

**CITY OF SEATAC**

**COMPREHENSIVE  
SURFACE WATER RATE STUDY**

**FINAL REPORT**

**December 1999**

**Prepared by:**

**Economic and Engineering Services, Inc.  
Bellevue, WA • Portland, OR  
Vancouver, B.C. • Olympia, WA**



Economic and Engineering Services, Inc.

December 20, 1999

Mr. Don Monaghan, P.E.  
Assistant Director of Public Works  
City of SeaTac  
17900 International Blvd., Suite 401  
SeaTac, WA 98188-4236

Subject: City of SeaTac Comprehensive Surface Water Rate Study  
#380075

Dear Mr. Monaghan:

Economic and Engineering Services, Inc. (EES) is pleased to present our final report on the comprehensive surface water rate study to the City of SeaTac (City). This report outlines our approach, methodology, findings, and conclusions for this study.

This report has been prepared using generally accepted financial and cost of service techniques. The City's accounting, budgeting and billing records were the primary sources for the data contained within the report. The conclusions and recommendations contained within this report should provide the City with a long-term approach to continue to maintain the surface water utility on a financially sound basis. Furthermore, this report provides the basis for developing and implementing rates which are cost justified and defensible to your customers.

I appreciate the assistance provided by you in the development of this report. Thank you for the opportunity to provide technical assistance to the City. I hope we have the opportunity to work together again in the future.

Sincerely,

ECONOMIC AND ENGINEERING SERVICES, INC.

Thomas E. Gould  
Vice President

TEG:dlo

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# Executive Summary

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## Introduction

Economic and Engineering Services, Inc. was retained by the City of SeaTac (City) to conduct a comprehensive surface water management rate study. The need for this study is based in part upon an interlocal agreement between the City and Port of Seattle (Port) to evaluate the surface water rates charged by the City to the Port. However, more importantly, this study should review the overall financial needs of the surface water utility, and develop rates that are adequate to meet those needs.

## Findings and Conclusions of the Study

To evaluate the adequacy of existing rates, a comprehensive rate study was developed separately for the surface water utility. A comprehensive surface water rate study is composed of three interrelated analyses. They are revenue requirements, cost of service and rate design. Each of these analyses are discussed below:

- **Revenue Requirements** - Reviews the various sources and applications of funds for the utility. The revenue requirement analysis provides the City with a financial plan for a specified time horizon. This financial plan will reflect proper levels of funding for operation and maintenance activities, as well as capital expenditure needs and determines the overall level of adjustment required to rates
- **Cost of Service** - Allocates the revenue requirements to the City's customer classes in a fair and equitable manner. A key goal or objective within the cost of service study is to determine if cost differences appear to exist between the various customer classes of service (e.g. residential, mobile homes, light, etc.) and whether the classes of service are paying their fair share of the costs.
- **Rate Design** - Determines how the necessary revenues will be collected from the City's customer classes. EES will provide a review of the current rates and the proposed rate structures.

The three analyses above required a great deal of time and effort to conduct the study. In summary form, the following conclusions were reached for each of these analyses.

**Revenue Requirements** – The revenue requirements of the surface water utility were reviewed for the period of CY 1998 – CY 2002. Provided below in Table ES-1 is a summary of the revenue requirements.

**Table ES-1**  
**Summary of City's Projected Surface Water Utility Revenue Requirements**  
**(\$000)**

	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002
<b>Sources of Funds</b>					
Present Rate Revenues	\$1,206	\$1,225	\$1,234	\$1,250	\$1,275
Misc. Revenues	<u>172</u>	<u>154</u>	<u>123</u>	<u>103</u>	<u>104</u>
Total Sources of Funds	\$1,378	\$1,379	\$1,357	\$1,353	\$1,379
<b>Applications of Funds</b>					
SWM Admin. (O&M)	\$709	\$746	\$782	\$820	\$860
Transfer Payments	161	161	161	161	161
Net Debt Service	403	394	407	618	616
Capital Projects Funded From Rates	<u>100</u>	<u>100</u>	<u>200</u>	<u>230</u>	<u>230</u>
Total Application of Funds	\$1,373	\$1,401	\$1,551	\$1,829	\$1,867
Balance/(Deficiency) of Funds	\$5	(\$22)	(\$193)	(\$476)	(\$489)
% Balance/(Deficiency) of Funds	0.4%	(1.8%)	(15.7%)	(38.1%)	(38.3%)

The deficiencies noted in Table ES-1 are for a single year, and assume no rate adjustments in the prior years. The revenue requirement needs in each year is compared to the present rate revenue levels for the utility. Table ES-1 indicates that the surface water utility will be slightly deficient in CY 1999, and will become progressively more deficient over time. By CY 2001, absent any rate adjustments up to that point in time, the utility will need to adjust overall present rates by approximately 38%.

It was our recommendation to adjust the City's surface water rates by 38% at this time. Our recommendation is based upon a variety of reasons that are outlined in the main text. While the percentage impact is significant, the monetary impact of this change would be \$1.90/month or \$22.80/year to the City's residential customers.

**Cost of Service** – The cost of service reviewed the equitable allocation of the revenue requirements to the various customer classes of service. The cost of service utilized a generally accepted approach to allocating costs.

Numerous scenarios were developed that reviewed the impact of providing a credit to the Port of Seattle for their Industrial Waste System (IWS) area. The stormwater run-off in this area is collected and sent to a wastewater treatment facility where it is directly discharged into Puget Sound. From these sensitivity analyses, the City could determine the impact of providing various levels of credits

for this area. The Port of Seattle is of the opinion that they should receive a 100% credit for the IWS area since the run-off has no impact upon SeaTac and its local streams.

In summary, it was concluded from the results of the cost of service that the rates charged by class of service are generally cost-based. The cost of service study did not contain sufficient cost detail to allow for consideration of water quality issues. Therefore, while the cost of service indicates that the more impervious customers are being slightly overcharged, EES concluded that the inability to fairly assign water quality costs would have balanced out the deficiencies for the more impervious customers.

**Rate Design** - The present rates for the City are based upon parcels, units or acreage, depending upon the specific class of service. Based upon the results of the revenue requirements and cost of service, the following surface water rates were proposed for the City.

**Table ES-2**  
**Summary of the Present and Proposed Surface Water Rates**

	<b>Present</b>	<b>Proposed</b>		<b>%</b>
	<b>Annual Rate</b>	<b>Annual Rate</b>	<b>\$ Change</b>	<b>Change</b>
Residential	\$60.00/parcel	\$82.80/parcel	\$22.80/parcel	38.0%
Mobile Homes	60.00/unit	62.10/unit	2.10/unit	3.5%
Very Light	60.00/parcel	49.50/acre	---	38.0%
Light	122.11/acre	168.50/acre	46.39/acre	38.0%
Moderate	252.95/acre	349.00/acre	96.05/acre	38.0%
Moderately Heavy	488.45/acre	674.00/acre	185.55/acre	38.0%
Heavy	619.29/acre	855.00/acre	235.71/acre	38.0%
Very Heavy	811.17/acre	1,120.00/acre	308.83/acre	38.0%
Port – IWS [1]	252.95/acre	349.00/acre	96.05/acre	38.0%
Port – All Other [1]	252.95/acre	349.00/acre	96.05/acre	38.0%
Port – 3 <sup>rd</sup> Runway	[2]	[2]	---	--.-%

[1] – Rate is not intended to be a separate and distinct rate for the Port. Rather, it is based upon the corresponding retail rate for Moderate

[2] – Multiple properties billed at the various corresponding retail rates

The rate for Mobile Homes was adjusted to better reflect the issue of lot size when compared to residential.

A comparison between the proposed rates and the current King County SWM fees was developed. Provided below in Table ES-3 is this comparison.

**Table ES-3**  
**Comparison Between the City's Proposed Annual Rates**  
**and King County's Current SWM Rates**

	<u>Proposed City Rate</u>	<u>Present King County Rate</u>	<u>\$ Difference</u>
Residential	\$82.80/parcel	\$85.02/parcel	\$2.22/parcel
Mobile Homes	62.10/unit	85.02/unit	22.92/unit
Very Light	49.50/acre	85.02/parcel	--
Light	168.50/acre	198.40/acre	29.90/acre
Moderate	349.00/acre	410.98/acre	61.98/acre
Moderately Heavy	674.00/acre	793.60/acre	119.60/acre
Heavy	855.00/acre	1,006.16/acre	151.16/acre
Very Heavy	1,120.00/acre	1,317.94/acre	197.94/acre
Port – IWS	349.00/acre	410.98/acre	61.98/acre
Port – All Other	349.00/acre	410.98/acre	61.98/acre
Port – 3 <sup>rd</sup> Runway	[1]	[1]	--

[1] – Multiple properties billed at the various corresponding retail rates

Based upon the above comparison, the proposed rates for the City are competitive with King County's SWM rates.

**Other Rate Issues** – A number of other rate issues were reviewed as a part of this study. Provided below is a brief summary of the issues and our recommendations.

***Credits for Retention/Detention Facilities*** – At the present time, the City provides a 25% discount for qualifying customers in the “Residential”, “Very Light” and “Light” categories. Under the City's current rate ordinance, all other rate categories are not eligible for credits for retention/detention facilities. The issue was raised as to the appropriateness of expanding credits to all classes of service and the most equitable method to provide those credits to qualifying customers. King County currently uses a one-step reduction in their approach for qualifying retention or detention facilities. The equitability of this approach, across all customer classes of service was raised. In reviewing the issue, there is a certain inequity to the level of the discount provided. Therefore, EES recommended a flat 25% discount for qualifying retention/detention facilities. However, we noted that the ability of the City to provide this credit is predicated upon King County's billing system capabilities. If King County is unable to provide a uniform percentage credit, then a one-step discount should be considered for those qualifying customers.

***Maintenance of Customer Owned Facilities*** – Customers are required to maintain their stormwater facilities in order to receive a rate credit. A concern is to assure that customers do actually maintain their facilities. One



approach to resolving this problem is to have the City provide the maintenance, in lieu of a rate credit. The property owner would still have the choice of either maintaining it themselves and receiving a credit, or having the City maintain the facility and not receive a credit. The only concern of EES was the level of participation in this option, and whether the crediting method would fairly compensate the City for the level of effort. Alternatively, we suggested providing these same services on a fee basis and allowing the customer to earn a credit.

***Discounts for School Education Programs*** – School districts are provided a credit on their SWM fees based upon the provision of educational programs. The credit is applied to all school district property and not to classroom buildings. The policy issue is whether the credit should be applied to all school district property or to classroom buildings (property) only. Our opinion is the City should maintain the existing approach.

Each of these issues can be addressed now or at a later date since they are not a major revenue issue for the City.

**Credits to the Port of Seattle** – A major focus of this study was the review of the credits provided to the Port of Seattle for the stormwater facilities that they own and operate. This issue is primarily related to the Port of Seattle's Industrial Waste System (IWS) area. This is the area that surrounds the airport terminals and collects all stormwater and sends it to a wastewater treatment facility for direct discharge into Puget Sound.

Over the years, the Port of Seattle and the City of SeaTac have effectively worked together on a variety of issues, including surface water issues. In this particular case, it appears that neither party disputes that the IWS stormwater is collected, treated and discharged directly into Puget Sound. Given this situation, the Port of Seattle believes that they should not be charged for this area. That is to say, the Port believes it should be provided with a 100% credit. The Port's viewpoint is that there is 0% contribution to stormwater runoff from the IWS area that impacts the City of SeaTac. Therefore, if costs are to follow benefits, then a 100% credit should be applied to those parcels.

In reviewing this issue, EES considered a number of issues and perspectives. A major consideration in our thinking was the current billing approach used for the Port by the City. Table ES-4 compares the current billing approach to the actual impervious surface billing approach.

**Table ES-4**  
**Comparison of Actual Billing Approach to Impervious Area Approach**

<u>Billing Approach</u>	<u>% Impervious</u>	<u>Total Acres</u>	<u>Billing Rate</u>	<u>Total Bill</u>	<u>\$ Difference</u>
<i>Present Billing Approach -</i>					
IWS Area		370	\$252.95	\$93,600	
All Other Area		1,460 [1]	\$252.95	<u>369,125</u>	
Total				\$462,725	
<i>Based On Actual Impervious Area -</i>					
IWS Area	91.1%	370	\$811.17	\$300,130	
All Other Area	24.3%	1,460 [1]	\$252.95	<u>369,125</u>	
Total				\$669,255	
Total Difference					\$206,530

[1] – For purposes of simplification, acreage adjusted to tie to the Port’s actual revenues for the parcels.

As can be seen in Table ES-4, it appears that the Port of Seattle is provided a credit on the IWS area of approximately \$206,000 per year. Given this finding the issue at this point is the level of the credit.

In our opinion, credits for the Port of Seattle must consider both the direct and indirect costs and benefits. While the Port of Seattle makes a strong and compelling argument that the IWS area does not create stormwater run-off for the City of SeaTac, it also ignores a critical perspective. That is, the Port of Seattle creates a significant level of costs and infrastructure for the City of SeaTac that would otherwise not be needed or incurred if the airport were located elsewhere. Therefore, we conclude that the IWS area indirectly benefits from the surface water management activities that surround the entire Port property.

We are also of the opinion that this is a very unique situation, and as a result can not be viewed as a simple “stand-alone” parcel or property with no (zero) impact to the surrounding community and surface water program. Rather, the airport and IWS area create significant program and operational costs that they should at least have some recognition and sharing of the costs (burden). In our opinion, to not do so would mean that all other customers would be subsidizing the Port of Seattle at some level. In reviewing the cost of service study, the impact of providing any additional credit to the Port was an increase in rates to all other customers.

In reviewing the history of the rates, it is our understanding that some form of an agreement and crediting mechanism was reached between the Port and King County, prior to the City taking over the utility. We have been unable to locate any documents or individuals that can firmly document that agreement or meetings

with the Port. However, based upon the current City billing approach (which continued from the King County approach), we can only conclude that the Port of Seattle agreed to some form of a crediting mechanism in the past. Otherwise, it could be argued that the City has grossly under-billed the Port for the IWS area for a number of years.

In reviewing the various documents related to the provision of credits for stormwater facilities, in our opinion, there is no requirement that a 100% credit be given for facilities. The crediting of facilities, if any, is a policy decision of the City Council. As such, it is similar to the setting of all rates by municipal utilities. In that process, the City has wide latitude in the way in which their rates can be set.

At its most simplistic level, the Port of Seattle is disputing \$93,600 in annual charges. For the Port of Seattle, this is a minor amount of cost, compared to their overall annual budget. However, more importantly to the Port of Seattle, it is the principle of the matter. From the City's perspective, \$93,600 is a major revenue source for a \$1.2 million utility. The City also believes that the Port must share cost responsibility for both the direct and indirect cost impacts to the surface water management utility.

There is no dispute that the Port undertakes significant activities related to surface water management and incurs significant costs to do so. However, based upon the analysis undertaken, we conclude that the current method of charging the Port of Seattle for the IWS area is within the "bounds of reasonableness."

Having reached the above conclusion, we also believe that the Port of Seattle and the City must work together to resolve this issue in an amenable manner. A strong and effective relationship between the Port and the City is much more valuable than the disputed amount for surface water management.

## **Summary**

This Executive Summary has provided a brief overview of the findings, conclusions and recommendations that were developed as a part of the City of SeaTac's surface water management rate study. The findings, conclusions and recommendations are based upon generally accepted rate setting techniques.

# Section 1

## Introduction

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### 1.1 Introduction

Economic and Engineering Services, Inc. (EES) was retained by the City of SeaTac (City) to conduct a comprehensive surface water management rate study. The need for this study is based in part upon an interlocal agreement between the City and Port of Seattle (Port) to evaluate the surface water rates charged by the City to the Port. However, more importantly, this study should review the overall financial needs of the surface water utility, and develop rates that are adequate to meet those needs.

### 1.2 Overview of the Study

To evaluate the adequacy and fairness of the City's existing surface water rates, a comprehensive surface water rate study was developed. A comprehensive surface water rate study is composed of three interrelated analyses. These interrelated analyses are revenue requirements, cost of service and rate design. Each of these analyses are described in more detail below:

- **Revenue Requirements** - Reviews the various sources and applications of funds for the City's surface water utility. The revenue requirement analysis provides the City with a financial plan for a specified time horizon. This financial plan will reflect proper levels of funding for operation and maintenance activities, as well as capital expenditure needs and determines the overall level of adjustment required to rates
- **Cost of Service** - Allocates the revenue requirements to the City's customer classes in a fair and equitable manner. A key goal or objective within the cost of service study is to determine if cost differences appear to exist between the various customer classes of service (e.g. residential, mobile homes, light, etc.) and whether the classes of service are paying their fair share of the costs.
- **Rate Design** - Determines how the necessary revenues will be collected from the City's customer classes. EES will provide a review of the current rates and the proposed rate structures.

From this analytical framework, each of the key issues associated with this study can be reviewed and recommendations developed.

### **1.3 Organization of the Report**

This report has been organized in a manner similar to the actual analyses conducted for the City. Section 2 provides a brief generic discussion of the generally accepted methodologies used to set rates. This section of the report provides the reader with a basic understanding of the rate setting process. Section 3 reviews the revenue requirements developed for the surface water utility. This section determines the overall revenue needs of the utility. Next, Section 4 reviews the cost of service analysis conducted for the utility. Section 5 discusses the development of rate designs for possible adoption by the City Council. In addition, this section reviews a number of miscellaneous rate issues, including a review of the Port of Seattle's rates and charges. Finally, Section 6 discusses the Rate Advisory Committee that was assembled to review the various issues associated with this study. At the conclusion of this report is a set of technical appendices that includes the workpapers associated with this study.

### **1.4 Summary**

This section of the report has provided an overview of the report and its organization. The next section of the report will provide a generic overview of the rate setting process.

# Section 2

## Overview of Utility Rate Setting Principles

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### 2.1 Introduction

In developing and establishing rates for surface water utilities, there are generally accepted principles or guidelines around which these types of rates should be set. The purpose of this section of the report is to provide a brief overview of these principles or guidelines for setting rates. This should provide the reader with a better understanding of the general process that is detailed later in this report.

### 2.2 Global Principles Around Which Rates Should Be Set

When determining rates, there should be a general set of principles around which rates should ultimately be set. These guiding principles may be items such as setting rates that are cost-based, etc. These types of principles may be referred to as “global principles” since they should be utilized by all utilities in the development of their rates.

Provided below is a brief listing of the global principles that the City reviewed and considered in setting their surface water rates:

- Rates should be cost-based and equitable, and set at a level that meets the full revenue requirements of the utility.
- Rates should be easy to understand and administer.
- Rates and the process of allocating costs should conform to generally accepted rate setting techniques.
- Rates should be stable, in their ability to provide adequate revenues to meet the utility’s financial, operation and regulatory requirements and in the customer’s perception of the level of rates.

These guiding principles were utilized within this study to help develop the City’s surface water rates.

### 2.3 Overview of the Rate Setting Process

The objective of a comprehensive surface water rate study is to determine the overall adequacy of the existing surface water rates, along with the fairness and equity of those rates. In order to accomplish these objectives, three interrelated

analyses are performed. They are a revenue requirement analysis, a cost of service analysis and a rate design analysis. Each of these analyses are discussed below:

- **Revenue Requirements** - Reviews the various sources and applications of funds for the utility. The revenue requirement analysis provides the City with a financial plan for a specified time horizon. This financial plan will reflect proper levels of funding for operation and maintenance activities, as well as capital expenditure needs. The result is the level of adjustment required to rates.
- **Cost of Service** - Allocates the revenue requirements to the City's customer classes in a fair and equitable manner. A key goal or objective within the cost of service study is to determine if cost differences appear to exist between the various customer classes of service (e.g. residential, very light, light, moderate, etc.) and whether the classes of service are paying their fair share of the costs.
- **Rate Design** - Determines how the necessary revenues will be collected from the City's customer classes. A review of the current rate structures is performed, and if necessary, a review of alternative rate structures may be undertaken to develop rates that are more effective at yielding the necessary and proper revenue levels.

While the above discussion has provided a brief overview of the analytical steps taken in a comprehensive rate study, the discussion below will provide a brief overview of the theory and methodology used to set rates.

