



## **CITY OF KIRKLAND**

**Department of Public Works**

**123 Fifth Avenue, Kirkland, WA 98033 425.587.3800**

**www.kirklandwa.gov**

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### **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Nancy Otterholt, Senior Accountant  
John MacGillivray, Solid Waste Programs Supervisor  
Kathy Brown, Public Works Director  
Michael Olson, Director of Finance and Administration

**Date:** September 8, 2016

**Subject:** 2017-2018 Proposed Utility Rates Briefing

### **RECOMMENDATION**

It is recommended that the City Council receive a second briefing on the proposed 2017-2018 Utility Rates at its September 20 meeting and provide direction to staff for final adoption.

### **BACKGROUND**

At its [August 16 study session](#), the City Council received a briefing on the basics of utility rate development and an introduction to the range of wholesale rate drivers within each utility. On July 22, the City Council Finance and Administration subcommittee received a briefing on the proposed 2017-2018 Water, Sewer, Surface Water, and Solid Waste Rates. Committee members Mayor Walen and Councilmember Marchione were unable to attend but received individual briefings subsequent to the July 22 meeting.

In preparation for the budget process, staff updated its utility rate projections for the 2017-2018 biennium for all utilities using consultant assistance, as needed. As the City's utility rates are highly sensitive to, and informed by, the pass through rate increases from partner service providers (Cascade Water Alliance, King County Wastewater Treatment Division, and the King County Solid Waste Division), Kirkland's rate analyses run concurrent with these service provider's rate adoption processes. In the case of Solid Waste rates, per RCW 35.21.157 the City must notify rate payers of rate increases at least 45 days before the effective date of the increase which requires final adoption of a rate ordinance no later than the October 18 City Council meeting.

The process of developing the 2017-2018 proposed utility rates was based on a combination of the financial performance of each utility over the past several years, needs as identified in adopted master and system plans, and contractual obligations and requirements. All rates are designed to ensure the future financial integrity of each utility while bearing in mind the impacts on ratepayers.

The rates developed reflect the following overarching principles:

- Fully fund ongoing operations
- Maintain or replenish cash reserves
- Maintain or enhance capital contributions to repair, replace and enhance capital assets
- Achieve regular, modest rate adjustments in lieu of infrequent large rate increases
- Reduce customer class cross subsidies over time

A summary of the proposed single family utility rates are shown below, followed by a description of each utility's financial and programmatic factors that were considered in the rate proposal. With the proposed utility rate adjustments describe below, the average single family customer would pay an additional \$6.04 per month in 2017 and \$3.66 per month in 2018. The average Kirkland single family customer is defined as having or using:

Water: 700 cubic feet of consumption and a 3/4" water meter service  
 Sewer: 600 cubic feet of consumption  
 Solid Waste: A 35 gallon weekly garbage service  
 Surface Water: A single family residence

<b>Proposed Utility Rate Summary: Impact to Average Kirkland Customer</b>							
<b>Utility</b>	<b>2016</b>	<b>2017</b>			<b>2018</b>		
	<b>Monthly</b>	<b>Proposed</b>	<b>Monthly</b>	<b>%</b>	<b>Proposed</b>	<b>Monthly</b>	<b>%</b>
	<b>Rate</b>	<b>Rate</b>	<b>Impact \$</b>	<b>Increase</b>	<b>Rate</b>	<b>Impact \$</b>	<b>Increase</b>
Water	\$43.28	\$44.02	\$0.74	1.7%	\$44.77	\$0.75	1.7%
Sewer	\$68.91	\$72.01	\$3.10	4.5%	\$73.48	\$1.47	2.0%
Solid Waste	\$23.73	\$25.02	\$1.29	5.4%	\$25.75	\$0.73	2.9%
Surface Water	\$16.87	\$17.21	\$0.34	2.0%	\$17.55	\$0.34	2.0%
Subtotal	\$152.79	\$158.26	\$5.47	3.6%	\$161.55	\$3.29	2.1%
Utility Taxes*	\$16.79	\$17.36	\$0.57	3.4%	\$17.73	\$0.37	2.1%
KC Haz Waste	\$1.46	\$1.46	\$0.00	0.0%	\$1.46	\$0.00	0.0%
Total	\$171.04	\$177.08	\$6.04	3.5%	\$180.74	\$3.66	2.1%

\*The effective utility tax rate varies: Water 13.38%, Sewer and Solid Waste 10.5%, and Surface Water 7.5%. The combined 2016 utility tax budget for these utilities is about \$4,900,000. If the proposed rate increases are adopted, the utility tax budget would increase by about \$160,000 in 2017 and \$96,000 in 2018.

