



Appendix O
Financial Analysis - Technical Analysis
and Issue Papers

ISSUE PAPER #1

Capital Facilities Charges

Issue

Capital facilities charges (CFCs), or connection fees, are one-time fees paid by development at the time of development (or, in some cases, re-development). The charges are intended to recover an equitable share of the cost of system capacity, and can only be used for capital construction (as opposed to operations). The City of Kirkland does not currently have a CFC for stormwater, although several local programs do. [Exhibit A provides comparable residential charges from local programs.] The following questions are addressed in this issue paper.

1. Applicable statute (RCW 35.92.025) leaves many unanswered questions regarding the calculation of such charges. Among the most important is, can the cost of future facilities be included in the charge basis?
2. City stormwater rates are based on impervious surface area. Is impervious surface area an appropriate basis for charging CFCs, particularly in light of the Program's emerging water quality emphasis?

Analysis

In general, there are two reasons for applying capital facilities charges: revenue and equity. Implementing CFCs establishes a source of revenue that can be used to support system improvement and expansion. In terms of equity, CFCs provide a mechanism for balancing costs between existing and new customers. Without them, existing customers bear the burden of providing system capacity needed by growth. The charge structure promotes equity among new customers by reflecting the proportional burden of cost recovery.

1. Cost Basis / Future Facilities

Determining the appropriate cost basis for the charges directly impacts the amount of revenue generated, and the future ability of the City to make system improvements while minimizing rate impacts. In the rate industry, a CFC is commonly recognized as a charge for capacity investments that can include both existing (past) and future system investments. In practice, the CFC must comply with State law, which can alter the traditional industry approach.

In Washington, water and sewer districts are given clear direction on the inclusion of future costs, while city law is more ambiguous.

For districts, Chapter 57.08.005 of the RCW states that connection charges shall amount to "the pro rata share of the cost of existing facilities and *facilities planned for construction within the next ten years* and contained in an adopted comprehensive plan and other costs borne by the district which are directly attributable to the improvements required by

property owners seeking to connect.”

In contrast, Chapter 35.92.025 of the RCW allows “such reasonable connection charge as the legislative body of the city or town shall determine proper in order that such property owners shall bear their equitable share of the cost of such system.” So, while the city statute does not contain the same explicit authorization as the district statute, it also does not forbid the inclusion of future facilities costs.

Recent legal interpretation and case law indicates that cities may include both existing and future facility costs in their CFC. Notably, Hugh Spitzer of Foster Pepper & Shefelman has written,¹ “Washington courts have upheld the ability of governmental utilities [in the cited case, a Public Utility District] to include future capital costs in the determination of connection charges when no express grant existed,” citing both Hillis Homes v. Public Utility District No. 1 of Snohomish County and Lincoln Shiloh Association v. Mukilteo Water District as supportive of this viewpoint. He concluded “that both cities and water districts have *ample authority to include the cost of future facilities* so long as the impact of each new customer is clearly documented by engineers and/or financial consultants and the local utility expressly relies on professional studies by those engineers or consultants in adopting that component of the capital facilities charge.”

Recommendation:

Include future capital costs in the capital facilities charge calculation, if the following conditions are met:

- The costs are identified in a system plan
- The costs are intended for construction within the utility’s planning period (e.g. 20 years which is the period used for certain Growth Management Act purposes)
- The costs are intended to increase the capacity of the system to meet the needs of growth.

It is our understanding that the City of Kirkland includes future facilities costs in its water and wastewater CFCs.

2. Unit Basis / Charge Equity

The unit basis of the charge relates directly to who bears the burden of cost recovery or “who should pay”. For stormwater, it is important to first understand that impervious surface area is a generally accepted measure of contribution of runoff, and hence, a customer’s use of the stormwater system. The nexus, or linkage, between impervious surface area, contribution of runoff, and increased flooding, water quality degradation, and even damage to fish habitat is “scientifically” strong and supportable.

The following selection from *Stormwater Strategies: Community Responses to Runoff Pollution* describes this nexus clearly:

The problem of polluted stormwater runoff has two main components: the increased volume and rate of runoff from impervious surfaces and the concentration of pollutants in the runoff. Both components are highly related to development in urban and urbanizing areas. When impervious cover (roads, highways, parking lots, and rooftops) reaches 10 and 20 percent of the area of a watershed, ecological stress becomes clearly apparent. Everyday activities, including driving and maintaining vehicles, maintaining lawns and parks, disposing of waste, and even walking pets, often cover these impervious surfaces with a coating of various harmful materials. Construction sites, power plants, failed septic systems, illegal discharges, and improper sewer connections also contribute substantial amounts of pollutants to runoff. Sediments, toxic metal particles, pesticides and fertilizers, oil and grease, pathogens, excess nutrients, and trash are common stormwater pollutants. Many of these constituents end up on roads and parking lots during dry weather only to be washed into waterbodies when it rains or when snow melts.

Together, these pollutants and the increased velocity and volume of runoff cause dramatic changes in hydrology and water quality that result in a variety of problems. These include increased flooding, stream channel degradation, habitat loss, changes in water temperature, contamination of water resources, and increased erosion and sedimentation. These changes affect ecosystem functions, biological diversity, public health, recreation, economic activity, and general community well-being. Urban stormwater is not alone in causing these impacts. Industrial and agricultural runoff are equal or greater contributors. But the environmental, aesthetic, and public health impacts of diffuse pollution will not be eliminated until urban stormwater pollution is controlled.¹

In addition to increasing the deposition of pollutants, supporting scientific research shows that the impervious surface area in even moderately developed areas greatly increases peak flows to streams, while decreasing base flows. The higher peak flows cause flooding and erosion, increasing sediment deposition and damaging fish habitat. The lower base flows can also damage fish habitat.

The above information generally supports an impervious surface area basis for both water quantity and quality management. It is noteworthy, however, that most stormwater pollutants relate to vehicles, driving and parked, and most impervious surface area is for transportation purposes. For example, the City of Olympia attributes about 2/3 of its impervious surface area in parts of the City to transportation uses. "This distinction is

¹ Peter H. Lehner, George P. Aponte Clarke, Diane M. Cameron, and Andrew G. Frank, *Stormwater Strategies Community Responses to Runoff Pollution (Natural Resources Defense Council, May 1999)*, xi.

important because rainfall on transportation surfaces drains directly to a stream or stormwater collection system that discharges to a waterbody usually without treatment.”² As stated in *Stormwater Strategies: Community Responses to Runoff Pollution*,

"Driving a car or truck contributes a number of different types of pollutants to urban runoff. Pollutants are derived from automotive fluids, deterioration of parts, and vehicle exhaust. Once these pollutants are deposited onto road and parking surfaces, they are available for transport in runoff to receiving waters during storm events.”³

One reasonable alternative to basing water quality charge elements on impervious surface area would therefore be to base them on a measure of vehicle use – such as trip generation by land use. Under such an approach, eligible water quality capital project costs would be recovered in the CFC based on the number of estimated trips to be generated by a new development. These estimates are readily available, by land use, in the Institute of Traffic Engineers (ITE) Trip Generation, 7th Edition.

While the impact of vehicle use on surface water quality is well documented, we believe that the impervious surface area basis adequately takes this into account because so much impervious surface area is for transportation uses. We believe it is arguable that a trip generation basis would be more equitable, and if so, more equitable enough to warrant the CFC structure complexity it would add.

Recommendation:

It is our recommendation that the City establish a stormwater CFC structure that is based on impervious surface area. The linkage between increased imperviousness and both water quantity and water quality degradation is strong and supportable. Further, the impervious basis is already used in the City’s stormwater rate structure.

² Peter H. Lehner, George P. Aponte Clarke, Diane M. Cameron, and Andrew G. Frank, *Stormwater Strategies Community Responses to Runoff Pollution (Natural Resources Defense Council, May 1999)*, 28.

³ Peter H. Lehner, George P. Aponte Clarke, Diane M. Cameron, and Andrew G. Frank, *Stormwater Strategies Community Responses to Runoff Pollution (Natural Resources Defense Council, May 1999)*, 32-33.

Exhibit A

The following are sample stormwater capital facilities charges for a typical single family residence.

Agency	CFC
Issaquah	\$1,520
Duvall	\$1,400
Kirkland (Proposed)	\$521
Redmond	\$400
Bellevue	NA
Bothell	NA
King County	NA
Kirkland (Current)	NA
Seattle	NA
Woodinville	NA

ISSUE PAPER #2

Utility Fiscal Policies

Issue

Adherence to sound fiscal policies should ensure the long-term health of the City of Kirkland stormwater utility – or any utility for that matter. Fiscal policies can range from recommended reserve levels to internal bond coverage targets. In this issue paper, we address both capital funding strategy and reserves.

