$2.12	-\$1.41	-\$1.34
<b>4. Smoothed Single-year Rates (2010-11 capitalized interest)</b>								
Monthly Sewer Rate		\$31.90	\$34.00	\$36.25	\$38.80	\$41.50	\$42.71	\$42.99
% change		0.0%	6.6%	6.6%	7.0%	7.0%	2.9%	0.7%
difference from 2010 Adopted Budget		\$0.00	-\$2.06	-\$3.54	-\$3.90	-\$1.72	-\$0.93	-\$0.87
<b>5. Two Year Rates (2010-11 capitalized interest)</b>								
Monthly Sewer Rate		\$31.90	\$35.15	38.25	39.10	39.90	\$42.52	\$42.81
% change		0.0%	10.2%	8.8%	2.2%	2.0%	6.6%	0.7%
difference from 2010 Adopted		\$0.00	-\$0.91	-\$1.54	-\$3.60	-\$3.32	-\$1.12	-\$1.05
<b>6. Two Year Rates (2010-11 capitalized interest)</b>								
Monthly Sewer Rate		\$31.90	\$35.70	35.70	39.70	39.70	42.71	\$42.99
% change		0.0%	11.9%	0.0%	11.2%	0.0%	7.6%	0.7%
difference from 2010 Adopted		\$0.00	-\$0.36	-\$4.09	-\$3.00	-\$3.52	-\$0.93	-\$0.87
<b>7. Two Year Rates (No capitalization of interest in 2011)</b>								
Monthly Sewer Rate		\$31.90	\$36.25	36.25	39.90	39.90	\$42.53	\$42.81
% change		0.0%	13.6%	0.0%	10.1%	0.0%	6.6%	0.7%
difference from 2010 Adopted		\$0.00	\$0.19	-\$3.54	-\$2.80	-\$3.32	-\$1.11	-\$1.05

In the Executive's proposal (option 5), the bonds issued in 2010-12 will require interest-only payments through 2013. After 2013, debt service will revert to level principal and interest. In addition, the first two years of interest from bonds issued in 2010 would be

capitalized. No further use of capitalized interest is assumed beyond 2010. This will lead to a 2011 rate that is higher than option 4 by \$1.15 but will result in a financial policy that is more fiscally prudent in managing long-term rates.

All of the options presented above include varying patterns of contributions and withdrawals from the rate stabilization reserve. In all options the reserve is assumed to be fully used by the end of 2014. The rate stabilization reserve and its role in rate management are discussed in more detail in the following section.

## 2. Rate Stabilization Reserve

A rate stabilization reserve allowing for deferral of operating revenues into a future year was used to help manage rate patterns starting with the 2005-2006 sewer rates. In the Executive's proposed rate of \$35.15, rate stabilization reserve funds accumulated through 2010 will be utilized to manage rate increases in 2011 to 2014. The proposed rate of \$35.15 uses a relatively modest \$2.4 million of the rate stabilization reserve in 2011.

In all options it is assumed that the rate stabilization reserve balance will be zero entering 2015. Projections indicate the further use of rate stabilization past 2014 may not be necessary. This future period of relatively small projected rate increases reflects three major elements:

1. completion of the Brightwater project with a return of the capital program to lower, longer-run levels;
2. the growing importance of the capacity charge as a share of total revenues; and
3. funding a larger share of the capital program from transfers of cash from the operating fund.

As shown in the table below, the projected rate stabilization reserve balance of nearly \$46 million at the end of 2010 will decrease by \$2.4 million in 2011. Thereafter, the reserve will be drawn down by \$8.2 million in 2012; \$16.8 million in 2013 and \$18.4 million in 2014. This pattern of rate stabilization usage maintains the utility's required debt service coverage ratio of 1.15.

	2010	2011	2012	2013	2014
Rate Stabilization Reserve Balance					
2011 Rate Proposal	\$45.8 M	\$43.4 M	\$35.2 M	\$18.4M	\$0.0M

While the rate stabilization fund provides a means of managing the rate increases through this period of extraordinary activity for the Wastewater Treatment Division (WTD) it is only one of the tools of rate management. Cost containment is another key element.



WTD was directed to scrutinize all planned capital and operating expenditures with the goal of making reductions while continuing to protect the public health and environment. The following sections provide further detail on the progress made in managing costs in the operating and capital programs of the WTD and how they affect the current proposal.

