

Appendix N

Financial Analysis Memorandum

Appendix N—Financial Analysis Documentation

Surface Water Utility Rate and Policy Analysis,
FCS Group Memorandum, July 21, 2014

Stormwater Utility Policy Review, FCS Group

To: Julie Elsom; City of Kirkland
From: John Ghilarducci, Ryan Bert; FCS GROUP
RE: Surface Water Utility Rate & Policy Analysis

Date: July 21, 2014

I. INTRODUCTION & BACKGROUND

In support of the 2014 Surface Water Plan (SWP) update, the City of Kirkland (City) contracted with Financial Consulting Solutions Group, Inc. (FCS GROUP) to perform a surface water rate update. Specific tasks included:

- ◆ Developing an estimated revenue requirement and cash flow projection for the next 10 years (2014-2023), incorporating:
 - The list of prioritized capital improvement projects currently in development by the City, including the anticipated regional detention project (Forbes Creek Basin).
 - Current financial information including a review of the utility's capital funding status, financial policies, and procedures.
 - Various scenarios integrating the proposed “required” and “augmented” operations and maintenance service levels.
 - Key policy issues impacting the surface water utility.
- ◆ Incorporating revenue requirement results into a summarized level of service matrix to communicate rate results for varying service levels and associated costs.

Section II of this memorandum focuses on the revenue requirements and presents the analytical approach, supporting fiscal policies, methods, and assumptions used in the revenue requirements analysis to accomplish these tasks along with the findings and recommendations.

Appendix A includes the detailed spreadsheets supporting the study results.

II. REVENUE REQUIREMENTS

A. Approach

The revenue requirements analysis (See Appendix A) forecasts the amount of annual revenue needed from surface water rates. The analysis incorporates operating revenues, operations and maintenance (O&M) expenses, debt service payments, rate funded capital needs, and any other identified revenues or expenses related to utility operations, and determines the sufficiency of the current level of rates. Revenue needs are also impacted by specific fiscal policies and financial goals of the utility, as described herein.

The analysis determines the amount of revenue needed in a given year to meet that year's expected financial obligations. For this analysis, two revenue sufficiency criteria have been developed to reflect the financial goals and constraints of the utility: (1) cash flow must be met, and (2) revenue bond coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

The cash flow test identifies all known cash requirements for the utility in each year of the study period (2014-2023). First, capital needs are identified and a capital funding strategy is established. Typically, this may include the use of debt, cash reserves, grants, interfund transfers, and rate funding. Cash requirements *to be funded from rates* are then determined. Typically, these include O&M expenses, debt service, system replacement funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the utility are then compared to projected cash revenues under current rates.

The revenue bond coverage test then assesses the utility's ongoing ability to satisfy coverage requirements as delineated in any outstanding revenue bonds. The City's surface water utility currently has no outstanding debt of any kind. When applicable however, this test takes into consideration the coverage requirement, allowable revenues, and expenses that are considered to be "operational."

The maximum projected revenue shortfall resulting from these two tests is identified and the rate increases necessary to make up the shortfall are then estimated. The cash flow and revenue bond coverage tests are applied on Pages 13-14 of Appendix A.

B. Supporting Fiscal Policies

In concert with the revenue requirement analysis, fiscal policies are assumed (Appendix A – Pages 2-3) to maintain the long-term financial health and performance of the utility. A brief summary of the key policies incorporated into the revenue requirement analysis is provided below.

System Replacement Funding

The purpose of a system reinvestment policy is to establish the practices and funds required to complete the replacement of aging system facilities and ensure sustainability of the system for ongoing operations. A common approach of municipal utilities is to incorporate a replacement funding (or depreciation) policy. Annual depreciation is a non-cash expense intended to recognize the consumption of utility assets over their useful lives. Collecting an amount related to annual depreciation expense through rates provides a funding source for repair and replacement of existing utility plant-in-service. Further, funding a measure of depreciation through rates helps to ensure that existing ratepayers pay for the use of the assets serving them, with the cash flow funding at least a significant portion of the eventual replacement of those assets.

The targeted depreciation amount in 2014 was listed at \$1.37 million for the City's surface water utility. The City is currently funding annual depreciation in full, and this analysis assumes the current practice will continue for the remainder of the study period.

Reserve Levels

Financial reserves are a necessary and appropriate part of prudent utility management practices. The City maintains separate accounting for an Operating Fund (Fund 421) and Capital Fund (Fund 423) in order to distinguish the different "sources" and "uses" for operating and capital needs.

- ◆ **Operating Reserves:** Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to address significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash operating expenses, or lower than expected revenue collections. Target funding levels are generally expressed in number of days' cash operating expenses, with the minimum requirement varying with the expected risk of unanticipated needs. City of Kirkland surface water rates are charged per Equivalent Service Unit (ESU), in which one ESU is equal to 2600 square feet of impervious surface. Surface water customers are billed *annually* on the King County property tax statement, for which the County charges the City of Kirkland a small billing fee per account. A majority of these bills are paid in April and October installments. Because the basis of charging changes very little from year to year, the surface water utility generates relatively constant and predictable total rate revenue. Due to the fee's inclusion on the property tax statement, however, the City must plan for a twice yearly revenue generation pattern, and begin each year with at least six months (180 days) of cash operating expenses. For purposes of this analysis, it is therefore assumed that the Operating Fund will maintain a minimum balance of 180 days operating expenses and a maximum balance of 270 days operating expenses. In the event the Operating Fund has a year-end balance above the 270 day maximum, the excess funds may be transferred to the Capital Fund.
- ◆ **Capital Contingency Reserves:** The Capital Contingency Reserve, or capital fund, holds grant, loan and bond proceeds, and other capital-related revenues. The study assumes that cash from rates for system replacement funding and balances in excess of the minimum requirements in Operating Fund have the flexibility to be transferred to the Capital Fund at year's end and become available for capital use in subsequent years. The balance is available to be used in case of an emergency, should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. Additionally, the minimum reserve balance could be used for other unanticipated capital needs, including project cost overruns. These reserves are not intended to cover the costs of system-wide failures resulting from catastrophic events. There are several ways to set the minimum level of contingency reserves. Current practice in the surface water utility is to set aside 10% of the 6-year future capital improvement plan (CIP). Although the CIP varies from year to year, the typical minimum Capital Fund balance is roughly \$2 million. For the purposes of this analysis, this minimum Capital Fund balance calculation is expected to stay consistent with current practice.

C. Other Key Policy Considerations

Surface Water Portion of Transportation Capital Projects

Portions of the surface water conveyance system are constructed in conjunction with City street projects. The City has paid for the stormwater-related portion of such transportation improvements through an annual transfer of \$950,000 to the Transportation Fund, although actual expenditures have averaged approximately \$500,000 per year. Based on the 2014-2019 transportation improvement plan (estimates provided by the Transportation Fund), the average annual capital expenditure for surface water purposes is now \$495,000. Current reserve funding available for surface water

transportation projects has accumulated to \$4.7 million. In order to more closely reflect current annual surface water costs associated with transportation projects, we recommend that the City base the annual transfer to the Transportation Fund on the 5-year average annual forecast. For purposes of the revenue requirement calculations, it is assumed that the surface water utility will begin transferring \$500,000 per year to the Transportation Fund, starting in 2015. The reduction in the capital contribution frees up approximately \$0.75 per ESU to be reprogrammed for other purposes. In addition, it is recommended that the \$4.7 million in capital reserves be made available for surface water projects and project portions in both the surface water and transportation CIPs.

D. Analyses, Findings, and Recommendations

Key Assumptions

The following assumptions (based on City estimates) were used in the analysis (Appendix A – Page 2):

- ◆ Revenues and O&M expense projections are based on the 2014 adopted budget.
- ◆ Rate revenues are escalated according to the customer growth rate of 0.50% per year.
- ◆ Annual labor related expenses are assumed to escalate at 5% per year, while benefit costs are estimated to escalate by 7% per year.
- ◆ General cost inflation is assumed to escalate at 3% per year.
- ◆ Capital construction cost inflation is assumed to escalate at 4% per year.
- ◆ The annual fund earnings rate is assumed to be 0.13% in 2014, 0.25% per year in 2015 and 2016, and 0.50% per year in 2017 and thereafter.

Capital Projects and Funding Strategy

The City currently funds approximately \$1.6 million in surface water capital projects per year, not including the transfer for transportation capital projects. Surface water projects are currently funded through a combination of annual depreciation expense and a \$262,500 annual operating transfer to the surface water Capital Fund. Should the City need additional funds, Capital Fund balance is used. City staff has recently prioritized a surface water CIP that aims to fund all approved CIP projects within the study period (Appendix A - Pages 9-10). This analysis assumes that all projects will be completed in the prioritized timeline. The financial forecast assumes the following conceptual capital funding hierarchy:

- ◆ Any available grant funds or developer contributions would be considered first, as they are generally restricted in use but could free up District funding resources for other purposes. The City has received the following grant funding in 2014, but it should be noted that there is no confirmation of grant funding in the future.
 - \$336,000 for purposes of the 2014 Totem Lake Boulevard Flood Control project.
 - \$951,000 for purposes of the 2014 Kirkland Decant Expansion project.
 - \$120,000 for purposes of the 2014 Cross Kirkland Corridor Surface Water Retrofit project.
 - \$247,100 for purposes of the 2014 Totem Lake Juanita Creek Basin Surface Water Retrofit.
- ◆ Anticipated low-cost loans (such as Public Works Trust Fund and State Revolving Fund loans) would then be used, if any are available. Based on input from City staff, the analysis does not assume any low-cost loans.

- ◆ Cash resources would then be used, including projected capital facilities charge (CFC) revenue allocated to capital funding, money generated from system reinvestment (depreciation) funding, transfers into the surface water Capital Fund, and available cash reserves (to the extent that they exceed the policy minimum balances). For purposes of this analysis, all surface water capital-related cash is essentially combined and may be used for all surface water projects, including portions of transportation projects. In the event that the Operating Fund has a balance above the minimum target, this analysis assumes that funds may be transferred to the capital fund as needed to reduce future debt issuance.
- ◆ Revenue bonds are assumed to be the last resort to cover capital costs in excess of other available resources. The City will not need to utilize any revenue bonds in order to fund the baseline CIP. However, it may be advantageous to use debt to fund a portion of the Forbes Creek Basin Regional Detention Project in 2020. Should the City utilize revenue bonds in the future, the following repayment terms are assumed:
 - Term: 20 years
 - Interest Rate: 4.5% interest per annum
 - Issuance Cost: 1.5% upon issuance
 - Coverage Factor: 1.50 as outlined in the City's current fiscal policy statements.

Regional Detention Project - Forbes Creek Basin

In addition to the projects listed in the prioritized CIP, the City has identified the \$10 million Regional Detention Project (Forbes Creek Basin) to be completed within the next 10 years. As the prioritized CIP does not anticipate any large capital expenditures in year 2020 (except for the transportation transfer), this analysis has included the Forbes Creek Basin project in year 2020. Due to the size of the project, it is assumed that revenue bond financing may be necessary in order to mitigate potential rate increases. This analysis incorporates the assumption that the Forbes Creek Basin project will be funded with Capital Fund cash to the extent that the Capital Fund balance exceeds the minimum target. Any additional funding would be provided through revenue bond proceeds. As illustrated in the exhibit below, it is estimated that the City may need to obtain up to \$7.0 million in revenue bond proceeds (total issuance equal to \$7.7 million factoring in issuance costs and bond reserve requirements) in order to keep the Capital Fund balance well above the minimum target balance (approximately \$1.4 million above the minimum). Given the new annual debt service payment of roughly \$593,000 (actual payment will vary according to future interest rates), the City will most likely choose to phase-in, or "smooth" initial rate increases, in order to avoid a large spike in the 2020 rates. **Exhibit 1** shows the funding strategy for the capital improvement plan (including the Forbes Creek Basin project) for years 2014-2020.

Exhibit 1: Capital Funding Strategy (2014-2020)

| Capital Funding | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| SW Projects | \$ 3,629,400 | \$ 2,558,000 | \$ 2,951,000 | \$ 2,872,000 | \$ 3,552,000 | \$ 2,170,000 | \$ 10,200,000 |
| Transportation Projects - SW Portion | 745,700 | 243,800 | 444,000 | 461,300 | 580,000 | 500,000 | 500,000 |
| Total Capital Projects | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 10,700,000 |
| Rate Funded System Reinvestment | \$ 1,371,289 | \$ 1,422,449 | \$ 1,481,469 | \$ 1,538,909 | \$ 1,609,949 | \$ 1,653,349 | \$ 1,857,349 |
| PWTF Loans | - | - | - | - | - | - | - |
| Other Loans | - | - | - | - | - | - | - |
| Project Specific CIAC / Grants | 1,654,000 | - | - | - | - | - | - |
| Capital Fund Balance | 1,349,811 | 1,379,351 | 1,913,531 | 1,794,391 | 2,522,051 | 1,016,651 | 3,278,814 |
| Revenue Bond Proceeds | - | - | - | - | - | - | 7,000,000 |
| Rates | - | - | - | - | - | - | - |
| Total Funding Sources | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 12,136,163 |
| <i>Ending Capital Fund Balance</i> | <i>\$ 7,884,075</i> | <i>\$ 7,360,603</i> | <i>\$ 6,302,010</i> | <i>\$ 5,386,215</i> | <i>\$ 4,155,643</i> | <i>\$ 4,470,334</i> | <i>\$ 3,488,063</i> |
| <i>Minimum Capital Fund Balance</i> | <i>\$ 2,070,720</i> | <i>\$ 2,703,210</i> | <i>\$ 2,567,130</i> | <i>\$ 2,606,030</i> | <i>\$ 2,342,700</i> | <i>\$ 2,018,900</i> | <i>\$ 2,051,900</i> |

Evaluation of Revenue Sufficiency

The cash flow and coverage sufficiency tests each provide a different perspective on how much revenue is sufficient and in doing so helps ensure that appropriate rate adjustments, if any, fulfill the utility’s near-term needs and long-term goals. Similarly, this multi-faceted approach reduces the utility’s financial risk and increases financial stability – any near-term increases which result will help to ensure lower and more stable long-term rates.