## 2.4 Methods of Accumulating Costs for Revenue Requirements

A revenue requirement analysis compares the various sources of revenues for the utility to its expenses, to determine the overall adequacy of the current rates. Within the revenue requirement analysis, two generally accepted methods for accumulating costs are typically utilized; the "cash basis" or the "utility/accrual basis" approach. Most private or investor owned utilities utilize what is known as a "utility or accrual" basis of setting rates. This convention calculates a utility's annual revenue requirement by aggregating a time period's operation and maintenance (O&M) expenses, taxes, depreciation expense and a "fair" return on investment. Operation and maintenance expenses include the labor, materials, supplies, etc., which are needed to keep the utility functioning. Depreciation expense is a means of recouping the cost of capital facilities over their useful lives and generating internal cash. Private utilities must pay state and federal income taxes, along with any applicable property, franchise, sales and other forms of revenue taxes. The return portion of this type of revenue requirement pays for the private utility's interest expense on indebtedness, provides funds for a return to the utilities' shareholders in the form of dividends, and leaves a balance for retained earnings and cash flow purposes.

Since public (municipal) utilities do not have equity owners, *per se*, and are usually exempt from income taxes, a different method of determining their annual revenue requirement is commonly used. The convention used by most public utilities is called the “cash basis” approach of setting rates. As the name implies, a public utility aggregates its cash expenditures for a period of time to determine its required revenues from user rates and other forms of income. This methodology conforms nicely to most public utility budgetary requirements, and is a very straightforward and easily understood calculation. Operation and maintenance expenses are added to any applicable taxes or transfer payments to determine total operating expenses. Capital costs are calculated by adding debt service payments (principal and interest) to capital improvements financed with operating rate revenues. Depreciation expense is sometimes included in lieu of this latter item to stabilize annual revenue requirements. Under the cash basis of accounting, the sum of the capital and operating expense equals the utility’s revenue requirement during any period of time. It should be noted that the two portions of the capital expense component (debt service and capital improvements financed from rates) are necessary under the cash basis approach because utilities cannot finance all of their capital facilities with long-term debt.

Table 2-1 may be helpful in summarizing and comparing the cash and utility basis methodologies.

Utility (Accrual) Basis	Cash Basis
+ O&M Expense	+ O&M Expense
+ Taxes	+ Taxes or Transfer Payments
+ Depreciation Expense	+ Capital Additions Financed with Operating Revenues (≥ Depreciation Expense)
+ <u>Return on Investment</u>	+ <u>Debt Service (P+I)</u>
= Total Revenue Requirements	= Total Revenue Requirements

## 2.5 Overview of Cost Allocation Procedures

After the total revenue requirement has been quantified and determined, it is allocated to the users of the service in a manner that should reflect the cost relationships incurred for the production or delivery of the service. This analytical exercise usually takes the form of a “cost of service” study.

A cost of service study is a three-step approach. First, costs must be *functionalized* or grouped into the various cost categories related to the providing of service (e.g.



salaries, benefits, etc.). This step is largely accomplished by a utility's system of accounts.

The next step is the *classification* of the functionalized costs. Classification refers to the arrangement of the functionalized data into cost components. In general, these are typically, volume-related, water quality-related and customer-related component costs. Volume related costs are those which vary directly with the volumetric run-off of stormwater. Water quality-related costs are those which are incurred to improve or maintain water quality. Finally, customer related costs are those costs that vary based upon the number of customers served.

Once the costs are classified to the various cost components, the last step in the cost of service process is the *allocation* of the classified costs to each of the customer classes of service (e.g. residential, very light, light, moderate, etc.). Each of the cost components is allocated to each class of service based upon each customer class's relative contribution to the specific cost component. For example, volume related costs are allocated to each class of service based upon the estimated contribution to run-off of each class of service. Once the costs are allocated to each class of service, a measure of their respective cost responsibility can be determined.

## **2.6 Economic Theory and Rate Design**

The design of proposed rates for adoption by the utility concludes the rate study process. The rate design process utilizes the results of both the revenue requirements and cost of service to develop rates that attempt to achieve the overall goals and objectives of the utility. These goals and objectives may include consideration of cost-based rates, but may also consider items such as ability to pay, continuity of past rate philosophy, economic development, ease of administration, etc. It is important to understand that cost of service is only one goal or objective in designing final surface water utility rates, however, it is an important one.

While the general description of utility rate setting discussed in this section of the report is greatly simplified and abbreviated, it does however provide a general overview of the basic elements of contemporary rate setting. One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost, if equity among customers is to be maintained. This price-equals-cost concept will provide the basis for much of the subsequent analysis and comment.

## **2.7 Summary**

This section of the report has provided a brief introduction to the general principles, techniques and economic theory used to set stormwater rates. These principles, techniques and economic theory will become the basis for the City's analyses. The next section of the report will review the development of revenue requirements for the surface water utility.

# Section 3

## Development of Revenue Requirements

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### 3.1 Introduction

This section of the report discusses the development of the revenue requirements, or the “Sources and Applications of Funds” for the City’s surface water utility. The results of this revenue requirement analysis provide a framework around which to evaluate the adequacy of current surface water rates for the City.

The development of revenue requirements is the first step in the rate study process. In developing the revenue requirements, EES assumed that the surface water utility, as an “enterprise fund” must financially “stand on its own” or not be subsidized by any other City fund. To that end, the revenue requirement analysis developed herein assumes no subsidies and contains our projections of the full cost required to operate the utility in a financially stable manner.

### 3.2 Time Period Reviewed and Method of Accumulating Costs

The initial step in calculating the revenue requirement was to establish a “test period”, or time frame of reference for the analysis. For this particular study, a five-year time frame was analyzed. The time period reviewed was calendar years 1998 – 2002. As opposed to simply viewing a one-year time frame, the utilization of an extended time frame will allow the City to view its rates over a longer time period and determine if any major adjustments to rates are needed in the future.

The second step in determining the revenue requirements was to determine the methodology to be used to accumulate costs. As noted in Section 2, the City may utilize a “cash basis” or “accrual/utility basis” approach to develop its revenue requirements. For this particular study, the “cash basis” approach has been utilized. As was discussed in Section 2 of this report, the “cash basis” approach is the most commonly used methodology by municipal utilities to set their revenue requirements. Furthermore, this approach conforms well to the current financial planning approach undertaken by the City. The development of the actual revenue requirements has been “adapted” to the City’s system of accounts. However, in general, the City’s surface water utility revenue requirements still contain the four basic cost components of a “cash basis” methodology. Provided below is a detailed summary of the “cash basis” approach used to develop the revenue requirements.

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**Table 3-1**  
**Overview of the City's "Cash Basis" Revenue Requirements**

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+	Operation and Maintenance Expenses
✓	Surface Water Management Administration
•	Salaries and Wages
•	Personnel Benefits
•	Supplies
•	Other Services and Charges
•	Intergovernmental Services & Taxes
+	Transfer Payments
+	Debt Service (P+I) - Existing and Future
+	<u>Net Capital Improvements Funded From Rates [1]</u>
=	Total Surface Water Revenue Requirement

*[1] - Net Capital Improvements Funded From Rates is comprised of:*

+	Total Surface Water Utility Capital Improvements
-	Funding Sources Other Than Rates
✓	From Working Cash Fund
✓	From Construction Fund
✓	Parks and Recreation
✓	Streets
✓	<u>Long-Term Debt Funding (Borrowing)</u>
=	Net Capital Improvements Funded From Rates

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Given a time period around which to develop the revenue requirements, and a method to accumulate those costs, the focus shifts to the development of the revenues and expenses for the utility.

The primary financial inputs in this process were the City's historical and projected accounting records and budgets. Other inputs were the utility specific capital plans, debt schedules and discussions with City staff regarding any anticipated changes in costs. In developing the revenue requirements the main focus was on meeting the financial needs of the utility (operating and capital), while utilizing prudent financial planning. A more detailed discussion of the steps undertaken and key assumptions contained within the development of the revenue requirement analysis is provided below.

### **3.3 Projection of Rate Revenues**

The first step in developing the revenue requirements was to develop a projection of rate revenues, at present rate levels. In general, this process involved developing projected billing units for each customer class of service (e.g. residential, mobile

home, very light, light, etc.) and then applying (multiplying) those billing units against the present rate structures which were presently in effect.

For the five-year projected period, rates are assumed to remain at their current levels. This provides a "base line" measure to compare revenues and expenses for the corresponding period. By reviewing rate revenues in this way, a determination can be made as to the overall level of rate adjustments required to current rates.

A major issue during this time period that may impact the surface water utility's rate revenues is the development of the Port of Seattle's 3<sup>rd</sup> runway. At the present time, this property is primarily single family homes and charged accordingly. In reviewing this issue, it was assumed that as the single-family property is purchased and eventually converted to the 3<sup>rd</sup> runway, the impervious surface and ultimate rate may be very comparable to the existing revenue derived from this various individual properties. Therefore, within this study, EES has not assumed any significant revenue impact as a result of the construction of the 3<sup>rd</sup> runway. This assumption was not based upon a detailed analysis, but rather on our cursory review of the potential impacts, along with discussions with City and Port of Seattle staff. At the same time, it seemed inappropriate to assume within this study significant revenue impacts from the 3<sup>rd</sup> runway project, positively or negatively, given the many unknowns and legal controversy surrounding the project. Should the 3<sup>rd</sup> runway eventually be completed, EES would recommend that the City analyze the impact of this change of property and charge the Port accordingly.

In summary form, the City's surface water utility currently has annual rate revenues of approximately \$1.2 million. For the projected five-year period, a modest level of growth (development) is expected to occur. The result of this growth/development is a 2.0% annual increase in rate revenues. Therefore, rate revenues are anticipated to be approximately \$1.3 million by CY 2002.

### **3.4 Projection of Miscellaneous Revenues**

In addition to revenue derived from rates, the surface water utility also receives miscellaneous revenue during the course of the year. These miscellaneous revenues are made up of a variety of revenue sources. It is estimated that the City will receive approximately \$171,000 in miscellaneous revenues in CY 1998. In 1999, miscellaneous revenues are projected to decline to \$154,000 and over the extended time period, miscellaneous revenues will decline to approximately \$103,000 per year. This reduction in the miscellaneous revenues is the result of declining investment earnings. Investment earnings are declining over time as a result of cash balances being drawn down to pay for capital improvements.

### **3.5 Projection of Operation and Maintenance Expenses**

Operation and maintenance (O&M) expenses are incurred to operate and maintain the existing surface water facilities. The costs incurred in this area are expensed during the current year and are not capitalized or depreciated over the life of the asset.

In general, EES projected operation and maintenance expenses by reviewing the CY 1998 budget. A major input into this process were discussions with City staff regarding increases anticipated in future years. Any significant changes (new personnel, etc.), that the City anticipated were taken into account when the future years were projected. The projections of expenses beyond these budget periods were generally based upon various escalation factors.

Operation and maintenance expenses are projected based upon the major functional categories shown in Table 3-1. For each major function category, a number of sub-accounts were reviewed individually and projected for future years. Escalation factors were developed for the various types of expenses that the City incurs; labor, materials and supplies, equipment, miscellaneous and utilities. The escalation factors used typically ranged from 3% to 5% per year.

For the projected five-year period, no significant changes from current operating levels were projected for the utility. The projected SWM administrative (O&M) cost for CY 1998 was approximately \$709,000. This cost is expected to increase to approximately \$860,000 by CY 2002.

### **3.6 Transfer Payments**

The surface water utility makes a transfer payment to the City's general fund (Fund 001). For CY 1998, the transfer was approximately \$161,000. For the projected time periods it has been assumed that this level of transfer will remain at its current level.

### **3.7 Debt Service Payments**

The next component of the City's revenue requirement is debt service. When an entity uses a debt issue to finance capital improvement projects, an annual debt service payment is determined. At the present time, the City has one outstanding debt issue for the surface water utility.

The current outstanding debt issue for the utility is the 1999 SWM Refunding Revenue Bond. This revenue bond has annual debt service payments that range from approximately \$402,000 in CY 1998 to \$384,000 in CY 2002.

It is anticipated that the utility will need to issue additional debt to finance future surface water utility capital projects. It is projected that the City will need to issue approximately \$4.0 million in revenue bonds. A portion of this debt issue is required for the City's proposed storage and maintenance facility. This will be a shared facility between the roads, parks and SWM fund. The SWM fund will undertake the debt issue and be reimbursed in a proportional manner for the debt service payment by the parks and street fund. The reimbursed portion is estimated to be \$118,647, resulting in a net debt service payment to the SWM fund of approximately \$231,412 per year. The anticipated debt issue has a projected debt cost of 6% and a term of 20 years.

### **3.8 Capital Improvement Project Funding**

Capital improvement projects are related to the infrastructure of the utility. The City has planned a number of major capital improvement projects for the utility. The reasons or need for these major capital improvement projects are numerous and varied. It is planned that these capital improvement projects will be funded from a number of different sources of funds. In every case, the City has attempted to minimize the impacts to rates.

A capital improvement budget was provided by the City that identified the major capital projects to be undertaken between 1998 to 2002. From the capital improvement budget, a financial plan was developed to fund the projects in a manner that attempts to minimize the impacts to rates.

A summary of the surface water capital improvement projects and their planned funding sources are provided below in Table 3-2.

**Table 3-2**  
**Summary of the City's Projected Surface Water Utility Capital Improvement Projects**  
**(\$000)**

	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002
<b>Capital Outlays -</b>					
Capitalized Expenses	\$37	\$38	\$39	\$40	\$41
Improvements – Storm Drains	0	0	0	0	0
S. 170 <sup>th</sup> St. Drainage	277	410	0	0	0
34 <sup>th</sup> Avenue S. Drainage	0	70	0	0	0
Spot Drainage Improvements	243	150	150	150	150
28 <sup>th</sup> /24 <sup>th</sup> Ave. S. & Regional SD	0	0	0	2,000	0
Hilltop Storm Drainage Phase II	0	0	0	0	0
Maintenance & Storage Facility	31	250	1,500	250	0
Surface Water Management Rate Study	78	22	0	0	0
Des Moines Creek CIP (net of Grant \$)	200	218	227	209	0
Hilltop Drainage Basin Phase II	15	200	500	0	0
Des Moines Creek Basin Plan Admin.	10	40	25	0	0
Miller Creek Basin Plan	0	0	30	0	0
38 <sup>th</sup> Avenue S. (S 182 <sup>nd</sup> to S. 180 <sup>th</sup> St.)	0	150	100	0	0
Other Capital Improvements	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>39</u>
<b>Total Capital Outlays</b>	<b>\$891</b>	<b>\$1,548</b>	<b>\$2,571</b>	<b>\$2,649</b>	<b>\$230</b>
<b>Less: Outside Funding Sources</b>					
From Working Cash Fund	\$128	\$448	\$775	\$0	\$0
From Construction Fund	663	1,000	0	0	0
Parks and Recreation	0	0	0	0	0
Streets	0	0	0	0	0
Potential Long-Term Debt Funding	<u>0</u>	<u>0</u>	<u>1,596</u>	<u>2,419</u>	<u>0</u>
<b>Total Outside Funding Sources</b>	<b>\$791</b>	<b>\$1,448</b>	<b>\$2,371</b>	<b>\$2,419</b>	<b>\$0</b>
<b>Net Capital Improv. From Rates</b>	<b>\$100</b>	<b>\$100</b>	<b>\$200</b>	<b>\$230</b>	<b>\$230</b>

It should be noted from the above table, the City is anticipating approximately \$7.9 million in capital projects during the five-year period. Of this amount, approximately \$860,000 or 11% of the projects will be funded from rate revenues.

As previously discussed in the debt service subsection, the financing of the maintenance and storage facility will be undertaken by the surface water utility. However, the surface water utility will be reimbursed by the parks and street fund for a proportionate share of the debt service payment.

In funding of capital projects from rates, this study has attempted to gradually increase the annual funding. As can be seen in Table 3-2, in the initial year, approximately \$100,000 is funded from rates for capital projects. Over the five-year period, this amount is increased to approximately \$230,000. The target level of

funding for this study is 1.5 times the depreciation expense of the utility. Reaching capital funding of \$230,000 per year should provide the City with a greater ability to adequately fund on-going repair, rehabilitation and replacement of existing surface water facilities.

### 3.9 Summary of the Revenue Requirements

Given the above discussion regarding inputs, assumptions and calculations used to develop the revenue requirements, a summary of the revenue requirements was developed. In developing the final revenue requirements, consideration was given to various financial planning considerations. In particular, emphasis was placed upon attempting to minimize rates, yet still funding the necessary capital projects.

Presented in Table 3-3 is a summary of the City's projected surface water utility revenue requirements. Details of the analysis are provided in Exhibit 2 of the Technical Appendices.

**Table 3-3**  
**Summary of City's Projected Surface Water Utility Revenue Requirements**  
**(\$000)**

	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002
<b>Sources of Funds</b>					
Present Rate Revenues	\$1,206	\$1,225	\$1,234	\$1,250	\$1,275
Misc. Revenues	<u>172</u>	<u>154</u>	<u>123</u>	<u>103</u>	<u>104</u>
Total Sources of Funds	\$1,378	\$1,379	\$1,357	\$1,353	\$1,379
<b>Applications of Funds</b>					
SWM Admin. (O&M)	\$709	\$746	\$782	\$820	\$860
Transfer Payments	161	161	161	161	161
Net Debt Service	403	394	407	618	616
Capital Projects Funded From Rates	<u>100</u>	<u>100</u>	<u>200</u>	<u>230</u>	<u>230</u>
Total Application of Funds	\$1,373	\$1,401	\$1,551	\$1,829	\$1,867
Balance/(Deficiency) of Funds	\$5	(\$22)	(\$193)	(\$476)	(\$489)
% Balance/(Deficiency) of Funds	0.4%	(1.8%)	(15.7%)	(38.1%)	(38.3%)

In reading and understanding Table 3-3, it is important to interpret the percentage adjustments at the bottom of the table. Each year is calculated as if no rate adjustment has occurred in the prior periods. That is, the deficiencies shown in CY 2000 of 15.7% assumes that no rate adjustments have occurred in CY's 1998 or 1999. The same concept is true for CY 2001, where a 38.1% deficiency is shown.



This level of deficiency assumes that no prior rate adjustments have occurred up to that point. If however, for example, the City adjusts the rates by 15% in CY 2000, then the needed adjustment in CY 2001 would be approximately 23% (38% - 15%).

Table 3-3 indicates that the surface water utility will be slightly deficient in CY 1999, and will become progressively more deficient over time. By CY 2001, the utility will need to adjust overall rates from present levels by approximately 38%.

While the above deficiencies are significant in percentage terms, in terms of the City's current surface water rates, the dollar impacts to a single-family residential customer would, in our opinion, appear to be manageable. The existing single-family residential rate is \$5.00/month or \$60.00 per year. With a 38% rate adjustment, this amount would change to \$6.90/month or \$82.80 per year. This is a change of \$1.90/month or \$22.80 per year.

### **3.10 Debt Service Coverage Ratios**

Debt service coverage (DSC) ratios are a financial measure of the surface water utility's ability to repay outstanding debt. When revenue bonds are issued, there is a rate covenant associated with the bonds stating that the City must maintain sufficient rate levels to assure repayment of the debt and meet the stated debt service coverage ratio.

In very layman's terms, debt service coverage ratio is the relationship between the "funds available to pay debt service" divided by total debt service. The "funds available to pay debt service" is generally defined as the total revenues, less O&M expenses and taxes, but before depreciation expense. At the same time, it is important to understand the relationship between a strong policy regarding the funding of capital improvements from rates, and the debt service coverage ratio. In theory, coverage over and above a 1.00 DSC is provided by the rate component of capital improvements funded from rates. Therefore, the benefit of a strong policy regarding capital improvement funding from rates also benefits the utility in terms of its debt service coverage ratio.

Typically, a utility should target a debt service coverage ratio above the minimum required within the bond ordinance. For most financially prudent utilities, this targeted level is generally about 1.50 or above. By targeting a debt service coverage ratio that is higher than the minimum, the utility is generally assured of annually meeting the coverage requirement, regardless of variances in revenues or expenses.

A summary of the projected debt service coverage ratios is shown below in Table 3-4.