1. While perhaps not as much as water and wastewater services, stormwater utilities still require high levels of ongoing capital investment (construction). Consistent with system planning efforts, prudent financial planning should provide a long-term strategy for capital funding. There are essentially two types of capital investment: system replacement and system improvement & expansion. What capital funding strategy should be integrated into rate planning and forecasting?
2. A municipal utility, like any business, requires certain minimum levels of cash reserves to operate. These reserves help weather the variability and timing of expense and revenues, as well as occasional disruptions in services, costs or revenues. What are appropriate reserve targets for the City stormwater enterprise?

Analysis

1. Capital Funding and System Replacement

a) Replacement Funding

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. The cost of such replacements is generally extremely high in comparison to the original facilities, due to inflation, construction conditions, and absence of grant or developer support. Therefore, it is prudent to plan for an intended replacement funding mechanism.

Many utilities incorporate a replacement funding mechanism based on depreciation expense as a reasonable level of reinvestment in the system. This level of funding meets several standards for reasonable rates:

- it avoids decline in system asset value (financial integrity)
- it charges customers commensurate with the consumption of facility useful lives (rate equity)
- and it provides a substantial source of funding which can meet most, if not all, replacement needs (adequacy of capital funding).

We recommend that the City fund depreciation expense to the maximum extent practical. However, we caution that this does not ensure adequate funding for replacement needs without additional rate impacts and/or use

of debt, especially for systems that have not utilized such a funding method since inception. We also recommend that the City's system planning efforts include an evaluation of replacement needs to determine if higher funding levels may be necessary.

b) Improvement Funding

In addition to replacement funding, the City requires sources of funding for capital improvements and expansion. Historically, this funding has primarily been derived from these sources:

- Developer Contributions
- Direct Rate Funding
- Street Fund

We recommend that the City continue to utilize these resources, with the addition of capital facilities charges (CFCs) -- addressed in a separate issue paper. The primary question facing the City regarding capital improvement funding will be whether these sources are an adequate and secure form of financing. For the near term, this will be analyzed within the context of the rate forecast. For the longer term, it should be addressed through a coordination of rate and capital planning.

Recommendation:

We recommend that the City fund stormwater capital needs in the following manner:

- Capital Replacement – To the maximum extent practical, annually fund capital transfers equal to depreciation expense (est. \$581,000 for 2005) as a source of capital replacement funding. During periods when replacement costs are below funding levels, accumulate replacement funds for future replacement needs. If the City accumulates substantial replacement reserves, it may wish to consider “lending” these resources to fund capital improvements. In such case, the replacement reserve should be compensated, with interest, from subsequent rate and CFC revenues according to a fixed repayment schedule. When replacement costs exceed available funds, use debt financing to augment cash funding.
- Capital Improvement – Capital Facilities Charges should be dedicated to funding capital improvements or repaying debt used to finance improvements. When facing substantial improvement needs, the City may also wish to consider a budgeted annual cash transfer from rates to augment capital improvement funding.

2. Reserve Levels

a) Operating (Working Capital) Reserves

Operating or working capital reserves are designed to provide a cash

"cushion" which can be used to cover cash balance fluctuations. Typically, these reserves are intended to address both routine or anticipated fluctuations and unusual or unanticipated changes in revenues and expenses.

Targeted funding levels are often characterized as a *recommended number of days of cash operating expenses*, with the minimum number of days varying with the expected risk of unanticipated needs. For example, a 30-day reserve minimum (common for stormwater utilities that bill monthly) equates to 30/365 (days in a year), or 8.2%, of budgeted cash operating expenses.

City of Kirkland stormwater rates are based on the amount of developed area on each individual parcel, and are billed *annually* on the King County property tax statement. Because the basis of charging changes very little from year to year, the stormwater utility generates relatively constant and predictable total rate revenue. Due to the fee's inclusion on the property tax statement, however, approximately eighty percent of stormwater utility rate revenue is received *after the October property tax payment deadline*. To ensure ongoing fiscal health, this revenue pattern requires that the City either (1) begin each year with at least ten months of cash operating expenses or (2) be prepared to use warrants (intra-City loans) to fund ongoing stormwater operations until October revenue is received – something the City has not historically done.

b) Contingency Reserves

In addition to the above protection against variations in operating costs and revenues, it is prudent to establish and maintain a contingency reserve to meet unexpected emergency outlays, particularly those of a capital nature. While it would be impractical to reserve against major system-wide failures, such as an earthquake, it is reasonable and prudent to identify and quantify possible failures of individual system components. There are several ways to set the level of contingency reserves, including:

- Percentage of Plant – As a rule of thumb, a utility may elect to hold a contingency reserve equal to a percentage of plant, usually 1% to 2% of asset value. For Kirkland, 1% of the stormwater utility plant is equal to \$298,700.¹
- Percentage of CIP – The City has historically reserved 10% of the total cost of the six-year stormwater capital improvement plan (CIP). This strategy provides both a source of funding for projects that exceed their budgeted costs and a cushion against unanticipated capital outlays. Ten percent of the stormwater CIP is equal to \$847,400.
- Most Costly Piece of Equipment – Alternatively, a utility may predict the cost of replacing the most expensive piece of equipment or facility

¹ Total plant-in-service as of 12/31/04 estimated at \$29.87 million.

that it relies on, such as its largest or most powerful pump, or most expensive stream crossing, and reserve an amount equal to the cost of a major repair of that facility.

- Rely on Other Reserve Resources – Many Cities maintain “rainy day” funds as hedges against emergencies or unusual circumstances. In such a case, extending their applicability to utility emergency repairs could preclude the need for a separate utility contingency reserve.
- Rely on Replacement Reserves – Essentially, the contingency reserve is a minimum balance in the utility’s construction fund. If a replacement reserve has been separately funded, that fund balance can also be relied on for this purpose. This would avoid multiple reserves when the existing reserves can serve overlapping purposes.
- Rely on Risk Management Provisions – Finally, the City’s insurance may cover the cost for emergency repair or replacement of utility facilities, in which case the sole issue would be timeliness of payment. However, in many cases such coverage is limited to casualty incidents, and may not cover operational failures. For example, a fire damaging a pump station may be covered; the motor burning out due to mechanical reasons may not.

We recommend that the City maintain a contingency reserve minimum balance equal to the greater of 1% of assets (original cost), resulting in a reserve level of \$298,700, and 10% of cost of the CIP, or \$847,400.

c) Bond Reserves

The City currently has no stormwater-related debt. If it ever does, it will be an obligation of the City to meet the reserve requirements of bonds and loans that it uses for utility purposes. The City will need to fully fund reserves as required by bond covenant or loan agreement.

Recommendation:

We recommend that the City of Kirkland establish an operating reserve beginning fund balance target for the stormwater utility of 10 months of cash operating expenses.

We further recommend that the City utilize either its replacement reserve or other emergency reserves as a source of contingency funds. We recommend that the City maintain a contingency fund minimum balance equal to the greater of 1% of utility assets and 10% of the CIP. Finally, when applicable, the City must maintain bond reserve and repayment funds as required by bond covenants.

ISSUE PAPER #3

Local Program Comparison

Issue

The City of Kirkland stormwater utility funds between thirteen and fourteen full-time equivalent (FTE) employees, responsible for stormwater operations. How large are neighboring programs, and how do they compare to the City of Kirkland's, as measured by a number of simple metrics?

Analysis

The following table summarizes stormwater program information for the cities of Kirkland, Redmond, Bellevue, and Issaquah. Information in the table has been derived from a number of sources, including budget documents, direct communications, etc. It is important to remember that these are by nature apples and oranges comparisons, as each system is different in terms of its hydrology, intensity and type of development, etc. Caution should be used in drawing conclusions from this information.

Note: The "FTEs / #" column is intended to provide a basis for comparing program sizes in FTEs against several measures of system size or value.