It should be noted that it is relatively common for these benchmarks to overlap, ensuring in tandem that each separate objective is met at all times. For example, producing a coverage ratio of 1.50 times annual debt service may generate positive cash flow, concurrently satisfying both sufficiency tests. As the surface water utility does not currently have any outstanding revenue bonds, the coverage test will only become a factor once the regional detention project requires revenue bond funding in 2020.

As mentioned earlier, conceptually, the cash flow test determines the amount of revenue the surface water utility needs to generate in order to meet its cash obligations. The cash flow obligations relating to rates include:

- ◆ Operating, maintenance and administrative expenses
- ◆ Debt service payments
- ◆ Rate-funded capital expenditures (including capital related transfers)
- ◆ Depreciation or system reinvestment funding
- ◆ Additions to operating reserves to meet minimum balance targets

Offsetting these obligations are various sources of revenue, including:

- ◆ Surface water rate revenues
- ◆ Operating Fund interest earnings
- ◆ Miscellaneous operating and non-operating revenues
- ◆ Use of bond reserves to make final-year payments (not applicable)

To satisfy this test, surface water rate revenue must be sufficient to meet the projected cash flow needs. Capital resources such as bond proceeds or CFC revenues are not typically considered available for meeting these cash flow needs, but become part of the resources used for capital project

funding. This analysis assumes that the City’s share of the projected annual CFC revenue is kept in the Capital Fund and used for project funding. This policy promotes financial conservatism by avoiding reliance on growth-dependent charges to meet the utility’s financial objectives.

Revenue requirement results are prepared for two service level scenarios. The sole difference in the two service levels is related to the categorization of expenses in the “Proposed Operating Program Additions”, which is a list of potential program-related expenses to be added to the operating budget, depending on priority. These additional operating expenses are described in detail below.

Proposed Operating Program Additions

Based on City staff evaluation, each proposed budget expense has been classified as either a “Required” expense (necessary to maintain the minimal level of service and comply with permit conditions) or an “Augmented” expense (enhances the service provided by the surface water utility). Required expenses must be added to future operating budgets. For this reason, the minimum, or “Required”, service level will consist of the surface water’s existing expenses plus the additional operating program expenses deemed “Required”. The “Augmented” service level analyzes cost impacts if the City were to include all recommended operating program additions in future operating budgets.

Further, each potential program addition is composed of annual expenses (added to the annual operating budget) and/or one-time “start-up” expenses (funded through operating cash reserves). In order to gain an accurate understanding of the utility’s annual revenue requirement, one-time expenses are assumed to be funded through the Operating Fund’s cash balance as funding permits. A summary of the proposed operating program expenses associated with each service level is provided in **Exhibit 2** below.

A breakdown of the functional costs and incremental benefits for each of the service levels is provided in the Service Level Matrix on Page 10. This table allocates the potential 2015 monthly surface water rates for each service level across each surface water program element, in order to highlight the incremental value the surface water utility gains with the addition of the “Augmented” operating expenses.

Exhibit 2 - Proposed Operating Additions by Service Level¹

| Proposed Operating Additions | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------|-----------|------------|------------|------------|------------|------------|------------|
| Service Level: Required | | | | | | | |
| Annual Operating Expenses | \$ - | \$ 555,116 | \$ 582,379 | \$ 615,083 | \$ 633,535 | \$ 652,541 | \$ 672,118 |
| One-Time Expenses | \$ 49,680 | \$ 181,080 | \$ 51,850 | \$ 457,248 | \$ - | \$ - | \$ - |
| Service Level: Augmented | | | | | | | |
| Annual Operating Expenses | \$ 22,480 | \$ 701,313 | \$ 782,789 | \$ 821,506 | \$ 846,151 | \$ 871,535 | \$ 897,681 |
| One-Time Expenses | \$ 56,040 | \$ 632,900 | \$ 237,615 | \$ 578,048 | \$ - | \$ - | \$ - |

The detailed revenue requirement analysis and the resulting rate impacts for the “Required” service level are included in **Exhibit 3** below.

¹ The “Augmented” service level includes those items identified under the “Required” service level.

Exhibit 3 - Revenue Requirement: “Required” Service Level

| Revenue Requirement | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-----------------------|
| Revenues | | | | | | | |
| Rate Revenues Under Existing Rates | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 |
| Non-Rate Revenues | 137,719 | 143,098 | 142,897 | 156,350 | 159,297 | 160,352 | 161,460 |
| <i>Total Revenues</i> | <i>\$ 9,197,634</i> | <i>\$ 9,248,312</i> | <i>\$ 9,293,638</i> | <i>\$ 9,352,844</i> | <i>\$ 9,401,773</i> | <i>\$ 9,449,042</i> | <i>\$ 9,496,592</i> |
| Expenses | | | | | | | |
| Existing Cash Operating Expenses | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 |
| Operating Program - Proposed Additions | - | 606,616 | 635,424 | 669,719 | 689,811 | 710,505 | 731,820 |
| Existing Debt Service | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | 592,577 |
| Annual CIP Transfer - Surface Water | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 |
| Annual CIP Transfer - Transportation | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 |
| Additions to Meet Operating Targets | - | - | - | - | - | - | - |
| <i>Total Expenses</i> | <i>\$ 8,557,703</i> | <i>\$ 8,994,968</i> | <i>\$ 9,323,606</i> | <i>\$ 9,668,092</i> | <i>\$ 10,024,574</i> | <i>\$ 10,367,311</i> | <i>\$ 11,477,876</i> |
| Net Surplus (Deficiency) Before Rate Increases | \$ 639,931 | \$ 253,344 | \$ (29,968) | \$ (315,249) | \$ (622,800) | \$ (918,269) | \$ (1,981,284) |
| Additions to Meet Coverage | - | - | - | - | - | - | - |
| Total Surplus (Deficiency) Before Rate Increases | \$ 639,931 | \$ 253,344 | \$ (29,968) | \$ (315,249) | \$ (622,800) | \$ (918,269) | \$ (1,981,284) |
| Annual Rate Adjustment | 0.00% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| Cumulative Annual Rate Adjustment | 0.00% | 3.50% | 7.12% | 10.87% | 14.75% | 18.77% | 22.93% |
| Rate Revenues After Rate Increase | \$ 9,059,915 | \$ 9,423,897 | \$ 9,802,502 | \$ 10,196,318 | \$ 10,605,955 | \$ 11,032,049 | \$ 11,475,262 |
| Additional Taxes from Rate Increase | - | 23,901 | 48,882 | 74,987 | 102,261 | 130,752 | 160,510 |
| Net Cash Flow After Rate Increase | \$ 639,931 | \$ 548,125 | \$ 572,912 | \$ 609,588 | \$ 638,417 | \$ 694,338 | \$ (1,664) |
| Annual Charge per ESU | \$ 187.20 | \$ 193.75 | \$ 200.53 | \$ 207.55 | \$ 214.82 | \$ 222.33 | \$ 230.12 |
| Monthly Charge per ESU | \$ 15.60 | \$ 16.15 | \$ 16.71 | \$ 17.30 | \$ 17.90 | \$ 18.53 | \$ 19.18 |
| Monthly Average Increase (\$) | \$ - | \$ 0.55 | \$ 0.57 | \$ 0.58 | \$ 0.61 | \$ 0.63 | \$ 0.65 |

The detailed revenue requirement analysis and the resulting rate impacts for the “Augmented” service level are included in **Exhibit 4** below. As noted previously, the only difference between service levels is the inclusion of the “Augmented” annual and one-time operating expenses.

Exhibit 4 - Revenue Requirement: "Augmented" Service Level

| Revenue Requirement | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|
| Revenues | | | | | | | |
| Rate Revenues Under Existing Rates | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 |
| Non-Rate Revenues | 137,719 | 143,139 | 141,549 | 152,155 | 154,183 | 157,241 | 160,846 |
| <i>Total Revenues</i> | <i>\$ 9,197,634</i> | <i>\$ 9,248,354</i> | <i>\$ 9,292,290</i> | <i>\$ 9,348,649</i> | <i>\$ 9,396,659</i> | <i>\$ 9,445,930</i> | <i>\$ 9,495,979</i> |
| Expenses | | | | | | | |
| Existing Cash Operating Expenses | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 |
| Operating Program - Proposed Additions | 22,480 | 752,813 | 835,834 | 876,142 | 902,426 | 929,499 | 957,384 |
| Existing Debt Service | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | 592,577 |
| Annual CIP Transfer - Surface Water | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 |
| Annual CIP Transfer - Transportation | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 |
| Additions to Meet Operating Targets | - | - | - | - | - | - | - |
| <i>Total Expenses</i> | <i>\$ 8,580,183</i> | <i>\$ 9,141,164</i> | <i>\$ 9,524,016</i> | <i>\$ 9,874,515</i> | <i>\$ 10,237,189</i> | <i>\$ 10,586,305</i> | <i>\$ 11,703,439</i> |
| Net Surplus (Deficiency) Before Rate Increases | \$ 617,451 | \$ 107,189 | \$ (231,726) | \$ (525,866) | \$ (840,530) | \$ (1,140,375) | \$ (2,207,460) |
| Additions to Meet Coverage | - | - | - | - | - | - | - |
| Total Surplus (Deficiency) Before Rate Increases | \$ 617,451 | \$ 107,189 | \$ (231,726) | \$ (525,866) | \$ (840,530) | \$ (1,140,375) | \$ (2,207,460) |
| Annual Rate Adjustment | 0.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Cumulative Annual Rate Adjustment | 0.00% | 4.00% | 8.16% | 12.49% | 16.99% | 21.67% | 26.53% |
| Rate Revenues After Rate Increase | \$ 9,059,915 | \$ 9,469,423 | \$ 9,897,441 | \$ 10,344,805 | \$ 10,812,391 | \$ 11,301,111 | \$ 11,811,921 |
| Additional Taxes from Rate Increase | - | 27,316 | 56,003 | 86,123 | 117,744 | 150,932 | 185,759 |
| Net Cash Flow After Rate Increase | \$ 617,451 | \$ 444,082 | \$ 458,972 | \$ 536,322 | \$ 611,641 | \$ 721,115 | \$ 83,569 |
| Annual Charge per ESU | \$ 187.20 | \$ 194.69 | \$ 202.48 | \$ 210.57 | \$ 219.00 | \$ 227.76 | \$ 236.87 |
| Monthly Charge per ESU | \$ 15.60 | \$ 16.22 | \$ 16.87 | \$ 17.55 | \$ 18.25 | \$ 18.98 | \$ 19.74 |
| Monthly Average Increase (\$) | \$ - | \$ 0.62 | \$ 0.65 | \$ 0.67 | \$ 0.70 | \$ 0.73 | \$ 0.76 |

In both rate scenarios, a smoothed rate strategy is recommended for implementation purposes. Illustrated in **Exhibit 5**, rate smoothing is a strategy which incorporates moderate and predictable rate increases over a number of years in order to plan for a future expense (such as the Forbes Creek Basin project in 2020) which would otherwise cause a substantial rate spike. As opposed to a rate strategy which precisely adjusts for the revenue requirement in each independent year, rate smoothing takes a long-term approach.

Exhibit 5 - Effects of Rate Smoothing

| Rate Smoothing | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------|-------|-------|-------|--------|--------|--------|--------|
| Required Service Level | | | | | | | |
| <u>Rate Smoothing</u> | | | | | | | |
| Annual Rate Adjustment | 0.00% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| Cumulative Rate Adjustment | 0.00% | 3.50% | 7.12% | 10.87% | 14.75% | 18.77% | 22.93% |
| <u>Calculated</u> | | | | | | | |
| Annual Rate Adjustment | 0.00% | 0.00% | 0.36% | 3.38% | 3.48% | 3.18% | 12.06% |
| Cumulative Rate Adjustment | 0.00% | 0.00% | 0.36% | 3.76% | 7.37% | 10.79% | 24.14% |
| Augmented Service Level | | | | | | | |
| <u>Rate Smoothing</u> | | | | | | | |
| Annual Rate Adjustment | 0.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Cumulative Rate Adjustment | 0.00% | 4.00% | 8.16% | 12.49% | 16.99% | 21.67% | 26.53% |
| <u>Calculated</u> | | | | | | | |
| Annual Rate Adjustment | 0.00% | 0.00% | 7.06% | 2.23% | 1.93% | 3.17% | 10.77% |
| Cumulative Rate Adjustment | 0.00% | 0.00% | 7.06% | 9.44% | 11.55% | 15.09% | 27.50% |

Surface Water Service Level Matrix: 2015 Proposed Rates

| SERVICE LEVEL | PROGRAM ELEMENT | | | | | | |
|---------------------------|----------------------------------------|---------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------|
| | Capital Funding | | Admin Support | Maintenance | Engineering & Environmental Compliance | Billing | Taxes |
| | CIP | System Reinvestment | | | | | |
| CURRENT / REQUIRED | SW Priority Projects (\$2.8M annually) | Fully Funded | Level of support determined by program activities | Includes additional required program elements, such as: Increased ditch maintenance, street sweeping | Includes additional required program elements, such as: LID program implementation, support of overlay program, development review evaluation | Billing service expenses are based on rate revenues | Taxes are based on total revenues |
| \$16.15 | \$1.79 | \$2.55 | \$0.79 | \$6.70 | \$2.66 | \$0.24 | \$1.43 |
| AUGMENTED | SW Priority Projects (\$2.8M annually) | Fully Funded | Level of support determined by program activities | In addition to the required program elements, additional operating elements are included in order to enhance the service provided by the surface water utility. Examples include: Equipment purchases, stormwater facility inspection | In addition to the required program elements, additional operating elements are included in order to enhance the service provided by the surface water utility. Examples include: Water quality monitoring, fish and habitat monitoring/restoration, proactive response to potential issues | Billing service expenses are based on rate revenues | Taxes are based on total revenues |
| \$16.22 | \$1.79 | \$2.55 | \$0.79 | \$6.73 | \$2.70 | \$0.24 | \$1.43 |

Current Rate Allocation

| | | | | | | | |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| \$15.60 | \$2.62 | \$2.50 | \$0.78 | \$5.47 | \$2.58 | \$0.24 | \$1.41 |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|