## **WATER UTILITY RATES**

### *Overview*

The water utility provides for construction, replacement, and rehabilitation of water distribution and storage facilities, funds the purchase of water from the Cascade Water Alliance (CWA), and ongoing maintenance and operations of water utility infrastructure. City participation in CWA allows Kirkland to have a voice and a vote over reliable and adequate drinking water supplies.

The current monthly water rate for single family residential is \$43.28; the effective utility tax is 13.38% (which includes a component for fire hydrant maintenance). The last rate increase was in 2016 and reflected CWA rate increase for the purchase of water and continued phase-in of funding for the City's annual capital reinvestment based on depreciation of assets.

*Proposed Water Utility Rates*

Staff is proposing a two year Water Utility rate increase of 1.0% in both 2017 and 2018. A Cost of Service Analysis (COSA) was completed as part of the rate update for the 2015-2016 rates. The COSA concluded there should be a shift in cost recovery from multifamily and commercial customers to residential and irrigation customers. In 2015 and 2016 residential and irrigation customers saw rate increases 4.9% and 3.3% and multifamily and commercial had no rate increases. The COSA recommended gradually reducing the subsidy over a 5-6 year period to reach full cost of service by sector. Accordingly, the 2017-2018 proposed rates again show increases for residential and irrigation and no increases for multifamily and commercial.

Proposed 2017-18 Water Rate Increase		
Sector	2017	2018
Single Family	1.7%	1.7%
Multifamily/Commercial	0.0%	0.0%
<b>Average</b>	<b>1.0%</b>	<b>1.0%</b>

The average customer would pay an additional \$0.84 per month in 2017 and \$0.85 per month in 2018.

Water Rate Increase Impact to Single Family Residential			
	2016	2017	2018
Base + 7 units	\$43.28	\$44.02	\$44.77
13.38% Utility Tax	\$5.79	\$5.89	\$5.99
Total	\$49.07	\$49.91	\$50.76
Increase/month		\$0.84	\$0.85
Increase/year		\$10.08	\$10.20

*Water Utility Rate Assumptions*

The following factors and drivers were influential in drafting the proposed 2017-2018 water utility rates:

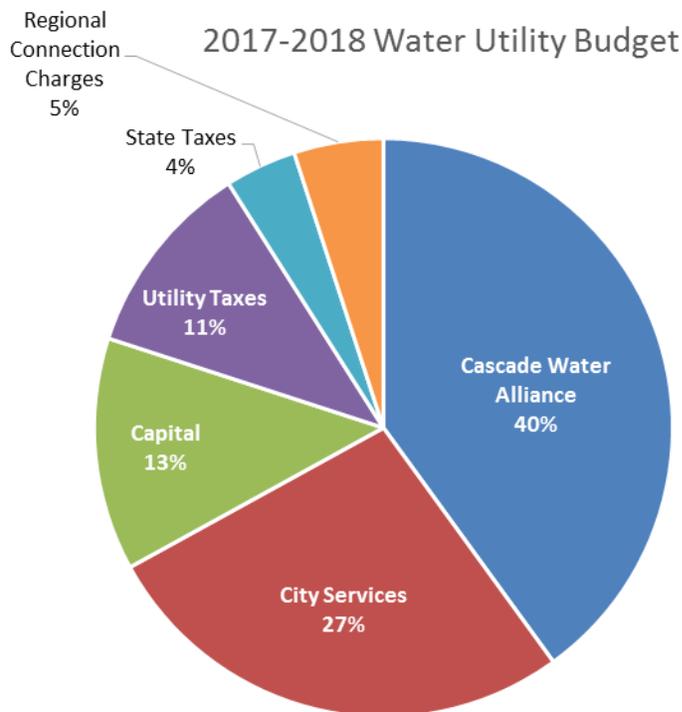
- Reduce the commercial to single family cross subsidy over time.**  
 Multifamily/commercial to single family residential and irrigation customer cross subsidies are not uncommon in utility rates. Similar to 2015-2016 rates, the 2017-2018 proposed rates will reduce this subsidy. Although this rate proposal does not eliminate the cross subsidy, it continues to gradually realign rates without too great of an impact to customers.
- Wholesale Rate Increase.**  
 CWA proposed rate increases are 2.73% in 2017 and 2.5% in 2018. Payments to CWA represent about 40% of the budget and the pass through is 100% of the City's proposed rate increase. The key factor for CWA is an increase in rate-funded debt service primarily a consequence of the transition in use of regional capital facilities charges from debt repayment to direct capital funding.