### **3. Operating Revenues and Expenses**

Operating revenues are projected to increase to \$346 million in 2011, an increase over the 2010 budget of fourteen and eight-tenths percent. In addition to additional revenue from the higher rate (\$25.5 million out of a total increase of \$42.1 million), various other revenues will show moderate increases. These include revenues from septage and industrial waste fees. It should be noted that RCEs (see discussion below) are projected to decrease in 2011 by approximately one-half percent.

Operating expenses in 2010 are planned at \$106.8 million, or three and seven-tenths percent higher than 2009 actual results. For 2011, WTD is projecting operating expenses to be \$111.2 million, an increase of four and one-tenth percent over 2010. Various factors are contributing upward pressure on operating expenditures in this period, including higher labor costs and the onset of operating costs for Brightwater (expected to begin in mid-2011).

WTD has taken numerous steps to control operating costs, including:

- New facilities in Vashon and Carnation as well as Brightwater have or will open with no new full time employee positions (FTEs). This represents a savings of 28 FTE's worth \$2.9 million.
- \$1.7 million in operating reductions in 2010 including the reduction of 2 FTE's and 3 term limited temporary positions; negotiated extension of the polymer price contract; biosolids contract reductions; suspension of WTD's intern program and summer help; and redesign of the customer audit program.
- Reducing the 2011 operating transfer to the Water and Land Resources Division (WLRD) by \$1.2 million; WTD and WLRD will conduct a thorough review of all of their services and programs to ensure the work is aligned with strategic plan priorities.
- Elimination of the Culver Program; historically, one and one-half percent of WTD's operating budget is transferred to WLRD for the Culver Program. In 2010, \$1.36 million of these funds were not appropriated with the intent of providing rate relief from expenditures associated with the Howard Hansen Dam. In 2011 and 2012, the transfers associated with the Culver Program would have totaled \$1.58 million and \$1.68 million, respectively. Eliminating this program reduces the monthly sewer rate by \$0.20.
- Continuation of WTD's productivity initiative through March 2011, which has resulted in \$68 million in operating cost savings over the years 2001 to 2009.

- Changing the insurance program by using the existing \$15 million asset management reserve to self-insure selected facilities based on a review of historical claims, asset values and projected future insurance rates resulting in a reduction of \$250,000 in insurance premiums
- Additional 2011 reductions and efficiencies include chemical reductions at the treatment plants; efficiencies in digester cleaning and disposal; implementation of a new IT equipment replacement plan; reduced number of vehicles in WTD's fleet; and decentralizing billing processes for sewer, septage and industrial waste customers.

#### **4. Capital Program Spending**

Capital spending in 2010 is estimated at \$366 million before significantly moderating to \$210 million in 2011. In subsequent years, capital expenditures will drop significantly, to \$108 million in 2012, \$127.5 million in 2013 and \$130 million in 2014. Comparing the current forecast to the financial plan of the 2009 Budget several things are worth noting. First, actual expenditures in 2009 were nearly \$68 million less than predicted (\$455.5 million compared to the previous estimate of \$523.5 million). This resulted primarily from delays with the Brightwater conveyance project. These delays will move the expenditures planned for 2009 into both 2010 and 2011.

Secondly, efforts by the WTD to reduce capital expenditures during the period of peak demand for Brightwater while managing the risk of delay resulted in completion date modifications for the following projects:

- Combined sewer overflow (CSO) projects Magnolia, Murray, North Beach and Barton were started in 2007 with completion dates ranging from 2011 to 2012. Additional analysis and assessment of alternatives has moved the completion dates of these projects into the future. These projects are now expected to be completed in 2015 to 2016.
- The Southwest Interceptor project, originally scheduled for completion in 2010, was split into two projects, the first of which will be completed in 2014.
- The Ballard Siphon project was started as an emergency in 2008, to be completed in 2009. Further study and inspection allowed completion to be safely moved out to 2013.
- The Sunset/Heathfield Pump Station Replacement and Forcemain Upgrade were originally scheduled to be completed in 2014. Completion has been extended to 2017.
- The South Plant Phase III /Odor Control project's completion date of 2015 has been extended to 2017.

Two projects were reduced in scope or cancelled: the Regional Wastewater Services Plan Local Systems Inflow and Infiltration project was reduced in scope, resulting in a

savings of \$4.9 million and the Black Diamond Storage Facility project has been cancelled resulting in a capital reduction of \$13.6 million.