	Kirkland		Redmond		Issaquah		Bellevue	
	#	FTEs / #	#	FTEs / #	#	FTEs / #	#	FTEs / #
FTEs	13.69	NA	29.46	NA	8.78	NA	33.9	NA
Service Area Size (100 acres)	70.4	0.19	106.56	0.28	69.44	0.13	201.6	0.17
Miles of Stream	27.28	0.50	NA	NA	30.7	0.29	60	0.57
Miles of Pipe	157.45	0.09	164.02	0.18	106	0.08	373	0.09
Population	45,630	0.00030	47,600	0.00062	17,060	0.00051	116,500	0.00029
AV (\$1,000,000)	\$ 7,896	0.00173	\$ 9,299	0.00317	\$ 3,435	0.00256	\$ 21,200	0.00160

City of Kirkland

Stormwater Rate Study

Summary

Capital Funding	2005	2006	2007	2008	2009	2010	2011
Total Capital Projects	\$ 994,700	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534
Use of Capital Fund Balance	\$ 994,700	\$ 1,340,160	\$ 1,314,105	\$ 1,359,782	\$ 1,274,179	\$ 1,047,564	\$ 939,277
Direct Rate Funding	-	1,187,420	1,274,578	1,292,449	1,444,140	1,739,489	1,919,258
Total Funding Sources	\$ 994,700	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534

Revenue Requirements	2005	2006	2007	2008	2009	2010	2011
Revenues							
Rate Revenues Under Existing Rates	\$ 3,876,285	\$ 3,897,552	\$ 3,918,936	\$ 3,940,437	\$ 3,962,056	\$ 3,983,794	\$ 4,005,651
Non-Rate Revenues	46,051	65,645	72,355	74,299	76,324	78,435	80,633
Total Revenues	\$ 3,922,336	\$ 3,963,197	\$ 3,991,291	\$ 4,014,736	\$ 4,038,380	\$ 4,062,228	\$ 4,086,284
Expenses							
Cash O&M Expenses	\$ 2,055,542	\$ 2,389,012	\$ 2,480,657	\$ 2,576,133	\$ 2,675,611	\$ 2,783,372	\$ 2,896,453
Rate Funded System Reinvestment	-	644,430	709,148	775,453	843,411	913,088	984,551
Rate Funded CIP	-	1,187,420	1,274,578	1,292,449	1,444,140	1,739,489	1,919,258
Total Expenses	\$ 2,055,542	\$ 4,220,862	\$ 4,464,382	\$ 4,644,035	\$ 4,963,162	\$ 5,435,948	\$ 5,800,261
Annual Rate Adjustment	45.33%	29.82%	0.00%	0.00%	0.00%	5.29%	6.14%
Rate Revenues After Rate Increase	\$ 3,876,285	\$ 5,059,802	\$ 5,087,562	\$ 5,115,475	\$ 5,143,541	\$ 5,445,467	\$ 5,811,287
Net Cash Flow After Rate Increase	1,866,794	904,585	695,536	545,739	256,703	87,954	91,659

Fund Balances	2005	2006	2007	2008	2009	2010	2011
Operating Fund	\$ 1,745,803	\$ 2,014,217	\$ 2,091,971	\$ 2,172,979	\$ 2,257,385	\$ 2,345,338	\$ 2,436,998
Capital Fund	1,340,160	1,314,105	1,359,782	1,274,179	1,047,564	939,277	1,008,033
Total	\$ 3,085,963	\$ 3,328,322	\$ 3,451,753	\$ 3,447,158	\$ 3,304,948	\$ 3,284,615	\$ 3,445,031
<i>Combined Minimum Target Balance</i>	<i>\$ 1,100,823</i>	<i>\$ 2,861,617</i>	<i>\$ 2,939,371</i>	<i>\$ 3,020,379</i>	<i>\$ 3,104,785</i>	<i>\$ 3,192,738</i>	<i>\$ 3,284,398</i>

City of Kirkland Stormwater Rate Study

Assumptions

Growth	3,351
Current Base	28,978
No of Years	20

Capital Financing Assumptions

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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CAPITAL FACILITIES CHARGE (CFC) REVENUES

Select CFC Alternative	1
1 - User Input (Current Charge)	\$ -
2 - Calculated Charge	\$ 521

Current Charge is in use

Total Residential Customer Equivalents	28,978	29,183	29,343	29,504	29,666	29,829	29,993	30,157	30,323	30,489
Capital Facilities Charge Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REVENUE BONDS

Term (years)	20	20	20	20	20	20	20	20	20	20
Interest Cost	5.00%	5.00%	5.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Issuance Cost	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Revenue Bond Coverage Requirement	1.50									

PWTF LOAN

Term (years; 10 year minimum and no more than 20 years)	10	10	10	10	10	10	10	10	10	10
Interest Cost	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

OTHER LOANS & REVENUE-SUPPORTED GENERAL OBLIGATION BONDS[a]

Term (years)	20	20	20	20	20	20	20	20	20	20
Interest Cost	4.00%	4.00%	4.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issuance Cost	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

[a] Tax-supported general obligation bonds are assumed to be accounted for in the General Fund; terms and annual obligations of such bonds are not factors in this analysis.

City of Kirkland

Stormwater Rate Study

Existing Debt Input

Existing Debt Service - Revenue Bonds

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
REVENUE BOND 1										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
REVENUE BOND 2										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
REVENUE BOND 3										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
REVENUE BOND 4										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
REVENUE BOND 5										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE BONDS										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
Annual Debt Reserve Target on Existing Revenue Bonds	-	-	-	-	-	-	-	-	-	-

City of Kirkland

Stormwater Rate Study

Existing Debt Input

Existing Debt Service - PWTF Loans

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
PWTF LOAN 1										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 2										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 3										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 4										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 5										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PWTF LOANS										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Kirkland

Stormwater Rate Study

Operating Revenue and Expenditure Forecast

Revenues		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013
Rate revenues [a]												
Residential Storm Drainage Fees	4	Customer Growth	\$ 1,221,840	\$ 1,816,035	\$ 1,825,999	\$ 1,836,017	\$ 1,846,090	\$ 1,856,219	\$ 1,866,403	\$ 1,876,643	\$ 1,886,939	\$ 1,897,291
Commercial Storm Drainage Fees	4	Customer Growth	1,386,142	2,060,250	2,071,553	2,082,919	2,094,347	2,105,837	2,117,391	2,129,008	2,140,689	2,152,433
subtotal			\$ 2,607,982	\$ 3,876,285	\$ 3,897,552	\$ 3,918,936	\$ 3,940,437	\$ 3,962,056	\$ 3,983,794	\$ 4,005,651	\$ 4,027,627	\$ 4,049,725
Non-rate revenues [b]												
Interfund - Other Gen. Government	8	No Escalation	26,588	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Interfund Engineering - CIP	8	No Escalation	55,287	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Other Miscellaneous Revenue	8	No Escalation	600	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
[Other]	8	No Escalation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 82,475	\$ 22,000								
TOTAL REVENUES			\$ 2,690,457	\$ 3,898,285	\$ 3,919,552	\$ 3,940,936	\$ 3,962,437	\$ 3,984,056	\$ 4,005,794	\$ 4,027,651	\$ 4,049,627	\$ 4,071,725

[a] Already adopted 2005 rate increase is incorporated into the budgeted revenues.

[b] Excluding interest earnings

Expenditures		FORECAST BASIS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Surface Water Management Contract Operations												
51 Salaries and Wages	3	Labor Cost Inflation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53 Office and Operating Supplies	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
54 Other Services and Charges	1	General Cost Inflation	63,412	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	63,506	65,000	66,950	68,959	71,027	73,158	75,353	77,613	79,942	82,340
subtotal			\$ 126,918	\$ 65,000	\$ 66,950	\$ 68,959	\$ 71,027	\$ 73,158	\$ 75,353	\$ 77,613	\$ 79,942	\$ 82,340
Surface Water Management Customer Services												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 202,751	\$ 245,640	\$ 257,922	\$ 270,818	\$ 284,359	\$ 298,577	\$ 313,506	\$ 329,181	\$ 345,640	\$ 362,922
52 Benefits	3	Labor Cost Inflation	39,005	61,884	64,978	68,227	71,638	75,220	78,981	82,930	87,077	91,431
53 Supplies	1	General Cost Inflation	3,188	3,900	4,017	4,138	4,262	4,389	4,521	4,657	4,797	4,940
541 Professional Services	1	General Cost Inflation	28,268	48,500	49,955	51,454	52,997	54,587	56,225	57,912	59,649	61,438
542 Communication	1	General Cost Inflation	886	734	756	779	802	826	851	876	903	930
543 Travel	1	General Cost Inflation	13	50	52	53	55	56	58	60	61	63
544 Advertising	1	General Cost Inflation	25	800	824	849	874	900	927	955	984	1,013
545 Operating Rentals and Leases	1	General Cost Inflation	25,285	27,011	27,821	28,656	29,516	30,401	31,313	32,253	33,220	34,217
549 Miscellaneous	1	General Cost Inflation	4,350	6,800	7,004	7,214	7,431	7,653	7,883	8,120	8,363	8,614
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 303,769	\$ 395,319	\$ 413,329	\$ 432,187	\$ 451,933	\$ 472,611	\$ 494,266	\$ 516,943	\$ 540,694	\$ 565,569