- **Increase in Rate Funded System Reinvestment.**  
Increase from 1.2 times depreciation in 2016 to 1.25 in 2017 and 2018. If the Council concurs, the recommended goal of 1.25 will be reached. The 2016 level of funding is \$1.7 million and will increase to \$1.8 million in 2017.

*Water Utility Budget*

The annual Water Utility budget is approximately \$13.7 million. Approximately 40% of the annual expenditures are payments made to CWA for membership dues and the purchase of water. Another 5% is from the regional capital facility charges imposed by CWA for all new water connections, a fee which is collected by the City but passed through to CWA. Kirkland's direct costs for maintenance and operations account for 27% of the annual expenditures. The contribution to capital accounts for 13% of the budget. The remaining 15% is composed of taxes and fees collected and sent to the State of Washington and other City funds:

- The City collects a utility tax that is charged on the utility bill and then transferred from the utility fund to the General Fund; and
- The State of Washington imposes a B&O tax and public utility tax on the utility.



**SEWER UTILITY RATES**

*Overview*

The Sewer Utility provides for Kirkland's share of the regional wastewater collection, treatment, and disposal administered by the Wastewater Treatment Division of King County (KCWTD). In

addition, the utility allows for the construction, operation and maintenance of the City's local wastewater collection and transmission system.

The current monthly sewer rate for single family residential is \$68.91; the effective utility tax is 10.5%. The last rate increase was in 2016 and reflected the continued phase-in of capital reinvestment funding based on the annual depreciation of assets.

*Proposed Sewer Utility Rates*

Staff is proposing adoption of a two year rate with an overall average increase of 3.95% in 2017 and 1.6% in 2018. A Cost of Service Analysis (COSA) was completed as part of the 2017-2018 rate analysis, which concluded there should be a shift in cost recovery from multifamily and commercial customers to residential customers to reduce the cross subsidy, so the proposed rate increases are not the same by sector.

Proposed 2017-18 Sewer Rate Increase		
Sector	2017	2018
Single Family	4.8%	1.3%
Multifamily/Commercial	2.7%	1.4%
<b>Average</b>	3.95%	1.6%

The average customer would pay an additional \$3.42 per month in 2017 and \$1.63 per month in 2018.

Sewer Rate Increase Impact to Single Family Residential			
	2016	2017	2018
King County/Treatment	\$42.03	\$44.22	\$44.22
Kirkland/Collection	\$26.88	\$27.79	\$29.26
10.5% Utility Tax	\$7.24	\$7.56	\$7.72
Total	\$76.15	\$79.57	\$81.20
Increase/month		\$3.42	\$1.63
Increase/year		\$41.04	\$19.56

*Sewer Utility Rate Assumptions*

The following factors and drivers were influential in drafting the proposed 2017-2018 Sewer Utility rates:

- Reduce the commercial to single family cross subsidy over time.**  
 Multifamily/commercial to single family residential and irrigation customer cross subsidies are not uncommon in utility rates. The 2017-2018 proposed rates will reduce this subsidy. Although this rate proposal does not eliminate the cross subsidy, it begins to gradually realign rates without too great of an impact to customers.
- Wholesale Rate Increase.**  
 KCWTD adopted a rate of \$44.22 per residential customer equivalent per month for 2017 and 2018, a 5.21% increase from 2016. Payments to KCWTD for sewer treatment represent about 57% of the 2016 sewer budget. The key factor for KCWTD is the goal of reducing outstanding debt through 2030 using increased cash financing and moderate

rate increases. The pass through of this increase represents about three percentage points of the City's proposed rate increase.