Offsetting some of the reductions and delays noted above, are a number of new projects and updated cost estimates resulting in planned increases in spending during the period.

- Fremont Siphon Repair. This is a new project to replace this 98 year old pipe. The estimated cost is \$67.9 million, with completion expected in 2016.
- CSO Control and Improvement Projects at Murray and Magnolia. Previous cost estimates for these projects of \$16 million were from 1995 conceptual planning estimates. As alternatives analysis has progressed new estimates, depending on which design alternatives are selected, range from \$44 million to \$47 million.
- Influent Screening at West Point. This new project will design and construct the West Point Treatment Plant's influent screening facilities to meet new State biosolids management regulations. The estimated cost is \$24.9 million,
- Interbay Pump Station upgrade. Additional design work was performed to rephase the construction associated with a new emergency generator. This reflects changes in construction sequencing, equipment and material price increases. The estimated cost has been increased by \$8.7 million.

The Brightwater spending plan reflects the latest estimates from the 2010 trend estimate. However, uncertainties remain on the project, including the county's claim for tax exemptions on materials and equipment and the tunnel boring machines' performance, ground conditions, and resolution of change orders and claims.

Approximately \$16 million in total cost has been added to the Brightwater project. Of this, approximately \$9 million has been added for construction management, engineering, legal and staffing costs associated with Central Tunnel construction delays (tunnel boring machine breakdowns). Another \$7 million has been added for conveyance-related change orders, treatment plant technical adjustments and change orders, and costs associated with an extended start up process related to the conveyance system delays.

Revisions have also been made to the timing of Brightwater spending. Spending in 2010 is now estimated (with the accomplishment rate) at \$297.2 million, compared to the previous estimate of \$255.2 million. For 2011 through 2013, expenditures are estimated at \$115.6 million, \$20.1 million, and \$8.2 million, respectively. The prior estimate showed \$90.3 million in 2011, \$81.2 million in 2012 and none in 2013. The differences in the timing of expenditures are primarily due to project delays.

## **5. Capital Accomplishment Rate**

Another important factor affecting the sewer rate, the capacity charge and financing of the capital program relates to the accomplishment rate. The accomplishment rate is the

difference between planned capital spending in the annual budget and the capital spending that actually occurs. The accomplishment rate is calculated as the percentage of budget actually spent in a given year. During the past five years, the average accomplishment rate for the entire capital program has been about eighty-seven percent. During 2009, the actual accomplishment rate for Brightwater was eighty-eight percent, due to delays with the conveyance tunnels. The accomplishment rate for non-Brightwater projects was eighty-one percent. Going forward, the accomplishment rate is projected at ninety-five percent for Brightwater and eighty-five percent for non-Brightwater projects. This corresponds to an aggregate accomplishment rate of approximately ninety percent for the entire program in 2011.

To illustrate the relationship between the sewer rate and the accomplishment rate, if the program accomplishment rate was lowered to eighty-five percent, planned capital spending would be reduced by \$23 million, or the equivalent of approximately \$0.16 of the sewer rate. Conversely, if the program accomplishment rate was raised to one hundred percent, planned capital spending would increase by \$26 million, or the equivalent of approximately \$0.18 of the sewer rate. It is believed that ninety percent is a prudent assumption especially in light of the continued strong performance relative to the capital budget in the Brightwater project.

## **6. Residential Customer Equivalents (RCE) and New Connections**

The preliminary forecast prepared by the King County Office of Economic and Financial Analysis notes that, while King County was late in being affected by the recession, more than 75,000 jobs have been lost since the middle of 2008. The job outlook here, while serious, is not as dire as in many other parts of the country, thanks to our relatively stable employment in the software and aerospace industries. The forecast notes: "The good news is that 2010 will see the county return to positive employment growth. Hiring for the census will provide an immediate boost. However, it will be to the end of 2012 or beginning of 2013 before all the lost jobs are made back."

The employment picture is reflective of the economy; loss of jobs has a negative impact on housing. New single family permits are showing some modest signs of recovery. However, many new condominium projects have now been suspended or canceled entirely. With regard to commercial property, the glut of unoccupied office space in downtown Seattle is a dramatic indication of that market.