City of Kirkland Surface Water Rate Update Summary

| Capital Funding | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|
| SW Projects | \$ 3,629,400 | \$ 2,558,000 | \$ 2,951,000 | \$ 2,872,000 | \$ 3,552,000 | \$ 2,170,000 | \$ 10,200,000 | \$ 941,000 | \$ 3,284,000 | \$ 200,000 |
| Transportation Projects - SW Portion | 745,700 | 243,800 | 444,000 | 461,300 | 580,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Total Capital Projects | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 10,700,000 | \$ 1,441,000 | \$ 3,784,000 | \$ 700,000 |
| Rate Funded System Reinvestment | \$ 1,371,289 | \$ 1,422,449 | \$ 1,481,469 | \$ 1,538,909 | \$ 1,609,949 | \$ 1,653,349 | \$ 1,857,349 | \$ 1,876,169 | \$ 1,941,849 | \$ 1,945,849 |
| PWTF Loans | - | - | - | - | - | - | - | - | - | - |
| Other Loans | - | - | - | - | - | - | - | - | - | - |
| Project Specific CIAC / Grants | 1,654,000 | - | - | - | - | - | - | - | - | - |
| Capital Fund Balance | 1,349,811 | 1,379,351 | 1,913,531 | 1,794,391 | 2,522,051 | 1,016,651 | 2,315,037 | - | 1,842,151 | - |
| Revenue Bond Proceeds | - | - | - | - | - | - | 7,000,000 | - | - | - |
| Rates | - | - | - | - | - | - | - | - | - | - |
| Total Funding Sources | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 11,172,386 | \$ 1,876,169 | \$ 3,784,000 | \$ 1,945,849 |

| Revenue Requirement | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenues | | | | | | | | | | |
| Rate Revenues Under Existing Rates | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 | \$ 9,381,808 | \$ 9,428,717 | \$ 9,475,861 |
| CFC Revenue Towards Debt | - | - | - | - | - | - | - | - | - | - |
| Non-Rate Revenues | 137,719 | 143,139 | 141,549 | 152,155 | 154,183 | 157,241 | 160,846 | 161,264 | 161,264 | 161,264 |
| Total Revenues | \$ 9,197,634 | \$ 9,248,354 | \$ 9,292,290 | \$ 9,348,649 | \$ 9,396,659 | \$ 9,445,930 | \$ 9,495,979 | \$ 9,543,072 | \$ 9,589,981 | \$ 9,637,125 |
| Expenses | | | | | | | | | | |
| Existing Cash Operating Expenses | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 | \$ 7,841,113 | \$ 8,164,231 | \$ 8,503,862 |
| Operating Program - Proposed Additions | 22,480 | 752,813 | 835,834 | 876,142 | 902,426 | 929,499 | 957,384 | 986,105 | 1,015,689 | 1,046,159 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |
| Additional Rate Funded CIP | - | - | - | - | - | - | - | - | - | - |
| Annual CIP Transfer - Surface Water | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 |
| Annual CIP Transfer - Transportation | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 | 1,876,169 | 1,941,849 | 1,945,849 |
| Additions to Meet Operating Targets | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | \$ 8,580,183 | \$ 9,141,164 | \$ 9,524,016 | \$ 9,874,515 | \$ 10,237,189 | \$ 10,586,305 | \$ 11,703,439 | \$ 12,058,464 | \$ 12,476,846 | \$ 12,850,947 |
| Net Surplus (Deficiency) Before Rate Increases | \$ 617,451 | \$ 107,189 | \$ (231,726) | \$ (525,866) | \$ (840,530) | \$ (1,140,375) | \$ (2,207,460) | \$ (2,515,391) | \$ (2,886,864) | \$ (3,213,822) |
| Additions to Meet Coverage | - | - | - | - | - | - | - | - | - | - |
| Total Surplus (Deficiency) Before Rate Increases | \$ 617,451 | \$ 107,189 | \$ (231,726) | \$ (525,866) | \$ (840,530) | \$ (1,140,375) | \$ (2,207,460) | \$ (2,515,391) | \$ (2,886,864) | \$ (3,213,822) |
| Annual Rate Adjustment | 0.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 1.94% | 3.19% | 2.68% |
| Cumulative Annual Rate Adjustment | 0.00% | 4.00% | 8.16% | 12.49% | 16.99% | 21.67% | 26.53% | 28.99% | 33.10% | 36.67% |
| Rate Revenues After Rate Increase | \$ 9,059,915 | \$ 9,469,423 | \$ 9,897,441 | \$ 10,344,805 | \$ 10,812,391 | \$ 11,301,111 | \$ 11,811,921 | \$ 12,101,150 | \$ 12,549,652 | \$ 12,950,263 |
| Additional Taxes from Rate Increase | - | 27,316 | 56,003 | 86,123 | 117,744 | 150,932 | 185,759 | 203,951 | 234,070 | 260,580 |
| Net Cash Flow After Rate Increase | \$ 617,451 | \$ 444,082 | \$ 458,972 | \$ 536,322 | \$ 611,641 | \$ 721,115 | \$ 83,569 | \$ - | \$ - | \$ - |
| Coverage After Rate Increases | n/a | n/a | n/a | n/a | n/a | n/a | 7.33 | 7.27 | 7.44 | 7.49 |
| Annual Charge per ESU | \$ 187.20 | \$ 194.69 | \$ 202.48 | \$ 210.57 | \$ 219.00 | \$ 227.76 | \$ 236.87 | \$ 241.46 | \$ 249.16 | \$ 255.84 |
| Monthly Charge per ESU | \$ 15.60 | \$ 16.22 | \$ 16.87 | \$ 17.55 | \$ 18.25 | \$ 18.98 | \$ 19.74 | \$ 20.12 | \$ 20.76 | \$ 21.32 |
| Monthly Average Increase (\$) | \$ - | \$ 0.62 | \$ 0.65 | \$ 0.67 | \$ 0.70 | \$ 0.73 | \$ 0.76 | \$ 0.38 | \$ 0.64 | \$ 0.56 |

| Fund Balances | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|----------------------|
| Operating Fund | \$ 4,435,689 | \$ 3,799,623 | \$ 4,020,980 | \$ 4,426,501 | \$ 5,038,142 | \$ 5,759,257 | \$ 5,842,826 | \$ 5,842,826 | \$ 5,842,826 | \$ 5,842,826 |
| Capital Fund - Surface Water | 7,838,606 | 7,315,020 | 6,256,313 | 5,330,111 | 3,671,990 | 3,511,351 | 2,524,286 | 3,810,483 | 2,826,170 | 4,925,317 |
| Debt Reserve Fund | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |
| Total | \$ 12,274,295 | \$ 11,114,643 | \$ 10,277,293 | \$ 9,756,612 | \$ 8,710,132 | \$ 9,270,608 | \$ 8,959,688 | \$ 10,245,885 | \$ 9,261,572 | \$ 11,360,720 |



City of Kirkland

Surface Water Rate Update

Assumptions

| Economic & Financial Factors | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Annual Escalation Rates: | | | | | | | | | | |
| General Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Construction Inflation | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Labor Inflation | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| Benefit Inflation | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% | 7.00% |
| General Inflation plus Composite Growth | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% | 3.52% |
| Customer Growth | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| No Escalation | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Applicable Tax Rates: | | | | | | | | | | |
| B&O Tax | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% |
| Utility Tax | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% | 7.50% |
| Funding Earnings Interest Rate | 0.13% | 0.25% | 0.25% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |

| Accounting Assumptions | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
|-----------------------------------------------------------------|---------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| FISCAL POLICY RESTRICTIONS | | | | | | | | | | | |
| Min. Op. Fund Balance Target (days of O&M expense) | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | |
| Max. Op. Fund Balance (days of O&M expense) | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | |
| Minimum Capital Fund Balance Target | | | | | | | | | | | |
| Select Minimum Capital Fund Balance Target | 2 | User Input: 10% of 6-year CIP | | | | | | | | | |
| 1 - Defined as % of Plant | | | | | | | | | | | |
| Plant-in-Service in 2013 | \$ 54,256,797 | Total Net Assets as of 12/31/2012 | | | | | | | | | |
| Minimum Capital Fund Balance - % of plant assets | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | |
| 2 - Amount at Right ==> 10% of 6-year CIP | | | | | | | | | | | |
| | \$ 2,070,720 | \$ 2,703,210 | \$ 2,567,130 | \$ 2,606,030 | \$ 2,342,700 | \$ 2,018,900 | \$ 2,051,900 | \$ 1,281,900 | \$ 1,437,800 | \$ 1,359,400 | |
| RATE FUNDED SYSTEM REINVESTMENT | | | | | | | | | | | |
| Select Reinvestment Funding Strategy | 1 | Equal to Depreciation Expense | | | | | | | | | |
| Amount of Annual Cash Funding from Rates | | | | | | | | | | | |
| 1 - Equal to Annual Depreciation Expense | \$ 1,371,289 | \$ 1,422,449 | \$ 1,481,469 | \$ 1,538,909 | \$ 1,609,949 | \$ 1,653,349 | \$ 1,857,349 | \$ 1,876,169 | \$ 1,941,849 | \$ 1,945,849 | |
| 2 - Equal to Annual Depreciation less Annual Debt Principal Pmt | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,611,641 | 1,619,404 | 1,673,530 | 1,665,456 | |
| 3 - Equal to Amount at Right ==> | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 4 - Do Not Fund System Reinvestment | | | | | | | | | | | |
| ADDITIONAL RATE TRANSFERS TO CAPITAL FUND | | | | | | | | | | | |
| Transfer to Construction Fund 423 -- Fund SW CIP | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | \$ 262,500 | |
| Transfer to Construction Fund 310 -- Fund SW Portion of TIP | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | |
| Total Annual Transfers | \$ 1,212,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | \$ 762,500 | |
| Info: Capital Fund Minimum Balance Surplus (Deficiency) | \$ 5,767,886 | \$ 4,611,810 | \$ 3,689,183 | \$ 2,724,081 | \$ 1,329,290 | \$ 1,492,451 | \$ 472,386 | \$ 2,528,583 | \$ 1,388,370 | \$ 3,565,917 | |



City of Kirkland

Surface Water Rate Update

Assumptions

| Capital Financing Assumptions | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Capital Facilities Charge | | | | | | | | | | |
| Capital Facilities Charge per Connection | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 | \$ 481 |
| Total Equivalent Service Units (Estimate) | 30,479 | 30,631 | 30,785 | 30,938 | 31,093 | 31,249 | 31,405 | 31,562 | 31,720 | 31,878 |
| Additional Units Per Year | 152 | 153 | 154 | 155 | 155 | 156 | 157 | 158 | 159 | 159 |
| CFC Revenues | \$ 73,302 | \$ 73,669 | \$ 74,037 | \$ 74,407 | \$ 74,779 | \$ 75,153 | \$ 75,529 | \$ 75,906 | \$ 76,286 | \$ 76,667 |
| FUNDING SOURCES | | | | | | | | | | |
| Grants | \$ 1,654,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Additional Proceeds (Costs) | | | | | | | | | | |
| [Extra line] | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| [Extra line] | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | - | - | - | - | - | - | - | - | - | - |
| Total Additional Proceeds | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| REVENUE BONDS | | | | | | | | | | |
| Term (years) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% |
| Issuance Cost | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% |
| Revenue Bond Coverage Requirement | 1.50 | | | | | | | | | |
| PWTF LOAN | | | | | | | | | | |
| Term (years; no more than 20 years) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| Required Local Match | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| OTHER LOANS | | | | | | | | | | |
| Term (years) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Issuance Cost | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |



City of Kirkland
Surface Water Rate Update
Revenues and Expenses: Operations and Maintenance

| Operating Revenues | FORECAST BASIS | | Budget | Projection |
|-----------------------------------|-----------------|---------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | TAX BASIS | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Rate revenues | | | | | | | | | | | | |
| Residential Surfacewater Fee | Customer Growth | B&O Tax | \$ 4,550,612 | \$ 4,573,365 | \$ 4,596,232 | \$ 4,619,213 | \$ 4,642,309 | \$ 4,665,521 | \$ 4,688,848 | \$ 4,712,293 | \$ 4,735,854 | \$ 4,759,533 |
| Residential Utility Tax | Customer Growth | B&O Tax | 341,742 | 343,451 | 345,168 | 346,894 | 348,628 | 350,371 | 352,123 | 353,884 | 355,653 | 357,432 |
| Commercial Surfacewater Fee | Customer Growth | B&O Tax | 3,876,448 | 3,895,830 | 3,915,309 | 3,934,886 | 3,954,560 | 3,974,333 | 3,994,205 | 4,014,176 | 4,034,247 | 4,054,418 |
| Commercial Utility Tax | Customer Growth | B&O Tax | 291,113 | 292,569 | 294,031 | 295,502 | 296,979 | 298,464 | 299,956 | 301,456 | 302,963 | 304,478 |
| [Extra] | Customer Growth | B&O Tax | - | - | - | - | - | - | - | - | - | - |
| Total Rate Revenue | | | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 | \$ 9,381,808 | \$ 9,428,717 | \$ 9,475,861 |
| Non-rate revenues | | | | | | | | | | | | |
| Interfund - Other Gen Gov't | No Escalation | B&O Tax | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Interfund Engineering - CIP | No Escalation | B&O Tax | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Investment Interest | No Escalation | B&O Tax | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Interest on Sales Tax Contract AR | No Escalation | B&O Tax | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 | 19,000 |
| Other Judgements Settlements | No Escalation | B&O Tax | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Other Misc. Revenue | No Escalation | B&O Tax | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Development Services Revenue | No Escalation | B&O Tax | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 | 52,050 |
| [Extra] | No Escalation | B&O Tax | - | - | - | - | - | - | - | - | - | - |
| Total Non-rate revenues | | | \$ 132,050 |
| TOTAL REVENUES | | | \$ 9,191,965 | \$ 9,237,265 | \$ 9,282,791 | \$ 9,328,544 | \$ 9,374,527 | \$ 9,420,739 | \$ 9,467,183 | \$ 9,513,858 | \$ 9,560,767 | \$ 9,607,911 |