- **Increase in Rate Funded System Reinvestment.**

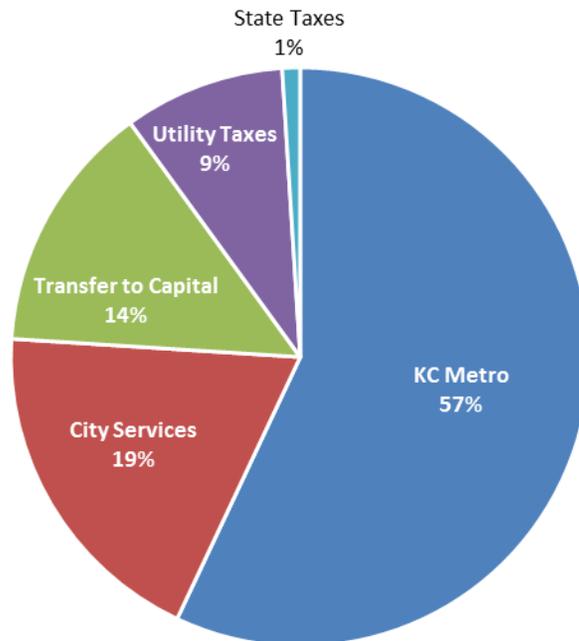
Increase from 1.3 times depreciation in 2016 to 1.4 in 2017 and 1.5 in 2018. If the Council concurs with the proposed schedule for increases, the goal of 1.65 will be reached in 2020. The 2016 level of funding is \$1.9 million and will increase to \$2.2 million in 2017. The multiplier applied to the depreciation expense recognizes that the cost to replace infrastructure over time will be higher than the original cost on which depreciation is based.

*Sewer Utility Budget*

The annual Sewer Utility budget is approximately \$14.7 million. Approximately 57% of the annual expenditures are payments made to KCWTD for regional wastewater services. Kirkland's direct costs for maintenance and operations account for 19% of the annual expenditures. The contribution to capital accounts for 14% of the budget. The remaining 10% is composed of taxes and fees collected and sent to the State of Washington and other City Funds:

- The City collects a utility tax that is charged on the utility bill and then transferred from the utility fund to the General Fund; and
- The State of Washington imposes a B&O tax and public utility tax on the utility.

2017-2018 Sewer Utility Budget



## **SOLID WASTE UTILITY RATES**

### *Overview*

The Solid Waste Utility provides collection and disposal services for Kirkland residents and businesses through its contract with Waste Management, Inc. (WMI). Billing services are provided by the Utility Billing Division of the Finance and Administration Department. Program development and education and outreach activities are implemented by in-house City staff with the assistance of WMI. The solid waste rate modeling was completed under contract with consultant Sound Resource Management.

### *Proposed Solid Waste Rates*

A two-year solid waste rate is being proposed, with an overall average increase of 3.0% in 2017 and 1.9% in 2018. The rates are "front loaded" in 2017, as the King County Solid Waste Division is proposing a stable two-year rate with no increase in 2018. In order to slightly reduce the subsidization of the single family residential sector by the multifamily/commercial sector, the rate increases are unequal with proposed 2017 and 2018 increases for single family of 5.4% and 2.9%, respectively. No increase is proposed for the multifamily/commercial sector in 2017 and a 0.5% increase is proposed for 2018. The 0.5% increase for multifamily/commercial is required to not increase the 2017 cross subsidy through 2018. The proposed rates for the roll-off sector (containers >10 yd<sup>3</sup> in capacity) are "cost of service" with no cross subsidies.

<b>Proposed 2017-18 Solid Waste Rate Increase</b>		
<b>Sector</b>	<b>2017</b>	<b>2018</b>
Single Family	5.4%	2.9%
Multifamily/Commercial	0.0%	0.5%
Roll-off	2.0%	2.3%
<b>Average</b>	3.0%*	1.9%

*\* The proposed 14.6% King County disposal fee increase and the 1.99% 2017 CPI rate adjustment to WMI comprise 80% of the proposed rate increase. Other rate drivers in the proposed Kirkland solid waste rate include downsizing forecasts and administrative cost increases, which are offset in part by discontinuing the reserve replenishment contribution.*

The average residential customer would pay \$2.23 per month more than in 2016 by the end of 2018 or an average of about \$1.12 per month over the 2017-2018 biennium. The 35 gallon garbage cart is used as the benchmark of the typical customer as 55% of Kirkland's residents subscribe to the 35 gallon weekly service level. The table below illustrates the total customer cost billed to the customer including the base rate, the effective utility tax rate of 10.5%, and the hazardous waste fees collected and remitted to the Local Hazardous Waste Management Programs of King County.