RCE projections have followed the evolving outlook for the regional economy. In 2009 there were 703,800 RCE's being served by WTD, a decrease of four-tenths percent from 2008 levels. Declines in the customer bases are expected to continue through 2011 with the largest decline (negative one and three-quarters percent) in 2010. The decreases will moderate in 2011 (one-half percent) and then return to small positive growth in 2012. A return to more normal levels of growth is predicted for 2013 with a three-quarters percent

increase. These estimates are in keeping with the slow recovery forecast by local and regional economists.

The current state of the economy, in general, and the construction industry in particular, also creates uncertainty with projections of the number of new connections to the system. New connections provide the base for new capacity charge revenues and tend to follow the residential and commercial construction cycle. For reference, during the 1997 to 2007 period, the number of new connections to the system averaged 10,900 per year with a peak of 12,400. During 2008, significantly more new connections were recorded than predicted, with 11,300 compared to a forecast of 9,800. As the number of new buildings and homes completed decreases, with little or no new activity, we expect a sharp decline in the number of new connections. For 2009, new connections amounted to 8,900 and indications are the levels for 2010 through 2012 will remain below that. Going forward, new connections are forecast as shown below.

	2010	2011	2012	2013	2014	2015	2016
New Connections	5,500	6,500	8,500	9,500	11,000	11,000	11,000

New connections to the system are levied a capacity charge to help pay for the cost of providing new capacity.

### 7. Capacity Charge

The capacity charge is a monthly charge levied on new connections to the wastewater system in accordance with KCC 28.84.050 and KCC 28.86.160. It is set at a level to ensure that new sewer connections, over the long-term, will pay for the costs of the additional capacity required to serve them.

Financial Policy 15.3-d states that customer growth and projected costs, including inflation, shall be updated every three years. In accordance with the financial policy, the update includes the historic and forecast data inputs for the 2003-2030 capacity charge rate period including:

- Forecasts of RCEs attributed to new and existing customers and the number of new connections.
- Update projections of capital expenditures through 2030.
- An update of historic cost data and new customer revenues for 2003-2009.
- A review and update of the share of capital costs needed to serve new customers.
- A review and update of existing excess capacity prior to 2003 that will serve new customers.

The proposed 2011 capacity charge of \$50.45 is a two and eight-tenths percent increase from the 2010 rate of \$49.07, followed by assumed three percent annual increases after

2011. The net effect of changes since the forecast for the 2008 capacity charge is a small downward adjustment. This new proposal reduces the 2011 capacity charge by \$0.09 compared to the previous forecast's assumed three percent increase to \$50.54.

#### **8. Bonds and Interest Rates**

The municipal bond market is much improved from two years ago and stronger than last year, even though we are still experiencing high unemployment and weakness in the economy as a whole. Revenue bonds to be issued for WTD are estimated at \$250 million this year and about \$195 million in 2011. The Executive's proposal is based on an interest rate of five and one-quarter percent for the 2010 bonds. After 2010, bond interest rates are assumed to be five and three-quarters percent. In addition to revenue bond issues, a \$100 million variable rate bond issue is planned for the end of 2010.

With Brightwater nearing completion and the capital program returning to pre-Brightwater levels, the need to issue new debt will also moderate. After the \$250 million in 2010 and \$195 million in 2011, new debt issuances are projected at \$43 million in 2012 and \$87 and \$90 million in 2013 and 2014, respectively. This is significantly below the 2008 level of \$350 million and the \$550 million in 2009. This will ease the upward pressure on future sewer rates.

The principal and interest payments associated with bond sales have a strong impact on rates. Consequently, the way in which this debt service is structured can provide a means of managing the pattern of rate increases. In this proposal two different debt service structures are used to manage rate patterns. The first is that bonds issued in 2010, 2011 and 2012 will require interest-only payments through 2013. After 2013 full principal and interest payments will be made.

The second structure relates only to bonds issued in 2010. For the 2010 bond issue, in addition to being interest-only for the first three years, the first two years of these interest payments will be capitalized. This means an amount equal to the interest payments due through July 2012 will be borrowed and placed in a reserve from which these interest payments will be made when due. Other debt issuance structures were reviewed and this scenario was the most favorable from the standpoint of moderating rate increases, developing more sound financial policies and preserving WTD's bond ratings.

The projections also assume 35-year terms for the 2010 and 2011 bonds and 40-year terms for bonds issued after 2011. All bond issues will provide for cash bond reserves since the collapse of the surety bond market.