| Existing Operating Expenses | FORECAST BASIS | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------------------------|------------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| STATE B&O TAXES | B&O Tax | | 138,979 | 139,664 | 140,352 | 141,044 | 141,740 | 142,438 | 143,141 | 143,846 | 144,556 | 145,269 |
| UTILITY TAXES | Utility Tax | | 632,030 | 635,190 | 638,366 | 641,557 | 644,765 | 647,989 | 651,229 | 654,485 | 657,758 | 661,046 |
| Surface Water Management Contract Operations | | | | | | | | | | | | |
| 51 Salaries and Wages | Labor Inflation | | - | - | - | - | - | - | - | - | - | - |
| 53 Office and Operating Supplies | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 54 Other Services and Charges | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 55 Intergovernmental / Interfund (KC Billing Fee) | General Inflation | | 132,355 | 133,017 | 133,682 | 134,351 | 135,022 | 135,698 | 136,376 | 137,058 | 137,743 | 138,432 |
| Surface Water Management Customer Services | | | | | | | | | | | | |
| 51 Salaries and Wages | Labor Inflation | | 671,183 | 704,742 | 739,979 | 776,978 | 815,827 | 856,618 | 899,449 | 944,422 | 991,643 | 1,041,225 |
| 52 Benefits | Benefit Inflation | | 277,926 | 297,381 | 318,197 | 340,471 | 364,304 | 389,806 | 417,092 | 446,288 | 477,529 | 510,956 |
| 53 Supplies | General Inflation | | 10,300 | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 | 13,439 |
| 541 Professional Services | General Inflation | | 126,500 | 130,295 | 134,204 | 138,230 | 142,377 | 146,648 | 151,048 | 155,579 | 160,246 | 165,054 |
| 542 Communication | General Inflation | | 2,870 | 2,956 | 3,045 | 3,136 | 3,230 | 3,327 | 3,427 | 3,530 | 3,636 | 3,745 |
| 543 Travel | General Inflation | | 600 | 618 | 637 | 656 | 675 | 696 | 716 | 738 | 760 | 783 |
| 544 Advertising | General Inflation | | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 |
| 545 Operating Rentals and Leases | General Inflation | | 127,560 | 131,387 | 135,328 | 139,388 | 143,570 | 147,877 | 152,313 | 156,883 | 161,589 | 166,437 |
| 549 Miscellaneous | General Inflation | | 14,200 | 14,626 | 15,065 | 15,517 | 15,982 | 16,462 | 16,956 | 17,464 | 17,988 | 18,528 |
| 55 Intergovernmental / Interfund | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 56 Capital Outlay | Construction Inflation | | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management - Street Sweeping | | | | | | | | | | | | |
| 51 Salaries and Wages | Labor Inflation | | 98,957 | 103,905 | 109,100 | 114,555 | 120,283 | 126,297 | 132,612 | 139,242 | 146,205 | 153,515 |
| 52 Benefits | Benefit Inflation | | - | - | - | - | - | - | - | - | - | - |
| 53 Supplies | General Inflation | | 2,400 | 2,472 | 2,546 | 2,623 | 2,701 | 2,782 | 2,866 | 2,952 | 3,040 | 3,131 |
| 541 Professional Services | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 542 Communication | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 543 Travel | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 544 Advertising | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| 545 Operating Rentals and Leases | General Inflation | | 125,273 | 129,031 | 132,902 | 136,889 | 140,996 | 145,226 | 149,583 | 154,070 | 158,692 | 163,453 |
| 549 Miscellaneous | General Inflation | | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management Maintenance Supervision | | | | | | | | | | | | |
| 51 Salaries and Wages | Labor Inflation | | 103,656 | 108,839 | 114,281 | 119,995 | 125,995 | 132,294 | 138,909 | 145,854 | 153,147 | 160,804 |
| 52 Benefits | Benefit Inflation | | 47,750 | 51,093 | 54,669 | 58,496 | 62,591 | 66,972 | 71,660 | 76,676 | 82,043 | 87,786 |
| 53 Supplies | General Inflation | | 1,200 | 1,236 | 1,273 | 1,311 | 1,351 | 1,391 | 1,433 | 1,476 | 1,520 | 1,566 |



City of Kirkland Surface Water Rate Update

Revenues and Expenses: Operations and Maintenance

| | | | | | | | | | | | | |
|-------------------------------------------------|------------------------------------------|------------------------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|-----------|
| 541 | Professional Services | General Inflation | 10,000 | 10,300 | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 85,009 | 87,559 | 90,186 | 92,892 | 95,678 | 98,549 | 101,505 | 104,550 | 107,687 | 110,917 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | 36,509 | 37,604 | 38,732 | 39,894 | 41,091 | 42,324 | 43,594 | 44,901 | 46,249 | 47,636 |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Surface Water General Admin | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 228,050 | 239,453 | 251,425 | 263,996 | 277,196 | 291,056 | 305,609 | 320,889 | 336,934 | 353,780 |
| 52 | Benefits | Benefit Inflation | 623,938 | 667,614 | 714,347 | 764,351 | 817,855 | 875,105 | 936,363 | 1,001,908 | 1,072,042 | 1,147,085 |
| 53 | Supplies | General Inflation | 1,800 | 1,854 | 1,910 | 1,967 | 2,026 | 2,087 | 2,149 | 2,214 | 2,280 | 2,349 |
| 541 | Professional Services | General Inflation | 647,933 | 667,371 | 687,392 | 708,014 | 729,254 | 751,132 | 773,666 | 796,876 | 820,782 | 845,406 |
| 542 | Communication | General Inflation | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 |
| 543 | Travel | General Inflation | 400 | 412 | 424 | 437 | 450 | 464 | 478 | 492 | 507 | 522 |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 258,176 | 265,921 | 273,899 | 282,116 | 290,579 | 299,297 | 308,276 | 317,524 | 327,050 | 336,861 |
| 546 | Insurance | General Inflation | 69,774 | 71,867 | 74,023 | 76,244 | 78,531 | 80,887 | 83,314 | 85,813 | 88,388 | 91,039 |
| 547 | Utility Services | Customer Growth | 2,500 | 2,513 | 2,525 | 2,538 | 2,550 | 2,563 | 2,576 | 2,589 | 2,602 | 2,615 |
| 548 | Repairs and Maintenance | General Inflation | 50 | 52 | 53 | 55 | 56 | 58 | 60 | 61 | 63 | 65 |
| 549 | Miscellaneous | General Inflation | 13,250 | 13,648 | 14,057 | 14,479 | 14,913 | 15,360 | 15,821 | 16,296 | 16,785 | 17,288 |
| 55 | Intergov/Interfund (see above) | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 59 | COLA Reserve (omitted) | General Inflation | - | - | - | - | - | - | - | - | - | - |
| Storm Water Management Reimbursable Work | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 17,516 | 18,392 | 19,311 | 20,277 | 21,291 | 22,355 | 23,473 | 24,647 | 25,879 | 27,173 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Storm Water Management Construction | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 28,320 | 29,736 | 31,223 | 32,784 | 34,423 | 36,144 | 37,952 | 39,849 | 41,842 | 43,934 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | Construction Inflation | 1,800 | 1,872 | 1,947 | 2,025 | 2,106 | 2,190 | 2,278 | 2,369 | 2,463 | 2,562 |
| 541 | Professional Services | Construction Inflation | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 | 19,160 | 19,926 |
| 542 | Communication | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| | Improvements - Interfund Fleet Oper Chrg | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| | Improvements - Interfund Fleet Repl Chrg | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergov/Interfund (Transfer Out to GIS) | No Escalation | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| 56 | Capital Outlay | Construction Inflation | 35,193 | 36,601 | 38,065 | 39,587 | 41,171 | 42,818 | 44,530 | 46,312 | 48,164 | 50,091 |
| Surface Water Management Cleaning | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 300,113 | 315,119 | 330,875 | 347,418 | 364,789 | 383,029 | 402,180 | 422,289 | 443,404 | 465,574 |
| 52 | Benefits | Benefit Inflation | 7,500 | 8,025 | 8,587 | 9,188 | 9,831 | 10,519 | 11,255 | 12,043 | 12,886 | 13,788 |
| 53 | Supplies | General Inflation | 23,500 | 24,205 | 24,931 | 25,679 | 26,449 | 27,243 | 28,060 | 28,902 | 29,769 | 30,662 |
| 541 | Professional Services | General Inflation | 10,000 | 10,300 | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 |
| 542 | Communication | General Inflation | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |



City of Kirkland

Surface Water Rate Update

Revenues and Expenses: Operations and Maintenance

| | | | | | | | | | | | | |
|------------------------------------------------------------------|-------------------------------|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 121,800 | 125,454 | 129,218 | 133,094 | 137,087 | 141,200 | 145,436 | 149,799 | 154,293 | 158,921 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 |
| 549 | Miscellaneous | General Inflation | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 |
| 55 | Intergovernmental / Interfund | General Inflation | 3,000 | 3,090 | 3,183 | 3,278 | 3,377 | 3,478 | 3,582 | 3,690 | 3,800 | 3,914 |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management Detention | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 53,656 | 56,339 | 59,156 | 62,114 | 65,219 | 68,480 | 71,904 | 75,499 | 79,274 | 83,238 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | 42,200 | 43,466 | 44,770 | 46,113 | 47,496 | 48,921 | 50,389 | 51,901 | 53,458 | 55,061 |
| 541 | Professional Services | General Inflation | 1,500 | 1,545 | 1,591 | 1,639 | 1,688 | 1,739 | 1,791 | 1,845 | 1,900 | 1,957 |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 35,326 | 36,386 | 37,477 | 38,602 | 39,760 | 40,953 | 42,181 | 43,447 | 44,750 | 46,092 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | 2,000 | 2,060 | 2,122 | 2,185 | 2,251 | 2,319 | 2,388 | 2,460 | 2,534 | 2,610 |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management Rehabilitation | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 231,609 | 243,189 | 255,349 | 268,116 | 281,522 | 295,598 | 310,378 | 325,897 | 342,192 | 359,302 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | 190,000 | 195,700 | 201,571 | 207,618 | 213,847 | 220,262 | 226,870 | 233,676 | 240,686 | 247,907 |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 96,051 | 98,933 | 101,901 | 104,958 | 108,106 | 111,349 | 114,690 | 118,131 | 121,675 | 125,325 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management Ditches | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 12,133 | 12,740 | 13,377 | 14,045 | 14,748 | 15,485 | 16,259 | 17,072 | 17,926 | 18,822 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | 2,750 | 2,833 | 2,917 | 3,005 | 3,095 | 3,188 | 3,284 | 3,382 | 3,484 | 3,588 |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 4,094 | 4,217 | 4,343 | 4,474 | 4,608 | 4,746 | 4,888 | 5,035 | 5,186 | 5,342 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | 3,300 | 3,399 | 3,501 | 3,606 | 3,714 | 3,826 | 3,940 | 4,059 | 4,180 | 4,306 |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Surface Water Management Maintenance Sweep/Waste Disposal | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 20,790 | 21,830 | 22,921 | 24,067 | 25,270 | 26,534 | 27,861 | 29,254 | 30,716 | 32,252 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 |
| 541 | Professional Services | General Inflation | 1,200 | 1,236 | 1,273 | 1,311 | 1,351 | 1,391 | 1,433 | 1,476 | 1,520 | 1,566 |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 13,008 | 13,398 | 13,800 | 14,214 | 14,641 | 15,080 | 15,532 | 15,998 | 16,478 | 16,972 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 547 | Utility Services | Customer Growth | 60,000 | 60,300 | 60,602 | 60,905 | 61,209 | 61,515 | 61,823 | 62,132 | 62,442 | 62,755 |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |



City of Kirkland

Surface Water Rate Update

Revenues and Expenses: Operations and Maintenance

| | | | | | | | | | | | | |
|-----------------------------------------------------------------|-------------------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Storm Water Management Roadway Maintenance (ESA impact) | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 60,568 | 63,596 | 66,776 | 70,115 | 73,621 | 77,302 | 81,167 | 85,225 | 89,487 | 93,961 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 11 | 11 | 12 | 12 | 12 | 13 | 13 | 14 | 14 | 14 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 547 | Utility Services | Customer Growth | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Storm Water Management Sidewalk Maintenance (ESA impact) | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 10,313 | 10,829 | 11,370 | 11,939 | 12,536 | 13,162 | 13,820 | 14,511 | 15,237 | 15,999 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 547 | Utility Services | Customer Growth | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | Construction Inflation | - | - | - | - | - | - | - | - | - | - |
| Storm Water Management Roadside Maintenance (ESA impact) | | | | | | | | | | | | |
| 51 | Salaries and Wages | Labor Inflation | 19,808 | 20,798 | 21,838 | 22,930 | 24,077 | 25,281 | 26,545 | 27,872 | 29,265 | 30,729 |
| 52 | Benefits | Benefit Inflation | - | - | - | - | - | - | - | - | - | - |
| 53 | Supplies | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 541 | Professional Services | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 542 | Communication | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 543 | Travel | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 544 | Advertising | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 545 | Operating Rentals and Leases | General Inflation | 121 | 125 | 128 | 132 | 136 | 140 | 144 | 149 | 153 | 158 |
| 546 | Insurance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 547 | Utility Services | Customer Growth | - | - | - | - | - | - | - | - | - | - |
| 548 | Repairs and Maintenance | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 549 | Miscellaneous | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 55 | Intergovernmental / Interfund | General Inflation | - | - | - | - | - | - | - | - | - | - |
| 56 | Capital Outlay | No Escalation | - | - | - | - | - | - | - | - | - | - |
| Add'l O&M from CIP | | | From CIP | | | | | | | | | |
| Total Existing Cash O&M Expenditures | | | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 | \$ 7,841,113 | \$ 8,164,231 | \$ 8,503,862 |

| Operating Program - Proposed Annual Additions | | | FORECAST BASIS | | | | | | | | | | |
|-----------------------------------------------|----------|------------------------------------------|-------------------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ID* | Category | Name | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
| CW-1 | Required | Surface water support of overlay program | General Inflation | - | 134,267 | 138,295 | 142,444 | 146,717 | 151,118 | 155,652 | 160,321 | 165,131 | 170,085 |
| CW-2 | Required | LID maintenance | General Inflation | - | - | 15,233 | 15,690 | 16,160 | 16,645 | 17,144 | 17,659 | 18,189 | |
| CW-3 | Required | Street sweeping | General Inflation | - | 26,265 | 27,053 | 27,865 | 28,700 | 29,561 | 30,448 | 31,362 | 32,303 | 33,272 |
| CW-4 | Required | Ditch maintenance | General Inflation | - | 442,916 | 456,204 | 469,890 | 483,987 | 498,506 | 513,462 | 528,865 | 544,731 | 561,073 |