<b>Solid Waste Rate Increase Impact to Single Family Residential</b>			
	<b>2016</b>	<b>2017</b>	<b>2018</b>
35 gallon/weekly	\$23.73	\$25.02	\$25.75
10.5% Utility Tax	\$2.49	\$2.62	\$2.70
KC Hazardous Waste Fee	\$1.46	\$1.46	\$1.46
Total	\$27.68	\$29.10	\$29.91
Increase/month		\$1.42	\$0.81
Increase/year		\$17.04	\$9.72

*Solid Waste Rate Assumptions*

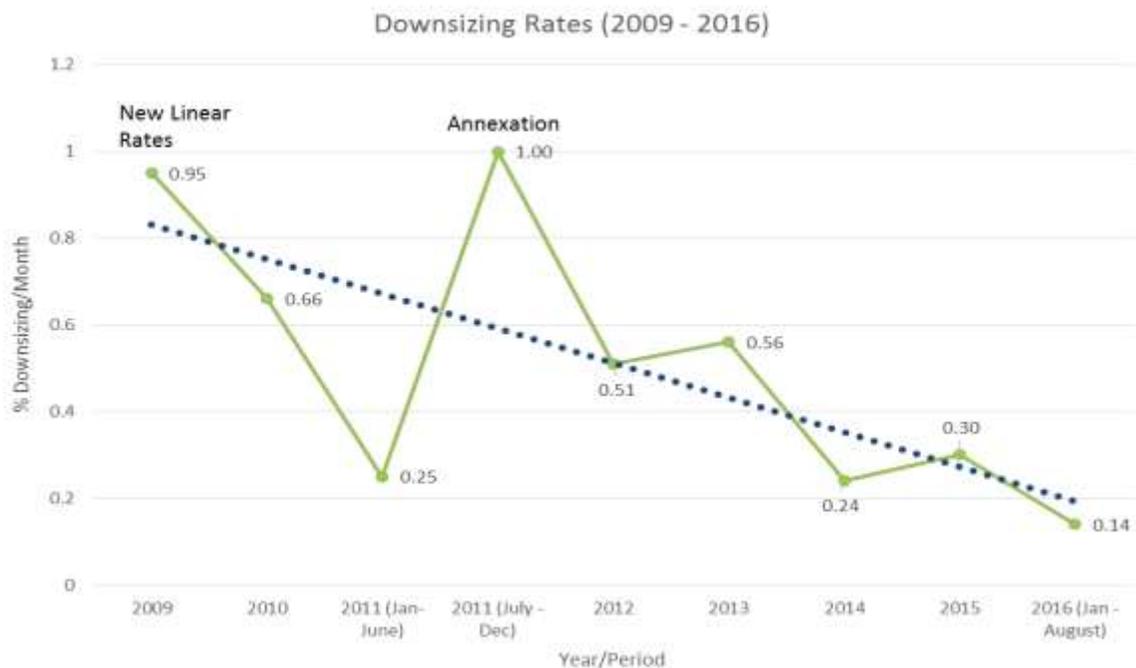
The following factors and drivers were influential in drafting the proposed 2017-2018 solid waste rates:

- **King County Solid Waste Division Disposal Fee Increase**  
 On July 21, the King County Executive transmitted its proposed 2017/2018 disposal fee and budget to the King County Council. The proposal includes a 14.6% increase in the disposal fee from \$120.17/ton to \$137.75/ton. The KCC is expected to adopt its final rate in September. King County has not increased its disposal fee since 2013. The drivers in the proposed rate include:

  - Debt service on bonds issued for the construction of the new Factoria Transfer Station in Bellevue
  - Inflationary increases in cost centers (wages, taxes, insurance, rent)
  - Equipment replacement and maintenance (Capital Equipment Recovery Program)
  - Maintenance of post-closure landfill maintenance fund
  - Improvements in service reliability (Landfill area development, regulatory compliance, operational changes)
  - A transfer station demand management study for the NE County (\$2 million)
  
- **Consumer Price Index Rate Adjustment to WMI.**  
 The City is contractually required to grant WMI an annual CPI adjustment to the collection/service component of its wholesale rates paid by the City by 100% of the Seattle-Tacoma-Bremerton Metropolitan Area for Urban Wage Earners and Clerical Workers (CPI-W 1982-1984) in the period ending in June of each year. The allowed rate adjustment for 2017 is 1.99%. The rate model conservatively forecasts a 2018 CPI increase of 2.46%.
  