Investment interest rates have reached historic lows in the market. The rate of return in the County investment pool was one and seventy-six one-hundredths percent in 2009. For the rate forecast, investment interest rates are projected at one percent in 2010, one and one-quarter percent in 2011, two percent in 2012 and three percent in 2013. Thereafter, the rate is projected at three and one-half percent. In light of continuing

uncertainties in the economy these projections are conservative and will be monitored closely

#### **9. Impacts of Adopting Other Rate Scenarios**

To achieve a lower single-year rate for 2011 (such as scenario 4), the County would need to capitalize interest on the bonds to be issued in 2011. Beyond 2011, however, annual rate increases would be smoothed out to roughly seven percent annually until 2015.

Option 6 presents a two-year rate option at \$35.70 for 2011 and 2012. As with the single-year rate in scenario 4, capitalized interest on 2011 bonds is used. In addition, the rate increase is front-loaded so that rate stabilization dollars accumulate in 2011 to be used in 2012 through 2014.

Another two-year rate option (7) is similar to the Executive's proposal in that only interest from the 2010 bond issue is capitalized. This option utilizes the rate stabilization reserve to the same extent as 6. However, the initial rate increase from 2010 to 2011 of thirteen and six-tenths percent is markedly higher than 6 due to the more conservative debt approach.

### 10. Summary of Rate Components of Change

The following table shows and summarizes the impact of various factors that contribute to the increase in the monthly rate from the current \$31.90 to the proposed rate of \$35.15.

**Wastewater Treatment Division  
 Monthly Sewer Rate Components of Change  
 2009-10 Adopted Rate and 2011 Executive's Proposed Rate**

	<b>Change from 2009-10 to 2011</b>
<b>2009-10 Sewer Rate</b>	<b>\$31.90</b>
<b>Revenues and Customer Charges</b>	
Lower RCEs	\$0.47
Capacity Charge Revenue <sup>1</sup>	(\$0.07)
Rate Stabilization Use	(\$1.79)
<b>Operating Expenses</b>	
Increases in Labor Costs	\$0.66
Brightwater Operating Costs	\$0.53
Increase in chemical and energy costs	\$0.35
Reduction in transfer to Water & Land Resources Division	(\$0.15)
Elimination of Culver funding	(\$0.20)
Other operating expenses and expense adjustments <sup>2</sup>	(\$0.41)
<b>Parity Debt Service</b>	
Increase in debt service from 2008-2009 bond issues	\$1.87
Debt service on 2011 bond issue	\$1.37
Higher interest on existing subordinate debt and on planned 2010 subordinated debt issue	\$0.62
<b>Total Rate Change</b>	<b>\$3.25</b>
<b>2011 Proposed Rate</b>	<b>\$35.15</b>

<sup>1</sup>Parenthesis indicate a decrease to the rate

<sup>2</sup>The change in other operating expenses is due, in part, to reductions in central charges. Additional reductions are due to the operating expense adjustment, which is the difference between total operating expenses estimated during the rate setting process for 2010 and the actual adopted budget. The adjustment is used to balance changes between the 2011 rate adopted in June of 2010 and the budget, which will be adopted in November 2010.



## 11. Summary of 2011 Rate Proposal Projections and Assumptions

The following table presents a summary of the general assumptions used in developing the 2011 rate proposal. Discussion of the various assumptions is included in the main body of the text in this report.