City of Kirkland

Surface Water Rate Update

Revenues and Expenses: Operations and Maintenance

| | | | | | | | | | | | | | |
|-------|-----------|-------------------------------------------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CW-5 | Required | Maint. on Goat Hill - Equipment Rental | General Inflation | - | 3,168 | 3,263 | 3,361 | 3,462 | 3,566 | 3,673 | 3,783 | 3,897 | 4,013 |
| CW-6 | Required | Development Review Evaluation | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-7 | Required | LID Code Scrub | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-8 | Required | LID implementation and manual adoption | General Inflation | - | - | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 |
| CW-9 | Augmented | Stormwater facility inspection | General Inflation | - | 41,200 | 42,436 | 43,709 | 45,020 | 46,371 | 47,762 | 49,195 | 50,671 | 52,191 |
| CW-10 | Augmented | Service Truck | General Inflation | - | 22,112 | 22,775 | 23,459 | 24,162 | 24,887 | 25,634 | 26,403 | 27,195 | 28,011 |
| CW-11 | Augmented | Spill response truck | General Inflation | - | - | 19,062 | 19,634 | 20,223 | 20,830 | 21,455 | 22,098 | 22,761 | 23,444 |
| CW-12 | Augmented | Beaver Management Policy | General Inflation | - | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 |
| CW-13 | Augmented | Address prioritized fish passage barriers | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-14 | Augmented | Evaluation of incentives and Rebate programs | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-15 | Augmented | Utility rate study | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-16 | Augmented | Proactively avoid TMDL | General Inflation | 22,480 | 23,154 | 23,849 | 24,565 | 25,301 | 26,060 | 26,842 | 27,648 | 28,477 | 29,331 |
| CW-17 | Augmented | City-specific water quality monitoring | General Inflation | - | - | 9,548 | 9,835 | 10,130 | 10,433 | 10,746 | 11,069 | 11,401 | 11,743 |
| CW-18 | Augmented | Watershed Planning | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-21 | Augmented | Stream habitat and fish monitoring | General Inflation | - | - | 21,218 | 21,855 | 22,510 | 23,185 | 23,881 | 24,597 | 25,335 | 26,095 |
| CW-19 | Augmented | Develop LID feasibility tools | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-20 | Augmented | Incorporation of LID into City capital projects | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-22 | Augmented | O&M CIP Consultation | General Inflation | - | 567 | 583 | 601 | 619 | 638 | 657 | 676 | 697 | 718 |
| CW-23 | Augmented | Environmental permitting for maintenance | General Inflation | - | 18,540 | 19,096 | 19,669 | 20,259 | 20,867 | 21,493 | 22,138 | 22,802 | 23,486 |
| CW-24 | Augmented | Property acquisition policy and priority areas | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-25 | Augmented | Evaluation of dredging in Lake Washington | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-26 | Augmented | Urban forestry and tree inventory | General Inflation | - | 2,348 | 2,419 | 2,491 | 2,566 | 2,643 | 2,722 | 2,804 | 2,888 | 2,975 |
| CW-27 | Augmented | Climate change evaluation | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-28 | Augmented | Streamside restoration maintenance | General Inflation | - | 30,900 | 31,827 | 32,782 | 33,765 | 34,778 | 35,822 | 36,896 | 38,003 | 39,143 |
| CW-29 | Augmented | Noxious weeds and invasive plants | General Inflation | - | 2,225 | 2,292 | 2,360 | 2,431 | 2,504 | 2,579 | 2,657 | 2,736 | 2,818 |
| CW-30 | Augmented | Juanita Creek floodplain mapping | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-32 | Augmented | Stormwater system rehabilitation catch-up | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-34 | Augmented | Retrofit Opportunities | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-35 | Augmented | Leaf pick-up program | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-36 | Augmented | Private streambank stabilization program | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-37 | Augmented | Poop scoop laws | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-38 | Augmented | Volunteer use | General Inflation | - | - | - | - | - | - | - | - | - | - |
| CW-39 | Augmented | Neighborhood drainage assistance | General Inflation | - | - | - | - | - | - | - | - | - | - |

*Green text notes a project in which absorbed costs (one-time or annual) can potentially be factored in (results are toggle-based)

| Scenario Analysis: | | Required | Include | Required | Include | Required | Include | Required | Include | Required | Include | Required | Include |
|-------------------------------------------------------|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------|---------|
| | | \$ - | \$ 606,616 | \$ 635,424 | \$ 669,719 | \$ 689,811 | \$ 710,505 | \$ 731,820 | \$ 753,775 | \$ 776,388 | \$ 799,680 | | |
| | Augmented | 22,480 | 146,196 | 200,410 | 206,423 | 212,615 | 218,994 | 225,564 | 232,331 | 239,300 | 246,479 | | |
| | [Extra] | 0 | - | - | - | - | - | - | - | - | - | | |
| | [Extra] | 0 | - | - | - | - | - | - | - | - | - | | |
| | [Extra] | 0 | - | - | - | - | - | - | - | - | - | | |
| Existing Operating Expenses | | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 | \$ 7,841,113 | \$ 8,164,231 | \$ 8,503,862 | | |
| Operating Program - Proposed Additions (toggle-based) | | \$ 22,480 | \$ 752,813 | \$ 835,834 | \$ 876,142 | \$ 902,426 | \$ 929,499 | \$ 957,384 | \$ 986,105 | \$ 1,015,689 | \$ 1,046,159 | | |
| Total Operating Expenses | | \$ 5,996,394 | \$ 6,956,215 | \$ 7,280,047 | \$ 7,573,106 | \$ 7,864,740 | \$ 8,170,456 | \$ 8,491,014 | \$ 8,827,218 | \$ 9,179,920 | \$ 9,550,021 | | |
| Depreciation Expense in 2013 | | | \$ 1,308,394 | | | | | | | | | | |
| Depreciation Expense | | \$ 1,371,289 | \$ 1,422,449 | \$ 1,481,469 | \$ 1,538,909 | \$ 1,609,949 | \$ 1,653,349 | \$ 1,857,349 | \$ 1,876,169 | \$ 1,941,849 | \$ 1,945,849 | | |
| | | - | - | - | - | - | - | (245,708) | (256,765) | (268,319) | (280,393) | | |
| System Reinvestment Funding | | \$ 1,371,289 | \$ 1,422,449 | \$ 1,481,469 | \$ 1,538,909 | \$ 1,609,949 | \$ 1,653,349 | \$ 1,611,641 | \$ 1,619,404 | \$ 1,673,530 | \$ 1,665,456 | | |
| TOTAL EXPENSES | | \$ 7,367,683 | \$ 8,378,664 | \$ 8,761,516 | \$ 9,112,015 | \$ 9,474,689 | \$ 9,823,805 | \$ 10,348,363 | \$ 10,703,387 | \$ 11,121,769 | \$ 11,495,870 | | |



City of Kirkland
Surface Water Rate Update
Capital Improvement Projects

Project Costs and O&M Impacts in Year: **2014** *Escalation factors not applied (already escalated by City)

| Project # | Capital Project | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------|---------------------------------------------------------|-----------|---------|---------|---------|------|------|------|---------|---------|------|
| 2014 Surface Water CIP | | | | | | | | | | | |
| SD 0047 | Annual Replacement of Aging/Failing Infrastructure | 200,000 | | | | | | | | | |
| SD 0048 | Cochran Springs / Lake Washington Blvd Crossing Enh. | 340,000 | | | | | | | | | |
| SD 0051 | Forbes Creek/KC Metro Access Road Culvert Enh. | - | | | | | | | | | |
| SD 0053 | Forbes Creek/Coors Pond Channel Grade Controls | - | | | | | | | | | |
| SD 0058 | Surface Water Sediment Pond Reclamation Phase II | - | | | | | | | | | |
| SD 0059 | Totem Lake Boulevard Flood Control Measures | 1,048,000 | | | | | | | | | |
| SD 0067 | NE 129th Place / Juanita Creek Rockery Repair | - | | | | | | | | | |
| SD 0077 | Goat Hill Storm Drainage Repair | 153,700 | | | | | | | | | |
| SD 0078 | Billy Creek Ravine Stabilization Phase II | 87,600 | | | | | | | | | |
| SD 0081 | Neighborhood Drainage Assistance Program (NDA) | - | | | | | | | | | |
| SD 0082 | Kirkland Decant Facility Expansion | 1,193,000 | | | | | | | | | |
| SD 0083 | 7th Avenue S Storm Main Replacement | 240,000 | | | | | | | | | |
| SD 0085 | Cross Kirkland Corridor (CKC) Storm Water Retrofit | 120,000 | | | | | | | | | |
| SD 8888 | Annual Streakbank Stabilization Program | - | | | | | | | | | |
| SD 9999 | Annual Surface Water Infrastructure Replacement Program | - | | | | | | | | | |
| | Totem Lake Juanita Creek Basin SW Retrofit | 247,100 | | | | | | | | | |
| 2015+ Surface Water CIP | | | | | | | | | | | |
| CDE-01 | Culvert replacement to improve fish passage | | - | - | - | - | - | - | 615,000 | - | - |
| FO-08 | Forbes Creek/BNSF Fish Passage Improvements | | - | 424,000 | - | - | - | - | - | - | - |
| DE-01 | Sediment removal in channel | | 136,000 | - | - | - | - | - | - | - | - |
| CH-02 | Channel reconstruction | | 690,000 | - | - | - | - | - | - | - | - |
| CH-03 | Rain garden and bioretention retrofit | | 85,000 | - | - | - | - | - | - | - | - |
| FO-07 | Channel grade control | | - | - | - | - | - | - | - | 165,000 | - |
| CH-04 | Groundwater seepage and road stability | | - | - | - | - | - | - | 126,000 | - | - |
| CH-01 | Undersized pipe to be replaced | | 219,000 | - | - | - | - | - | - | - | - |
| FO-13 | Pilot LID project associated with trans. project | | 65,000 | - | - | - | - | - | - | - | - |
| JC-01 | Sediment removal | | - | - | - | - | - | - | - | - | - |
| RED-01 | UIC well | | 65,000 | - | - | - | - | - | - | - | - |
| CW-INF-01 | Pipe repair and replacement | | - | - | 769,000 | - | - | - | - | - | - |
| CJC-9 | Culvert replacement to improve fish passage | | - | - | 613,000 | - | - | - | - | - | - |
| CA-1 | Erosion control measures | | - | - | - | - | - | - | - | 550,000 | - |



City of Kirkland
Surface Water Rate Update
Capital Improvement Projects

Project Costs and O&M Impacts in Year: **2014** *Escalation factors not applied (already escalated by City)

| Project # | Capital Project | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------------------------------|---------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|------------|
| CW-INF-02 | Pipe repair and replacement | | - | - | - | 3,025,000 | - | - | - | - | - |
| FO-05 | Culvert Replacement | | - | 1,058,000 | - | - | - | - | - | - | - |
| EC-02 | Everest Park Channel and riparian restoration | | - | - | - | - | 1,096,000 | - | - | - | - |
| FO-01 | Fish passage | | 333,000 | - | - | - | - | - | - | - | - |
| EC-01 | Ravine stabilization | | - | 830,000 | - | - | - | - | - | - | - |
| MB-01 | Replace stormwater pipes | | - | - | 680,000 | - | - | - | - | - | - |
| HAS-01 | Pipe replacement, improved hydraulics | | - | - | - | - | - | - | - | 2,369,000 | - |
| JC-02 | Infrastructure/conveyance | | - | - | - | - | 874,000 | - | - | - | - |
| JC-03 | Juanita Creek floodplain creation | | - | - | 533,000 | - | - | - | - | - | - |
| JC-04 | Flow diversion | | - | 266,000 | - | - | - | - | - | - | - |
| JC-05 | Additional Project | | 765,000 | - | - | - | - | - | - | - | - |
| JC-06 | Additional Project | | - | - | - | 327,000 | - | - | - | - | - |
| JC-07 | Additional Project | | - | 173,000 | - | - | - | - | - | - | - |
| JC-08 | Additional Project | | - | - | 77,000 | - | - | - | - | - | - |
| CW-INF-03 | Aging and Failing Infrastructure | | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 |
| | Regional Detention Project - Forbes Creek Basin | | | | | | | 10,000,000 | | | |
| TRANSPORTATION PROJECTS | | | | | | | | | | | |
| | SW Portion of Transportation Projects (transfer funded) | 745,700 | 243,800 | 444,000 | 461,300 | 580,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Total Capital Projects | | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 10,700,000 | \$ 1,441,000 | \$ 3,784,000 | \$ 700,000 |
| Total Upgrade/Expansion Projects | | - | - | - | - | - | - | - | - | - | - |
| Total R&R Projects | | 4,375,100 | 2,801,800 | 3,395,000 | 3,333,300 | 4,132,000 | 2,670,000 | 10,700,000 | 1,441,000 | 3,784,000 | 700,000 |
| Surface Water CIP - Total | | \$ 3,629,400 | \$ 2,558,000 | \$ 2,951,000 | \$ 2,872,000 | \$ 3,552,000 | \$ 2,170,000 | \$ 10,200,000 | \$ 941,000 | \$ 3,284,000 | \$ 200,000 |
| Transportation Projects - Total | | \$ 745,700 | \$ 243,800 | \$ 444,000 | \$ 461,300 | \$ 580,000 | \$ 500,000 | \$ 500,000 | \$ 500,000 | \$ 500,000 | \$ 500,000 |