**Table 3-4  
Summary of the Projected Debt Service Coverage Ratios**

	<b>Before Adjustment</b>	<b>After Adjustment</b>
CY 1998	1.66	1.66
CY 1999	1.61	1.66
CY 2000	1.41	1.89
CY 2001	0.86	1.63
CY 2002	0.84	1.64

As Table 3-4 shows, it is clear that rate adjustments are needed simply to meet the debt service coverage requirements. With the proposed issuance of additional revenue bonds to fund capital improvements, the debt service coverage ratio, dips below the required levels. With the proposed rate adjustments, the debt service coverage ratio is back to acceptable levels.

### **3.11 Review of Reserve Levels**

There are two reserve funds for the surface water utility. They are the working cash fund (403) and the construction fund (406). Within the development of the revenue requirements, projections of the ending reserves for the two funds were provided. In some cases, funds were used to finance capital projects and ultimately minimize rates, but at all times, the ending balances were maintained at acceptable levels.

Provided below in Table 3-5 are the projected ending reserve balances for the working cash and construction fund.

**Table 3-5  
Summary of the Surface Water Utility Ending Fund Balances  
(\$000)**

	<b>CY 1998</b>	<b>CY 1999</b>	<b>CY 2000</b>	<b>CY 2001</b>	<b>CY 2002</b>
Working Cash (Operating) Fund (403)	\$1,739	\$1,291	\$516	\$516	\$516
Construction Fund (406)	\$1,704	\$766	\$805	\$846	\$889

The reserves for the surface water utility are projected to be adequate over the five-year period. A minimum fund balance for the working cash (operating) fund is assumed to be 45 days (1/8) of O&M expenses. In the projections of the five-year revenue requirements, the utility is above this minimum level.

An adequate minimum reserve level for the construction fund is assumed to be one-year of construction activities. As with the working cash reserve, the construction balances are above the assumed minimum balance for the fund.

### **3.12 Consultant's Recommendation**

Based upon the findings of the revenue requirement analysis, it is clear that rate adjustments will be required for the surface water utility. The timing and size of the rate adjustments is a matter of City Council and management philosophy, along with prudent financial planning.

In developing our recommendation, the following issues were considered:

- Given the length of time required to complete this study, the rate adjustments will be effective for CY 2000. The revenue requirements indicate the need for a 15.7% adjustment in that year. In the following year, the deficiency is 38.1%. Therefore, it appears that the City has the option of two rate adjustments (CY 2000 and 2001) or a single rate adjustment in CY 2000.
- In discussing the rate issue with the Citizen's Rate Advisory Committee, for those members that were available and responded, their preference was to extend the rate adjustments as much as possible and spread them over a number of years.
- The dollar impact of a single rate adjustment appears to have less impact to the customer than the "raw" percentage adjustment suggests.
- The full impact of the Endangered Species Act (ESA) remains unknown at this time. However, most informed people believe that it will have significant operational and financial impacts in the near future to surface water utilities, including the City of SeaTac.
- If Initiative 695 passes in November, it will require that any tax increase shall require voter approval. The definition of "taxes" within Initiative 695 is any monetary charge by government.

After considering the above issues, it is our recommendation that the City adjust their surface water rates by 38% at this time. Our recommendation is based upon two perspectives. First, a one-time adjustment deals with the financial issues and sets the rates through CY 2002. Next, by adjusting rates at this time, the City may be able to take advantage of the low interest rates currently available in the bond market and issue the next revenue bond for the utility. The City would not be able to issue this bond without some level of rate adjustment to assure adequate debt service coverage ratios. Finally, in our opinion, Initiative 695 will create legal havoc for municipal utilities. While most people believe the initiative is related to

**Table 3-6**  
**Comparison of Neighboring Residential Surface Water Bills**  
**(\$/Parcel per Month and Year)**

	<u>Monthly Fee</u>	<u>Annual Fee</u>
<b>City of SeaTac</b>		
At Present Rates	\$5.00/Month	\$60.00/Year
At Proposed Rates	\$6.90	82.80
City of Auburn	\$5.50/Month	\$66.00/Year
City of Bellevue	8.51	102.12
City of Des Moines	5.25	63.00
City of Federal Way	5.94	71.28
City of Kent	2.44 – 6.98	29.28 – 83.76
City of Kirkland	3.00	36.00
City of Lacey	6.00	72.00
City of Lynnwood	2.50	30.00
City of Mercer Island	10.11	121.32
City of Olympia	6.00	72.00
City of Puyallup	6.93	83.16
City of Renton	4.93	59.16
City of Seattle	3.59	43.08
City of Tacoma	13.07	156.84
City of Tukwila	2.75	33.00
King County	7.09	85.08

Extracted from the Association of Washington Cities (AWC) Tax and User Fee Survey - 1998

It is interesting to note from the above table that the majority of the charges are in the \$5.00 to \$7.00 per month range. The proposed rates for the City will remain within this range. Even more importantly, the proposed charges from the City of SeaTac are less than those charged by King County. King County currently charges \$85.02/residential lot.

### **3.14 Summary**

This section of the report has summarized the revenue requirement analysis conducted for the City's surface water utility. This analysis was prepared using a "cash basis" approach, and indicated that the surface water utility requires a rate adjustment to meet the increasing operating and capital costs.

The next section of the report will review the cost of service analysis, or the fair and equitable allocation of the revenue requirements to each class of service.

# Section 4

## Development of the Cost of Service Analyses

### 4.1 Introduction

In the previous section of the report, the revenue requirement was developed which focused on the total sources and applications of funds required to adequately fund the City's surface water utility. In contrast, a cost of service study considers the equitable allocation of the total costs to each customer class of service. This section of the report will discuss and review the cost of service study, which allocates the costs developed in the previous section of the report.

In recent years, increasing emphasis has been placed on cost of service studies by government agencies, customers, utility regulatory commissions and other parties. This interest has been generated in part by continued inflationary trends, increased operating and capital expenditures, and concerns of equity in rates among customers. It is prudent for the City to observe the generally-accepted guidelines of a cost of service analysis as these principles will inherently lead to rates which are equitable, cost-tracking and not viewed as arbitrary or capricious in nature.

### 4.2 Limitations and Uses

It is important to understand the inherent limitations of a cost of service analysis. First, it must be understood that a cost of service study, while basically a financial/engineering analysis, is an art, and not an exact science. There are many different methodologies, techniques and assumptions that can be used within this study. Because various philosophies and assumptions can significantly affect the results of the analysis, the results should not be considered precise values, but rather, an indication of the general range of class cost responsibility.

Second, by necessity, a cost of service analysis is directed at determining the cost imposed by a rate class on the system, rather than determining the cost imposed by individual customers within each classification. The cost responsibility of a specific individual customer may or may not be entirely consistent with the cost allocations made to the individual customer's assigned customer classification.

Third, accurate impervious area, run-off contributions and water quality information for individual customers and classes of service are often unavailable. As a result, allocations such as the volumetric run-off allocation are sometimes made on the basis of estimates or "typical" data. These assumptions or estimates can have a significant effect on the end results.

Finally, a cost of service analysis does not address itself to many of the other legitimate objectives associated with rate design. These may include ability to pay, customer acceptance, continuity of rate philosophy and avoidance of excessively abrupt changes.

With the above limitations in mind, a cost of service can provide a useful guideline for assigning cost responsibility (i.e. revenue requirements) to each of the consumer classifications in a manner that avoids price discrimination. The study also provides information that is useful in designing the individual rate schedules, while providing support and justifying rate differentials between classes.

### **4.3 Objectives of a Cost of Service Study**

There are two primary objectives of a cost of service study. They are to:

1. Equitably allocate the total revenue requirements among the customer classes of service (e.g. residential, commercial, etc.) of the utility, and;
2. Derive average unit costs (cost based rates) which are the basis for developing final proposed rate designs.

The objectives of a cost of service study are different from those of determining revenue requirements. As was noted in the previous section of the report, the purpose of a revenue requirement analysis is to determine the overall revenue needs for each utility. In contrast, a cost of service analysis is concerned with the equitable allocation of the total revenue requirements to the various customer classes of service of the utility.

The second rationale for conducting a cost of service study is to ensure that a rate is designed such that it reflects the costs being incurred by the City. For example, customer related costs are incurred as a function of the number of customer served. By separating customer-related costs from other types of cost incurrence, the City can allocate and assign costs that reflect this difference. The cost of service studies contained herein develop costs in such a manner as to allow the development of rates which collect costs by the manner in which they are incurred.

### **4.4 General Cost of Service Procedures**

A cost of service study performs three basic analytical tasks with cost data. These three basic analytical tasks were used in the cost of service analysis performed for the City. The first analytical step is called *functionalization*. Functionalization is the arrangement of expenses and asset (plant) data by major operating functions

within the utility. This analytical task is largely accomplished by the City's system of accounts.

After the cost data is functionalized, the second analytical task performed is the *classification* of the functionalized expenses to cost components. This task reviews each cost and attempts to determine why the cost was incurred and what type of need was being met (e.g. volume, customer, revenue related, etc.). The cost classifiers used for the surface water cost of service study are as follows.

#### **4.4.1 Volume Related Costs**

Volume related costs are a function of stormwater run-off. A majority of the costs associated with the utility are related to controlling stormwater run-off.

#### **4.4.2 Customer Related Costs**

Customer costs are those which vary with the number of customers served on the system. These costs do not vary with volumetric run-off or stormwater quality. An example of a customer cost is financial/accounting/billing services. This cost does not vary based upon stormwater run-off.

#### **4.4.3 Revenue Related Costs**

Certain costs associated with the utility may vary with the amount of revenue received by the City. An example of a revenue related cost would be investment earnings, which is a function of the amount of revenues received by the utility.

#### **4.4.4 Direct Assignments**

Certain costs associated with operating the utility may be directly traced to a specific customer or class of service. In those cases, the costs are then "directly assigned" to that specific class of service.

The final analytical task performed with the data in the cost of service analysis is the *allocation* of the classified costs. For each of the classified costs noted above, an allocation factor must be developed which will equitably allocate each specific type of cost in a "fair and equitable" manner to the customer classes of service (e.g. residential, mobile home, very light, etc.) for the utility. For example, in developing the allocation factor for the volume related costs, consideration is given to the total area and the impervious area of the property to determine contribution to run-off.

The allocation of costs is performed after the classification of the test period's plant and expense data is complete. The various classification totals are allocated among

rate groups or customer classes of service based upon the nature of the classification.

A more detailed discussion of the specific methodology used for the City is provided below.

#### **4.5 Functionalization and Classification of Plant in Service**

In performing the functionalization of plant in service, EES utilized the City's historical plant records to accomplish this task. The City has limited asset records related to the surface water utility. A majority of the current assets are related to the transfer of the drainage facility from King County to the City. This was valued at approximately \$4.0 million. The City shows on their asset records a total of \$5.7 million in original cost assets.

Given this limited detail of the City's asset records, those assets that were detailed were classified as being 100% volume related. The assets all appeared to be drainage improvements. A more detailed review of the classification of plant in service can be found on Exhibit 6 of the Technical Appendices.

#### **4.6 Functionalization and Classification of Operating Expenses**

Operating expenses are generally functionalized and classified in a manner similar to the corresponding plant account. This would imply that most of the operating expenses incurred by the surface water utility are a function of volume or run-off.

One of the key issues with the City's functionalized expenses is the lack of sufficient detail to segregate activities between volume/run-off issues and water quality issues. It is not unusual for municipal utilities to maintain their operating expenses in a "budgetary" format as opposed to a more "functional" format. By not having data in a functional format, it did not allow for the study to isolate issues associated with water quality. This had implications upon the final results that will be discussed later in this section.

Stormwater utilities do not have a standard chart of accounts, per se, for accounting for stormwater costs. The issue of accounting for water quality, may suggest the need for modifying the City's current chart of accounts to better reflect the impact of this type of activity on the system. The use of sub-accounts under salaries and wages may help to clarify much of the labor activities. These sub-accounts may be as follows:

- Maintenance Administration
- Contract Maintenance Administration
- Detention Basin Maintenance
- Debris Control
- Pumps and Structures
- Maintenance Planning
- Channel & Ditch Maintenance
- Erosion/Sediment Control
- Inlet, Basin & Culvert Cleaning
- Water Quality Maintenance



The above list of sub-accounts is provided as a suggested guide to better reflect the activities undertaken by the City. By modifying the City's current accounts, the allocation of costs can be refined to better reflect the water quality component.

In reviewing the operating expenses, it appeared that they were primarily a function of volume (run-off). In the classification process, a minor amount of costs were classified as customer related and revenue related. Those costs were the intergovernmental services, transfer payments and interest income. There were no costs that were directly assigned to a specific customer or specific class of service.

A more detailed review of the classification of expenses can be found on Exhibit 7 of the Technical Appendices.

### 4.7 Customer Classes of Service

At the present time, the City has eight categories or classes of service for the surface water utility. These classes of service are as follows:

- Residential
- Mobile Home
- Very Light (0 – 10% impervious)
- Light (10 – 20% impervious)
- Moderate (20 – 45% impervious)
- Moderately Heavy (45 – 65% impervious)
- Heavy (65 – 85% impervious)
- Very Heavy (85 – 100% impervious)

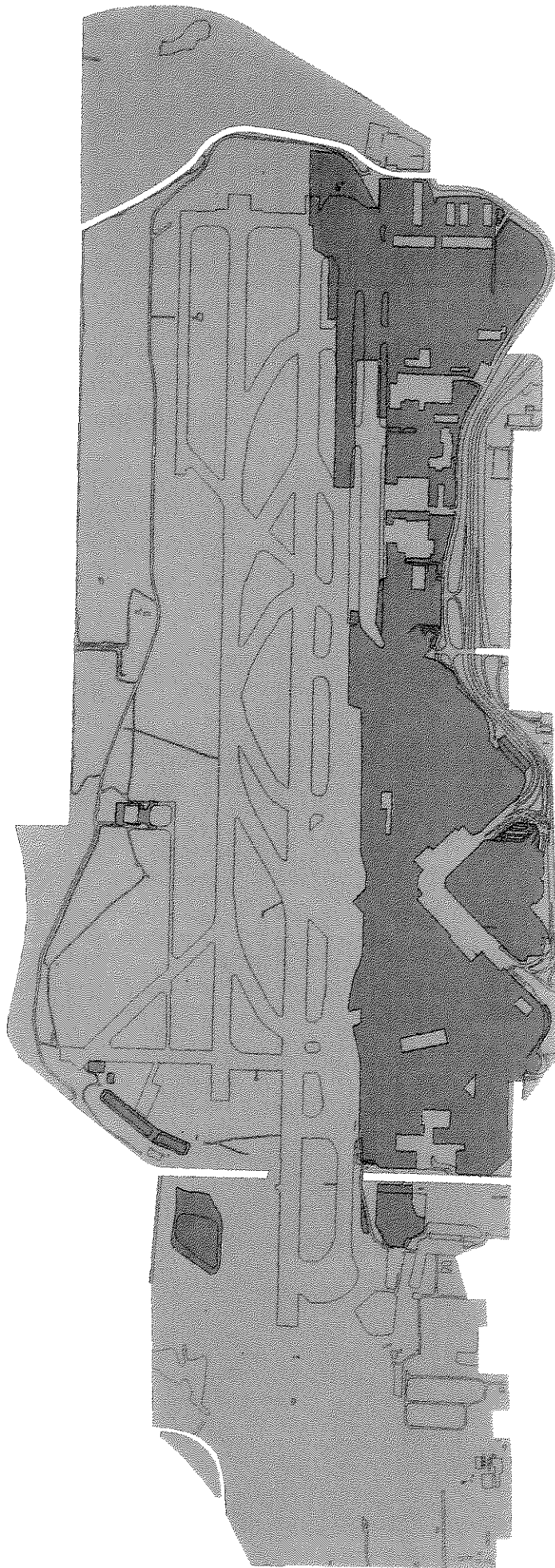
The above rate classes appear to be appropriate in that they consider the issue of impervious area, yet administratively, there are a reasonable number of classes, and size definitions of the impervious areas are not too narrow. These rate classes are very similar to other surface water utilities in the region. EES would not recommend any changes in rate classes at this time.

For purposes of this cost of service study, the above rate categories were utilized. At the same time, the Port of Seattle (Port) property was also separated to determine their cost of service. The Port property was grouped into three categories. They were as follows:

- Port – IWS Area (91% impervious)
- All Other Area (24% impervious)
- 3<sup>rd</sup> Runway Area (10% impervious)

The Port's Industrial Waste System (IWS) area is defined as the area generally surrounding the terminal. The stormwater run-off from the IWS area is collected by the Port and eventually treated at a nearby wastewater treatment plant. The Port of Seattle has a significant investment in IWS facilities and also incurs charges beyond those of the City of SeaTac for the treatment of the stormwater at the wastewater treatment facility. The stormwater collected from the IWS area is not discharged into the local streams, but rather, discharged directly into Puget Sound via the outfall from the wastewater treatment facility.

Presented on Figure 1 is an overview of the area defined within this study for the Port of Seattle.



## *Port Areas*



(FIGURE 1 - Overview of Port Inset Area)

## **4.8 Development of Allocation Factors**

Once the classification process is complete, and classes of service have been defined, the various classified costs are then allocated to each of the classes of service. The end result will be total costs allocated to each class of service. A discussion of the methods used to allocate these classified costs follows.

### **4.8.1 Volume Related Allocation Factors**

The volume related allocation factor attempts to allocate stormwater run-off in a proportional manner to the contribution of each customer class of service. It is generally recognized that stormwater run-off is, at a minimum, a function of lot size and impervious area. Other more sophisticated factors can be taken into account, such as soil type, slope, etc. However, for purposes of this study it was assumed that lot size and impervious area would provide a reasonable measure of each classes contribution to stormwater run-off.

For residential and mobile home customers, the number of lots were known, but there was no definitive data on total lot area or impervious area. Therefore, it was estimated that the typical lot size for a residential customer was 7,500 square feet. Based upon discussions with City staff, the mobile home lot size was assumed to be 75% of the residential lot size. For the commercial properties, each property was measured for total lot size and impervious area. The measurement of all commercial property was conducted by the BRODIE Group as a part of this study. In addition to the commercial property, the BRODIE Group also analyzed the Port property by the categories previously noted. Therefore, all lot sizes and impervious area used within the volume allocation factor were based upon measured data. Figure 2 provides an overview of the commercial property and the various categories of impervious area.

Given the total area, the next step in developing the allocation factor was to assume a run-off contribution. From a total area, and a given impervious area, a certain amount of run-off will occur. In general, the greater the impervious area, the greater the run-off contribution. Run-off coefficients are an expression of the relationship between land use category and the respective burden each property places on the stormwater system. Run-off coefficients are not precise measures and are estimated for the various property types. Provided below in Table 4-1 are the run-off coefficients used for the City's volume allocation factor.

**Table 4-1**  
**Assumed Run-Off Coefficients Within the Volume Allocation Factor**

<u>Class of Service</u>	<u>Run-Off Coefficient</u>
Residential	0.40
Mobile Homes	0.55
Very Light (10 – 10%)	0.05
Light (10 – 20%)	0.20
Moderate (20 – 45%)	0.45
Moderately Heavy (45 – 65%)	0.65
Heavy (65 – 85%)	0.85
Very Heavy (85 – 100%)	1.00
Port – IWS	0.95
Port – All Other Area	0.40
Port – 3 <sup>rd</sup> Runway Area	0.15

The run-off coefficients are based upon generally accepted approaches to determining and allocating stormwater run-off volumes. It should be noted that the coefficients are at the high end for the more impervious customers. This study was unable to classify and allocate the costs associated with water quality. Water quality is a cost issue for all customers, but can be a major issue for the more impervious areas. Therefore, in developing the run-off coefficients they were placed at the upper scale for certain classes to attempt to reflect some of the water quality issues. This approach does not accomplish that goal completely, but we believe it begins to at least reflect some of the cost differential that could be expected.

For the Port's IWS, it was recognized that stormwater run-off does not directly impact local streams. However, for cost allocation purposes a proportionate share of the volume costs were allocated to the IWS area based upon both lot size and impervious area. This study will create a "base case" scenario in which the IWS area will be allocated volumetric costs in a manner similar to other customers. Then, scenarios will be developed in which the IWS area is credited for its system. From these scenarios, the City can

determine the cost impacts to other City customers from providing a range of credits to the Port for their IWS area.