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013	
Revenues													
Surface Water Management - Street Sweeping													
51	Salaries and Wages	3	Labor Cost Inflation	\$ 29,191	\$ 30,418	\$ 31,939	\$ 33,536	\$ 35,213	\$ 36,973	\$ 38,822	\$ 40,763	\$ 42,801	\$ 44,941
52	Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53	Supplies	1	General Cost Inflation	1,557	-	-	-	-	-	-	-	-	-
541	Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542	Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543	Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544	Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545	Operating Rentals and Leases	1	General Cost Inflation	33,617	63,699	65,610	67,578	69,606	71,694	73,845	76,060	78,342	80,692
549	Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
		subtotal		\$ 64,364	\$ 94,117	\$ 97,549	\$ 101,114	\$ 104,818	\$ 108,667	\$ 112,667	\$ 116,823	\$ 121,143	\$ 125,633
Surface Water Management Maintenance Supervision													
51	Salaries and Wages	3	Labor Cost Inflation	\$ 83,918	\$ 93,978	\$ 98,677	\$ 103,611	\$ 108,791	\$ 114,231	\$ 119,942	\$ 125,940	\$ 132,236	\$ 138,848
52	Benefits	3	Labor Cost Inflation	19,637	28,928	30,374	31,893	33,488	35,162	36,920	38,766	40,705	42,740
53	Supplies	1	General Cost Inflation	759	500	515	530	546	563	580	597	615	633
541	Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542	Communication	1	General Cost Inflation	-	259	267	275	283	292	300	309	319	328
543	Travel	1	General Cost Inflation	-	100	103	106	109	113	116	119	123	127
544	Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545	Operating Rentals and Leases	1	General Cost Inflation	11,963	14,859	15,305	15,764	16,237	16,724	17,226	17,742	18,275	18,823
546	Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548	Repairs and Maintenance	1	General Cost Inflation	154	1,050	1,082	1,114	1,147	1,182	1,217	1,254	1,291	1,330
549	Miscellaneous	1	General Cost Inflation	33	5,176	5,331	5,491	5,656	5,826	6,000	6,180	6,366	6,557
55	Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56	Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
		subtotal		\$ 116,465	\$ 144,850	\$ 151,654	\$ 158,784	\$ 166,258	\$ 174,091	\$ 182,302	\$ 190,908	\$ 199,929	\$ 209,386

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013
Revenues												
Surface Water General Admin												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 42,204	\$ 59,821	\$ 62,812	\$ 65,953	\$ 69,250	\$ 72,713	\$ 76,348	\$ 80,166	\$ 84,174	\$ 88,383
52 Benefits	3	Labor Cost Inflation	133,249	183,094	192,249	201,861	211,954	222,552	233,679	245,363	257,632	270,513
53 Supplies	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
541 Professional Services	1	General Cost Inflation	222,006	288,502	297,157	306,072	315,254	324,712	334,453	344,486	354,821	365,466
542 Communication	1	General Cost Inflation	663	1,490	1,535	1,581	1,628	1,677	1,727	1,779	1,833	1,887
543 Travel	1	General Cost Inflation	-	100	103	106	109	113	116	119	123	127
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	47,072	49,339	50,819	52,344	53,914	55,531	57,197	58,913	60,681	62,501
546 Insurance	1	General Cost Inflation	42,803	41,003	42,233	43,500	44,805	46,149	47,534	48,960	50,429	51,941
547 Utility Services	1	General Cost Inflation	135	300	309	318	328	338	348	358	369	380
548 Repairs and Maintenance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
549 Miscellaneous	1	General Cost Inflation	2,002	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900
55 Intergov/Interfund (External Taxes)		State B&O Tax Rate	70,316	58,474	58,793	59,114	59,437	59,761	60,087	60,415	60,744	61,076
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
59 COLA Reserve	3	Labor Cost Inflation	-	1,383	1,452	1,525	1,601	1,681	1,765	1,853	1,946	2,043
subtotal			\$ 560,451	\$ 685,006	\$ 709,007	\$ 733,965	\$ 759,919	\$ 786,914	\$ 814,994	\$ 844,205	\$ 874,596	\$ 906,218
Storm Water Management Reimbursable Work												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 2,700	-	-	-	-	-	-	-	-	-
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
541 Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 2,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

Revenues		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013
Storm Water Management Construction												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 14,014	\$ 11,144	\$ 11,701	\$ 12,286	\$ 12,901	\$ 13,546	\$ 14,223	\$ 14,934	\$ 15,681	\$ 16,465
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	3,551	-	-	-	-	-	-	-	-	-
541 Professional Services	1	General Cost Inflation	119	150	155	159	164	169	174	179	184	190
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	-	9,264	9,542	9,828	10,123	10,427	10,740	11,062	11,394	11,735
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergov/Interfund (Oper. Transfer Out)	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	7,420	23,310	24,009	24,730	25,471	26,236	27,023	27,833	28,668	29,528
subtotal			\$ 25,103	\$ 43,868	\$ 45,407	\$ 47,003	\$ 48,659	\$ 50,377	\$ 52,159	\$ 54,008	\$ 55,927	\$ 57,919
Surface Water Management Cleaning												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 57,695	\$ 94,557	\$ 99,285	\$ 104,249	\$ 109,462	\$ 114,935	\$ 120,681	\$ 126,715	\$ 133,051	\$ 139,704
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	5,056	5,350	5,511	5,676	5,846	6,021	6,202	6,388	6,580	6,777
541 Professional Services	1	General Cost Inflation	20,618	-	-	-	-	-	-	-	-	-
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	68,471	77,732	80,064	82,466	84,940	87,488	90,113	92,816	95,601	98,469
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	-	500	515	530	546	563	580	597	615	633
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 151,841	\$ 178,139	\$ 185,374	\$ 192,921	\$ 200,794	\$ 209,007	\$ 217,576	\$ 226,517	\$ 235,847	\$ 245,583

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

Revenues		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013
Surface Water Management Detention												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 37,065	\$ 47,124	\$ 49,480	\$ 51,954	\$ 54,552	\$ 57,280	\$ 60,143	\$ 63,151	\$ 66,308	\$ 69,624
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	22,272	19,300	19,879	20,475	21,090	21,722	22,374	23,045	23,737	24,449
541 Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	18,611	10,351	10,662	10,981	11,311	11,650	12,000	12,360	12,730	13,112
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	62	-	-	-	-	-	-	-	-	-
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 78,010	\$ 76,775	\$ 80,021	\$ 83,411	\$ 86,952	\$ 90,652	\$ 94,517	\$ 98,556	\$ 102,775	\$ 107,185
Surface Water Management Rehabilitation												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 158,923	\$ 125,566	\$ 131,844	\$ 138,437	\$ 145,358	\$ 152,626	\$ 160,258	\$ 168,270	\$ 176,684	\$ 185,518
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	76,355	66,050	68,032	70,072	72,175	74,340	76,570	78,867	81,233	83,670
541 Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	66,868	67,111	69,124	71,198	73,334	75,534	77,800	80,134	82,538	85,014
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	1,127	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 303,272	\$ 259,727	\$ 270,030	\$ 280,768	\$ 291,960	\$ 303,626	\$ 315,787	\$ 328,466	\$ 341,685	\$ 355,469