**Wastewater Treatment Division Comparison of Forecast Assumptions  
 Adopted 2010 Budget and Proposed 2011 Rate**

	2009	2010	2011	2012	2013	2014	2015
<b>I. Wastewater Spending</b>							
<b>Operating Expense</b>							
Proposed 2011 Rate	102,981	106,842	111,160	117,164	121,850	126,724	131,793
Adopted 2010 Budget	103,175	108,205	118,794	127,924	133,476	139,180	145,127
Difference (current minus adopted)	(194)	(1,363)	(7,634)	(10,760)	(11,626)	(12,456)	(13,334)
<b>Capital Expenditures (w/accomplishment rate)</b>							
Proposed 2011 Rate	455,453	366,478	209,848	108,036	127,490	129,962	176,099
Adopted 2010 Budget	523,546	298,533	170,024	149,991	135,204	135,387	135,730
Difference (current minus adopted)	(68,093)	67,945	39,824	(41,955)	(7,714)	(5,425)	40,369
<b>CIP Accomplishment Rate</b>							
Proposed 2011 Rate, Brightwater	88%	95%	95%	100%	100%	---	---
Proposed 2011 Rate, Non-Brightwater	81%	85%	85%	85%	85%	85%	85%
Adopted 2009 Budget, Brightwater	95%	95%	95%	100%	---	---	---
Adopted 2009 Budget, Non-Brightwater	85%	85%	85%	85%	85%	85%	85%
<b>II. Customers</b>							
<b>Total RCEs</b>							
Proposed 2011 Rate	703,800	691,480	688,020	691,460	696,650	702,920	709,240
Percent Change	-0.43%	-1.75%	-0.50%	0.50%	0.75%	0.50%	0.90%
Adopted 2010 Budget	703,310	694,500	691,030	694,490	699,350	704,590	710,930
Percent Change	-0.50%	-1.25%	-0.50%	0.50%	0.70%	0.50%	0.90%
Difference (current minus adopted)	490	(3,020)	(3,010)	(3,030)	(2,700)	(1,670)	(1,690)
<b>New Connections</b>							
Proposed 2011 Rate	6,700	5,500	6,500	8,500	9,500	11,000	11,000
Adopted 2010 Budget	7,500	6,000	6,000	7,500	9,000	10,500	11,000
Difference (current minus adopted)	(800)	(500)	500	1,000	500	500	-

**Wastewater Treatment Division Comparison of Forecast Assumptions  
 Adopted 2010 Budget and Proposed 2011 Rate**

	2009	2010	2011	2012	2013	2014	2015
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**III. Interest Rates**

**Bond Interest Rate**

Proposed 2011 Rate	5.17%	5.25%	5.75%	5.75%	5.75%	5.75%	5.75%
Adopted 2010 Budget	5.17%	6.00%	6.25%	6.25%	6.25%	6.25%	6.25%
Difference (current minus adopted)	0.00%	-0.75%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%

**Variable Debt Interest Rate**

Proposed 2011 Rate	0.70%	2.00%	2.25%	3.00%	3.50%	4.00%	4.00%
Adopted 2010 Budget	2.50%	2.50%	2.75%	3.00%	3.00%	3.00%	3.00%
Difference (current minus adopted)	-1.80%	-0.50%	-0.50%	0.00%	0.50%	1.00%	1.00%

**Investment Interest Rate**

Proposed 2011 Rate	1.60%	1.00%	1.25%	2.00%	3.00%	3.50%	3.50%
Adopted 2010 Budget	1.70%	1.45%	1.65%	2.30%	2.85%	3.15%	3.15%
Difference (current minus adopted)	-0.10%	-0.45%	-0.40%	-0.30%	0.15%	0.35%	0.35%

**IV. Reserves**

**Bond Reserve**

Proposed 2011 Rate	154,343	186,014	172,120	168,460	174,086	179,858	187,882
Adopted 2010 Budget	154,343	137,085	129,311	137,013	144,351	150,368	156,378
Difference (current minus adopted)	0	48,929	42,809	31,447	29,735	29,490	31,504

**Rate Stabilization Reserve**

Proposed 2011 Rate	35,150	45,800	43,400	35,200	18,400	-	-
Adopted 2010 Budget	35,150	23,600	11,800	-	-	-	-
Difference (current minus adopted)	-	22,200	31,600	35,200	18,400	-	-