The final step in developing the allocation factor is to take the total area for each class of service and factor in the run-off coefficient. The result is a net contribution to run-off by class of service.

#### **4.8.2 Customer Allocation Factors**

Customer costs vary with the number of customers/parcels. Therefore, the customer allocation factor was based upon the number of parcels by class of service.

#### **4.8.3 Revenue Related Allocation Factor**

The revenue related allocation factor was based upon the current revenues, by class of service.

Given the allocation factors for the study, the last task was to allocate the classified costs to the various customer groups.

### **4.9 Major Assumptions of Cost of Service Studies**

A number of assumptions were used within the surface water cost of service study. Listed below is a brief discussion of the major assumptions used.

- The test period used for the study was CY 1999. The revenue and expense data for the test period was previously developed within the revenue requirement study (Section 3).
- The typical residential and mobile home lot sizes were estimated based upon discussions with the City.
- All commercial and Port property was measured for total lot size and impervious area using the best available data sources. The information used to analyze and measure the Port property was provided by the Port's consultant.
- The Port's IWS area was analyzed for possible credits by modifying the volume allocation factor to reflect varying levels of cost responsibility (credit).
- It was not possible to directly address the issue of water quality within this cost allocation study due to a lack of detailed cost data by the City. Therefore, the final allocation of costs, by class of service, does not reflect this component. Any

water quality costs incurred by the City were classified as volume related and allocated on the basis of run-off.

#### 4.10 Summary of the Cost of Service Results

The test period revenue requirements were classified into their various cost components. The classification process was based upon generally accepted cost of service techniques. The individual classification totals were then allocated to the various classes of service based upon allocation factors developed for each customer class. The allocated expenses for each class of service were then aggregated to determine each class's revenue responsibility and how it compared to the current revenues being collected. A summary of the results of this process can be seen within Tables 4-2.

**Table 4-2**  
**Summary of the "Base Case" Cost of Service Study**

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Residential [1]	\$328	\$328	\$60.00	\$60.00
Mobile Homes [1]	6	7	60.00	61.25
Very Light [1]	10	12	60.00	68.80
Light [2]	24	17	122.11	110.57
Moderate [2]	46	19	252.95	244.50
Moderately Heavy [2]	88	64	488.45	356.14
Heavy [2]	120	91	619.29	468.34
Very Heavy [2]	112	75	811.17	545.65
Port – IWS [2]	92	198	252.95	535.24
Port – All Other [2]	369	405	252.95	220.15
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>31</u>	[3]	130.05
Total	\$1,210	\$1,257		
 <i>Summary of the Port Allocation</i>				
	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Port – IWS	\$92	\$198	\$252.95	\$535.24
Port – All Other	369	405	252.95	220.15
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>31</u>	[3]	130.05
Total Port	\$475	\$634		

[1] – Rate per parcel or unit/year

[2] – Rate per acre/year

[3] – Varies by parcel

As can be seen from the above summary table, there is a comparison between the existing revenue derived from each class of service and the allocated costs based upon the cost of service. There is also a comparison between the present rate and the cost of service based rate. The cost of service based rate is developed by taking the allocated costs and dividing by the appropriate billing units for the particular class of service.

The designation of "Base Case" on Table 4-2 refers to the "full" allocation of costs to the IWS area. In the base case no "credits" are provided to the Port for the IWS area. "Full" allocation refers to the development and calculation of the volume allocation factor. Under the base case scenario, 100% of the IWS area is used within the calculation. That is, the IWS area is treated in the same manner as any other parcel for the City. In contrast, the alternative scenarios that were developed assumed various levels of credits. Instead of utilizing 100% of the total area of the IWS, a fraction or percentage of the area was assumed (e.g. 75%, 50% etc.). In doing so, this provided a "credit" to the Port for the IWS area, or in other words, a reduced rate to better reflect the level of stormwater contribution of this specific area. Therefore, the "base case" scenario assumes that the Port is allocated costs as if no IWS facilities existed. As was noted earlier, various scenarios will be developed from this base case scenario to determine the revenue impacts and cost sharing of any credits.

Based upon the results of Table 4-2, it appears that some cost differences exist between classes of service. This is particularly true for the larger impervious area. However, it was noted that water quality costs were not analyzed as a part of this study. If they had, it is our opinion that the result would be a shift in costs to the more impervious areas. Whether it would shift sufficient costs to come close to the present rates charged the more impervious customers is unclear and can not be determined at this time. However, we would conclude that the City's rates are generally cost-based and do attempt to reflect the cost of providing service.

#### **4.11 Analysis of the Port's IWS Area**

A major objective of this study was to analyze the Port's IWS area to assist in determining the cost to serve this area and help resolve the issue of credits for IWS facilities. In order to review and analyze this issue, a number of scenarios were developed which provided a credit to the IWS area. This credit was provided by reducing the volume allocation factor to the IWS area. Three scenarios were developed; a 25% credit, 50% credit and a 100% credit. Provided below in Tables 4-3, 4-4 and 4-5 is the summary of the scenarios based upon the various credit levels to the IWS area.



**Table 4-3**  
**Summary of the Scenario With a 25% Credit to the IWS Area**

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Residential [1]	\$328	\$338	\$60.00	\$61.83
Mobile Homes [1]	6	7	60.00	63.14
Very Light [1]	10	12	60.00	71.03
Light [2]	24	18	122.11	115.88
Moderate [2]	46	20	252.95	256.45
Moderately Heavy [2]	88	67	488.45	373.40
Heavy [2]	120	95	619.29	490.91
Very Heavy [2]	112	79	811.17	572.20
Port – IWS [2]	92	154	252.95	416.30
Port – All Other [2]	369	425	252.95	230.77
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>32</u>	[3]	134.03
Total	\$1,210	\$1,247		

***Summary of the Port Allocation***

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Port – IWS	\$92	\$154	\$252.95	\$416.30
Port – All Other	369	425	252.95	230.77
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>32</u>	[3]	134.03
Total Port	\$475	\$611		

[1] – Rate per parcel or unit/year

[2] – Rate per acre/year

[3] – Varies by parcel

As can be seen, the impact of a 25% credit to the IWS area is the other classes of service are slightly increased. These increases are a result of the reallocation of the City's revenue requirements. The impact of the 25% credit to the IWS area does not translate to a 25% credit to the Port. The impact of the credit is applied to all other customers of the City. Given that the Port has substantial properties, the rates for these other areas are increased accordingly.

The next scenario developed was for a 50% credit to the IWS area. This scenario is shown below in Table 4-4.

**Table 4-4**  
**Summary of the Scenario with a 50% Credit to the IWS Area**

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Residential [1]	\$328	\$349	\$60.00	\$63.84
Mobile Homes [1]	6	7	60.00	65.21
Very Light [1]	10	13	60.00	73.48
Light [2]	24	19	122.11	121.70
Moderate [2]	46	21	252.95	269.55
Moderately Heavy [2]	88	70	488.45	392.32
Heavy [2]	120	100	619.29	515.64
Very Heavy [2]	112	83	811.17	601.30
Port – IWS [2]	92	106	252.95	285.96
Port – All Other [2]	369	447	252.95	242.41
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>33</u>	[3]	138.40
Total	\$1,210	\$1,247		

***Summary of the Port Allocation***

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Port – IWS	\$92	\$106	\$252.95	\$285.96
Port – All Other	369	447	252.95	242.41
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>33</u>	[3]	138.40
Total Port	\$475	\$586		

[1] – Rate per parcel or unit/year

[2] – Rate per acre/year

[3] – Varies by parcel

The final scenario developed was a 100% credit to the IWS area. Under this scenario, the volume allocation factor for the IWS area is set to zero.

**Table 4-5**  
**Summary of the Scenario With a 100% Credit to the IWS Area**

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Residential [1]	\$328	\$372	\$60.00	\$68.50
Mobile Homes [1]	6	7	60.00	70.02
Very Light [1]	10	14	60.00	79.17
Light [2]	24	21	122.11	135.19
Moderate [2]	46	23	252.95	299.92
Moderately Heavy [2]	88	78	488.45	436.17
Heavy [2]	120	111	619.29	572.99
Very Heavy [2]	112	92	811.17	668.77
Port – IWS [2]	92	0	252.95	0.00
Port – All Other [2]	369	493	252.95	269.39
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>35</u>	[3]	148.55
Total	\$1,210	\$1,247		

***Summary of the Port Allocation***

	<b>Present Revenues (\$000)</b>	<b>Allocated Costs (\$000)</b>	<b>Present Rates</b>	<b>Cost of Service Rates</b>
Port – IWS	\$92	\$0	\$252.95	\$0.00
Port – All Other	369	493	252.95	269.39
Port – 3 <sup>rd</sup> Runway	<u>14</u>	<u>35</u>	[3]	148.55
Total Port	\$475	\$528		

[1] – Rate per parcel or unit/year

[2] – Rate per acre/year

[3] – Varies by parcel

The above scenario has provided a 100% credit to the IWS area. It is interesting to note that even under a 100% credit scenario, the current method that the City charges the Port for its total area produces a lower overall bill than the cost of service assuming a 100% credit to the IWS area.

## **4.12 Consultant's Recommendation**

Based upon the cost of service analysis developed herein, it appears that the City's surface water rates are within a reasonable range of being cost based. Given that conclusion, we would not recommend major adjustments between classes of service, but rather adjusting all classes equally may produce the most reasonable results. Some consideration may be given to adjusting mobile homes to be reflective of the assumed lot size difference between a single-family residential customer and the mobile home customer. This adjustment would have a very minimal revenue impact to the City.

In terms of the Port and the IWS area, it was concluded that the Port currently receives a credit of some form for its surface activities and facilities. The credit appears to be applied to the IWS area, but the history of the development of the Port's surface water rates is unavailable to confirm this. The City could provide a 100% credit to the IWS area and charge cost based rates for the other areas. Under this approach, the Port would actually be charged more than they are currently being charged. Therefore, maintaining the current rate/billing approach for the Port and the IWS area appears to be reasonable from both the perspective of the City and the Port.

#### **4.13 Summary**

This section of the report has provided an analysis of the cost of service prepared for the City's surface water utility. This analysis was prepared using generally accepted cost of service techniques for both utilities.

The results of this portion of the study indicate that some cost differences exist between the various classes of service. However, overall, the City's surface water rates appear reasonable and are generally cost based. In reviewing the Port and IWS area, it appears that the Port does receive some form of a credit for its stormwater activities and facilities.

The next section of the report will discuss the development of rate design options and discuss in more detail the various considerations in setting rates.

# Section 5

## Development of Rate Designs

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### 5.1 Introduction

The cost of service analyses previously developed reviewed the cost to provide service to the various customer classes of service. This section of the report will review the current rate design process and provide proposed retail rate designs. In addition, other miscellaneous rate issues will be discussed.

### 5.2 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered in setting rates for a utility. These may include the following:

- Rates which are easy to understand by the customer
- Rates which are easy to administer by the City
- Consideration of the customer's ability to pay
- Continuity, over time, of the ratemaking philosophy
- Policy considerations (encourage conservation, economic development, etc.)
- Provide revenue stability from month to month and year to year
- Promote efficient allocation of the resource, and
- Develop rates which are equitable and non-discriminating (cost based).

Many contemporary rate economists and regulatory agencies feel that the last consideration - cost based rates - should be of paramount importance and provide the primary guidance to utilities on rate structure policy. The Consultant agrees with this position. The reasons for this approach to rate setting are numerous.

### 5.3 Review of the Proposed Rate Adjustment

Based upon the results of the revenue requirements and cost of service, it has been recommended that surface water rates be adjusted by 38% and that rates generally be adjusted in an "across-the-board" manner. As will be recalled, this level of adjustment is projected to meet the surface water utility's financial needs through CY 2002.

## 5.4 Review of Present and Proposed Surface Water Rates

The present surface water rates for the City are based upon an annual rate that is charged on a per parcel basis, per unit basis, or per acre basis. The proposed rates for the City are generally similar to the present rates. The present and proposed rates for the City's surface water rates are shown in Table 5-1.

**Table 5-1**  
**Summary of the Present and Proposed Surface Water Rates**

	<u>Present</u> <u>Annual Rate</u>	<u>Proposed</u> <u>Annual Rate</u>	<u>\$ Change</u>	<u>%</u> <u>Change</u>
Residential	\$60.00/parcel	\$82.80/parcel	\$22.80/parcel	38.0%
Mobile Homes	60.00/unit	62.10/unit	2.10/unit	3.5%
Very Light	60.00/parcel	49.50/acre	--	38.0%
Light	122.11/acre	168.50/acre	46.39/acre	38.0%
Moderate	252.95/acre	349.00/acre	96.05/acre	38.0%
Moderately Heavy	488.45/acre	674.00/acre	185.55/acre	38.0%
Heavy	619.29/acre	855.00/acre	235.71/acre	38.0%
Very Heavy	811.17/acre	1,120.00/acre	308.83/acre	38.0%
Port – IWS [1]	252.95/acre	349.00/acre	96.05/acre	38.0%
Port – All Other [1]	252.95/acre	349.00/acre	96.05/acre	38.0%
Port – 3 <sup>rd</sup> Runway	[2]	[2]	--	--%

[1] – Rate is not intended to be a separate and distinct rate for the Port. Rather, it is based upon the corresponding retail rate for Moderate

[2] – Multiple properties billed at the various corresponding retail rates

It will be noted that the rate for Mobile Homes has been adjusted to better reflect the issue of lot size when compared to residential. All other classes of service reflect the previous rate structure, adjusted for the recommendation of the revenue requirements and cost of service.

A comparison between the proposed rates and the current King County SWM fees is revealing. Provided below in Table 5-2 is this comparison.

**Table 5-2**  
**Comparison Between the City's Proposed Rates and King County's Current SWM Rates**

	<b>Proposed City Rate</b>	<b>Present King County Rate</b>	<b>\$ Difference</b>
Residential	\$82.80/parcel	\$85.02/parcel	\$2.22/parcel
Mobile Homes	62.10/unit	85.02/unit	22.92/unit
Very Light	49.50/acre	85.02/parcel	--.--
Light	168.50/acre	198.40/acre	29.90/acre
Moderate	349.00/acre	410.98/acre	61.98/acre
Moderately Heavy	674.00/acre	793.60/acre	119.60/acre
Heavy	855.00/acre	1,006.16/acre	151.16/acre
Very Heavy	1,120.00/acre	1,317.94/acre	197.94/acre
Port – IWS	349.00/acre	410.98/acre	61.98/acre
Port – All Other	349.00/acre	410.98/acre	61.98/acre
Port – 3 <sup>rd</sup> Runway	[1]	[1]	--.--

[1] – Multiple properties billed at the various corresponding retail rates

As can be seen, for all proposed rates, the City's rates are less than the corresponding King County SWM rate.

## 5.5 Other Miscellaneous Rate Issues

In addition to the review of the City's rates a variety of rate issues were also reviewed. These issues are individually detail below.

### 5.5.1 Credits for Retention/Detention Facilities

At the present time, the City provides a 25% discount to residential, very light and light rate categories for qualifying customers. One of the issues raised as a part of this study was the appropriateness of providing credits to other rate classes for qualifying facilities, and an equitable method of providing those rate credits. King County currently utilizes a method of providing a one-step rate discount for qualifying customers. The Citizen's Surface Water Rate Advisory Committee noted that this approach provides an "unequal" discount from class to class. The simple table below will demonstrate this issue.

**Table 5-3**  
**Comparison of the Annual Dollar and Percentage Discount**  
**by Class of Customer for Retention/Detention Facilities**

	<u>Annual Rate w/o Discount</u>	<u>Annual Rate w/ Discount</u>	<u>\$ Discount</u>	<u>% Discount</u>
Moderate	\$349.00/acre	\$168.50/acre	\$180.50/acre	51.7%
Moderately Heavy	674.00/acre	349.00/acre	325.00/acre	48.2%
Heavy	855.00/acre	674.00/acre	181.00/acre	21.2%
Very Heavy	1,120.00/acre	855.00/acre	265.00/acre	23.7%

As can be seen, the dollar per acre discount and percentage discount varies by class of service.

Customers that invest in qualifying facilities and properly maintain them should be provided some level of credit. The issue in this case is the administration of the credit.

Administratively, the approach of a one-rate class discount is very easy to explain and administer to the City's customers. However, as noted above, there is a certain level of inequity in that approach. King County bills the City's customers for surface water rates. Therefore, if King County can bill the City's customers based upon a percentage discount method, that would be a more equitable approach. Under the percentage discount approach, the customer would be billed at the appropriate rate, and a fixed percentage discount applied to the total bill (e.g. 25%). As we noted, this is more of a billing system issue for King County. If it is possible, we would recommend a flat percentage discount method set at a 25% discount.

### **5.5.2 Maintenance of Customer-Owned Facilities**

Current City SWM Ordinances require customers to properly operate and maintain their drainage facilities. Section 12.10.050, Part F, states in part:

*"Maintenance of all drainage facilities constructed or modified by a project is the responsibility of the property owners as described in the Surface Water Design Manual . . ."*

The credit noted in the previous subsection for customer-owned facilities assumes, in part, that the credit is for the construction of the facilities, but more importantly, that they are properly maintained. The City has found that customers sometimes ignore the maintenance of these facilities.

As an alternative to this problem, the City is proposing that the property owner have the option of either maintaining the facility themselves and receive a credit, or alternatively, have the City maintain the facility and not



receive a one-step rate discount. This would be a decision that the customer would make and not the City. In our opinion, this is an ideal solution (approach) to a sometimes difficult problem.

The alternative to the above approach is to provide these services to the customer on a fee basis. The customer would still receive their credit, but the customer would pay the City the actual charges based upon the City's competitively bid contract for the maintenance of the facilities. This approach has certain advantages over the crediting method, and may be more attractive to larger lot owners who may lose fairly significant discounts.

At this point, it is unclear what the costs may be for such a program, and the possible response to it. The key assumption is that the costs of such a program would need to be off-set by the reduced credits to the customer. If the City adopts this program, it should closely monitor the costs associated with maintenance of the facilities. In particular, the City may need to consider a minimum charge for maintenance of facilities. Possible inequities in the crediting approach will appear in the case of a customer with a small lot versus the customer with a larger lot. The "cost" or lost credit is much smaller for the customer with the small lot, than the customer with the larger lot.

In the case of the customer that decides to maintain their own facilities, we would recommend that credits be provided only after the customer has performed those maintenance activities. In essence, the City would charge the customer the full rate, and after properly maintaining the facilities, the customer would apply for a rebate. There would be a certain level of costs associated with this approach over and above the City's current costs. These may include some level of inspection or documentation to assure that the customer has maintained the facilities. In addition, there would be the administrative costs of issuing checks for the credit. However, this approach would assure the maintenance of these facilities prior to the provision of a credit.

In summary, we would recommend that the City pursue this program and determine the method of charging for the services provided. We have suggested either the credit method, or the specified fee method. Either of these methods will compensate the City for the services provided.

### **5.5.3 Discounts to Schools For Educational Programs**

Schools provide educational programs to their students concerning the importance of surface water management programs as they relate to water quality and the environment. These programs are often tied to science

programs and may include educational activities such as cleaning local streams and raising/releasing salmon into those same streams.

In providing a credit, the key issue is whether the credit is provided for only the educational facilities (property) or all school district property. At the present time, the credit is applied to all school district property.

From a policy perspective, strong arguments can be made for either perspective. We do not believe there is a "correct" answer or preferable approach to this policy issue. However, it is important to understand that a change in policy would have a financial impact to the school districts, which are constantly struggling to make financial ends meet. In addition, from the customer's perspective, if the City were to change the policy, it would have a budgetary impact on the school districts. Most governmental entities such as the school districts desire ample notification to allow for adjustments to budgets. Therefore, coordination with the impacted school districts may allow for a change in policy with minimal impact to the school budgetary process.

In summary, we believe that any change must be properly communicated to the school districts to allow them time to adjust their budgetary process. Our recommendation would be not to change the policy at this time. This is a relatively minor issue compared to the other issues that the SWM utility is currently addressing. In addition, maintaining the current approach would reflect the City's consideration and understanding of the financial impacts to schools.