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

Revenues		FORECAST BASIS	Actual 2004	Budget 2005	Projection 2006	Projection 2007	Projection 2008	Projection 2009	Projection 2010	Projection 2011	Projection 2012	Projection 2013
Surface Water Management Ditches												
51	Salaries and Wages	3	\$ 8,093	\$ 6,857	\$ 7,200	\$ 7,560	\$ 7,938	\$ 8,335	\$ 8,751	\$ 9,189	\$ 9,648	\$ 10,131
52	Benefits	3	-	-	-	-	-	-	-	-	-	-
53	Supplies	1	221	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583
541	Professional Services	1	-	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067
542	Communication	1	-	-	-	-	-	-	-	-	-	-
543	Travel	1	-	-	-	-	-	-	-	-	-	-
544	Advertising	1	-	-	-	-	-	-	-	-	-	-
545	Operating Rentals and Leases	1	3,824	7,290	7,509	7,734	7,966	8,205	8,451	8,705	8,966	9,235
546	Insurance	1	-	-	-	-	-	-	-	-	-	-
548	Repairs and Maintenance	1	-	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167
549	Miscellaneous	1	-	-	-	-	-	-	-	-	-	-
55	Intergovernmental / Interfund	1	-	-	-	-	-	-	-	-	-	-
56	Capital Outlay	1	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 12,139	\$ 21,897	\$ 22,691	\$ 23,516	\$ 24,372	\$ 25,262	\$ 26,187	\$ 27,148	\$ 28,146	\$ 29,183
Surface Water Management Maintenance Sweep/Waste Disposal												
51	Salaries and Wages	3	\$ 10,650	\$ 18,610	\$ 19,541	\$ 20,518	\$ 21,543	\$ 22,621	\$ 23,752	\$ 24,939	\$ 26,186	\$ 27,495
52	Benefits	3	-	-	-	-	-	-	-	-	-	-
53	Supplies	1	119	-	-	-	-	-	-	-	-	-
541	Professional Services	1	179	750	773	796	820	844	869	896	922	950
542	Communication	1	-	-	-	-	-	-	-	-	-	-
543	Travel	1	-	-	-	-	-	-	-	-	-	-
544	Advertising	1	-	-	-	-	-	-	-	-	-	-
545	Operating Rentals and Leases	1	14,325	8,127	8,371	8,622	8,881	9,147	9,421	9,704	9,995	10,295
546	Insurance	1	-	-	-	-	-	-	-	-	-	-
547	Utility Services	1	75,355	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003
548	Repairs and Maintenance	1	-	-	-	-	-	-	-	-	-	-
549	Miscellaneous	1	-	-	-	-	-	-	-	-	-	-
55	Intergovernmental / Interfund	1	-	-	-	-	-	-	-	-	-	-
56	Capital Outlay	1	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 100,628	\$ 57,487	\$ 59,584	\$ 61,762	\$ 64,025	\$ 66,377	\$ 68,821	\$ 71,360	\$ 74,000	\$ 76,744

City of Kirkland
Stormwater Rate Study
Operating Revenue and Expenditure Forecast

		Actual	Budget	Projection	Projection							
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013
Revenues		FORECAST BASIS										
Storm Water Management Roadway Maintenance (ESA impact)												
51 Salaries and Wages	3	\$ 34,348	\$ 24,272	\$ 25,486	\$ 26,760	\$ 28,098	\$ 29,503	\$ 30,978	\$ 32,527	\$ 34,153	\$ 35,861	
52 Benefits	3	-	-	-	-	-	-	-	-	-	-	
53 Supplies	1	-	-	-	-	-	-	-	-	-	-	
541 Professional Services	1	-	-	-	-	-	-	-	-	-	-	
542 Communication	1	-	-	-	-	-	-	-	-	-	-	
543 Travel	1	-	-	-	-	-	-	-	-	-	-	
544 Advertising	1	-	-	-	-	-	-	-	-	-	-	
545 Operating Rentals and Leases	1	180	1,063	1,095	1,128	1,162	1,196	1,232	1,269	1,307	1,347	
546 Insurance	1	-	-	-	-	-	-	-	-	-	-	
547 Utility Services	1	-	-	-	-	-	-	-	-	-	-	
548 Repairs and Maintenance	1	-	-	-	-	-	-	-	-	-	-	
549 Miscellaneous	1	-	-	-	-	-	-	-	-	-	-	
55 Intergovernmental / Interfund	1	-	-	-	-	-	-	-	-	-	-	
56 Capital Outlay	1	-	-	-	-	-	-	-	-	-	-	
subtotal		\$ 34,529	\$ 25,335	\$ 26,580	\$ 27,888	\$ 29,259	\$ 30,699	\$ 32,210	\$ 33,796	\$ 35,460	\$ 37,207	
Storm Water Management Sidewalk Maintenance (ESA impact)												
51 Salaries and Wages	3	\$ 2,637	\$ 3,483	\$ 3,657	\$ 3,840	\$ 4,032	\$ 4,234	\$ 4,445	\$ 4,668	\$ 4,901	\$ 5,146	
52 Benefits	3	-	-	-	-	-	-	-	-	-	-	
53 Supplies	1	-	-	-	-	-	-	-	-	-	-	
541 Professional Services	1	-	-	-	-	-	-	-	-	-	-	
542 Communication	1	-	-	-	-	-	-	-	-	-	-	
543 Travel	1	-	-	-	-	-	-	-	-	-	-	
544 Advertising	1	-	-	-	-	-	-	-	-	-	-	
545 Operating Rentals and Leases	1	180	528	544	560	577	594	612	630	649	669	
546 Insurance	1	-	-	-	-	-	-	-	-	-	-	
547 Utility Services	1	-	-	-	-	-	-	-	-	-	-	
548 Repairs and Maintenance	1	-	-	-	-	-	-	-	-	-	-	
549 Miscellaneous	1	-	-	-	-	-	-	-	-	-	-	
55 Intergovernmental / Interfund	1	-	-	-	-	-	-	-	-	-	-	
56 Capital Outlay	1	-	-	-	-	-	-	-	-	-	-	
subtotal		\$ 2,817	\$ 4,011	\$ 4,201	\$ 4,400	\$ 4,609	\$ 4,828	\$ 5,057	\$ 5,298	\$ 5,550	\$ 5,815	

City of Kirkland

Stormwater Rate Study

Operating Revenue and Expenditure Forecast

		Actual	Budget	Projection								
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013
Revenues	FORECAST BASIS											
Storm Water Management Roadside Maintenance (ESA impact)												
51 Salaries and Wages	3	Labor Cost Inflation	\$ 2,792	\$ 3,483	\$ 3,657	\$ 3,840	\$ 4,032	\$ 4,234	\$ 4,445	\$ 4,668	\$ 4,901	\$ 5,146
52 Benefits	3	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-
53 Supplies	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
541 Professional Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
542 Communication	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
543 Travel	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
544 Advertising	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
545 Operating Rentals and Leases	1	General Cost Inflation	180	528	544	560	577	594	612	630	649	669
546 Insurance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
547 Utility Services	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
548 Repairs and Maintenance	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
549 Miscellaneous	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
55 Intergovernmental / Interfund	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
56 Capital Outlay	1	General Cost Inflation	-	-	-	-	-	-	-	-	-	-
subtotal			\$ 2,972	\$ 4,011	\$ 4,201	\$ 4,400	\$ 4,609	\$ 4,828	\$ 5,057	\$ 5,298	\$ 5,550	\$ 5,815
Add'l O&M from CIP	<i>From CIP</i>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Cash O&M Expenditures			\$ 1,885,977	\$ 2,055,542	\$ 2,136,578	\$ 2,221,078	\$ 2,309,196	\$ 2,401,098	\$ 2,496,952	\$ 2,596,939	\$ 2,701,245	\$ 2,810,066
Depreciation Expense [c]	<i>Last year's plus annual additions from CIP</i>		\$ 581,241	\$ 581,241	\$ 644,430	\$ 709,148	\$ 775,453	\$ 843,411	\$ 913,088	\$ 984,551	\$ 984,551	\$ 984,551
TOTAL EXPENSES			\$ 2,467,218	\$ 2,636,783	\$ 2,781,009	\$ 2,930,225	\$ 3,084,650	\$ 3,244,509	\$ 3,410,040	\$ 3,581,490	\$ 3,685,796	\$ 3,794,617
Surface Water Maintenance Program with Overlay												
2005 Surface Water Maintenance Program Totals				\$ 536,097								
2005 Surface Water Maintenance Program Totals Modified				626,097								
Difference	1	General Cost Inflation		\$ 90,000	92,700	95,481	98,345	101,296	104,335	107,465	110,689	
Include Overlay ?	1	(1 - Yes, 2 - No)										
Customer Service	1	General Cost Inflation		\$ 145,000	149,350	153,831	158,445	163,199	168,095	173,138	178,332	
Include Customer Service ?	1	(1 - Yes, 2 - No)										
[c] Depreciation is a non-cash expense.												
55 Intergov/Interfund (External Taxes)			70,316	43,000								
55 Intergov/Interfund (Oper. Transfer Out)			765,307	1,846,480								

**City of Kirkland
Stormwater Rate Study
Capital Improvement Program**

Project Costs and O&M Impacts in Year:	2004
Number of Years to Fund the Entire CIP:	6

(Project costs are escalated using Construction Cost Inflation assumptions)

If you input the CIP schedule, please leave this field empty. A data input will result in an equal annual capital spending, starting from the project year entered.