City of Kirkland

Surface Water Rate Update

Capital Funding

| Summary of Expenditures | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|-------------------|
| CAPITAL PROJECTS | | | | | | | | | | |
| Surface Water - Improvement Upgrades & Expansions | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Surface Water - Repairs and Replacements | 3,629,400 | 2,558,000 | 2,951,000 | 2,872,000 | 3,552,000 | 2,170,000 | 10,200,000 | 941,000 | 3,284,000 | 200,000 |
| Transportation Projects - Surface Water Portion | 745,700 | 243,800 | 444,000 | 461,300 | 580,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| TOTAL CAPITAL EXPENDITURES | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 10,700,000 | \$ 1,441,000 | \$ 3,784,000 | \$ 700,000 |

| Capital Financing Plan | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------------------------------------------|-----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|
| Surface Water Capital | | | | | | | | | | |
| Additional Proceeds (Costs) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Project Specific CIAC / Grants | 1,654,000 | - | - | - | - | - | - | - | - | - |
| SW Projects to be Funded | \$ 1,975,400 | \$ 2,558,000 | \$ 2,951,000 | \$ 2,872,000 | \$ 3,552,000 | \$ 2,170,000 | \$ 10,200,000 | \$ 941,000 | \$ 3,284,000 | \$ 200,000 |
| Transportation Projects to be Funded | 745,700 | 243,800 | 444,000 | 461,300 | 580,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Total Projects to be Funded | \$ 2,721,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 10,700,000 | \$ 1,441,000 | \$ 3,784,000 | \$ 700,000 |
| OTHER FUNDING SOURCES | | | | | | | | | | |
| Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 | 1,876,169 | 1,941,849 | 1,945,849 |
| PWTF Loans | - | - | - | - | - | - | - | - | - | - |
| Other Loans | - | - | - | - | - | - | - | - | - | - |
| Capital Fund Balance | 1,349,811 | 1,379,351 | 1,913,531 | 1,794,391 | 2,522,051 | 1,016,651 | 2,315,037 | - | 1,842,151 | - |
| Revenue Bond Proceeds | - | - | - | - | - | - | 7,000,000 | - | - | - |
| Rates | - | - | - | - | - | - | - | - | - | - |
| TOTAL CAPITAL RESOURCES | \$ 4,375,100 | \$ 2,801,800 | \$ 3,395,000 | \$ 3,333,300 | \$ 4,132,000 | \$ 2,670,000 | \$ 11,172,386 | \$ 1,876,169 | \$ 3,784,000 | \$ 1,945,849 |
| <i>Info: Working Capital Contingency Deficit</i> | - | - | - | - | - | - | - | - | - | - |
| NOTE A: SELECTION OF RESIDUAL CAPITAL FUNDING SOURCE | | | | | | | | | | |
| Select the Residual Funding Source | 1 Revenue Bond Proceeds | | | | | | | | | |
| | 1 - Revenue Bond Proceeds | | | | | | | | | |
| | 2 - Rates | | | | | | | | | |
| NOTE B: USER INPUT FOR REVENUE BOND PROCEEDS | | | | | | | | | | |
| Select Amount of Bond Proceeds | 1 User Defined | | | | | | | | | |
| | 1 - Amounts at Right ==> | | | | | | | | | |
| | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,000,000 | \$ - | \$ - | \$ - |
| | 2 - Calculated by the Model | | | | | | | | | |



City of Kirkland
Surface Water Rate Update
Capital Funding

| New Debt Computations | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------|------|------|------|------|------|------|--------------|------|------|------|
| REVENUE BONDS | | | | | | | | | | |
| Amount to Fund | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,000,000 | \$ - | \$ - | \$ - |
| Issuance Costs | - | - | - | - | - | - | 115,623 | - | - | - |
| Reserve Required | - | - | - | - | - | - | 592,577 | - | - | - |
| Amount of Debt Issue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,708,200 | \$ - | \$ - | \$ - |
| OTHER LOANS | | | | | | | | | | |
| Amount to Fund | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Issuance Costs | - | - | - | - | - | - | - | - | - | - |
| Amount of Debt Issue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| PWTF LOANS | | | | | | | | | | |
| Amount to Fund | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Debt Service Summary | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------------|------|------|------|------|------|------|------------|------------|------------|------------|
| EXISTING DEBT SERVICE | | | | | | | | | | |
| Annual Interest Payments | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Annual Principal Payments | - | - | - | - | - | - | - | - | - | - |
| Total Debt Service Payments | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Revenue Bond Payments Only | - | - | - | - | - | - | - | - | - | - |
| NEW DEBT SERVICE | | | | | | | | | | |
| Annual Interest Payments | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 346,869 | \$ 335,812 | \$ 324,258 | \$ 312,183 |
| Annual Principal Payments | - | - | - | - | - | - | 245,708 | 256,765 | 268,319 | 280,393 |
| Total Debt Service Payments | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 592,577 | \$ 592,577 | \$ 592,577 | \$ 592,577 |
| Revenue Bond Payments Only | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |
| TOTAL DEBT SERVICE PAYMENTS | | | | | | | | | | |
| Total Interest Payments | - | - | - | - | - | - | 346,869 | 335,812 | 324,258 | 312,183 |
| Total Principal Payments | - | - | - | - | - | - | 245,708 | 256,765 | 268,319 | 280,393 |
| Total Revenue Bond Payments Only | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |



City of Kirkland

Surface Water Rate Update

Revenue Requirement

| Cash Flow Sufficiency Test | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| EXPENSES | | | | | | | | | | |
| Existing Cash Operating Expenses | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 | \$ 7,841,113 | \$ 8,164,231 | \$ 8,503,862 |
| Operating Program - Proposed Additions | 22,480 | 752,813 | 835,834 | 876,142 | 902,426 | 929,499 | 957,384 | 986,105 | 1,015,689 | 1,046,159 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |
| Additional Rate Funded CIP | - | - | - | - | - | - | - | - | - | - |
| Additional Transfers to Surface Water Construction Fund | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 |
| Additional Transfers to Transportation Construction Fund | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 | 1,876,169 | 1,941,849 | 1,945,849 |
| Additions to Meet Minimum Operating Target | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | \$ 8,580,183 | \$ 9,141,164 | \$ 9,524,016 | \$ 9,874,515 | \$ 10,237,189 | \$ 10,586,305 | \$ 11,703,439 | \$ 12,058,464 | \$ 12,476,846 | \$ 12,850,947 |
| REVENUES | | | | | | | | | | |
| Retail Rate Revenue | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 | \$ 9,381,808 | \$ 9,428,717 | \$ 9,475,861 |
| Other Non Rate Revenue | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 |
| Operating Fund Interest Earnings | 5,669 | 11,089 | 9,499 | 20,105 | 22,133 | 25,191 | 28,796 | 29,214 | 29,214 | 29,214 |
| Total Revenue | \$ 9,197,634 | \$ 9,248,354 | \$ 9,292,290 | \$ 9,348,649 | \$ 9,396,659 | \$ 9,445,930 | \$ 9,495,979 | \$ 9,543,072 | \$ 9,589,981 | \$ 9,637,125 |
| NET CASH FLOW (DEFICIENCY) | \$ 617,451 | \$ 107,189 | \$ (231,726) | \$ (525,866) | \$ (840,530) | \$ (1,140,375) | \$ (2,207,460) | \$ (2,515,391) | \$ (2,886,864) | \$ (3,213,822) |
| % of Rate Revenue | -6.82% | -1.18% | 2.53% | 5.72% | 9.09% | 12.28% | 23.65% | 26.81% | 30.62% | 33.92% |

| Coverage Sufficiency Test | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| EXPENSES | | | | | | | | | | |
| Total Cash Operating Expenses | \$ 5,973,914 | \$ 6,203,403 | \$ 6,444,213 | \$ 6,696,964 | \$ 6,962,314 | \$ 7,240,957 | \$ 7,533,630 | \$ 7,841,113 | \$ 8,164,231 | \$ 8,503,862 |
| Operating Program - Proposed Additions | 22,480 | 752,813 | 835,834 | 876,142 | 902,426 | 929,499 | 957,384 | 986,105 | 1,015,689 | 1,046,159 |
| Revenue Bond Debt Service | - | - | - | - | - | - | 592,577 | 592,577 | 592,577 | 592,577 |
| Revenue Bond Coverage Requirement at 1.5 | - | - | - | - | - | - | 296,288 | 296,288 | 296,288 | 296,288 |
| Total Expenses | \$ 5,996,394 | \$ 6,956,215 | \$ 7,280,047 | \$ 7,573,106 | \$ 7,864,740 | \$ 8,170,456 | \$ 9,379,879 | \$ 9,716,083 | \$ 10,068,785 | \$ 10,438,886 |
| ALLOWABLE REVENUES | | | | | | | | | | |
| Rate Revenue | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 | \$ 9,381,808 | \$ 9,428,717 | \$ 9,475,861 |
| Other Revenue | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 | 132,050 |
| CFC Revenue | 73,302 | 73,669 | 74,037 | 74,407 | 74,779 | 75,153 | 75,529 | 75,906 | 76,286 | 76,667 |
| Interest Earnings - All Funds | 15,297 | 30,686 | 27,787 | 51,386 | 48,783 | 43,551 | 46,353 | 41,836 | 48,267 | 43,345 |
| Total Revenue | \$ 9,280,564 | \$ 9,341,619 | \$ 9,384,614 | \$ 9,454,338 | \$ 9,498,089 | \$ 9,539,443 | \$ 9,589,064 | \$ 9,631,600 | \$ 9,685,320 | \$ 9,727,923 |
| Coverage Realized | n/a | n/a | n/a | n/a | n/a | n/a | 3.47 | 3.02 | 2.57 | 2.07 |
| COVERAGE SURPLUS (DEFICIENCY) | \$ 3,284,171 | \$ 2,385,404 | \$ 2,104,567 | \$ 1,881,232 | \$ 1,633,349 | \$ 1,368,987 | \$ 209,186 | \$ (84,483) | \$ (383,465) | \$ (710,963) |



City of Kirkland

Surface Water Rate Update

Revenue Requirement

| Maximum Revenue Deficiency | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------------|-------------------|-------------------|-------------------|
| Sufficiency Test Driving the Deficiency | None | None | Cash | Cash | Cash | Cash | Cash | Cash | Cash | Cash |
| Maximum Deficiency From Tests | \$ - | \$ - | \$ 231,726 | \$ 525,866 | \$ 840,530 | \$ 1,140,375 | \$ 2,207,460 | \$ 2,515,391 | \$ 2,886,864 | \$ 3,213,822 |
| less: Net Revenue From Prior Rate Increases | - | - | (338,577) | (694,151) | (1,067,499) | (1,459,431) | (1,870,797) | (2,302,484) | (2,527,968) | (2,901,299) |
| Revenue Deficiency | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 336,663 | \$ 212,907 | \$ 358,896 | \$ 312,523 |
| plus: Adjustment for Utility Tax | - | - | - | - | - | - | 27,297 | 17,263 | 29,100 | 25,340 |
| Total Revenue Deficiency | \$ - | \$ 363,960 | \$ 230,170 | \$ 387,996 | \$ 337,863 |

| Rate Increases | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Rate Revenue with no Increase | \$ 9,059,915 | \$ 9,105,215 | \$ 9,150,741 | \$ 9,196,494 | \$ 9,242,477 | \$ 9,288,689 | \$ 9,335,133 | \$ 9,381,808 | \$ 9,428,717 | \$ 9,475,861 |
| Revenues from Prior Rate Increases | - | - | 366,030 | 750,434 | 1,154,053 | 1,577,763 | 2,022,484 | 2,489,172 | 2,732,939 | 3,136,539 |
| Rate Revenue Before Rate Increase (Incl. previous increases) | 9,059,915 | 9,105,215 | 9,516,770 | 9,946,928 | 10,396,529 | 10,866,453 | 11,357,616 | 11,870,980 | 12,161,656 | 12,612,400 |
| Required Annual Rate Increase | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 3.20% | 1.94% | 3.19% | 2.68% |
| Number of Months New Rates Will Be In Effect | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Info: Percentage Increase to Generate Required Revenue | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 3.20% | 1.94% | 3.19% | 2.68% |
| Policy Induced Rate Increases | 0.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| ANNUAL RATE INCREASE | 0.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 1.94% | 3.19% | 2.68% |
| CUMULATIVE RATE INCREASE | 0.00% | 4.00% | 8.16% | 12.49% | 16.99% | 21.67% | 26.53% | 28.99% | 33.10% | 36.67% |

| Impacts of Rate Increases | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|---------------|---------------|---------------|
| Rate Revenues After Rate Increase | \$ 9,059,915 | \$ 9,469,423 | \$ 9,897,441 | \$ 10,344,805 | \$ 10,812,391 | \$ 11,301,111 | \$ 11,811,921 | \$ 12,101,150 | \$ 12,549,652 | \$ 12,950,263 |
| Additional State and City Taxes Due to Rate Increases | - | 27,316 | 56,003 | 86,123 | 117,744 | 150,932 | 185,759 | 203,951 | 234,070 | 260,580 |
| Net Cash Flow After Rate Increase | \$ 617,451 | \$ 444,082 | \$ 458,972 | \$ 536,322 | \$ 611,641 | \$ 721,115 | \$ 83,569 | \$ - | \$ - | \$ - |
| Coverage After Rate Increase | n/a | n/a | n/a | n/a | n/a | n/a | 7.33 | 7.27 | 7.44 | 7.49 |