- **Maintain the cash reserve.**  
 One of the goals in the 2015-2016 solid waste rates was to replenish the depleted solid waste cash reserve back to \$1,300,000. The cash reserve was drawn down to under \$508,000 in 2012 from a high in 2009 of approximately \$1,800,000. As the solid waste utility pays WMI monthly but bills its customers every two months, maintaining a sensible cash reserve allows the City to pay WMI monthly and bill its customers in arrears. Currently, the solid waste cash reserve stands at approximately \$1,338,200 and has been replenished at a slightly higher rate than expected due to the strong economy. Completing the cash reserve replenishment helps absorb the local cost increase in 2017-2018.

- **A steady but stable rate of downsizing.**

As has been discussed, Kirkland experienced an abnormally high rate of downsizing once linear rates were established in 2009 and for a two year period after annexation between June 2011 and 2013. The downsizing drew down the solid waste cash reserve to a dangerous level in 2012. Over the course of 2014-2016, the rate of downsizing has stabilized to predictable, pre-annexation levels so the rate can once again be forecasted in the rate modeling at 3/10 of one percent per month for the 2017-2018 biennium.



- **Reduce the commercial to single family cross subsidy over time.**

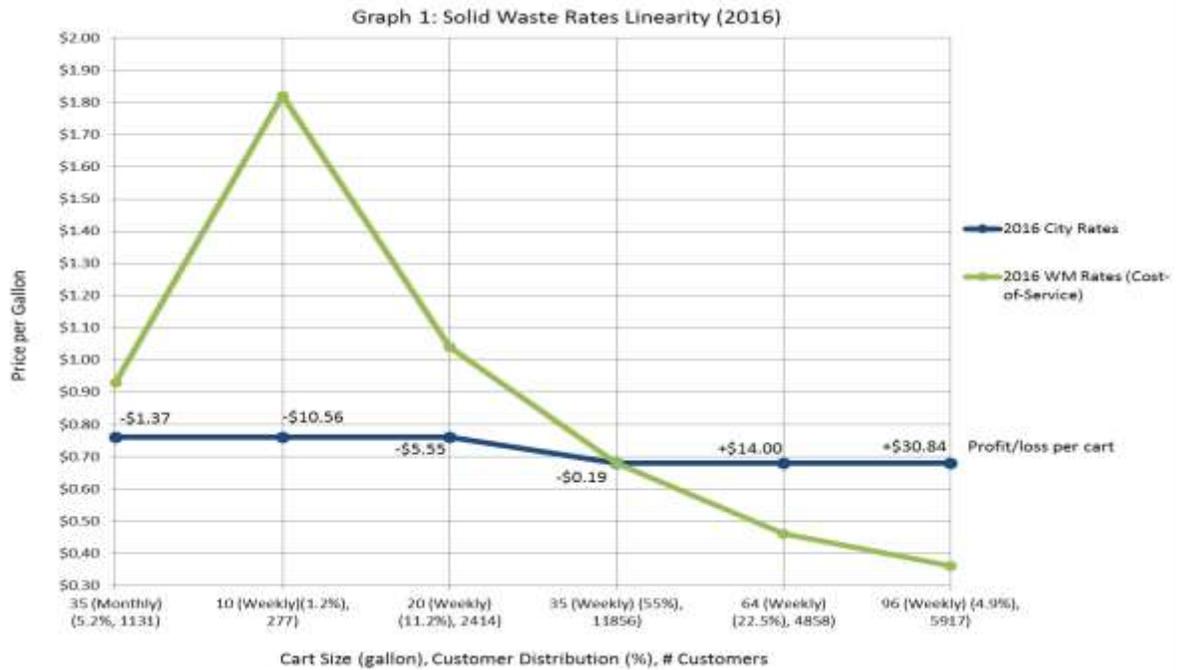
Multifamily/commercial to single family residential cross subsidies are not uncommon in utility rates. However, the cross subsidy has been gradually reduced: the proposed solid waste rates further reduce the annual cross subsidy to approximately \$237,000 per year from \$290,000 per year in 2015-2016 and \$390,000 per year in 2013-2014.