No	Description	Current Cost	Year	Annual O&M Impact	Life in Years	For CFC Calculation		TOTAL ESCALATED COSTS	TOTAL FORECASTED PROJECT COSTS					
						% Expansion	% Existing		2006	2007	2008	2009	2010	2011
1	CA-1 - Water District #1 Erosion Control	\$ 188,000	2006	\$ -	40	10%	90%	\$ 224,792	\$ 33,890	\$ 35,246	\$ 36,656	\$ 38,122	\$ 39,647	\$ 41,233
2	CO-01 - Culvert improvement at Lake Washington	845,000	2006	-	40	10%	90%	1,010,370	152,325	158,418	164,755	171,345	178,199	185,327
3	CW-1 - Regional detention in Forbes and Juanita	1,500,000	2006	-	40	10%	90%	1,793,557	270,400	281,216	292,465	304,163	316,330	328,983
4	CW-2 - Replacement of aging/failing infrastructure		2006	-	40	0%	100%	-	-	-	-	-	-	-
5	CW-3a, CW-3b - Surface water sediment pond re	156,000	2006	-	40	10%	90%	186,530	28,122	29,246	30,416	31,633	32,898	34,214
6	FO-01 - 108th Ave NE fish passage improvement	129,000	2006	-	40	10%	90%	154,246	23,254	24,185	25,152	26,158	27,204	28,293
7	FO-03 - NE 95th/126th NE flood control	50,000	2006	-	40	10%	90%	59,785	9,013	9,374	9,749	10,139	10,544	10,966
8	FO-04 - Streambank Stabilization at NE 86th Stre	385,000	2006	-	40	10%	90%	460,346	69,403	72,179	75,066	78,069	81,191	84,439
9	FO-05 - Forbes Creek Culvert (King County Prop	249,000	2006	-	40	10%	90%	297,730	44,886	46,682	48,549	50,491	52,511	54,611
10	FO-06 - Driveway crossing repair at 10041 Slater	50,000	2006	-	40	10%	90%	59,785	9,013	9,374	9,749	10,139	10,544	10,966
11	FO-07 - Channel grade controls near Coors pond	234,000	2006	-	40	10%	90%	279,795	42,182	43,870	45,624	47,449	49,347	51,321
12	FO-08 - BNSF fish passage	194,000	2006	-	40	10%	90%	231,967	34,972	36,371	37,825	39,338	40,912	42,548
13	FO-09 - Culvert under parking lot at Airshow Industries		2006	-	40	10%	90%	-	-	-	-	-	-	-
14	FO-10 - Riparian planting upstream of 98th Ave N	58,000	2006	-	40	10%	90%	69,351	10,455	10,874	11,309	11,761	12,231	12,721
15	FO-11 - Fish passage and riparian planting at in-	76,000	2006	-	40	10%	90%	90,874	13,700	14,248	14,818	15,411	16,027	16,668
16	FO-12 - NE 90th/120th NE Sediment Control	169,000	2006	-	40	10%	90%	202,074	30,465	31,684	32,951	34,269	35,640	37,065
17	FO-13 - 124th Ave NE/NE 100th Place Drainage	132,000	2006	-	40	10%	90%	157,833	23,795	24,747	25,737	26,766	27,837	28,950
18	FO-14 - NE 85th Street Detention and Sediment	485,000	2006	-	40	10%	90%	579,917	87,429	90,927	94,564	98,346	102,280	106,371
19	HSB-1 - NE 47th Place Surface Water Outfall	96,000	2006	-	40	10%	90%	114,788	17,306	17,998	18,718	19,466	20,245	21,055
20	JU-02 - Channel improvements in Juanita Beach	262,000	2006	-	40	10%	90%	313,275	47,230	49,119	51,084	53,127	55,252	57,462
21	JU-03 - NE 126th Pl at 94th Ave NE Channel rest	164,000	2006	-	40	10%	90%	196,096	29,564	30,746	31,976	33,255	34,585	35,969
22	JU-04 - NE 125th Pl at 95th Ave NE sediment po	169,000	2006	-	40	10%	90%	202,074	30,465	31,684	32,951	34,269	35,640	37,065
23	JU-06 - NE 128th Street riparian planting	69,000	2006	-	40	10%	90%	82,504	12,438	12,936	13,453	13,992	14,551	15,133
24	JU-09 - Totem Lake Blvd flood control	1,017,000	2006	-	40	10%	90%	1,216,031	183,331	190,664	198,291	206,223	214,472	223,050
25	JU-10 - Bank stabilization at NE 121st St	97,000	2006	-	40	10%	90%	115,983	17,486	18,185	18,913	19,669	20,456	21,274
26	JU-11 - Juanita High School ped bridge and char	269,000	2006	-	40	10%	90%	321,644	48,492	50,431	52,449	54,547	56,728	58,998
27	JU-12 - 124th Ave NE/NE 124th Water Quality Tr	362,000	2006	-	40	10%	90%	432,845	65,257	67,867	70,581	73,405	76,341	79,395
28	UMB-01 - Everest Park Channel and Riparian Re	518,000	2006	-	40	10%	90%	619,375	93,378	97,113	100,998	105,038	109,239	113,609
29	UMB-02 - Post Office Creek flood control	161,000	2006	-	40	10%	90%	192,508	29,023	30,184	31,391	32,647	33,953	35,311
30	UMB-03 - Kirkland Ave/Slater St ravine stabilizat	390,000	2006	-	40	10%	90%	466,325	70,304	73,116	76,041	79,082	82,246	85,536
31	Transportation Projects (\$1.0 million a year)	6,000,000	2006	-	40	10%	90%	6,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
32	Studies associated with transportaion projects		2006	-	40	10%	90%	-	-	-	-	-	-	-
60				-		10%	90%	-	-	-	-	-	-	-
Total Capital Projects		\$ 14,474,000		\$ -		10%	90%	\$ 16,132,399	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534
Total Upgrade/Expansion Projects								1,672,194	261,995	268,328	274,915	281,766	288,890	296,300
Total R&R Projects								14,460,205	2,265,585	2,320,355	2,377,315	2,436,554	2,498,162	2,562,235

City of Kirkland

Stormwater Rate Study

Capital Funding Analysis

Summary of Expenditures	2004	2005	2006	2007	2008	2009	2010	2011	2005 - 2011
	TOTAL								
CAPITAL PROJECTS									
Improvement Upgrades & Expansions	\$ -	\$ 994,700	\$ 261,995	\$ 268,328	\$ 274,915	\$ 281,766	\$ 288,890	\$ 296,300	\$ 2,666,894
Repairs and Replacements	-	-	2,265,585	2,320,355	2,377,315	2,436,554	2,498,162	2,562,235	14,460,205
TOTAL CAPITAL EXPENDITURES	\$ -	\$ 994,700	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534	\$ 17,127,099

Capital Financing Plan	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
Grants / Dev. Donations / Other Outside Sources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF Loan Proceeds	-	-	-	-	-	-	-	-	-
Other Loan Proceeds	-	-	-	-	-	-	-	-	-
Capital Fund Balance	-	994,700	1,340,160	1,314,105	1,359,782	1,274,179	1,047,564	939,277	8,269,766
Revenue Bond Proceeds [Note B]	-	-	-	-	-	-	-	-	-
Rates	-	-	1,187,420	1,274,578	1,292,449	1,444,140	1,739,489	1,919,258	8,857,333
Total	\$ -	\$ 994,700	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534	\$ 17,127,099
TOTAL CAPITAL RESOURCES	\$ -	\$ 994,700	\$ 2,527,580	\$ 2,588,683	\$ 2,652,230	\$ 2,718,319	\$ 2,787,052	\$ 2,858,534	\$ 17,127,099
<i>Info: Capital Contingency Deficit</i>	-	-	-	-	-	-	-	-	\$ -

NOTE A: SELECTION OF RESIDUAL CAPITAL FUNDING SOURCE

Select the Residual Funding Source Rates

- 1 - Revenue Bond Proceeds
- 2 - Rates

NOTE B: USER INPUT FOR REVENUE BOND PROCEEDS

Select Amount of Bond Proceeds Calculated by the Model

- 1 - Amounts at Right ==> \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
- 2 - Calculated by the Model

**City of Kirkland
Stormwater Rate Study
Capital Funding Analysis**

2005 - 2011

New Debt Computations	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
REVENUE BONDS									
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-
Reserve Required	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
OTHER LOANS									
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN									
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Summary									
	2004	2005	2006	2007	2008	2009	2010	2011	
EXISTING DEBT SERVICE									
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	-	-	-	-	-	-	-	-	-
NEW DEBT SERVICE									
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	-	-	-	-	-	-	-	-	-
TOTAL DEBT SERVICE PAYMENTS	\$ -								
Total Interest Payments	-	-	-	-	-	-	-	-	-
Total Principal Payments	-	-	-	-	-	-	-	-	-
Total Revenue Bond Payments Only	-	-	-	-	-	-	-	-	-