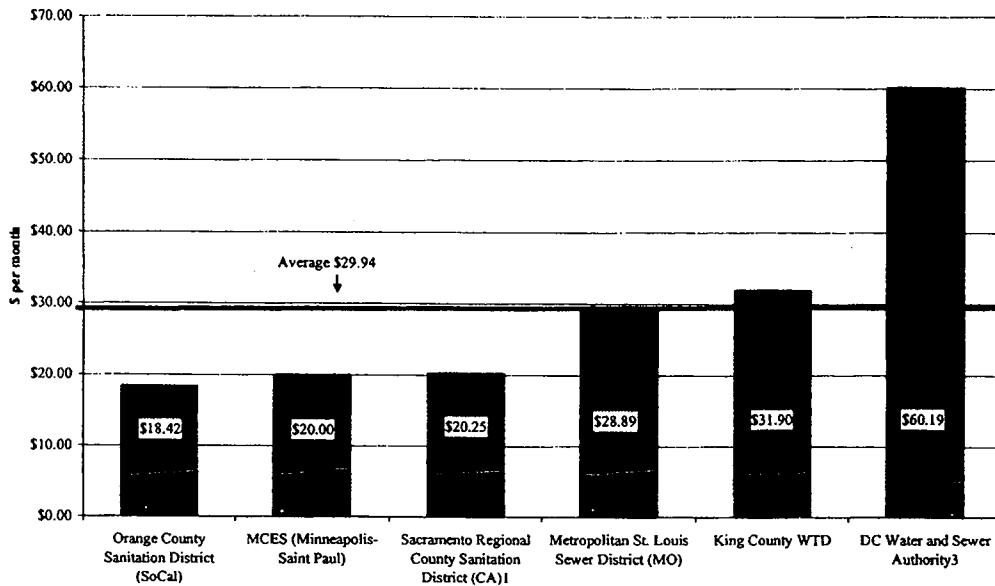
**Rate Stabilization Use (000's)**

Proposed 2011 Rate	(15,400)	(10,650)	2,400	8,200	16,800	18,400	-
Adopted 2010 Budget	(15,400)	11,550	11,800	11,800	-	-	-
Difference Stabilization Use	0	(22,200)	(9,400)	(3,600)	16,800	18,400	-

**12. Comparison of King County Wastewater Rates to Comparable Agencies**

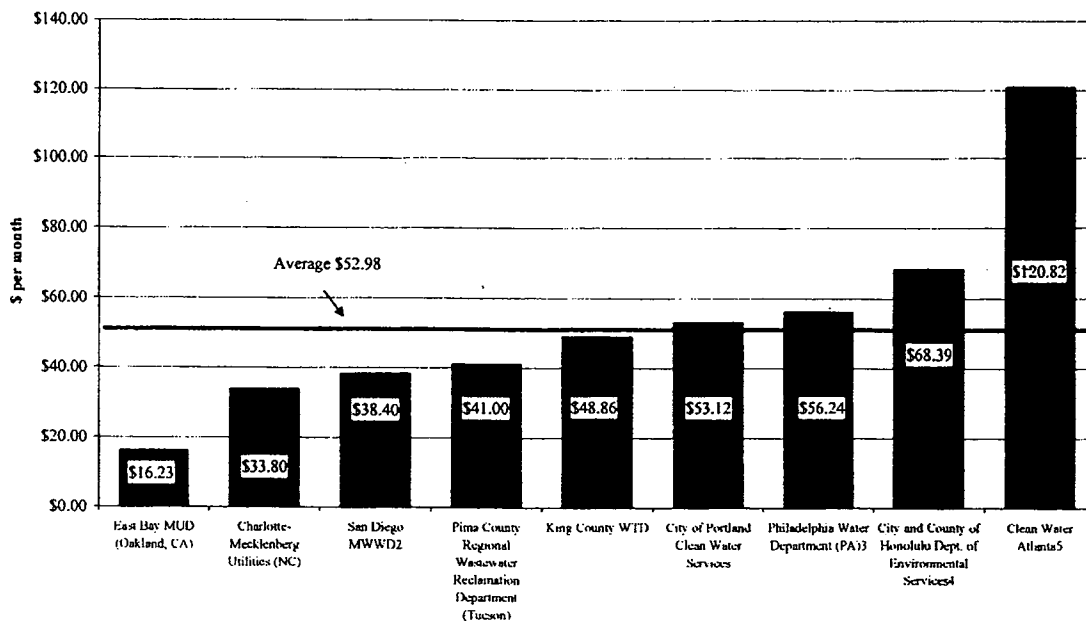
It is difficult to compare the King County rates to other jurisdictions because there are so many variables that affect the rate. In some jurisdictions, for example, significant general taxes are devoted to utility operations or capital programs. From a geographic standpoint, the terrain of a district can significantly affect costs, both operating and capital. For instance, hilly terrain like the Seattle area would likely require more pump stations. And, climate can have a big impact, with low rainfall areas having significantly less volume than King County. With these caveats in mind, the following two charts present a comparison of 2010 wholesale and retail rates for several agencies that are comparable to King County in size. The first chart compares the rates of agencies that are extensively engaged in wholesale service. The second chart compares the rates of agencies that are extensively engaged in retail.

2009 Residential Monthly Sewer Rates  
 Comparison of Wholesale Sewer Agencies



To approximate a retail rate for King County the average of our local component agency rates, \$16.96 per month, was added to the King County wholesale rate of \$31.90 for a total of \$48.86.

2009 Residential Monthly Sewer Rates  
 Comparison of Retail Charges  
 (includes local portion of total charge)



11  
12