## **5.6 Credits to the Port of Seattle**

A key objective of this study was to review the rates charged to the Port of Seattle for the airport property. From the Port's perspective, they desire SWM rates that are fair and equitable to all customers, including the Port, while at the same time, recognizing within the rates, the stormwater facilities that the Port provides. The Industrial Waste System (IWS) collects stormwater around the terminal and it is sent directly to a wastewater treatment facility for treatment and is discharged directly into Puget Sound. The Port is of the opinion that they should not be charged the City's stormwater fees for this area since no stormwater run-off impacts the City or surrounding streams.

Provided below is a detailed discussion of the issue of providing credits, and in particular, not charging the Port of Seattle a SWM rate for the IWS area.

### 5.6.1 Overview of the Port Property

To provide a perspective of the impact of the SeaTac airport, it must be placed in the context of the City of SeaTac as a whole. Based upon information developed as a part of this study, it appears that the Port of Seattle's property is approximately 55% of the total City of SeaTac area. This total is comprised of a number of parcels of property, and includes a large number of parcels that are not a part of the terminals or runway areas.

To begin to analyze the Port's surface water charges the Port's property, located within the City of SeaTac area, was subdivided into three areas, each composed of a number of different parcels. These areas have been characterized as follows:

- The IWS Area
- All Other Area
- 3<sup>rd</sup> Runway Area

The Industrial Waste System (IWS) Area is the area directly around the main terminal in which all stormwater is collected and sent directly to a wastewater treatment facility for treatment and direct discharge into Puget Sound. The stormwater collected from the IWS area is not discharged into the local streams of SeaTac. The IWS area is approximately 370 acres and can be characterized as being highly impervious, since it appears that 91% of the total area is impervious.

The area designated as "All Other Area" is the area away from the terminal, and is primarily the runways and grassy areas between the runways, and any other miscellaneous Port property away from the main terminal. The stormwater from this area does drain to the local basins and streams. The total area for these parcels is approximately 1,840 acres and is moderate in its impervious area. Based upon the analysis from this study, this area is approximately 24% impervious.

The final area reviewed as part of the study is the 3<sup>rd</sup> runway area. This is the area currently being acquired by the Port for the eventual construction of the 3<sup>rd</sup> runway. This area was primarily single family homes. It is our understanding that as the Port acquires the property, the homes are demolished. In the long-term, we anticipate that the revenue impact to the surface water utility of this conversion from single-family property to an airport runway will be minimal.

As noted previously in Section 4, in reviewing the Port property, an independent measurement of the property was conducted. The BRODIE

Group undertook this review. Table 5-4 presents in summary form the parcels, total area and impervious area of each of these specific areas.

**Table 5-4  
Summary of the Port of Seattle Property**

<u>Area</u>	<u>No. of Parcels</u>	<u>Total Area</u>	<u>Impervious Area</u>	<u>% Impervious</u>
IWS Area	6	370	337	91.1%
All Other Area	<u>103</u>	<u>1,843</u>	<u>448</u>	<u>24.3%</u>
Subtotal	109	2,213	785	35.5%
3 <sup>rd</sup> Runway Area	<u>464</u>	<u>237</u>	<u>25</u>	<u>10.5%</u>
Total	573	2,450	810	33.1%

The information in Table 5-4 provides the basis for billing the Port. The 3<sup>rd</sup> runway area has been separated from the above summary since the charges that the Port is appealing are related to the IWS and All Other Areas.

#### **5.6.2 Review of the Port's Current Charges**

The City undertook a review of the Port's current charges as they relate to the Port's current area, and the rates currently in effect. The focus of this discussion and comparison will be on the IWS area and the "All Other" area.

The Port is currently charged the "moderate" rate for the IWS area and the All Other Area. This rate is \$252.95 per acre. As noted in Subsection 4-7, this is the rate that assumes impervious area for the property of between 20 – 45%.

For this analysis, the acreage related to the All Other Area was adjusted to tie to the current revenues received from these parcels. The vast majority of this area is billed at the \$252.95 per acre rate. However, there are a number of minor parcels that are billed under different rates. Therefore, for purposes of simplification of this analysis, the acreage was adjusted to tie to the current billing from the City of \$369,000 at the rate of \$252.95 per acre. This adjust has no impact on the key portion of the analysis, which is the IWS area.

Provided below in Table 5-5 is a comparison between the City's current billing approach to the Port, and a billing approach based upon actual impervious area.

**Table 5-5**  
**Comparison of Actual Billing Approach to Impervious Area Approach**

<u>Billing Approach</u>	<u>% Impervious</u>	<u>Total Acres</u>	<u>Billing Rate</u>	<u>Total Bill</u>	<u>\$ Difference</u>
<i>Present Billing Approach -</i>					
IWS Area		370	\$252.95	\$93,600	
All Other Area		1,460 [1]	\$252.95	<u>369,125</u>	
Total				\$462,725	
<i>Based On Actual Impervious Area -</i>					
IWS Area	91.1%	370	\$811.17	\$300,130	
All Other Area	24.3%	1,460 [1]	\$252.95	<u>369,125</u>	
Total				\$669,255	
Total Difference					\$206,530

[1] – For purposes of simplification, acreage adjusted to tie to the Port’s actual revenues for the parcels.

The analysis in Table 5-5 indicates that the Port currently pays approximately \$462,000 per year for these two major areas. Based strictly upon total area and impervious area, the City could charge the Port approximately \$670,000 per year. This difference is a result of charging the IWS area as a “very heavy” impervious rate. Therefore, based upon the comparison developed above, we conclude that the IWS area is currently receiving a discount or credit on its rates. Based upon this analysis, it would appear that the Port is currently receiving a credit of approximately \$206,000 per year. For the IWS area, this is a discount of approximately 69%. This is far greater than the credits provided to other customers with retention/detention areas. As will be recalled, the City currently provides a one-step rate credit for those customers.

### 5.6.3 Issue of the Credit for the IWS Area

As a part of the 1997 interlocal agreement between the City and the Port, the issue of surface water rates was specifically addressed in Exhibit B. In part, it states

*“The parties agree that the update of the SWM fees described in Item 1 below is not intended to provide the basis for modifying or changing the policy underlying the City’s SWM program. The parties agree that any adjustments to fees or charges paid by the Port will occur if:*

- (1) any of the conditions contained in KCC 9.08.080 are present;
- (2) any of the conditions contained in RCW 35.67.020 are present; or

- (3) *the City may grant a credit pursuant to RCW 90.02.510 if the Port has storm water facilities that mitigate or lessen the impact of stormwater”*

We have concluded that the Port is meeting the conditions noted in Items (1) and (2) for the IWS area. Therefore, the focus shifts to the granting of a credit. In granting credits, in the opinion of EES, it appears that the City is currently providing to the Port a credit for various stormwater facilities. The key issue of this study is what level the City is required to provide a credit, and whether a 100% credit must be provided to the IWS area. EES is not aware of any legal requirement for the City to provide a 100% credit to the Port for the IWS area. Our “non-legal” review of the various legislative citations regarding credits appears to provide the legal justification to provide a credit. However, the legislation stops short of setting a specific mechanism or requirement for credits, let alone a 100% credit.

In our review of other utility practices and industry literature, we noted that the issue of credits and resulting impacts to stormwater run-off also widely varies. The discussion below provides an interesting perspective on the different viewpoints concerning credits.

*“Many utilities issue credits or add surcharges to utility bills depending on special characteristics of a parcel. There is no single, correct rationale for determining credits or surcharges. Some utilities (e.g. Fort Collins, Colorado or Louisville, Kentucky) provide credits for on-site retention of stormwater. Boulder, Colorado imposes surcharges on parcels located in floodplains because these parcels receive additional benefits. On the other hand, the City of Portland, Oregon exempts parcels from stormwater charges if the parcels drain directly to receiving waters. Portland’s rationale is that these facilities make no use of storm drainage systems and therefore should not have to pay.*

*It is evident from these examples, parcels granted exemptions in Portland quite possibly would be surcharged in Boulder.”<sup>1</sup>*

As can be seen from the above paragraph, within the industry, there appears to be wide and varied opinions concerning credits and the approach to be used. It should be noted that the above discussion was taken from a stormwater financial/rate manual published by the American Public Works Association.

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<sup>1</sup> Financing Stormwater Facilities, A Utility Approach, American Public Works Association, Chicago, Illinois, 1991.

From our perspective, it appears that the issue of credits centers around the IWS area. This area, from a revenue perspective, is currently charged by the City about \$93,600 per year. From the Port's perspective, the basis for a 100% credit on the IWS area is that all stormwater run-off is collected, treated and discharged directly into Puget Sound. From the City's perspective, some level of credit is probably needed to recognize the issues associated with the Port and IWS area, but a 100% credit to the IWS area is not legally required, and would not reflect the indirect benefits derived.

The City's perspective is that while the IWS area may not make a direct contribution to stormwater run-off, it certainly has an indirect impact upon the City's overall stormwater program operations and costs. In our opinion, credits for the Port of Seattle must consider both the "direct" and "indirect" costs/benefits. While the Port of Seattle makes a strong and compelling argument that the IWS area does not create stormwater run-off for the City of SeaTac, it also ignores a critical perspective. That is, the Port of Seattle creates a significant level of costs and infrastructure for the City of SeaTac that would otherwise not be needed or probably incurred if the airport were located elsewhere. In other words, the City of SeaTac surface water management program and utility would likely appear much differently and have different program costs if the airport were located elsewhere. A major cost driver to the City's surface water management program is a result of extensive commercial development and transportation infrastructure that directly serves the needs of the airport and its passengers. Therefore, we conclude, and it is our opinion, that while the IWS area may not directly impact local area streams, the IWS area and the Port as a whole "indirectly" benefits from the surface water management activities that surround the entire Port property.

We are also of the opinion that this is a very unique situation, and as a result can not be viewed as a simple "stand-alone" parcel or property with no (zero) impact to the surrounding community and surface water program. Rather, the airport and IWS area creates significant program and operational costs that should at least have some recognition and sharing of the costs (burden). In our opinion, to not do so would mean that all other customers would be subsidizing the Port of Seattle at some level. In reviewing the cost of service study, the impact of providing any additional credit to the Port was an increase in rates to all other customers.

In addition to the above, within the rate setting process there is legal precedence for charging a customer for utility services (e.g. sewer) even though the adjoining property owner is not connected to the system. The reasoning or basis for allowing a charge is that it is recognized that the customer derives some benefit to their property, even though they are not

fully connected to that system. It would seem that this reasoning could also apply to the IWS area.

This same concept of charging customers not fully connected to the system has also been held legally justified for existing connected customers that disconnect during off-season periods. The imposition of “stand-by” charges are legal and appropriate.

While these two examples may not be exactly the same situation as the Port’s IWS area, it certainly can be argued that the Port derives a benefit from the City’s surface water management utility, regardless of whether or not the full area of the Port drains into the local basins.

#### **5.6.4 Discussions With King County**

Based upon discussions with King County, it is our understanding that King County and the Port agreed to a discounted rate or billing methodology a number of years ago. When the City of SeaTac was formed, the billing methodology for the Port continued forward in the same manner as it is today. EES requested from King County any documentation to this effect, but no documentation could be found.

EES has attempted to locate the individuals that may have been involved in those discussions. To date, we have been unable to locate any individuals that participated in the meetings, or that remember the meetings with the Port and the basis for any discounts or credits.

It would appear that at some point in time, the Port agreed to a reduced rate or billing methodology to reflect the Port’s activities and facilities related to surface water at the airport. If this were not the case, then in our opinion, the City of SeaTac has been significantly under-billing the Port for surface water rates, based upon the existing rates that are in place.

#### **5.6.5 Summary Conclusions**

At its most simplistic level, the Port of Seattle is disputing \$93,600 in annual charges. For the Port of Seattle, this is a minor amount of cost, compared to their overall annual budget. However, more importantly to the Port of Seattle, is the principle of the matter. From the City’s perspective, \$93,600 is a major revenue source for a \$1.2 million utility. The City also believes that the Port must share cost responsibility for both the direct and indirect cost impacts to the surface water management utility. To the City, the \$93,600 represents a level of compensation for the “indirect” benefits derived by the IWS area. Whether this level of compensation is appropriate can not be directly quantified. However, in our opinion, this level of compensation is



within the "range of reasonableness" in that it does not fully charge the IWS area, but at the same time, does not provide a 100% credit.

There is no dispute that the Port undertakes significant activities related to surface water management and incurs significant costs to do so. However, based upon the analysis undertaken, we conclude that the current method of charging the Port of Seattle for the IWS area is, as noted above, within the "bounds of reasonableness" for setting surface water rates.

Having reached the above conclusion, we also believe that the Port of Seattle and the City must work together to resolve this issue in an amenable manner. A strong and effective relationship between the Port and the City is much more valuable than the disputed amount for surface water management.

## **5.7 Summary**

The proposed rates contained within this section of the report are a culmination of rate related activities reviewed by EES for the City. The proposed rates have considered the cost components the City incurs to provide surface water management services. The proposed rates are generally cost based in nature, and reflect the results of the revenue requirement and cost of service analyses detailed above, with consideration to factors other than cost-basis. Adoption of the proposed rates will create financial stability for the surface water utility for a number of years.

## **5.8 Adoption of Revised Rates**

On November 23, 1999, the City Council, by motion, accepted and adopted the City of SeaTac Comprehensive Surface Water Management Rate Study. On November 30, 1999, the City Council adopted Ordinance #99-1042 raising the Surface Water Management Rates in accordance with the recommendations of the Comprehensive Surface Water Management Rate Study. The ordinance eliminated credits for retention/detention facilities. Instead of credits, the City will offer a rate rebate for retention/detention facilities that are properly designed, constructed and maintained. A copy of the adopted rate ordinance is attached as Appendix G to this study.

# Section 6

## Surface Water Rate Advisory Committee

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### 6.1 Introduction

As a part of the rate study process, a Surface Water Rate Advisory Committee was convened by the City to review the various policy issues associated with the rate study. As a result of that process, the City received input on a variety of issues.

### 6.2 Overview of the Committee

The committee was composed of a variety of customers (citizens) representing a broad array of interests of the utility. These customers included residential, commercial, school district and Port interests. Provided below in Table 6-1 is a summary of the committee members.

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**Table 6-1**  
**Members of the Surface Water Rate Advisory Committee**

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<u>Name</u>	<u>Representing</u>
Craig Brosenne	Business
Jim Cassan	Business
Ron Hartson	Business
Tom Hubbard	Port of Seattle
Frank Hughes	Citizen
Bernadet Jones	Citizen
Dick Jordan	Business/Citizen
Roger McCracken	Business
Charma Russeff	Citizen
Tom Raush	Business
Loyce Saar	Citizen
Al Schmidt	Business
Chuck Schuh	Citizen

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Members of the committee were provided written notice before each meeting and were provided with minutes after meetings.

### 6.3 Meetings

A total of four meetings were held with the Committee over a 10 month period. The meetings were held at the City of SeaTac offices and were held from 6:00 p.m. to 7:30 p.m. The meeting dates and topics of discussion for each meeting are summarized in Table 6-2.

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**Table 6-2**  
**Summary of the Meetings Dates and Topics**

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September 2, 1998	Introduced committee members, discussion and overview of the City's surface water utility by Don Monaghan of the City, discussion and overview of the Port and its facilities by Tom Hubbard of the Port, and an overview of the rate setting process by Tom Gould of EES.
October 21, 1998	Review of previous discussions, review and discussion of the draft revenue requirements and key issues for the rate study. Reviewed options for adjustment of rates. Presented by Tom Gould of EES.
May 20, 1998	Review the past discussions, review the revenue requirements, and cost of service and resulting rates. Discussed the issues concerning the Port and credits. Presented by Tom Gould of EES.
June 2, 1999	Provided a review of the key issues for the study. Presented a "real time" analysis of the proposed rates, and allowed committee member input into various options and scenarios. Presented by Tom Gould of EES.

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There was a significant space of time between the second and third meeting of the Committee. This was the result of the need to review the commercial properties in more detail. Unfortunately, as a result of this delay in the project, there was a drop in participation and interest.

#### **6.4 Findings From the Committee Process**

At the end of the fourth meeting, it was clear that no clear consensus would be reached on a number of issues. In particular, the issues relating to the crediting of the Port had wide an divergent opinions. Specifically, the residential customers of the committee generally agreed that the Port should "pay their fair share" however that was perceived. That perception did not include a 100% credit for the IWS area. At the same time, some customers believed that the Port should be charged more, simply because they were the Port. Obviously, the Port did not support any of these positions. As a result, it was concluded that the Committee as a whole would never be able to reach a consensus position on the issues.

It was then suggested that a detailed survey be provided to all committee members to allow them to provide a detailed response to each key issue the Committee was asked to respond to. All committee members were provided a survey form and a stamped return envelop. The results of the survey process were very limited. EES received only three (3) responses from Committee members. Of these responses,

two were letters and one was a completed survey form. Attached in the Technical Appendices are the surveys and letters received.

From our perspective, it is difficult to reach any firm conclusions from the returned responses. From a policy setting perspective, it is difficult to determine an appropriate course of action based upon citizen input.

## **6.5 Summary**

This section of the report has reviewed the Surface Water Rate Advisory Committee that was formed to review the various rate issues associated with the City's Surface Water Utility. In summary, the Committee reached no firm conclusions or consensus on the key rate issues associated with this study.

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 1  
 ESCALATION FACTORS

Escalation Factors		CY 1998	CY 1999	CY 2000	CY 2001	CY 2002
<b>Revenues:</b>						
Rate Revenues	Calculated		2.00%	2.00%	2.00%	2.00% From Surface Water Plan
Other Income	Budget		5.00%	5.00%	5.00%	5.00%
Interest Earnings		5.00%	5.00%	5.00%	5.00%	5.00%
<b>Expenses:</b>						
Labor	Budget		5.00%	5.00%	5.00%	5.00%
Materials & Supplies	Budget		5.00%	5.00%	5.00%	5.00%
Equipment	Budget		5.00%	5.00%	5.00%	5.00%
Miscellaneous	Budget		3.00%	3.00%	3.00%	3.00%
Utilities	Budget		3.00%	3.00%	3.00%	3.00%
<b>Growth Rate</b>		2.00%	2.00%	2.00%	2.00%	2.00%
<b>Debt Issues</b>						
<b>Revenue Bonds</b>						
Term		20	20	20	20	20
Rate		6.00%	6.00%	6.00%	6.00%	6.00%
<b>ULiD (Utility Local Improvement District)</b>						
Term		15	15	15	15	15
Rate		6.00%	6.00%	6.00%	6.00%	6.00%