City of Kirkland
Surface Water Rate Update
Funds

| Funds | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| OPERATING FUND - 421 | | | | | | | | | | |
| Beginning Balance | \$ 4,360,691 | \$ 4,435,689 | \$ 3,799,623 | \$ 4,020,980 | \$ 4,426,501 | \$ 5,038,142 | \$ 5,759,257 | \$ 5,842,826 | \$ 5,842,826 | \$ 5,842,826 |
| plus: Net Cash Flow after Rate Increase | 617,451 | 444,082 | 458,972 | 536,322 | 611,641 | 721,115 | 83,569 | - | - | - |
| less: One-Time Additional O&M Costs | (56,040) | (1,080,148) | (237,615) | (130,800) | - | - | - | - | - | - |
| less: Additional Transfers to Capital Fund | (486,413) | - | - | - | - | - | - | - | - | - |
| Ending Balance | \$ 4,435,689 | \$ 3,799,623 | \$ 4,020,980 | \$ 4,426,501 | \$ 5,038,142 | \$ 5,759,257 | \$ 5,842,826 | \$ 5,842,826 | \$ 5,842,826 | \$ 5,842,826 |
| Minimum Target Balance | \$ 2,957,126 | \$ 3,430,462 | \$ 3,590,160 | \$ 3,734,682 | \$ 3,878,502 | \$ 4,029,266 | \$ 4,187,349 | \$ 4,353,149 | \$ 4,527,084 | \$ 4,709,599 |
| Maximum Funds to be Kept as Operating Reserves | \$ 4,435,689 | \$ 5,145,694 | \$ 5,385,240 | \$ 5,602,024 | \$ 5,817,753 | \$ 6,043,899 | \$ 6,281,024 | \$ 6,529,723 | \$ 6,790,626 | \$ 7,064,399 |
| Info: No of Days of Cash Operating Expenses | 270 | 199 | 202 | 213 | 234 | 257 | 252 | 242 | 232 | 223 |
| CAPITAL FUND - 423 | | | | | | | | | | |
| Beginning Balance | \$ 7,406,573 | \$ 7,838,606 | \$ 7,315,020 | \$ 6,256,313 | \$ 5,330,111 | \$ 3,671,990 | \$ 3,511,351 | \$ 2,524,286 | \$ 3,810,483 | \$ 2,826,170 |
| plus: Rate Funded System Reinvestment | 1,371,289 | 1,422,449 | 1,481,469 | 1,538,909 | 1,609,949 | 1,653,349 | 1,857,349 | 1,876,169 | 1,941,849 | 1,945,849 |
| plus: Transfer for SW Construction | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 | 262,500 |
| plus: Transportation CIP Transfer | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| plus: Grants/ Donations/ CIAC / Other | 1,654,000 | - | - | - | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - | - | - | - | - |
| plus: Capital Facilities Charges | 73,302 | 73,669 | 74,037 | 74,407 | 74,779 | 75,153 | 75,529 | 75,906 | 76,286 | 76,667 |
| less: Capital Facilities Charges Towards Debt | - | - | - | - | - | - | - | - | - | - |
| plus: Revenue Bond Proceeds | - | - | - | - | - | - | 7,000,000 | - | - | - |
| plus: PWTF Loans | - | - | - | - | - | - | - | - | - | - |
| plus: Other Loan Proceeds | - | - | - | - | - | - | - | - | - | - |
| plus: Additional Transfers from Operating Fund | 486,413 | - | - | - | - | - | - | - | - | - |
| plus: Direct Rate Funding | - | - | - | - | - | - | - | - | - | - |
| plus: Interest Earnings | 9,629 | 19,597 | 18,288 | 31,282 | 26,651 | 18,360 | 17,557 | 12,621 | 19,052 | 14,131 |
| Total Funding Sources | \$ 12,213,706 | \$ 10,116,820 | \$ 9,651,313 | \$ 8,663,411 | \$ 7,803,990 | \$ 6,181,351 | \$ 13,224,286 | \$ 5,251,483 | \$ 6,610,170 | \$ 5,625,317 |
| less: Surface Water Capital Expenditures | (3,629,400) | (2,558,000) | (2,951,000) | (2,872,000) | (3,552,000) | (2,170,000) | (10,200,000) | (941,000) | (3,284,000) | (200,000) |
| less: Anticipated SW Transportation Projects | (745,700) | (243,800) | (444,000) | (461,300) | (580,000) | (500,000) | (500,000) | (500,000) | (500,000) | (500,000) |
| Ending Capital Fund Balance | \$ 7,838,606 | \$ 7,315,020 | \$ 6,256,313 | \$ 5,330,111 | \$ 3,671,990 | \$ 3,511,351 | \$ 2,524,286 | \$ 3,810,483 | \$ 2,826,170 | \$ 4,925,317 |
| Minimum Target Balance | \$ 2,070,720 | \$ 2,703,210 | \$ 2,567,130 | \$ 2,606,030 | \$ 2,342,700 | \$ 2,018,900 | \$ 2,051,900 | \$ 1,281,900 | \$ 1,437,800 | \$ 1,359,400 |
| Info: Reserve Available for SW Transportation Project Funds | | | | | | | | | | |
| Beginning Balance | \$ 4,655,574 | \$ 4,865,926 | \$ 5,134,291 | \$ 5,203,127 | \$ 5,267,842 | \$ 5,214,182 | \$ 5,240,253 | \$ 5,266,454 | \$ 5,292,786 | \$ 5,319,250 |
| plus: Transportation CIP Transfer | 950,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| less: Anticipated SW Transportation Projects | (745,700) | (243,800) | (444,000) | (461,300) | (580,000) | (500,000) | (500,000) | (500,000) | (500,000) | (500,000) |
| plus: Interest Earnings | 6,052 | 12,165 | 12,836 | 26,016 | 26,339 | 26,071 | 26,201 | 26,332 | 26,464 | 26,596 |
| Ending Balance | \$ 4,865,926 | \$ 5,134,291 | \$ 5,203,127 | \$ 5,267,842 | \$ 5,214,182 | \$ 5,240,253 | \$ 5,266,454 | \$ 5,292,786 | \$ 5,319,250 | \$ 5,345,846 |
| DEBT RESERVE | | | | | | | | | | |
| Beginning Balance | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 592,577 | \$ 592,577 | \$ 592,577 |
| plus: Reserve Funding from New Debt | - | - | - | - | - | - | 592,577 | - | - | - |
| less: Use of Reserves for Debt Service | - | - | - | - | - | - | - | - | - | - |
| Ending Balance | \$ - | \$ 592,577 | \$ 592,577 | \$ 592,577 | \$ 592,577 |
| Minimum Target Balance | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 592,577 | \$ 592,577 | \$ 592,577 | \$ 592,577 |



City of Kirkland

Surface Water Rate Update

Service Level Matrix - 2015

| SERVICE LEVEL | PROGRAM ELEMENT | | | | | | |
|---------------------------|----------------------------------------|---------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------|
| | Capital Funding | | Admin Support | Maintenance | Customer Service, Environmental Stewardship & Regulatory Compliance | Billing | Taxes |
| | CIP | System Reinvestment | | | | | |
| CURRENT / REQUIRED | SW Priority Projects (\$2.8M annually) | Fully Funded | Level of support determined by program activities. | Includes additional required program elements, such as: Increased ditch maintenance, street sweeping | Includes additional required program elements, such as: LID program implementation, support of overlay program, development review evaluation | Billing service expenses are based on rate revenues. | Taxes are based on total revenues. |
| \$16.15 | \$1.79 | \$2.55 | \$0.79 | \$6.70 | \$2.66 | \$0.24 | \$1.43 |
| AUGMENTED | SW Priority Projects (\$2.8M annually) | Fully Funded | Level of support determined by program activities. | In addition to the required program elements, additional operating elements are included in order to enhance the service provided by the surface water utility. Examples include: Equipment purchases, stormwater facility inspection | In addition to the required program elements, additional operating elements are included in order to enhance the service provided by the surface water utility. Examples include: Water quality monitoring, fish and habitat monitoring/restoration, proactive response to potential issues | Billing service expenses are based on rate revenues. | Taxes are based on total revenues. |
| \$16.22 | \$1.79 | \$2.55 | \$0.79 | \$6.73 | \$2.70 | \$0.24 | \$1.43 |

Current Rate Distribution

| | | | | | | | |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| \$15.60 | \$2.62 | \$2.50 | \$0.78 | \$5.47 | \$2.58 | \$0.24 | \$1.41 |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|

STORMWATER UTILITY POLICY REVIEW

The attached matrix summarizes City of Kirkland policy on a number of stormwater-related fiscal, rate, and expenditure issues. Each policy is supplemented by the original policy, if different, and comments about the rationale for the policy. Recommended changes, if warranted, are provided as well for select policies.

Authority

As general background, Revised Code of Washington (RCW) 35.67.020 provides the authority for cities to “to fix, alter, regulate, and control the rates and charges” for the use of their sewerage systems. Systems of sewerage are defined in RCW 35.67.010 to include “storm or surface water sewers”, “outfalls for storm drainage”, “works, plants, and facilities for storm drainage or sanitary sewage treatment and disposal”, “rights and interests in property relating to the system”, and “nonpoint water pollution monitoring programs that are directly related to the sewerage facilities and programs operated by a city or town.”

The authority to charge for stormwater management has been tested in the courts, most notably in *Teter v. Clark County*. It was noted in that case that RCW 35.67 authorizes a city to charge stormwater rates under its police power. Such rates are “presumptively reasonable” and in order to be invalidated must be proven to be arbitrary and capricious. The term arbitrary has been defined in other case law as “willful and unreasoning action, without consideration and regard for facts or circumstances.”

In general, on issues of rate structure, rate credits, and rate exemptions, the City has been careful and reasonable in determining its policies and practices, as evidenced by the documented rationales and by the consideration of alternatives before choosing its course.

Use of Revenue

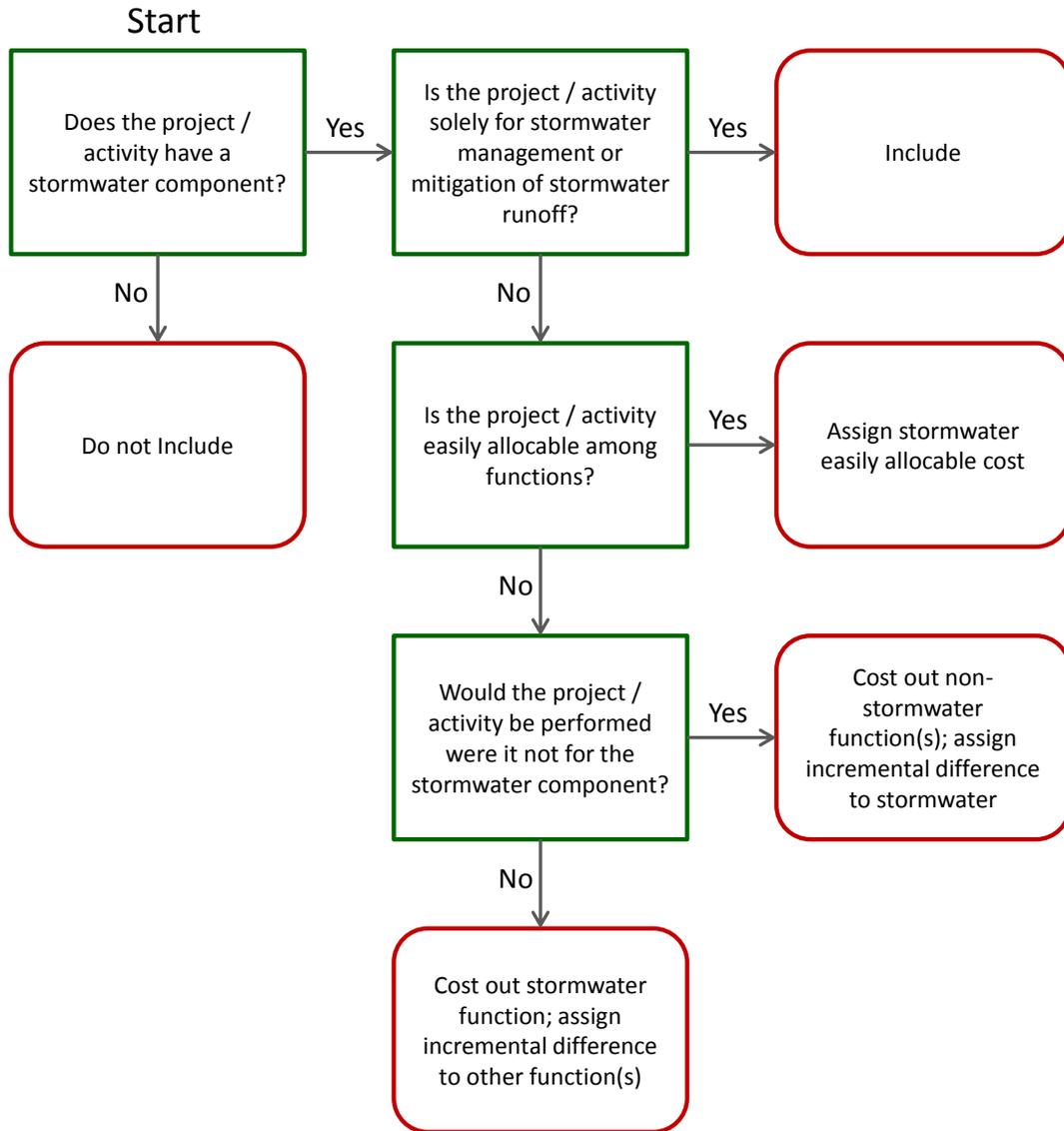
A second major issue, containing a number of sub-issues, is the use of stormwater rate revenue. Another feature of rates that distinguishes them from taxes is that they are intended to be tools of regulation rather than revenue generators. The fact that the City charges rates to recover the cost of meeting external and internal stormwater regulations strengthens the defensibility of the rate. That said, there are a number of cases, some recent, that reinforce the need for a municipal utility to spend money on utility-related services. Both *Okeson v. City of Seattle* (street lights) and *Lane v. City of Seattle* (hydrants) decided against the use of utility rate money for general government purposes -- useful cautionary tales.

The City may find the chart on the following page to be useful in determining whether an expenditure is stormwater-related, and whether a portion or all of the item’s cost may be included in the stormwater rate cost basis.

It is our understanding that the costs of services not explicitly authorized under RCW 35.67.010 and/or RCW 35.67.010 may be recovered in a stormwater rate as long as those services are provided to mitigate the impacts of storm and surface water runoff. Further, RCW 35.67.238 provides additional authorizations (e.g., for habitat restoration) for cities participating with other jurisdictions in watershed management partnerships or interlocal agreements regarding service provision.

As stated previously, the attached matrix provides a summary of City stormwater financial and rate policies, with the rationale or basis for those policies and any proposed modifications.