City of Kirkland

Stormwater Rate Study

Revenue Requirements Analysis

Cash Flow Sufficiency Test	2004	2005	2006	2007	2008	2009	2010	2011
EXPENSES								
Cash Operating Expenses	\$ 1,885,977	\$ 2,055,542	\$ 2,371,578	\$ 2,463,128	\$ 2,558,508	\$ 2,657,888	\$ 2,761,447	\$ 2,869,368
Existing Debt Service	-	-	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-	-	-
Rate-Funded CIP	-	-	1,187,420	1,274,578	1,292,449	1,444,140	1,739,489	1,919,258
Rate Funded System Reinvestment	-	-	644,430	709,148	775,453	843,411	913,088	984,551
Additions Required to Meet Minimum Op. Fund Balance	-	-	-	77,754	81,008	84,405	87,954	91,659
Total Expenses	\$ 1,885,977	\$ 2,055,542	\$ 4,203,429	\$ 4,524,607	\$ 4,707,418	\$ 5,029,845	\$ 5,501,977	\$ 5,864,836
REVENUES								
Rate Revenue	\$ 2,607,982	\$ 3,876,285	\$ 3,897,552	\$ 3,918,936	\$ 3,940,437	\$ 3,962,056	\$ 3,983,794	\$ 4,005,651
Other Revenue	82,475	22,000	22,000	22,000	22,000	22,000	22,000	22,000
Operating Fund & Debt Reserve Fund Interest Earnings	28,000	24,051	43,645	50,355	52,299	54,324	56,435	58,633
Total Revenue	\$ 2,718,457	\$ 3,922,336	\$ 3,963,197	\$ 3,991,291	\$ 4,014,736	\$ 4,038,380	\$ 4,062,228	\$ 4,086,284
NET CASH FLOW (DEFICIENCY)	\$ 832,480	\$ 1,866,794	\$ (240,231)	\$ (533,316)	\$ (692,681)	\$ (991,465)	\$ (1,439,748)	\$ (1,778,552)

Coverage Sufficiency Test	2004	2005	2006	2007	2008	2009	2010	2011
EXPENSES								
Cash Operating Expenses	\$ 1,885,977	\$ 2,055,542	\$ 2,371,578	\$ 2,463,128	\$ 2,558,508	\$ 2,657,888	\$ 2,761,447	\$ 2,869,368
Revenue Bond Debt Service	-	-	-	-	-	-	-	-
Revenue Bond Coverage Requirement at 1.5	-	-	-	-	-	-	-	-
Total Expenses	\$ 1,885,977	\$ 2,055,542	\$ 2,371,578	\$ 2,463,128	\$ 2,558,508	\$ 2,657,888	\$ 2,761,447	\$ 2,869,368
ALLOWABLE REVENUES								
Rate Revenue	\$ 2,607,982	\$ 3,876,285	\$ 3,897,552	\$ 3,918,936	\$ 3,940,437	\$ 3,962,056	\$ 3,983,794	\$ 4,005,651
Other Revenue	82,475	22,000	22,000	22,000	22,000	22,000	22,000	22,000
Interest Earnings - All Funds	28,000	54,583	77,149	83,208	86,294	86,179	82,624	82,115
Total Revenue	\$ 2,718,457	\$ 3,952,868	\$ 3,996,701	\$ 4,024,144	\$ 4,048,731	\$ 4,070,235	\$ 4,088,417	\$ 4,109,766
Coverage Realized	n/a							
COVERAGE SURPLUS (DEFICIENCY)	\$ 832,480	\$ 1,897,326	\$ 1,625,123	\$ 1,561,016	\$ 1,490,223	\$ 1,412,346	\$ 1,326,971	\$ 1,240,398

City of Kirkland

Stormwater Rate Study

Revenue Requirements Analysis

Maximum Revenue Deficiency	2004	2005	2006	2007	2008	2009	2010	2011
Sufficiency Test Driving the Deficiency	<i>None</i>	<i>None</i>	<i>Cash</i>	<i>Cash</i>	<i>Cash</i>	<i>Cash</i>	<i>Cash</i>	<i>Cash</i>
Maximum Deficiency From Tests	\$ -	\$ -	\$ 240,231	\$ 533,316	\$ 692,681	\$ 991,465	\$ 1,439,748	\$ 1,778,552
less: Net Revenue From Prior Rate Increases	-	-	-	(1,151,097)	(1,157,413)	(1,163,763)	(1,170,148)	(1,447,648)
Revenue Deficiency	\$ -	\$ -	\$ 240,231	\$ -	\$ -	\$ -	\$ 269,601	\$ 330,905
Plus: Adjustment for State Excise Tax	-	-	3,658	-	-	-	4,106	5,039
Total Revenue Deficiency	\$ -	\$ -	\$ 243,890	\$ -	\$ -	\$ -	\$ 273,706	\$ 335,944

Rate Increases	2004	2005	2006	2007	2008	2009	2010	2011
Rate Revenue with no Increase	\$ 2,607,982	\$ 3,876,285	\$ 3,897,552	\$ 3,918,936	\$ 3,940,437	\$ 3,962,056	\$ 3,983,794	\$ 4,005,651
Revenues from Prior Rate Increases	-	-	-	1,168,627	1,175,038	1,181,485	1,187,967	1,469,693
Rate Revenue Before Rate Increase (Incl. previous increases)	2,607,982	3,876,285	3,897,552	5,087,562	5,115,475	5,143,541	5,171,761	5,475,343
Required Annual Rate Increase	0.00%	0.00%	6.26%	0.00%	0.00%	0.00%	5.29%	6.14%
Number of Months New Rates Will Be In Effect	12	12	12	12	12	12	12	12
<i>Info: Percentage Increase to Generate Required Revenue</i>	0.00%	0.00%	6.26%	0.00%	0.00%	0.00%	5.29%	6.14%
Policy Induced Rate Increases	0.00%		29.82%					
ANNUAL RATE INCREASE	0.00%	0.00%	29.82%	0.00%	0.00%	0.00%	5.29%	6.14%
CUMULATIVE RATE INCREASE	0.00%	0.00%	29.82%	29.82%	29.82%	29.82%	36.69%	45.08%

Impacts of Rate Increases	2004	2005	2006	2007	2008	2009	2010	2011
Rate Revenues After Rate Increase	\$ 2,607,982	\$ 3,876,285	\$ 5,059,802	\$ 5,087,562	\$ 5,115,475	\$ 5,143,541	\$ 5,445,467	\$ 5,811,287
<i>Full Year Rate Revenues After Rate Increase</i>	<i>2,607,982</i>	<i>3,876,285</i>	<i>5,059,802</i>	<i>5,087,562</i>	<i>5,115,475</i>	<i>5,143,541</i>	<i>5,445,467</i>	<i>5,811,287</i>
Additional State Taxes Due to Rate Increases	-	-	17,434	17,529	17,626	17,722	21,925	27,085
Net Cash Flow After Rate Increase	832,480	1,866,794	904,585	695,536	545,739	256,703	87,954	91,659
Coverage After Rate Increase	n/a							