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 2  
 DEVELOPMENT OF THE SOURCES AND  
 APPLICATIONS OF FUNDS

	Budget	Projected				Notes:
	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002	
<b>SOURCES OF FUNDS</b>						
340. <b>Charges for Services</b>						
Retail Rates	\$763,614	\$778,886	\$794,464	\$810,353	\$826,560	98 Calc; Esc. as Rate Rev.
Port (incl. Elimination of Res units)	442,916	445,774	439,690	439,484	448,273	98 Calc; Esc. as Rate Rev.
<b>Total Charges for Services</b>	<b>\$1,206,530</b>	<b>\$1,224,661</b>	<b>\$1,234,154</b>	<b>\$1,249,837</b>	<b>\$1,274,834</b>	
<b>Other/Miscellaneous Revenue</b>						
343.83.00.000 WSDOT SWM Fees	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	Flat - Based on Historical
343.83.01.001 City Street SWM Fees	48,880	48,880	48,880	48,880	48,880	Flat - Based on Historical
361.00.00.000 Investment Interest	95,000	77,691	46,346	26,474	26,474	Calculated on Reserves@5%
361.90.00.000 Other Interest Earnings	3,000	3,150	3,308	3,473	3,647	Esc as Int. Earnings
<b>Total Other Revenue</b>	<b>\$171,580</b>	<b>\$154,421</b>	<b>\$123,233</b>	<b>\$103,527</b>	<b>\$103,701</b>	
<b>Total Sources of Funds</b>	<b>\$1,378,110</b>	<b>\$1,379,081</b>	<b>\$1,357,387</b>	<b>\$1,353,364</b>	<b>\$1,378,534</b>	
<b>APPLICATIONS OF FUNDS</b>						
<b>Surface Water Management Admin</b>						
<b>Salaries and Wages</b>						
538.20.10.000 Salaries & Wages	\$350,040	\$367,542	\$385,919	\$405,215	\$425,476	Esc. as Labor
538.20.11.000 Overtime	7,500	7,875	8,269	8,682	9,116	Esc. as Labor
<b>Total Salaries &amp; Wages</b>	<b>\$357,540</b>	<b>\$375,417</b>	<b>\$394,188</b>	<b>\$413,897</b>	<b>\$434,592</b>	
<b>Personnel Benefits</b>						
538.20.20.000 Medicare	\$5,195	\$5,455	\$5,727	\$6,014	\$6,315	Esc. as Labor
538.20.21.001 Standard Long Term disability	4,960	5,208	5,468	5,742	6,029	Esc. as Labor
538.20.21.002 ICM-401(a) Plan	15,980	16,779	17,618	18,499	19,424	Esc. as Labor
538.20.21.003 ICM-457 Deferred Comp Plan	650	683	717	752	790	Esc. as Labor
538.20.22.000 Retirement	26,870	28,214	29,624	31,105	32,661	Esc. as Labor
538.20.23.000 Medical Insurance	40,110	42,116	44,221	46,432	48,754	Esc. as Labor
538.20.24.000 Worker's Compensation	8,150	8,558	8,985	9,435	9,906	Esc. as Labor
538.20.25.000 Unemployment	2,150	2,258	2,370	2,489	2,613	Esc. as Labor
<b>Total Personnel Benefits</b>	<b>\$104,065</b>	<b>\$109,268</b>	<b>\$114,732</b>	<b>\$120,468</b>	<b>\$126,492</b>	
<b>Supplies</b>						
538.20.30.000 Office/Operating supplies	\$20,000	\$21,000	\$22,050	\$23,153	\$24,310	Esc. as Mat & Suppl
538.20.31.008 Safety Clothing	1,200	1,260	1,323	1,389	1,459	Esc. as Mat & Suppl
538.20.31.018 Uniforms	885	929	976	1,024	1,076	Esc. as Mat & Suppl
538.20.31.023 Small Tools & Minor Equipment	3,500	3,675	3,859	4,052	4,254	Esc. as Mat & Suppl
<b>Total Supplies</b>	<b>\$25,585</b>	<b>\$26,864</b>	<b>\$28,207</b>	<b>\$29,618</b>	<b>\$31,099</b>	
<b>Other Services and Charges</b>						
538.20.40.000 Professional Services	\$2,500	\$2,625	\$2,756	\$2,894	\$3,039	Esc. as Labor
538.20.41.000 Contract Maintenance	80,000	84,000	88,200	92,610	97,241	Esc. as Labor
538.20.41.013 Engineering & Architectural	5,000	5,250	5,513	5,788	6,078	Esc. as Labor
538.20.41.019 Underground Utility Locate Service	1,800	1,890	1,985	2,084	2,188	Esc. as Labor
538.20.41.035 Material Testing	500	525	551	579	608	Esc. as Labor
538.20.41.041 Security Monitoring	1,800	1,890	1,985	2,084	2,188	Esc. as Labor
538.20.41.047 Telephone	4,500	4,635	4,774	4,917	5,065	Esc. as Misc.
538.20.42.028 Postage	0	0	0	0	0	Esc. as Misc.
538.20.42.029 Meals	140	144	149	153	158	Esc. as Misc.
538.20.43.032 Operating Rental & Leases	22,000	22,660	23,340	24,040	24,761	Esc. as Misc.
538.20.45.000 Equipment Rental	82,384	84,300	88,515	92,941	97,588	98/99 budg/Esc. as Equip.
538.20.47.039 Water	150	155	159	164	169	Esc. as Utilities
538.20.47.040 Sewer	150	155	159	164	169	Esc. as Utilities
538.20.47.041 Electricity	6,000	6,180	6,365	6,556	6,753	Esc. as Utilities
538.20.47.042 Waste Disposal	1,500	6,000	6,180	6,365	6,556	Esc. as Misc.
538.20.47.043 Storm Sewer	0	0	0	0	0	Esc. as Misc.
538.20.48.049 Equipment Repair & Maintenance	1,500	1,575	1,654	1,736	1,823	Esc. as Equip.
538.20.49.061 Registration	1,970	2,029	2,090	2,153	2,217	Esc. as Misc.
<b>Total Other Services &amp; Charges</b>	<b>\$211,894</b>	<b>\$224,012</b>	<b>\$234,374</b>	<b>\$245,228</b>	<b>\$256,599</b>	

CITY OF SEATAC - Surface Water Management - Base Case  
**EXHIBIT 2**  
**DEVELOPMENT OF THE SOURCES AND**  
**APPLICATIONS OF FUNDS**

	Budget	Projected				Notes:
	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002	
538.20.50.000	<b>Intergovt. Services &amp; Taxes</b>					
538.20.51.098	\$10,000	\$10,200	\$10,404	\$10,612	\$10,824	Esc. as Rate Rev
538.20.51.099	300	300	300	300	300	Flat
538.20.54.001	0	0	0	0	0	Esc. as Misc.
	<b>Total Intergovt. Services &amp; Taxes</b>	<b>\$10,300</b>	<b>\$10,500</b>	<b>\$10,704</b>	<b>\$10,912</b>	<b>\$11,124</b>
	<b>Total SWM Administration</b>	<b>\$709,384</b>	<b>\$746,062</b>	<b>\$782,205</b>	<b>\$820,124</b>	<b>\$859,906</b>
597.00.00.000	<b>Transfer Payments</b>					
597.04.00.000	161,250	161,250	161,250	161,250	161,250	Flat - Based on Historical
597.12.00.000	0	0	0	0	0	Flat
597.24.00.000	0	0	0	0	0	Flat
	<b>Total Transfer Payments</b>	<b>\$161,250</b>	<b>\$161,250</b>	<b>\$161,250</b>	<b>\$161,250</b>	<b>\$161,250</b>
582.00.00.000	<b>Debt Service</b>					
582.38.72.001	\$155,000	\$260,000	\$205,000	\$215,000	\$225,000	Debt Schedule
592.38.83.001	247,085	134,131	181,658	171,305	159,680	Debt Schedule
592.38.85.000	100	0	0	0	0	Flat
592.38.89.000	500	0	0	0	0	Flat
	Potential Long-Term Debt Funding	0	0	139,132	350,059	@ 6%, 20 years
	<b>Total Debt Service</b>	<b>\$402,685</b>	<b>\$394,131</b>	<b>\$525,790</b>	<b>\$736,364</b>	<b>\$734,719</b>
	Parks & Street Contributions	\$0	\$0	\$118,647	\$118,647	2/3 of Maint Facil. Costs
	<b>Net Debt Service</b>	<b>\$402,685</b>	<b>\$394,131</b>	<b>\$407,143</b>	<b>\$617,718</b>	<b>\$616,072</b>
594.38.00.000	<b>Capital Improvement Projects</b>					
594.38.60.000	\$36,600	\$37,698	\$38,829	\$39,994	\$41,194	Esc. as Misc.
596.38.60.000	0	0	0	0	0	Esc. as Misc.
	S 170th St. Drainage	277,360	410,000	0	0	CIP Budget
	34th Ave. S. Drainage	0	70,000	0	0	CIP Budget
	Spot Drainage Improvements	243,000	150,000	150,000	150,000	CIP Budget
	28th/24th Ave. S. & Regional SD	0	0	0	2,000,000	CIP Budget
	Hilltop Storm Drainage Phase II	0	0	0	0	CIP Budget
	Maintenance and Storage Facility	31,147	250,000	1,500,000	250,000	CIP Budget
	Surface Water Mgmt. Rate Study	78,000	22,000	0	0	CIP Budget
	Des Moines Creek CIP (net of Grant \$)	200,000	217,753	227,000	209,329	CIP Budget
	Hilltop Drainage Basin Phase II	15,000	200,000	500,000	0	CIP Budget
	Des Moines Creek Basin Plan Adm	10,000	40,000	25,000	0	CIP Budget
	Miller Creek Basin Plan	0	0	30,000	0	CIP Budget
	38th Ave. S. (S.182nd to S.180th St.)	0	150,000	100,000	0	CIP Budget
	Other	0	0	0	0	38,806 CIP Budget
	<b>Total Capital Improvements</b>	<b>\$891,107</b>	<b>\$1,547,451</b>	<b>\$2,570,829</b>	<b>\$2,649,323</b>	<b>\$230,000</b>
	<b>Less: Outside Funding Sources</b>					
	From Working Cash Fund	\$127,600	\$447,451	\$775,000	\$0	\$0
	From Construction Fund	663,507	1,000,000	0	0	0
	Parks & Recreation	0	0	0	0	0
	Streets	0	0	0	0	0
	Potential Long-Term Debt Funding	0	0	1,595,829	2,419,323	(0)
	<b>Total Outside Funding Sources</b>	<b>\$791,107</b>	<b>\$1,447,451</b>	<b>\$2,370,829</b>	<b>\$2,419,323</b>	<b>(\$0)</b>
	Total Capital Proj Funded from Rates	\$100,000	\$100,000	\$200,000	\$230,000	\$230,000 = Target 1.5 X Deprec. Exp
	<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$1,373,319</b>	<b>\$1,401,443</b>	<b>\$1,550,598</b>	<b>\$1,829,091</b>	<b>\$1,867,229</b>
	<b>BALANCE/(DEFICIENCY) OF FUNDS</b>	<b>\$4,791</b>	<b>(\$22,361)</b>	<b>(\$193,210)</b>	<b>(\$475,727)</b>	<b>(\$488,694)</b>
	<b>Plus: Additional Taxes</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b> Include Applicable Taxes
	<b>Total Balance/(Deficiency) of Funds</b>	<b>\$4,791</b>	<b>(\$22,361)</b>	<b>(\$193,210)</b>	<b>(\$475,727)</b>	<b>(\$488,694)</b>
	<b>Increase as a % of Rate Revenues</b>	<b>-0.4%</b>	<b>1.8%</b>	<b>15.7%</b>	<b>38.1%</b>	<b>38.3%</b>

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 2  
 DEVELOPMENT OF THE SOURCES AND  
 APPLICATIONS OF FUNDS

	Budget	Projected				Notes:
	CY 1998	CY 1999	CY 2000	CY 2001	CY 2002	
<b>Debt Service Coverage Ratio</b>						
Before Rate Adjustment	1.66	1.61	1.41	0.86	0.84	
After Rate Adjustment	1.66	1.66	1.89	1.63	1.64	
<b>Working Cash - Fund (403)</b>						
Beginning Balance	\$1,866,296	\$1,738,696	\$1,291,245	\$516,245	\$516,245	
Plus: Additions of Funds	0	0	0	0	0	
Less: Uses of Funds	127,600	447,451	775,000	0	0	
Ending Balance	\$1,738,696	\$1,291,245	\$516,245	\$516,245	\$516,245	minimum 1/8 or 45 days O&M
<b>Construction - Fund (406)</b>						
Beginning Balance (bond funds)	\$2,268,394	\$1,704,202	\$765,956	\$805,236	\$846,530	
Plus: Additions of Funds	0	0	0	0	0	
Plus: Interest Income	99,315	61,754	39,280	41,294	43,412	
Less: Uses of Funds	663,507	1,000,000	0	0	0	
Ending Balance	\$1,704,202	\$765,956	\$805,236	\$846,530	\$889,942	min approx \$750,000



**CITY OF SEATAC - Surface Water Management - Base Case  
EXHIBIT 3  
DEVELOPMENT OF THE VOLUME ALLOCATION  
FACTOR**

Customer Class	Number of Parcels	Total [1] Square Feet	Impervious Area Sq. Ft.	Total Acres [2]	Total Imperv. Area Acres
Residential	5,470	41,025,000	0	942	0
Mobile Home - As Res	107	601,875	0	14	0
Very Light (VL)	173	12,663,991	335,720	291	8
Light (L)	32	6,635,419	1,193,096	152	27
Moderate (M)	73	3,427,291	1,357,955	79	31
Moderately Heavy (MH)	88	7,800,599	4,395,106	179	101
Heavy (H)	132	8,448,684	6,469,898	194	149
Very Heavy (VH)	111	6,004,501	5,572,579	138	128
Port - IWS Area	6	16,107,689	14,675,174	370	337
Port - All Other Area	103	80,261,573	19,516,412	1,843	448
Port - Runway 3 Area	464	10,339,548	1,076,814	237	25
<b>Total</b>	<b>6,759</b>	<b>193,316,170</b>	<b>54,592,754</b>	<b>4,438</b>	<b>1,253</b>

[1] Assumed one parcel equal to 7,500 sq. ft. for Residential, Mobile Home is 75% of Residential sq. ft assumption and Other Classes - Actual measurement data from the BRODIE Group.  
[2] Conversion: one acre = 43,560 square feet.

**DEVELOPMENT OF THE VOLUME ALLOCATION  
FACTOR (Cont.)**

Customer Class	Estimated Total Sq Ft	Assumed Run-Off Contrib.	Contribution to Run-off	Contribution Credit	Net Contribution to Run-off	% of Total
Residential	41,025,000	0.40	16,410,000	0.0%	16,410,000	18.76%
Mobile Home - As Res	601,875	0.55	331,031	0.0%	331,031	0.38%
Very Light (VL)	12,663,991	0.05	633,200	0.0%	633,200	0.72%
Light (L)	6,635,419	0.20	1,327,084	0.0%	1,327,084	1.52%
Moderate (M)	3,427,291	0.45	1,542,281	0.0%	1,542,281	1.76%
Moderately Heavy (MH)	7,800,599	0.65	5,070,389	0.0%	5,070,389	5.80%
Heavy (H)	8,448,684	0.85	7,181,381	0.0%	7,181,381	8.21%
Very Heavy (VH)	6,004,501	1.00	6,004,501	0.0%	6,004,501	6.87%
Port - IWS Area	16,107,689	0.95	15,302,305	0.0%	15,302,305	17.50%
Port - All Other Area	80,261,573	0.40	32,104,629	0.0%	32,104,629	36.71%
Port - Runway 3 Area	10,339,548	0.15	1,550,932	0.0%	1,550,932	1.77%
<b>Total</b>	<b>193,316,170</b>	<b>N/A</b>	<b>87,457,733</b>	<b>N/A</b>	<b>87,457,733</b>	<b>100%</b>

ALLOCATION (VOL)

**CITY OF SEATAC - Surface Water Management - Base Case**  
**EXHIBIT 4**  
**DEVELOPMENT OF THE CUSTOMER**  
**ALLOCATION FACTORS**

<i>Customer Class</i>	<i>Parcel Count</i>	<i>% of Total</i>
Residential	5,470	80.93%
Mobile Home - As Res	107	1.58%
Very Light (VL)	173	2.56%
Light (L)	32	0.47%
Moderate (M)	73	1.08%
Moderately Heavy (MH)	88	1.30%
Heavy (H)	132	1.95%
Very Heavy (VH)	111	1.64%
Port - IWS Area [1]	6	0.09%
Port - All Other Area [1]	103	1.52%
Port - Runway 3 Area	464	6.86%
<b>Total</b>	<b>6,759</b>	<b>100%</b>

ALLOCATION (AC)

[1] 30 Parcels in Port "inset" area includes 6 for IWS and 24 for Port - All Other  
 The 30 parcels are pro-rated based on total square feet of the Port Inset and IWS Inset Area

**CITY OF SEATAC - Surface Water Management - Base Case**  
**EXHIBIT 5**  
**DEVELOPMENT OF THE REVENUE RELATED**  
**ALLOCATION FACTOR**

<i>Customer Class</i>	<i>Revenues at Present Rates</i>	<i>Percent of Total</i>
Residential	\$328,200	27.11%
Mobile Home - As Res	6,420	0.53%
Very Light (VL)	10,380	0.86%
Light (L)	24,127	1.99%
Moderate (M)	45,962	3.80%
Moderately Heavy (MH)	88,418	7.30%
Heavy (H)	120,296	9.93%
Very Heavy (VH)	111,818	9.23%
Port - IWS Area (H)	91,856	7.59%
Port - All Other Area	369,124	30.49%
Port - Runway 3 Area	14,232	1.18%
<b>Total</b>	<b>\$1,210,833</b>	<b>100.00%</b>

ALLOCATION (RR)

**CITY OF SEATAC - Surface Water Management - Base Case**  
**EXHIBIT 6**  
**Functionalization and Classification of Plant in Service**

Description	As of 12/31/97	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>Plant Assets</b>						
Trnsfr of Existing Drainage Facility from King Cty	\$3,965,000	\$3,965,000	0	0	0	100% VOL
38th Ave. S. Storm Drain-S 176th to S. 179th	29,248	29,248	0	0	0	100% VOL
Fence at Glacier Maint Facility	7,853	7,853	0	0	0	100% VOL
S. 170th Storm Drain	5,789	5,789	0	0	0	100% VOL
S. 170th Storm Drain-33rd Ave. S to Int'l Blvd	59,899	59,899	0	0	0	100% VOL
S. 168th Storm Drain-37th Ave. S to 40th Ave. S.	77,345	77,345	0	0	0	100% VOL
N. SeaTac Retention Pond	26,638	26,638	0	0	0	100% VOL
Internat'l Blvd Phase I Storm Drain	300,000	300,000	0	0	0	100% VOL
N. SeaTac Park Drainage Project	259,197	259,197	0	0	0	100% VOL
S. 176th/Internat'l Blvd/34th Ave. S. Storm Drain	200,000	200,000	0	0	0	100% VOL
Hilltop Drainage Basin Improvements	114,146	114,146	0	0	0	100% VOL
S. 176th Street Phase II Storm Drain	97,049	97,049	0	0	0	100% VOL
Hilton/Budget Storm Drain	325,363	325,363	0	0	0	100% VOL
Internat'l Blvd Phase II Storm Drain	225,000	225,000	0	0	0	100% VOL
<b>Total Plant Assets</b>	<b>\$5,692,527</b>	<b>\$5,692,527</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>As total Plant</b>
<b>Less: Accumulated Depreciation</b>	<b>\$2,446,080</b>	<b>\$2,446,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Net Plant in Service</b>	<b>\$3,246,447</b>	<b>\$3,246,447</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 7  
 Functionalization and Classification of Expenses

<i>Account Type</i>	CY 1999	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>APPLICATIONS OF FUNDS</b>						
<b>Surface Water Management Admin</b>						
<b>Salaries and Wages</b>						
Salaries & Wages	\$367,542	\$367,542	\$0	\$0	\$0	As Net Plant
Overtime	7,875	7,875	0	0	0	As Net Plant
<b>Total Salaries &amp; Wages</b>	<b>\$375,417</b>	<b>\$375,417</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Personnel Benefits</b>						
Medicare	\$5,455	\$5,455	\$0	\$0	\$0	As Net Plant
Standard Long Term disability	5,208	5,208	0	0	0	As Net Plant
ICM-401(a) Plan	16,779	16,779	0	0	0	As Net Plant
ICM-457 Deferred Comp Plan	683	683	0	0	0	As Net Plant
Retirement	28,214	28,214	0	0	0	As Net Plant
Medical Insurance	42,116	42,116	0	0	0	As Net Plant
Worker's Compensation	8,558	8,558	0	0	0	As Net Plant
Unemployment	2,258	2,258	0	0	0	As Net Plant
<b>Total Personnel Benefits</b>	<b>\$109,268</b>	<b>\$109,268</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Supplies</b>						
Office/Operating supplies	\$21,000	\$21,000	\$0	\$0	\$0	As Net Plant
Safety Clothing	1,260	1,260	0	0	0	As Net Plant
Uniforms	929	929	0	0	0	As Net Plant
Small Tools & Minor Equipment	3,675	3,675	0	0	0	As Net Plant
<b>Total Supplies</b>	<b>\$26,864</b>	<b>\$26,864</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Other Services and Charges</b>						
Professional Services	\$2,625	\$2,625	\$0	\$0	\$0	As Net Plant
Contract Maintenance	84,000	84,000	0	0	0	As Net Plant
Engineering & Architectural	5,250	5,250	0	0	0	As Net Plant
Underground Utility Locate Service	1,890	1,890	0	0	0	As Net Plant
Material Testing	525	525	0	0	0	As Net Plant
Security Monitoring	1,890	1,890	0	0	0	As Net Plant
Telephone	4,635	4,635	0	0	0	As Net Plant
Postage	0	0	0	0	0	100% AC
Meals	144	144	0	0	0	As Net Plant
Operating Rental & Leases	22,660	22,660	0	0	0	As Net Plant
Equipment Rental	84,300	84,300	0	0	0	As Net Plant
Water	155	155	0	0	0	As Net Plant
Sewer	155	155	0	0	0	As Net Plant
Electricity	6,180	6,180	0	0	0	As Net Plant
Waste Disposal	6,000	6,000	0	0	0	As Net Plant
Storm Sewer	0	0	0	0	0	As Net Plant
Equipment Repair & Maintenance	1,575	1,575	0	0	0	As Net Plant
Registration	2,029	2,029	0	0	0	As Net Plant
<b>Total Other Services &amp; Charges</b>	<b>\$224,012</b>	<b>\$224,012</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Intergovt. Services &amp; Taxes</b>						
SWM Basic Services	\$10,200	\$0	\$10,200	\$0	\$0	100% AC
SWM Discretionary Services	300	300	0	0	0	As Net Plant
In-lieu of Taxes/Fund #001	0	0	0	0	0	As Net Plant
<b>Total Intergovt. Services &amp; Taxes</b>	<b>\$10,500</b>	<b>\$300</b>	<b>\$10,200</b>	<b>\$0</b>	<b>\$0</b>	
<b>Total SWM Administration</b>	<b>\$746,062</b>	<b>\$735,862</b>	<b>\$10,200</b>	<b>\$0</b>	<b>\$0</b>	
<b>Transfer Payments</b>						
Operating Transfers Out/Fund #001	\$161,250	\$0	\$161,250	\$0	\$0	100% AC
Operating Transfers Out/Fund #101	0	0	0	0	0	
Operating Transfers Out/Fund #501	0	0	0	0	0	
<b>Total Transfer Payments</b>	<b>\$161,250</b>	<b>\$0</b>	<b>\$161,250</b>	<b>\$0</b>	<b>\$0</b>	