City of Kirkland Proposed Stormwater Utility Expense Eligibility Process





FCS GROUP
Project: City of Kirkland
Surface Water Rate Update
Policy Analysis: Review of Current Policies

| FISCAL POLICIES | CURRENT POLICY | |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Policy | Rationale |
| Reserve Targets | | |
| o <i>Operating Reserve</i> | <p>The minimum operating fund balance is 180 days of cash operating expenses, excluding all capital transfers and rate-funded system reinvestment.</p> <p>Source: 2010 SW Rate Study Results Memo</p> <p>-----</p> <p>Original Policy: 30 days (8%) of annual cash operating expenses (1997 Earth Tech Formation Study: Page 6</p> | <p>Due to the frequency of revenue collection, an operating contingency is set aside to balance timing of cash flows as well as to provide a cushion against unanticipated operating expenses.</p> |
| o <i>Capital Reserve</i> | <p>10% of 6-year CIP, transportation projects not included.</p> <p>Source: 2010 SW Rate Study Results Memo</p> | <p>Provides a source of funding for projects that exceed their budgeted costs and a cushion against unanticipated capital outlays</p> |
| Replacement Funding | <p>Fund full depreciation of asset amount, phase-in if necessary.</p> <p>Source: 2010 SW Rate Study Results Memo</p> | <p>By providing municipal utility service, the City establishes an ongoing duty to provide service. In order to fulfill this continuing obligation, the City will need to provide for replacement of system facilities. Based on depreciation expense to:</p> <ol style="list-style-type: none"> 1. Avoid decline in system asset value (financial integrity) 2. Charge customers commensurate with the consumption of facility useful lives (rate equity) 3. Provide a substantial source of funding which can meet most, if not all, replacement needs (adequacy of capital funding). |
| Internal Coverage Requirement | <p>The City will insure that net operating revenues of the enterprise constitute a minimum of 1.5 times the annual debt service requirements.</p> <p>Source: Fiscal Policies - City of Kirkland</p> | <p>Revenue Bonds rarely require less than 1.25 coverage (net operating revenues / debt service)</p> |
| Use of Debt | <p>Revenue bonds shall be issued only when projected operating revenues are insufficient for the enterprise's capital financing needs.</p> <p>Source: Fiscal Policies - City of Kirkland</p> | <p>It is the intent of the City that all costs of providing stormwater service should be financed primarily through user charges.</p> <p>Source: Fiscal Policies - City of Kirkland</p> |
| RATE POLICIES | CURRENT POLICY | |
| | Policy | Rationale |
| Rate Structure | <p>Municipal Code - 15.56.020</p> <p>The monthly surface water utility rates are based on the impervious surface area.</p> <p>(1) Single-Family Residential Parcels. The average impervious area for a single-family residence is two thousand six hundred square feet. This is based on the measurement of over three hundred parcels. This value is referred to as an equivalent service unit (ESU). The single-family service charge shall be equivalent to one ESU and shall be a flat rate of \$15.60.</p> <p>(2) All Other Customers, Including Commercial and Multifamily Residential. The service charge for all classes other than single-family residences will be based on the number of ESUs. The actual measured impervious area of each individual site will be divided by two thousand six hundred square feet to determine the number of ESUs of the individual site. The computed rate shall not be less than that for one ESU. The surface water utility service rate for these customers shall be fifteen dollars and sixty cents per each ESU.</p> <p>-----</p> <p>Original Source: 1997 Earth Tech Study: Issue Paper #7</p> | <p>RCW 35.67.020</p> <p>(1) Every city and town may construct, condemn and purchase, acquire, add to, maintain, conduct, and operate systems of sewerage and systems and plants for refuse collection and disposal together with additions, extensions, and betterments thereto, within and without its limits. Every city and town has full jurisdiction and authority to manage, regulate, and control them and, except as provided in subsection (3) of this section, to fix, alter, regulate, and control the rates and charges for their use.</p> <p>(2) Subject to subsection (3) of this section, the rates charged under this section must be uniform for the same class of customers or service and facilities furnished. In classifying customers served or service and facilities furnished by such system of sewerage, the city or town legislative body may in its discretion consider any or all of the following factors:</p> <p>(a) The difference in cost of service and facilities to the various customers;</p> <p>(b) The location of the various customers within and without the city or town;</p> <p>(c) The difference in cost of maintenance, operation, repair, and replacement of the various parts of the system;</p> <p>(d) The different character of the service and facilities furnished various customers;</p> <p>(e) The quantity and quality of the sewage delivered and the time of its delivery;</p> <p>(f) The achievement of water conservation goals and the discouragement of wasteful water use practices;</p> <p>(g) Capital contributions made to the system, including but not limited to, assessments;</p> <p>(h) The nonprofit public benefit status, as defined in RCW 24.03.490, of the land user; and</p> <p>(i) Any other matters which present a reasonable difference as a ground for distinction.</p> <p>-----</p> <p>Teter v. Clark County</p> |



FCS GROUP
Project: City of Kirkland
Surface Water Rate Update
Policy Analysis: Review of Current Policies

| Rate Credits/Exemptions | | |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Exemptions for City Streets / State Highways</p> | <p>City roads and State highways are not charged a stormwater service charge.</p> <p>Source: 1997 Earth Tech Study: Issue Paper #4</p> | <p>Teter v. Clark County</p> <p>-----</p> <p>Original Rational</p> <p>'While it has become more administratively difficult to charge the State for its highway impacts, only a limited amount of revenue would be gained. City streets provide conveyance necessary for the management of surface water. In addition, much of the existing system has likely been financed and build by the street fund.</p> <p>(1997 Earth Tech Study, Page 8).</p> <p>-----</p> <p>In fact, under the Phase II NPDES Stormwater Permit (effective date August 1, 2013), a Municipal Separate Storm Sewer System "means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains).</p> |
| <p>Exemptions for Undeveloped Properties</p> | <p>Exemptions will be granted to undeveloped properties.</p> <p>Source: 1997 Earth Tech Study: Issue Paper #3</p> | <p>Teter v. Clark County</p> <p>-----</p> <p>The ESU approach is based on impervious surface area. If truly undeveloped, that is, left in its "natural state", then it would be difficult and inconsistent to include undeveloped land in the rate base.</p> |
| <p>Exemptions for Publicly Owned Properties</p> | <p>No. All publicly owned properties, except streets, should be included in the surface water service charge.</p> <p>Source: 1997 Earth Tech Study: Issue Paper #2</p> | <p>Teter v. Clark County</p> <p>-----</p> <p>In general, the service charge structure should not consider property ownership. This approach is consistent with the philosophy of fees for service.</p> |
| <p>Exemptions for tax-exempt properties</p> | <p>No. All tax-exempt properties should be included in the surface waeter service charge.</p> <p>Source: 1997 Earth Tech Study: Issue Paper #3</p> | <p>Teter v. Clark County</p> <p>-----</p> <p>Consistent with the philosophy of fees of service.</p> |
| <p>Exemptions for low income customers and/or seniors</p> | <p>15.56.040 Qualified senior citizen rate. The rates to be charged to a qualified low-income senior citizen single-family residential customer shall be:</p> <p>(1) Storm Water Service Fee. 50% of the basic charge per ESU as set forth in Section 15.56.020(A).</p> <p>(b) For the purposes of this section, "qualified low-income senior citizen" means a person that has been determined by the King County assessor to be qualified for a low-income senior citizen property tax exemption authorized under RCW 84.36.381 as currently written or hereafter amended.</p> <p>-----</p> <p>Original Source: 1997 Earth Tech Study: Issue Paper #3</p> | <p>RCW 35.67.020</p> <p>In general, there is no cost basis for such an adjustment. However, in order to be consistent with the City's other utility rates, it is recommended that the City offer such relief if feasible within the constraints of the billing system used.</p> |
| <p>Credits for Private facilities and on-site mitigation</p> | <p>Do not allow credits.</p> <p>Source: 1997 Earth Tech Study: Issue Paper #2</p> | <p>Not legally required to provide rate credits.</p> |
| <p>Qualified rainwater harvesting discount</p> | <p>15.56.060 Qualified rainwater harvesting discount.</p> <p>The city of Kirkland shall provide a 10% reduction in the monthly service rate for parcels containing new or remodeled commercial buildings that utilize a permissive rainwater harvesting system. The system must be designed to collect and use at least ninety-five percent of the average annual runoff volume from the impervious surface. A system that involves indoor uses of rainwater must also be permitted by Seattle-King County department of health to qualify for the rate reduction. Qualifying for the monthly service rate reduction does not relieve the property owner from the obligation to comply with applicable storm water and drainage code requirements for the buildings and site.</p> | <p>RCW 35.67.020</p> <p>(3) The rate a city or town may charge under this section for storm or surface water sewer systems or the portion of the rate allocable to the storm or surface water sewer system of combined sanitary sewage and storm or surface water sewer systems shall be reduced by a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system. Rainwater harvesting systems shall be properly sized to utilize the available roof surface of the building. The jurisdiction shall consider rate reductions in excess of ten percent dependent upon the amount of rainwater harvested.</p> |



FCS GROUP
Project: City of Kirkland
Surface Water Rate Update
Policy Analysis: Review of Current Policies

| EXPENDITURE POLICIES | CURRENT POLICY | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Policy | Rationale |
| Major Program Functions | <p>Kirkland Municipal Code (15.52.020) states that the purpose of the stormwater program is "to promote sound development policies and construction procedures which respect and preserve the city's watercourses; to minimize water quality degradation and control of sedimentation of creeks, streams, ponds, lakes, and other water bodies; to protect the life, health, and property of the general public; to preserve and enhance the suitability of waters for contact recreation and fish habitat; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable ground water quantities, locations, and flow patterns; to insure the safety of city roads and rights-of-way; and to decrease drainage-related damages to public and private property."</p> <p>This purpose has been summarized to include the following major program functions:</p> <ol style="list-style-type: none"> 1. Flooding/capacity issues 2. Water quality 3. Statutory requirements 4. Regional activities and opportunities 5. Habitat restoration/development' <p>Source: 1997 Earth Tech Study: October 15, 1996 City Council Questions/Comments</p> | <p>RCW 35.67.020 clearly authorizes a stormwater utility to charge rates for the provision of service related to flooding/capacity issues (drainage), water quality, and stormwater-related statutory requirements.</p> <p>The provision of services related to regional activities and opportunities and habitat restoration/development should be documented as stormwater-related or services provided to mitigate the impacts of stormwater runoff from developed surfaces.</p> <p>As an alternative, the City could enter into a partnership with another agency to provide services related to regional activities and opportunities and habitat restoration/development under RCW 35.67.380, with provides for the following:</p> <p>"In addition to the authority provided in RCW 35.67.020, a city may, as part of maintaining a system sewerage, participate in and expend revenue on cooperative watershed management actions, including watershed management partnerships under RCW 39.34.210 and <u>other intergovernmental agreements</u>, for purposes of water supply, water quality, and water resource and habitat protection and management."</p> |
| Capital | <p>The City reported total Surface Water CIP expenditures of \$2.54 million per year:</p> <p>SW Portion of Transportation Projects (\$950k per year) Streambank Stabilization Projects (\$350,000 per year) Neighborhood Drainage Assistance Projects (\$50k per year) Replacement of Aging/Failing Infrastructure (\$200k per year) Annual Infrastructure Replacement (\$350k per year on average) Other projects (Remainder, or about \$100-150k per year)</p> <p>Source: SW Utility Goals and Policies- Page 2</p> | |
| o SW Portion of Transportation Projects | <p>Currently the Utility funds the surface water portion of transportation projects by setting aside \$950k per year in the surface water CIP.</p> <p>Source: SW Utility Goals and Policies 2.C.1</p> | <p>Portions of the stormwater conveyance system are constructed appurtenant to streets, as streets are constructed. The City has appropriately paid for that stormwater-related portion of transportation improvements through this transfer. Funds transferred are restricted for the stormwater-related portion of such improvements, however, the City may wish to recalibrate the amount of the transfer on a more frequent basis to avoid potential issues. The City may also wish to consider including a definition of the stormwater system in City code that broadly includes all City stormwater facility types.</p> |
| o Streambank Stabilization Projects | <p>Currently the Utility funds streambank stabilization at an average level of \$350k per year in the surface water CIP.</p> <p>Source: SW Utility Goals and Policies 2.C.2</p> | <p>The provision of streambank stabilization should be documented as stormwater-related and/or mitigation for the impacts of stormwater runoff from developed surfaces. The City may also wish to consider including a definition of the stormwater system in City code that broadly includes all City stormwater facility types, including streams.</p> |
| o Acquisition | <p>The Utility does not currently set aside CIP funds for acquisition.</p> <p>Source: SW Utility Goals and Policies 2.C.6</p> | <p>There has not been a formal policy regarding acquisition.</p> |
| Operations & Maintenance | <p>The stormwater operating budget includes a number of specific line-items that can be grouped into the major functions of the program. A preliminary sort is provided in the cells below.</p> | <p>See rationale for major program functions.</p> |
| o Flooding/Capacity | <p>Includes:</p> <ul style="list-style-type: none"> * System inspection * System cleaning * System repair and maintenance * Flood monitoring and response | |



FCS GROUP
Project: City of Kirkland
Surface Water Rate Update
Policy Analysis: Review of Current Policies

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| <p>o <i>Water Quality</i></p> | <p>Includes:</p> <ul style="list-style-type: none"> * Development regulation and review * Water quality monitoring at Totem Lake and Forbes Lake * Education and outreach * Illicit discharge detection and elimination * Bacteria source identification * Stream restoration monitoring * Regional monitoring program * Private system inspection * BIBI monitoring * Street sweeping * Spill response | |
| <p>o <i>Statutory Requirements</i></p> | <p>Includes:</p> <ul style="list-style-type: none"> * ESA regulatory requirements * NPDES regulatory requirements, including GIS mapping * Development regulation and review | |
| <p>o <i>Regional Activities and Opportunities</i></p> | <p>Includes:</p> <ul style="list-style-type: none"> * Regional monitoring program * WRIA 8 Chinook salmon conversion plan | |
| <p>o <i>Habitat Restoration / Development</i></p> | <p>Includes:</p> <ul style="list-style-type: none"> * Stream restoration monitoring * Urban forestry (tree management) * Development regulation and review * ESA support (WRIA 8 Chinook salmon conversion plan) | |
| <p>o <i>General Admin</i></p> | <p>Includes:</p> <ul style="list-style-type: none"> * Billing * Overhead allocation * Reserve requirements | |