- **Maintain the “nearly linear” rate structure to encourage waste reduction and recycling.**

In 2009, the City Council adopted a linear rate structure in which the cost per gallon in Kirkland’s retail rates were equalized amongst all service offerings. This rate structure naturally encourages downsizing since customers do not receive a discount for having a larger cart size as is the case in a pure cost-of-service model. Linear rates encourage customers to reduce their waste and to recycle more which has been foundational in *maintaining or marginally increasing* Kirkland’s high annual recycling diversion rate, particularly after annexation when Kirkland added 10,000 households previously serviced under a cost-of-service rate structure. Kirkland’s linear rate structure is but one tool in a suite of tools used to reduce waste and increase recycling diversion and, historically, linear rates have served to reduce waste and increase diversion incrementally rather

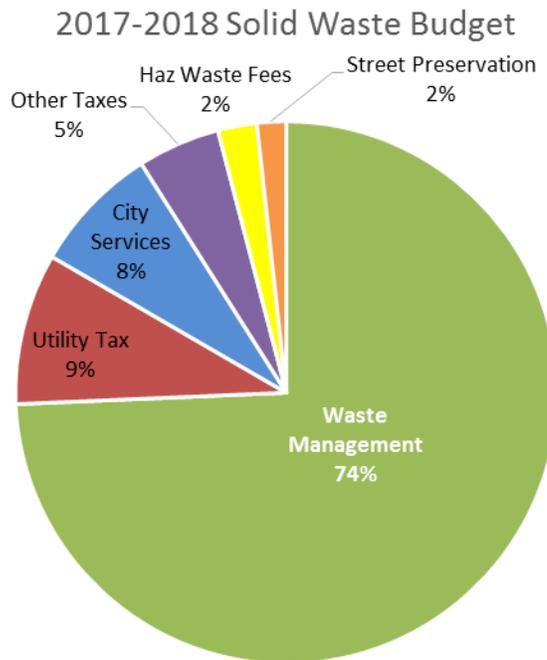
than acutely. Since 2012, the single family recycling diversion rate has increased by 1.5 percentage points from 67.9% to 69.3%; garbage tonnage has been reduced by 1.8%; and recycling tonnage collected and diverted has remained flat.

When Kirkland’s linear retail rate model is overlaid across the WMI wholesale rate cost-of-service model, the Solid Waste Utility loses revenue on the small service offerings but gains revenue on the larger carts. If an inordinate and unpredicted number of customers migrate from large to small service levels, the consequent impact on revenues and cash reserves can be alarming. For the 2013-2014 and 2015-2016 bienniums, the City Council adopted a revised “nearly linear” rate structure as shown in *Graph 1* where the price per gallon of the smaller service levels (10 and 20 gallon weekly and 35 gallon monthly) was increased slightly higher than the price per gallon for the larger carts (64 and 96 gallon) as a measure to hedge against continued downsizing.



*Solid Waste Utility Budget*

The annual Solid Waste budget is \$17,285,661. The majority of the budget (74%) is payments to WMI for the collection and disposal/recycling of trash, recyclables, and organics. Taxes (utility and State) and hazardous waste fees account for 16% of the budget. The remaining 10% is comprised of City services and an annual \$300,000 paid for the Capital Improvement Program for street preservation to account for the ongoing wear collection vehicles have on City streets.



**SURFACE WATER UTILITY RATES**

*Overview*

The Surface Water Utility rate recommendation reflects continuation of basic services, continued implementation of the recommendations contained in the Surface Water Master Plan, and implications of updated Surface Water Design Requirements which must be adopted by December 31, 2016.

The current monthly surface water rate for single family residential is \$16.87; the effective utility tax is 7.5%. The last rate increase was in 2016 and reflected the implementation of the Surface Water Master Plan (SWMP).

*Proposed Surface Water Utility Rates*

Staff is proposing adoption of rates for two years, with an increase of 2.0% in both 2017 and 2018. In 2014, consultants analyzed the financial condition of the Utility and the costs of implementing the Surface Water Master Plan recommendations. Based on available cash resources in the Utility capital fund and the most immediate operating needs, the consultants identified annual rate increases that range from 0% to 11% over the next ten years. As an alternative to fluctuating rate increases, the consultants proposed a “smoothing” policy that calls for steady but modest rate increases of 4% annually. The Council approved rate increases of 4% in both 2015 and 2016. However, analysis of the surface water utility rate as part of the Critical Areas Ordinance and Surface Water Drainage manual updates and the budget process has identified opportunities to reduce the rate of growth in the near term. Therefore staff is proposing only 2% increases in 2017 and 2018. The proposed rate is sufficient to fund additional expenses associated with update of the City’s surface water design requirements and critical areas ordinance as described below.

Residential customers would pay an additional \$0.36 per month in 2017 and \$0.37 per month in 2018. Multifamily and commercial bills will increase by the same percentage.