City of Kirkland

Stormwater Rate Study

Fund Activity

Funds	2004	2005	2006	2007	2008	2009	2010	2011
OPERATING FUND								
Beginning Balance	\$ 962,035	\$ 1,745,803	\$ 2,014,217	\$ 2,091,971	\$ 2,172,979	\$ 2,257,385	\$ 2,345,338	\$ 2,345,338
plus: Net Cash Flow after Rate Increase	1,866,794	904,585	695,536	545,739	256,703	87,954	91,659	
less: Transfer of Surplus to Capital Fund	(1,083,025)	(636,171)	(617,782)	(464,731)	(172,298)	-	-	
Ending Balance	\$ 962,035	\$ 1,745,803	\$ 2,014,217	\$ 2,091,971	\$ 2,172,979	\$ 2,257,385	\$ 2,345,338	\$ 2,436,998
<i>Minimum Target Balance</i>	232,518	253,423	2,014,217	2,091,971	2,172,979	2,257,385	2,345,338	2,436,998
<i>Maximum Funds to be Kept as Operating Reserves</i>	1,601,789	1,745,803	2,014,217	2,091,971	2,172,979	2,257,385	2,345,338	2,436,998
<i>Info: No of Days of Cash Operating Expenses</i>	186	310	310	310	310	310	310	310
CAPITAL FUND								
Beginning Balance	\$ 1,221,302	\$ 1,340,160	\$ 1,314,105	\$ 1,359,782	\$ 1,274,179	\$ 1,047,564	\$ 939,277	\$ 939,277
plus: Rate Funded System Reinvestment	-	644,430	709,148	775,453	843,411	913,088	984,551	
plus: Grants / Developer Donations / Other Outside Sources	-	-	-	-	-	-	-	
plus: Capital Facilities Charges	-	-	-	-	-	-	-	
plus: Net Debt Proceeds Available for Projects	-	-	-	-	-	-	-	
plus: Interest Earnings	30,533	33,504	32,853	33,995	31,854	26,189	23,482	
plus: Transfer of Surplus from Operating Fund	1,083,025	636,171	617,782	464,731	172,298	-	-	
plus: Direct Rate Funding	-	1,187,420	1,274,578	1,292,449	1,444,140	1,739,489	1,919,258	
less: Capital Expenditures	(994,700)	(2,527,580)	(2,588,683)	(2,652,230)	(2,718,319)	(2,787,052)	(2,858,534)	
Ending Balance	\$ 1,221,302	\$ 1,340,160	\$ 1,314,105	\$ 1,359,782	\$ 1,274,179	\$ 1,047,564	\$ 939,277	\$ 1,008,033
<i>Minimum Target Balance</i>								
10% of 6-year CIP	\$ 569,490	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400
1% of Plant-in-Service (increase due to CIP included)	-	-	-	-	-	-	-	-
Total	\$ 569,490	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400	\$ 847,400
DEBT RESERVE								
Beginning Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
plus: Reserve Funding from New Debt	-	-	-	-	-	-	-	-
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Minimum Target Balance</i>	-	-	-	-	-	-	-	-

**City of Kirkland
Stormwater Rate Study
Plant-in-Service**

Assets as of Year End	2004
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No	Description	Year Purchased	Original Cost			Applicable Asset Age	Applicable Interest Rate	Allocable Interest Cost
			City Installed	CIAC	Total			
1	1998 Ditches	1998	\$ -	\$ 292,036	\$ 292,036	6.00	5.30%	\$ -
2	1998 Transmission Lines	1998	67,360	10,489,211	10,556,571	6.00	5.30%	21,420
3	1998 Trunk Lines	1998	-	1,358,099	1,358,099	6.00	5.30%	-
4	1998 Major Culverts	1998	-	28,547	28,547	6.00	5.30%	-
5	1998 Detention Vaults	1998	-	133,814	133,814	6.00	5.30%	-
6	1998 Retention / Detention Systems	1998	-	1,041,670	1,041,670	6.00	5.30%	-
7	1998 General Plant	1998	-	-	-	6.00 N/A	5.30% N/A	- N/A
1	1999 Ditches	1999	46,990	-	46,990	5.00	5.70%	13,392
2	1999 Transmission Lines	1999	-	186,546	186,546	5.00	5.70%	-
3	1999 Trunk Lines	1999	-	-	-	5.00	5.70%	-
4	1999 Major Culverts	1999	237,147	25,875	263,022	5.00	5.70%	67,587
5	1999 Detention Vaults	1999	-	-	-	5.00	5.70%	-
6	1999 Retention / Detention Systems	1999	-	180,140	180,140	5.00	5.70%	-
7	1999 General Plant	1999	-	-	-	5.00 N/A	5.70% N/A	- N/A
1	2000 Ditches	2000	33,459	-	33,459	4.00	6.00%	8,030
2	2000 Transmission Lines	2000	269,773	242,508	512,281	4.00	6.00%	64,746
3	2000 Trunk Lines	2000	-	-	-	4.00	6.00%	-
4	2000 Major Culverts	2000	-	-	-	4.00	6.00%	-
5	2000 Detention Vaults	2000	-	-	-	4.00	6.00%	-
6	2000 Retention / Detention Systems	2000	-	399,388	399,388	4.00	6.00%	-
7	2000 General Plant	2000	7,094	-	7,094	4.00 N/A	6.00% N/A	1,703 N/A
1	2001 Ditches	2001	19,456	-	19,456	3.00	5.50%	3,210
2	2001 Transmission Lines	2001	-	638,522	638,522	3.00	5.50%	-
3	2001 Trunk Lines	2001	-	-	-	3.00	5.50%	-
4	2001 Major Culverts	2001	8,414	-	8,414	3.00	5.50%	1,388
5	2001 Detention Vaults	2001	-	-	-	3.00	5.50%	-
6	2001 Retention / Detention Systems	2001	-	212,313	212,313	3.00	5.50%	-
7	2001 General Plant	2001	29,856	-	29,856	3.00 N/A	5.50% N/A	4,926 N/A
1	2002 Ditches	2002	24,152	-	24,152	2.00	5.22%	2,522
2	2002 Transmission Lines	2002	-	1,610,150	1,610,150	2.00	5.22%	-
3	2002 Trunk Lines	2002	-	-	-	2.00	5.22%	-
4	2002 Major Culverts	2002	32,832	-	32,832	2.00	5.22%	3,428
5	2002 Detention Vaults	2002	-	-	-	2.00	5.22%	-
6	2002 Retention / Detention Systems	2002	-	501,290	501,290	2.00	5.22%	-
7	2002 General Plant	2002	10,641	-	10,641	2.00 N/A	5.22% N/A	1,111 N/A
1	2003 Ditches	2003	178,040	-	178,040	1.00	5.38%	9,572
2	2003 Transmission Lines	2003	-	369,550	369,550	1.00	5.38%	-
3	2003 Trunk Lines	2003	-	-	-	1.00	5.38%	-
4	2003 Major Culverts	2003	-	-	-	1.00	5.38%	-
5	2003 Detention Vaults	2003	-	-	-	1.00	5.38%	-
6	2003 Retention / Detention Systems	2003	-	4,135,505	4,135,505	1.00	5.38%	-
7	2003 General Plant	2003	-	-	-	1.00 N/A	5.38% N/A	- N/A
1	2004 Ditches	2004	17,194	-	17,194	0.00	0.00%	-
2	2004 Transmission Lines	2004	-	789,535	789,535	0.00	0.00%	-
3	2004 Trunk Lines	2004	-	-	-	0.00	0.00%	-
4	2004 Major Culverts	2004	1,175,731	4,962,555	6,138,286	0.00	0.00%	-
5	2004 Detention Vaults	2004	-	100,000	100,000	0.00	0.00%	-
6	2004 Retention / Detention Systems	2004	-	15,000	15,000	0.00	0.00%	-
7	2004 General Plant	2004	-	-	-	0.00	0.00%	-
Total Plant-in-Service			\$ 2,158,139	\$ 27,712,254	\$ 29,870,393	1.65	2.53%	\$ 203,035

City of Kirkland

Stormwater Rate Study

Capital Facilities Charge

Existing Cost Basis		Notes
PLANT-IN-SERVICE		
Utility Capital Assets	\$ 29,870,393	Original cost of plant-in-service as of 2004
less: Contributed Capital	(27,712,254)	CIAC, Grants, and other contributed capital
plus: Interest on Non-Contributed Plant	203,035	Interest on assets up to a maximum 10-year period
Existing Cash Balances	\$ 2,183,337	Beginning cash balances for year 2004
less: Debt Principal Outstanding	-	Total principal outstanding for the existing debt
less: Net Debt Principal Outstanding	-	Debt principal outstanding, net of cash reserves
TOTAL EXISTING COST BASIS	\$ 2,361,174	
Future Cost Basis		
CAPITAL IMPROVEMENT PLAN		
Total Future Projects	\$ 14,474,000	Total projects identified in the 10-year CIP
less: Identified for Existing Projects	(12,973,706)	R&R projects are not eligible for CFC
less: Contributed Future Upgrade & Expansion Assets	-	Not eligible for recovery through CFC
TOTAL FUTURE COST BASIS	\$ 1,500,294	
Customer Base		RCE
Notes		
Existing Residential Customer Equivalents	28,978	Existing residential customer equivalents as of 2004
Future Residential Customer Equivalents (Incremental)	3,351	Estimated growth in Customer Equivalents until Buildout
TOTAL CUSTOMER BASE	32,329	
Resulting Charge		Total
Notes		
Existing Cost Basis	\$ 2,361,174	
Total Customer Base	32,329	
GFC Component for Existing Plant	\$ 73	
Future Cost Basis	\$ 1,500,294	
Future Customer Base	3,351	
GFC Component for Future Plant	\$ 448	
TOTAL CHARGE PER CUSTOMER EQUIVALENT	\$ 521	Maximum Allowable CFC per RCE