<b>Rate Impact to Single Family Residential</b>			
	<b>2016</b>	<b>2017</b>	<b>2018</b>
Typical Monthly Bill	\$16.87	\$17.21	\$17.55
7.5% Utility Tax	\$1.27	\$1.29	\$1.32
Total	\$18.14	\$18.50	\$18.87
Increase/month		\$0.36	\$0.37
Percentage increase		2.0%	2.0%

*Surface Water Utility Rate Assumptions*

- System Reinvestment Funding.**  
 The target annual system reinvestment funding is 1.0 times the annual depreciation expense. The City is currently meeting this target. The proposed rates assume the current reinvestment practice will continue. The purpose of a system reinvestment policy is to fund replacement of aging system facilities and ensure sustainability of the system for ongoing operations. Annual depreciation is intended to recognize the consumption of utility assets over their useful lives. In addition, \$500,000 is transferred to Capital for construction that is in conjunction with City street or transportation projects.
- Surface Water Master Plan.**  
 Many program and capital project additions were recommended to reduce flooding, improve water quality, protect and maintain infrastructure, and improve aquatic habitat conditions. In addition to the system reinvestment above, the proposed rates include a transfer of \$262,500 per year to Capital to fund recommendations of the Surface Water Master Plan.
- Updated Surface Water Design and Critical Areas Requirements.**  
 The City must adopt updated surface water design requirements by December 31, 2016 to maintain compliance with the Phase II NPDES Stormwater Permit. The updated requirements will result in significant environmental benefits, but will increase the cost

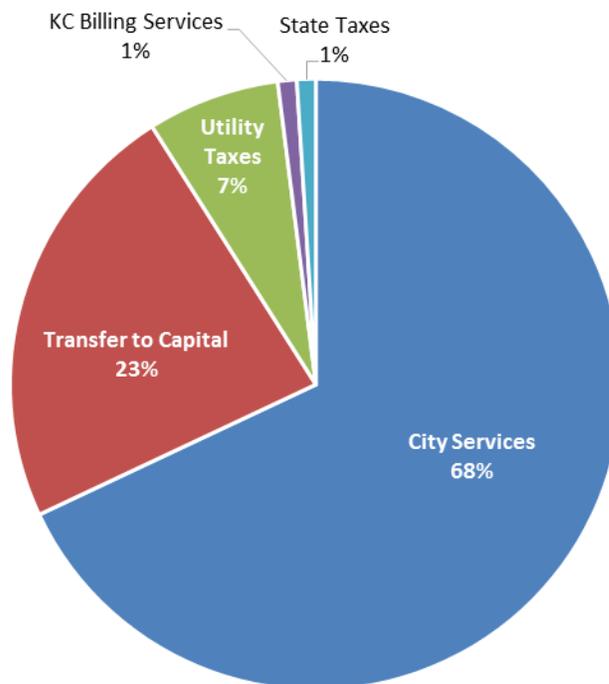
and complexity of design review, construction, and maintenance of stormwater facilities. The City must also adopt an updated Critical Areas Ordinance (CAO) to comply with the Growth Management Act. This ordinance will increase buffers widths and mitigation requirements associated with streams wetlands and lakes. These changes will provide increased environmental protection, but will result in increased costs to the CIP. The CAO update also includes mitigation timing and methods that may result in more cost-effective and environmentally beneficial projects. A contingency fund has been built into the CIP, and service packages have been submitted for staff and consultant services to accommodate these updates.

### *Surface Water Utility Budget*

The annual Surface Water budget is approximately \$10 million with 68% going to operations including system maintenance and engineering and education and outreach programs. The surface water management fee is billed by King County on the property tax bill. The City pays King County a fee for this service. Another 23% is transferred to the surface water capital projects fund for surface water capital facilities. The remaining 8% is composed of taxes and fees collected and sent to the State of Washington and other City Funds:

- Fees collected by King County on our behalf include the utility tax. The tax is transferred from the utility fund to the General Fund; and
- The State of Washington imposes a B&O tax on the utility.

2017-2018 Surface Water Utility Budget



**NEXT STEPS**

Based on City Council feedback and direction, staff will prepare four rate ordinances for Council adoption at the October 4, 2016 meeting. Based on customer notification requirements established by state law, Council action must be taken on Solid Waste rates on or before the October 18 City Council meeting in order for the rates to be effective January 1, 2017.