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 7  
 Functionalization and Classification of Expenses

<i>Account Type</i>	CY 1999	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>Debt Service</b>						
1994 SWM Rev. Bond (principal)	\$260,000	\$260,000	\$0	\$0	\$0	As Storm Drains
1994 SWM Rev. Bond (interest)	134,131	\$134,131	\$0	\$0	\$0	As Storm Drains
Debt Registration Costs	0	0	0	0	0	As All Other Debt
Other Debt Service Costs	0	0	0	0	0	As All Other Debt
Potential Long-Term Debt Funding	0	0	0	0	0	As All Other Debt
<b>Total Debt Service</b>	<b>\$394,131</b>	<b>\$394,131</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
Parks & Street Contributions	\$0	\$0	\$0	\$0	\$0	As 1994 Rev Bond
<b>Net Debt Service</b>	<b>\$394,131</b>	<b>\$394,131</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Capital Improvement Projects</b>						
Capitalized Expense	\$37,698	\$37,698	\$0	\$0	\$0	As Net Plant
Improvements - Storm Drains	0	0	0	0	0	As Storm Drains
S 170th St. Drainage	410,000	410,000	0	0	0	As Storm Drains
34th Ave. S. Drainage	70,000	70,000	0	0	0	As Storm Drains
Spot Drainage Improvements	150,000	150,000	0	0	0	As Storm Drains
28th/24th Ave. S. & Regional SD	0	0	0	0	0	As Storm Drains
Hilltop Storm Drainage Phase II	0	0	0	0	0	As Storm Drains
Maintenance and Storage Facility	250,000	250,000	0	0	0	As Storage
Surface Water Mgmt. Rate Study	22,000	22,000	0	0	0	As Net Plant
Des Moines Creek CIP (net of Grant \$)	217,753	217,753	0	0	0	As Net Plant
Hilltop Drainage Basin Phase II	200,000	200,000	0	0	0	As Basin improv
Des Moines Creek Basin Plan Adm	40,000	40,000	0	0	0	As Basin improv
Miller Creek Basin Plan	0	0	0	0	0	As Basin improv
38th Ave. S. (S.182nd to S.180th St.)	150,000	150,000	0	0	0	As Storm Drains
Other	0	0	0	0	0	As Net Plant
<b>Total Capital Improvements</b>	<b>\$1,547,451</b>	<b>\$1,547,451</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Less: Outside Funding Sources</b>						
From Working Cash Fund	\$447,451	\$447,451	\$0	\$0	\$0	As Capital Proj
From Construction Fund	1,000,000	1,000,000	0	0	0	As Capital Proj
Parks & Recreation	0	0	0	0	0	As Capital Proj
Streets	0	0	0	0	0	As Capital Proj
Potential Long-Term Debt Funding	0	0	0	0	0	As Capital Proj
<b>Total Outside Funding Sources</b>	<b>\$1,447,451</b>	<b>\$1,447,451</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Total Capital Proj Funded from Rates</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$1,401,443</b>	<b>\$1,229,993</b>	<b>\$171,450</b>	<b>\$0</b>	<b>\$0</b>	
<b>Less: Miscellaneous Revenue</b>						
WSDOT SWM Fees	\$24,700	\$21,678	\$3,022	\$0	\$0	As Total Rev Requirements
City Street SWM Fees	48,880	42,900	5,980	0	0	As Total Rev Requirements
Investment Interest	77,691	0	0	77,691	0	100% RR
Other Interest Earnings	3,150	0	0	3,150	0	100% RR
<b>Total Misc. Revenue</b>	<b>\$154,421</b>	<b>\$64,578</b>	<b>\$9,002</b>	<b>\$80,841</b>	<b>\$0</b>	
<b>TOTAL NET REVENUE REQUIREMENTS</b>	<b>\$1,247,022</b>	<b>\$1,165,414</b>	<b>\$162,448</b>	<b>(\$80,841)</b>	<b>\$0</b>	

CITY OF SEATAC - Surface Water Management - Base Case

EXHIBIT 6  
Allocation of Plant in Service (Rate Base)

Classification Component	12/31/97 Net Plant In Service	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$3,246,447	\$609,142	\$12,288	\$23,504	\$49,262	\$57,250	\$188,214	\$266,574	\$222,888	\$568,024	\$1,191,730	\$57,571	(VOL)
<b>Customer Related</b>													
Actual Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(AC)
Total Customer Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Revenue Related</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(RR)
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Plant in Service	\$3,246,447	\$609,142	\$12,288	\$23,504	\$49,262	\$57,250	\$188,214	\$266,574	\$222,888	\$568,024	\$1,191,730	\$57,571	

CITY OF SEATAC - Surface Water Management - Base Case  
 EXHIBIT 9  
 Allocation of Net Revenue Requirements

Classification Component	12/31/97 Net Revenue Requirement	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$1,165,414	\$218,671	\$4,411	\$8,438	\$17,684	\$20,552	\$67,565	\$95,695	\$80,013	\$203,910	\$427,809	\$20,667	(VOL)
<b>Customer Related</b>													
Actual Customer	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	(AC)
Total Customer Related	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	
<b>Revenue Related</b>													
Revenue Related	(\$80,841)	(\$21,912)	(\$429)	(\$693)	(\$1,611)	(\$3,069)	(\$5,903)	(\$8,032)	(\$7,465)	(\$6,133)	(\$24,644)	(\$950)	(RR)
<b>Direct Assignment</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Plant in Service	\$1,247,022	\$328,227	\$6,554	\$11,903	\$16,842	\$19,737	\$63,777	\$90,836	\$75,215	\$187,922	\$405,640	\$30,869	

**CITY OF SEATAC - Surface Water Management - Base Case**  
**EXHIBIT 10**  
**Summary of Cost of Service Analysis**

	PORT OF SEATTLE											
	Total	Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Revenues at Present Rates	\$1,210,833	\$328,200	\$6,420	\$10,380	\$24,127	\$45,962	\$88,418	\$120,296	\$111,818	\$91,856	\$369,124	\$14,232
Allocated Revenue Requirement	\$1,247,022	\$328,227	\$6,554	\$11,903	\$16,842	\$19,237	\$63,777	\$90,836	\$75,215	\$197,922	\$405,640	\$30,869
Subtotal Balance/(Deficiency) of Funds	(\$36,189)	(\$27)	(\$134)	(\$1,523)	\$7,285	\$26,725	\$24,641	\$29,460	\$36,603	(\$106,066)	(\$36,516)	(\$16,637)
Plus: Additional Taxes	\$0	0	0	0	0	0	0	0	0	0	0	0
Net Balance/(Deficiency) of Funds	(\$36,189)	(\$27)	(\$134)	(\$1,523)	\$7,285	\$26,725	\$24,641	\$29,460	\$36,603	(\$106,066)	(\$36,516)	(\$16,637)
% Change Over Present Rates	3.0%	0.0%	2.1%	14.7%	-30.2%	-56.1%	-27.9%	-24.5%	-32.7%	115.5%	9.9%	116.9%



**CITY OF SEATAC - Surface Water Management - Base Case**  
**EXHIBIT 11**  
**Summary of Unit Cost Analysis**

	PORT OF SEATTLE											
	Total	Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Total Surface Water Management Costs \$/Parcel	\$184.50	\$60.00	\$61.25	\$68.80	\$110.57	\$244.50	\$356.14	\$468.34	\$545.65	\$535.24	\$220.15	\$130.05
Total Surface Water Management Costs \$/Acre	\$280.99	\$60.00	\$60.00	\$60.00	\$122.11	\$252.95	\$488.45	\$619.29	\$811.17			
Current Rates												
<b>Basic Data:</b>												
Number of Parcels	6,759	5,470	107	173	32	73	88	132	111	6	103	464
Total Acres	4,437.93	941.80	13.82	290.73	152.33	78.68	179.08	193.96	137.84	369.78	1,842.55	237.36

CITY OF SEATAC - Surface Water Management - Port @ 25% Credit  
 EXHIBIT 3  
 DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR

Customer Class	Number of Parcels	Total [1] Square Feet	Impervious Area Sq. Ft	Total Acres [2]	Total Imperv. Area Acres
Residential	5,470	41,025,000	0	942	0
Mobile Home - As Res	107	601,875	0	14	0
Very Light (VL)	173	12,663,991	335,720	291	8
Light (L)	32	6,635,419	1,193,096	152	27
Moderate (M)	73	3,427,291	1,357,955	79	31
Moderately Heavy (MH)	88	7,800,599	4,395,106	179	101
Heavy (H)	132	8,448,684	6,469,898	194	149
Very Heavy (VH)	111	6,004,501	5,572,579	138	128
Port - IWS Area	6	16,107,689	14,675,174	370	337
Port - All Other Area	103	80,261,573	19,516,412	1,843	448
Port - Runway 3 Area	464	10,339,548	1,076,814	237	25
Total	6,759	193,316,170	54,592,754	4,438	1,253

[1] Assumed one parcel equal to 7,500 sq. ft. for Residential, Mobile Home is 75% of Residential sq. ft assumption and Other Classes - Actual measurement data from the BRODIE Group.

[2] Conversion: one acre = 43,560 square feet.

DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR (Cont.)

Customer Class	Estimated Total Sq Ft	Assumed Run-Off Contrib.	Contribution to Run-off	Contribution Credit	Net Contribution to Run-off	% of Total
Residential	41,025,000	0.40	16,410,000	0.0%	16,410,000	19.62%
Mobile Home - As Res	601,875	0.55	331,031	0.0%	331,031	0.40%
Very Light (VL)	12,663,991	0.05	633,200	0.0%	633,200	0.76%
Light (L)	6,635,419	0.20	1,327,084	0.0%	1,327,084	1.59%
Moderate (M)	3,427,291	0.45	1,542,281	0.0%	1,542,281	1.84%
Moderately Heavy (MH)	7,800,599	0.65	5,070,389	0.0%	5,070,389	6.06%
Heavy (H)	8,448,684	0.85	7,181,381	0.0%	7,181,381	8.59%
Very Heavy (VH)	6,004,501	1.00	6,004,501	0.0%	6,004,501	7.18%
Port - IWS Area	16,107,689	0.95	15,302,305	25.0%	11,476,728	13.72%
Port - All Other Area	80,261,573	0.40	32,104,629	0.0%	32,104,629	38.39%
Port - Runway 3 Area	10,339,548	0.15	1,550,932	0.0%	1,550,932	1.85%
Total	193,316,170	N/A	87,457,733	N/A	83,632,157	100%

ALLOCATION (VOL)

**CITY OF SEATAC - Surface Water Management - Port @ 25% Credit**  
**EXHIBIT 4**  
**DEVELOPMENT OF THE CUSTOMER**  
**ALLOCATION FACTORS**

Customer Class	Parcel Count	% of Total
Residential	5,470	80.93%
Mobile Home - As Res	107	1.58%
Very Light (VL)	173	2.56%
Light (L)	32	0.47%
Moderate (M)	73	1.08%
Moderately Heavy (MH)	88	1.30%
Heavy (H)	132	1.95%
Very Heavy (VH)	111	1.64%
Port - IWS Area [1]	6	0.09%
Port - All Other Area [1]	103	1.52%
Port - Runway 3 Area	464	6.86%
<b>Total</b>	<b>6,759</b>	<b>100%</b>

ALLOCATION (AC)

[1] 30 Parcels in Port "inset" area includes 6 for IWS and 24 for Port - All Other  
The 30 parcels are pro-rated based on total square feet of the Port Inset and IWS Inset Area

**CITY OF SEATAC - Surface Water Management - Port @ 25% Credit**  
**EXHIBIT 5**  
**DEVELOPMENT OF THE REVENUE RELATED**  
**ALLOCATION FACTOR**

Customer Class	Revenues at Present Rates	Percent of Total
Residential	\$328,200	27.11%
Mobile Home - As Res	6,420	0.53%
Very Light (VL)	10,380	0.86%
Light (L)	24,127	1.99%
Moderate (M)	45,962	3.80%
Moderately Heavy (MH)	88,418	7.30%
Heavy (H)	120,296	9.93%
Very Heavy (VH)	111,818	9.23%
Port - IWS Area (H)	91,856	7.59%
Port - All Other Area	369,124	30.49%
Port - Runway 3 Area	14,232	1.18%
<b>Total</b>	<b>\$1,210,833</b>	<b>100.00%</b>

ALLOCATION (RR)

**CITY OF SEATAC - Surface Water Management - Port @ 25% Credit**  
**EXHIBIT 6**  
**Functionalization and Classification of Plant in Service**

Description	As of 12/31/97	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>Plant Assets</b>						
Trnsfr of Existing Drainage Facility from King City	\$3,965,000	\$3,965,000	0	0	0	100% VOL
38th Ave. S. Storm Drain-S 176th to S. 179th	29,248	29,248	0	0	0	100% VOL
Fence at Glacier Maint Facility	7,853	7,853	0	0	0	100% VOL
S. 170th Storm Drain	5,789	5,789	0	0	0	100% VOL
S. 170th Storm Drain-33rd Ave. S to Int'l Blvd	59,899	59,899	0	0	0	100% VOL
S. 168th Storm Drain-37th Ave. S to 40th Ave. S.	77,345	77,345	0	0	0	100% VOL
N. SeaTac Retention Pond	26,638	26,638	0	0	0	100% VOL
Internat'l Blvd Phase I Storm Drain	300,000	300,000	0	0	0	100% VOL
N. SeaTac Park Drainage Project	259,197	259,197	0	0	0	100% VOL
S. 176th/Internat'l Blvd/34th Ave. S. Storm Drain	200,000	200,000	0	0	0	100% VOL
Hilltop Drainage Basin Improvements	114,146	114,146	0	0	0	100% VOL
S. 176th Street Phase II Storm Drain	97,049	97,049	0	0	0	100% VOL
Hilton/Budget Storm Drain	325,363	325,363	0	0	0	100% VOL
Internat'l Blvd Phase II Storm Drain	225,000	225,000	0	0	0	100% VOL
<b>Total Plant Assets</b>	<b>\$5,692,527</b>	<b>\$5,692,527</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Less: Accumulated Depreciation</b>	<b>\$2,446,080</b>	<b>\$2,446,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>As total Plant</b>
<b>Net Plant in Service</b>	<b>\$3,246,447</b>	<b>\$3,246,447</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**CITY OF SEATAC - Surface Water Management - Port @ 25% Credit**  
**EXHIBIT 8**  
**Allocation of Plant in Service (Rate Base)**

Classification Component	12/31/97 Net Plant In Service	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$3,246,447	\$637,006	\$12,850	\$24,580	\$51,515	\$59,869	\$196,823	\$278,768	\$233,084	\$445,506	\$1,246,243	\$60,204	(VOL)
<b>Customer Related</b>													
Actual Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(AC)
Total Customer Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Revenue Related</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Plant in Service	\$3,246,447	\$637,006	\$12,850	\$24,580	\$51,515	\$59,869	\$196,823	\$278,768	\$233,084	\$445,506	\$1,246,243	\$60,204	

CITY OF SEATAC - Surface Water Management - Port @ 25% Credit  
 EXHIBIT 9  
 Allocation of Net Revenue Requirements

Classification Component	12/31/97 Net Revenue Requirement	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$1,165,414	\$228,673	\$4,613	\$8,824	\$18,493	\$21,482	\$70,656	\$100,073	\$83,673	\$159,928	\$447,378	\$21,612	(VOL)
<b>Customer Related</b>													
Actual Customer	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	(AC)
Total Customer Related	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	
<b>Revenue Related</b>													
Revenue Related	(\$80,841)	(\$21,912)	(\$429)	(\$693)	(\$1,611)	(\$3,069)	(\$5,903)	(\$8,032)	(\$7,465)	(\$6,133)	(\$24,644)	(\$950)	(RR)
<b>Direct Assignment</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
<b>Net Plant in Service</b>													
Net Plant in Service	\$1,247,022	\$338,229	\$6,756	\$12,289	\$17,651	\$20,178	\$66,868	\$95,214	\$78,875	\$153,940	\$425,209	\$31,814	

CITY OF SEATAC - Surface Water Management - Port @ 25% Credit  
 EXHIBIT 10  
 Summary of Cost of Service Analysis

	Total	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Revenues at Present Rates	\$1,210,833	\$328,200	\$6,420	\$10,380	\$24,127	\$45,862	\$88,418	\$120,296	\$111,818	\$91,856	\$369,124	\$14,232
Allocated Revenue Requirement	\$1,247,022	\$338,229	\$6,756	\$12,289	\$17,651	\$20,178	\$66,868	\$95,214	\$78,875	\$153,940	\$425,209	\$31,814
Subtotal Balance/(Deficiency) of Funds	(\$36,189)	(\$10,029)	(\$336)	(\$1,909)	\$6,476	\$25,784	\$21,550	\$25,082	\$32,943	(\$62,084)	(\$56,085)	(\$17,582)
Plus: Additional Taxes	\$0	0	0	0	0	0	0	0	0	0	0	0
Net Balance/(Deficiency) of Funds	(\$36,189)	(\$10,029)	(\$336)	(\$1,909)	\$6,476	\$25,784	\$21,550	\$25,082	\$32,943	(\$62,084)	(\$56,085)	(\$17,582)
% Change Over Present Rates	3.0%	3.1%	5.2%	18.4%	-26.8%	-56.1%	-24.4%	-20.9%	-29.5%	67.6%	15.2%	123.5%

**CITY OF SEATAC - Surface Water Management - Port @ 25% Credit**  
**EXHIBIT 11**  
**Summary of Unit Cost Analysis**

	Total	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Total Surface Water Management Costs \$/Parcel	\$184.50	\$61.63	\$63.14	\$71.03	\$115.88	\$256.45	\$373.40	\$490.91	\$572.20	\$416.30	\$230.77	\$134.03
Total Surface Water Management Costs \$/Acre	\$280.99	\$60.00	\$60.00	\$60.00	\$122.11	\$252.95	\$488.45	\$619.29	\$811.17			
Current Rates												
<b>Basic Data:</b>												
Number of Parcels	6,759	5,470	107	173	32	73	88	132	111	6	103	464
Total Acres	4,437.93	941.60	13.82	290.73	152.33	78.68	179.08	193.96	137.84	369.78	1,842.55	237.36



CITY OF SEATAC - Surface Water Management - Port @ 50% Credit  
 EXHIBIT 3  
 DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR

Customer Class	Number of Parcels	Total [1] Square Feet	Impervious Area Sq. Ft	Total [2] Acres	Total Imperv. Area Acres
Residential	5,470	41,025,000	0	942	0
Mobile Home - As Res	107	601,875	0	14	0
Very Light (VL)	173	12,663,991	335,720	291	8
Light (L)	32	6,635,419	1,193,096	152	27
Moderate (M)	73	3,427,291	1,357,955	79	31
Moderately Heavy (MH)	88	7,800,599	4,395,106	179	101
Heavy (H)	132	8,448,684	6,469,898	194	149
Very Heavy (VH)	111	6,004,501	5,572,579	138	128
Port - IWS Area	6	16,107,689	14,675,174	370	337
Port - All Other Area	103	80,261,573	19,516,412	1,843	448
Port - Runway 3 Area	464	10,339,548	1,076,814	237	25
<b>Total</b>	<b>6,759</b>	<b>193,316,170</b>	<b>54,592,754</b>	<b>4,438</b>	<b>1,253</b>

[1] Assumed one parcel equal to 7,500 sq. ft. for Residential. Mobile Home is 75% of Residential sq. ft assumption and Other Classes - Actual measurement data from the BRODIE Group.  
 [2] Conversion: one acre = 43,560 square feet.

DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR (Cont.)

Customer Class	Estimated Total Sq Ft	Assumed Run-Off Contrib.	Contribution to Run-off	Contribution Credit	Net Contribution to Run-off	% of Total
Residential	41,025,000	0.40	16,410,000	0.0%	16,410,000	20.56%
Mobile Home - As Res	601,875	0.55	331,031	0.0%	331,031	0.41%
Very Light (VL)	12,663,991	0.05	633,200	0.0%	633,200	0.79%
Light (L)	6,635,419	0.20	1,327,084	0.0%	1,327,084	1.66%
Moderate (M)	3,427,291	0.45	1,542,281	0.0%	1,542,281	1.93%
Moderately Heavy (MH)	7,800,599	0.65	5,070,389	0.0%	5,070,389	6.35%
Heavy (H)	8,448,684	0.85	7,181,381	0.0%	7,181,381	9.00%
Very Heavy (VH)	6,004,501	1.00	6,004,501	0.0%	6,004,501	7.52%
Port - IWS Area	16,107,689	0.95	15,302,305	50.0%	7,651,152	9.59%
Port - All Other Area	80,261,573	0.40	32,104,629	0.0%	32,104,629	40.23%
Port - Runway 3 Area	10,339,548	0.15	1,550,932	0.0%	1,550,932	1.94%
<b>Total</b>	<b>193,316,170</b>	<b>N/A</b>	<b>87,457,733</b>	<b>N/A</b>	<b>79,806,581</b>	<b>100%</b>

ALLOCATION

(VOL)

**CITY OF SEATAC - Surface Water Management - Port @ 50% Credit**  
**EXHIBIT 4**  
**DEVELOPMENT OF THE CUSTOMER**  
**ALLOCATION FACTORS**

Customer Class	Parcel Count	% of Total
Residential	5,470	80.93%
Mobile Home - As Res	107	1.58%
Very Light (VL)	173	2.56%
Light (L)	32	0.47%
Moderate (M)	73	1.08%
Moderately Heavy (MH)	88	1.30%
Heavy (H)	132	1.95%
Very Heavy (VH)	111	1.64%
Port - IWS Area [1]	6	0.09%
Port - All Other Area [1]	103	1.52%
Port - Runway 3 Area	464	6.86%
<b>Total</b>	<b>6,759</b>	<b>100%</b>

ALLOCATION (AC)

[1] 30 Parcels in Port "inset" area includes 6 for IWS and 24 for Port - All Other  
 The 30 parcels are pro-rated based on total square feet of the Port Inset and IWS Inset Area

**CITY OF SEATAC - Surface Water Management - Port @ 50% Credit**  
**EXHIBIT 5**  
**DEVELOPMENT OF THE REVENUE RELATED**  
**ALLOCATION FACTOR**

Customer Class	Revenues at Present Rates	Percent of Total
Residential	\$328,200	27.11%
Mobile Home - As Res	6,420	0.53%
Very Light (VL)	10,380	0.86%
Light (L)	24,127	1.99%
Moderate (M)	45,962	3.80%
Moderately Heavy (MH)	88,418	7.30%
Heavy (H)	120,296	9.93%
Very Heavy (VH)	111,818	9.23%
Port - IWS Area (H)	91,856	7.59%
Port - All Other Area	369,124	30.49%
Port - Runway 3 Area	14,232	1.18%
<b>Total</b>	<b>\$1,210,833</b>	<b>100.00%</b>

ALLOCATION (RR)

**CITY OF SEATAC - Surface Water Management - Port @ 50% Credit**  
**EXHIBIT 6**  
**Functionalization and Classification of Plant in Service**

Description	As of 12/31/97	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>Plant Assets</b>						
Trnsfir of Existing Drainage Facility from King Cty 38th Ave. S. Storm Drain-S 176th to S. 179th	\$3,965,000	\$3,965,000	0	0	0	100% VOL
Fence at Glacier Maint Facility	29,248	29,248	0	0	0	100% VOL
S. 170th Storm Drain	7,853	7,853	0	0	0	100% VOL
S. 170th Storm Drain-33rd Ave. S to Int'l Blvd	5,789	5,789	0	0	0	100% VOL
S. 168th Storm Drain-37th Ave. S to 40th Ave. S.	59,899	59,899	0	0	0	100% VOL
N. Sea Tac Retention Pond	77,345	77,345	0	0	0	100% VOL
Internat'l Blvd Phase I Storm Drain	26,638	26,638	0	0	0	100% VOL
N. Sea Tac Park Drainage Project	300,000	300,000	0	0	0	100% VOL
S. 176th/Internat'l Blvd/34th Ave. S. Storm Drain	259,197	259,197	0	0	0	100% VOL
Hilltop Drainage Basin Improvements	200,000	200,000	0	0	0	100% VOL
S. 176th Street Phase II Storm Drain	114,146	114,146	0	0	0	100% VOL
Hilton/Budget Storm Drain	97,049	97,049	0	0	0	100% VOL
Internat'l Blvd Phase II Storm Drain	325,363	325,363	0	0	0	100% VOL
	225,000	225,000	0	0	0	100% VOL
<b>Total Plant Assets</b>	<b>\$5,692,527</b>	<b>\$5,692,527</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>As total Plant</b>
<b>Less: Accumulated Depreciation</b>	<b>\$2,446,080</b>	<b>\$2,446,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Net Plant in Service</b>	<b>\$3,246,447</b>	<b>\$3,246,447</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**CITY OF SEATAC - Surface Water Management - Port @ 50% Credit**  
**EXHIBIT 8**  
**Allocation of Plant in Service (Rate Base)**

Classification Component	12/31/97 Net Plant In Service	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor
<b>Volume</b>	\$3,246,447	\$667,541	\$13,466	\$25,758	\$53,984	\$62,738	\$206,258	\$292,131	\$244,257	\$311,241	\$1,305,982	\$63,090
<b>Customer Related</b>												
Actual Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Customer Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Revenue Related</b>												
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Plant in Service	\$3,246,447	\$667,541	\$13,466	\$25,758	\$53,984	\$62,738	\$206,258	\$292,131	\$244,257	\$311,241	\$1,305,982	\$63,090

CITY OF SEATAC - Surface Water Management - Port @ 50% Credit  
 EXHIBIT 9  
 Allocation of Net Revenue Requirements

Classification Component	12/31/97 Net Revenue Requirement	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$1,165,414	\$239,635	\$4,834	\$9,247	\$19,379	\$22,522	\$74,043	\$104,870	\$87,684	\$111,730	\$468,823	\$22,648	(VOL)
<b>Customer Related</b>													
Actual Customer	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	(AC)
Total Customer Related	\$162,448	\$131,468	\$2,572	\$4,158	\$769	\$1,755	\$2,115	\$3,173	\$2,668	\$144	\$2,476	\$11,152	
<b>Revenue Related</b>													
Revenue Related	(\$80,841)	(\$21,912)	(\$429)	(\$693)	(\$1,611)	(\$3,069)	(\$5,903)	(\$8,032)	(\$7,465)	(\$6,133)	(\$24,644)	(\$950)	(RR)
<b>Direct Assignment</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Plant in Service	\$1,247,022	\$349,191	\$5,977	\$12,712	\$18,538	\$21,208	\$70,255	\$100,011	\$82,886	\$105,741	\$445,655	\$32,850	

CITY OF SEATAC - Surface Water Management - Port @ 50% Credit  
 EXHIBIT 10  
 Summary of Cost of Service Analysis

	Total	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Revenues at Present Rates	\$1,210,833	\$328,200	\$6,420	\$10,380	\$24,127	\$45,962	\$88,418	\$120,296	\$111,818	\$91,856	\$369,124	\$14,232
Allocated Revenue Requirement	\$1,247,022	\$349,191	\$6,977	\$12,712	\$18,538	\$21,208	\$70,255	\$100,011	\$82,886	\$105,741	\$446,655	\$32,850
Subtotal Balance/(Deficiency) of Funds	(\$36,189)	(\$20,991)	(\$557)	(\$2,332)	\$5,589	\$24,754	\$18,163	\$20,285	\$28,932	(\$13,885)	(\$77,531)	(\$18,618)
Plus: Additional Taxes	\$0	0	0	0	0	0	0	0	0	0	0	0
Net Balance/(Deficiency) of Funds	(\$36,189)	(\$20,991)	(\$557)	(\$2,332)	\$5,589	\$24,754	\$18,163	\$20,285	\$28,932	(\$13,885)	(\$77,531)	(\$18,618)
% Change Over Present Rates	3.0%	6.4%	8.7%	22.5%	-23.2%	-53.9%	-20.5%	-16.9%	-25.9%	15.1%	21.0%	130.8%

**CITY OF SEATAC - Surface Water Management - Port @ 50% Credit**  
**EXHIBIT 11**  
**Summary of Unit Cost Analysis**

	PORT OF SEATTLE											
	Total	Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Total Surface Water Management Costs \$/Parcel	\$184.50	\$63.84	\$65.21	\$73.48	\$121.70	\$269.55	\$392.32	\$515.64	\$601.30	\$285.96	\$242.41	\$138.40
Total Surface Water Management Costs \$/Acre	\$280.99	\$60.00	\$60.00	\$60.00	\$122.11	\$252.95	\$488.45	\$619.29	\$811.17			
Current Rates												
<b>Basic Data:</b>												
Number of Parcels	6,759	5,470	107	173	32	73	88	132	111	6	103	464
Total Acres	4,437.93	941.80	13.82	290.73	152.53	78.68	179.08	193.96	137.84	369.78	1,842.55	237.36

CITY OF SEATAC - Surface Water Management - Port 100% Credit  
 EXHIBIT 3  
 DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR

Customer Class	Number of Parcels	Total [1] Square Feet	Impervious Area Sq. Ft.	Total [2] Acres	Total Imperv. Area Acres
Residential	5,470	41,025,000	0	942	0
Mobile Home - As Res	107	601,875	0	14	0
Very Light (VL)	173	12,663,991	335,720	291	8
Light (L)	32	6,635,419	1,193,096	152	27
Moderate (M)	73	3,427,291	1,357,955	79	31
Moderately Heavy (MH)	88	7,800,599	4,395,106	179	101
Heavy (H)	132	8,448,684	6,469,898	194	149
Very Heavy (VH)	111	6,004,501	5,572,579	138	128
Port - IWS Area	6	16,107,689	14,675,174	370	337
Port - All Other Area	103	80,261,573	19,516,412	1,843	448
Port - Runway 3 Area	464	10,339,548	1,076,814	237	25
<b>Total</b>	<b>6,759</b>	<b>193,316,170</b>	<b>54,592,754</b>	<b>4,438</b>	<b>1,253</b>

[1] Assumed one parcel equal to 7,500 sq. ft. for Residential, Mobile Home is 75% of Residential sq. ft assumption and Other Classes - Actual measurement data from the BRODIE Group.  
 [2] Conversion: one acre = 43,560 square feet.

DEVELOPMENT OF THE VOLUME ALLOCATION  
 FACTOR (Cont.)

Customer Class	Estimated Total Sq Ft	Assumed Run-Off Contrib.	Contribution to Run-off	Contribution Credit	Net Contribution to Run-off	% of Total
Residential	41,025,000	0.40	16,410,000	0.0%	16,410,000	22.74%
Mobile Home - As Res	601,875	0.55	331,031	0.0%	331,031	0.46%
Very Light (VL)	12,663,991	0.05	633,200	0.0%	633,200	0.88%
Light (L)	6,635,419	0.20	1,327,084	0.0%	1,327,084	1.84%
Moderate (M)	3,427,291	0.45	1,542,281	0.0%	1,542,281	2.14%
Moderately Heavy (MH)	7,800,599	0.65	5,070,389	0.0%	5,070,389	7.03%
Heavy (H)	8,448,684	0.85	7,181,381	0.0%	7,181,381	9.95%
Very Heavy (VH)	6,004,501	1.00	6,004,501	0.0%	6,004,501	8.32%
Port - IWS Area	16,107,689	0.95	15,302,305	100.0%	0	0.00%
Port - All Other Area	80,261,573	0.40	32,104,629	0.0%	32,104,629	44.49%
Port - Runway 3 Area	10,339,548	0.15	1,550,932	0.0%	1,550,932	2.15%
<b>Total</b>	<b>193,316,170</b>	<b>N/A</b>	<b>87,457,733</b>	<b>N/A</b>	<b>72,155,429</b>	<b>100%</b>

ALLOCATION (VOL)



**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 4**  
**DEVELOPMENT OF THE CUSTOMER**  
**ALLOCATION FACTORS**

<i>Customer Class</i>	Parcel Count	% of Total
Residential	5,470	81.00%
Mobile Home - As Res	107	1.58%
Very Light (VL)	173	2.56%
Light (L)	32	0.47%
Moderate (M)	73	1.08%
Moderately Heavy (MH)	88	1.30%
Heavy (H)	132	1.95%
Very Heavy (VH)	111	1.64%
Port - IWS Area [1]	-	0.00%
Port - All Other Area [1]	103	1.53%
Port - Runway 3 Area	464	6.87%
<b>Total</b>	<b>6,753</b>	<b>100%</b>

ALLOCATION (AC)

[1] 30 Parcels in Port "inset" area includes 6 for IWS and 24 for Port - All Other  
The 30 parcels are pro-rated based on total square feet of the Port Inset and IWS Inset Area

**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 5**  
**DEVELOPMENT OF THE REVENUE RELATED**  
**ALLOCATION FACTOR**

<i>Customer Class</i>	Revenues at Present Rates	Percent of Total
Residential	\$328,200	27.11%
Mobile Home - As Res	6,420	0.53%
Very Light (VL)	10,380	0.86%
Light (L)	24,127	1.99%
Moderate (M)	45,962	3.80%
Moderately Heavy (MH)	88,418	7.30%
Heavy (H)	120,296	9.93%
Very Heavy (VH)	111,818	9.23%
Port - IWS Area (H)	91,856	7.59%
Port - All Other Area	369,124	30.49%
Port - Runway 3 Area	14,232	1.18%
<b>Total</b>	<b>\$1,210,833</b>	<b>100.00%</b>

ALLOCATION (RR)

**CITY OF SEATAC - Surface Water Management - Port 100% Credit  
EXHIBIT 6  
Functionalization and Classification of Plant in Service**

Description	As of 12/31/97	Volume (VOL)	Customer Actual (AC)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
<b>Plant Assets</b>						
Trnsfr of Existing Drainage Facility from King Cty 38th Ave. S. Storm Drain-S 176th to S. 179th	\$3,965,000	\$3,965,000	0	0	0	100% VOL
Fence at Glacier Maint Facility	29,248	29,248	0	0	0	100% VOL
S. 170th Storm Drain	7,853	7,853	0	0	0	100% VOL
S. 170th Storm Drain-33rd Ave. S to Int'l Blvd	5,789	5,789	0	0	0	100% VOL
S. 168th Storm Drain-37th Ave. S to 40th Ave. S.	59,899	59,899	0	0	0	100% VOL
N. SeaTac Retention Pond	77,345	77,345	0	0	0	100% VOL
Internat'l Blvd Phase I Storm Drain	26,638	26,638	0	0	0	100% VOL
N. SeaTac Park Drainage Project	300,000	300,000	0	0	0	100% VOL
S. 176th/Internat'l Blvd/34th Ave. S. Storm Drain	259,197	259,197	0	0	0	100% VOL
Hilltop Drainage Basin Improvements	200,000	200,000	0	0	0	100% VOL
S. 176th Street Phase II Storm Drain	114,146	114,146	0	0	0	100% VOL
Hilton/Budget Storm Drain	97,049	97,049	0	0	0	100% VOL
Internat'l Blvd Phase II Storm Drain	325,363	325,363	0	0	0	100% VOL
	225,000	225,000	0	0	0	100% VOL
<b>Total Plant Assets</b>	<b>\$5,692,527</b>	<b>\$5,692,527</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Less: Accumulated Depreciation</b>	<b>\$2,446,080</b>	<b>\$2,446,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>As total Plant</b>
<b>Net Plant in Service</b>	<b>\$3,246,447</b>	<b>\$3,246,447</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 8**  
**Allocation of Plant in Service (Rate Base)**

Classification Component	12/31/97 Net Plant in Service	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
<b>Volume</b>	\$3,246,447	\$738,326	\$14,894	\$28,489	\$59,709	\$69,391	\$228,129	\$323,108	\$270,157	\$0	\$1,444,465	\$69,780	(VOL)
<b>Customer Related</b>													
Actual Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(AC)
Total Customer Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Revenue Related</b>													
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(RR)
Net Plant in Service	\$3,246,447	\$738,326	\$14,894	\$28,489	\$59,709	\$69,391	\$228,129	\$323,108	\$270,157	\$0	\$1,444,465	\$69,780	(DA)

**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 9**  
**Allocation of Net Revenue Requirements**

Classification Component	12/31/97 Net Revenue Requirement	PORT OF SEATTLE											
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area Allocation Factor	
Volume	\$1,165,414	\$285,045	\$5,347	\$10,227	\$21,434	\$24,910	\$81,894	\$115,990	\$96,981	\$0	\$518,536	\$25,050	(VOL)
Customer Related	\$162,448	\$131,585	\$2,574	\$4,162	\$770	\$1,756	\$2,117	\$3,175	\$2,670	\$0	\$2,478	\$11,162	(AC)
Total Customer Related	\$162,448	\$131,585	\$2,574	\$4,162	\$770	\$1,756	\$2,117	\$3,175	\$2,670	\$0	\$2,478	\$11,162	
Revenue Related	(\$80,841)	(\$21,912)	(\$429)	(\$693)	(\$1,611)	(\$3,069)	(\$5,903)	(\$8,032)	(\$7,465)	(\$6,133)	(\$24,644)	(\$950)	(RF)
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Plant in Service	\$1,247,022	\$374,718	\$7,492	\$13,696	\$20,593	\$23,597	\$78,108	\$111,134	\$92,186	(\$6,133)	\$496,369	\$35,261	

**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 10**  
**Summary of Cost of Service Analysis**

	Total	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Revenues at Present Rates	\$1,210,833	\$328,200	\$6,420	\$10,380	\$24,127	\$45,962	\$88,418	\$120,296	\$111,818	\$91,856	\$369,124	\$14,232
Allocated Revenue Requirement	\$1,247,022	\$372,884	\$7,455	\$13,629	\$20,492	\$23,482	\$77,726	\$110,590	\$91,735	\$0	\$493,940	\$35,089
Subtotal Balance/(Deficiency) of Funds	(\$36,189)	(\$44,684)	(\$1,035)	(\$3,249)	\$3,635	\$22,480	\$10,692	\$9,706	\$20,083	\$91,856	(\$124,817)	(\$20,857)
Plus: Additional Taxes	\$0	0	0	0	0	0	0	0	0	0	0	0
Net Balance/(Deficiency) of Funds	(\$36,189)	(\$44,684)	(\$1,035)	(\$3,249)	\$3,635	\$22,480	\$10,692	\$9,706	\$20,083	\$91,856	(\$124,817)	(\$20,857)
% Change Over Present Rates	3.0%	13.6%	16.1%	31.3%	-15.1%	-48.9%	-12.1%	-6.1%	-18.0%	-100.0%	33.8%	146.5%

**CITY OF SEATAC - Surface Water Management - Port 100% Credit**  
**EXHIBIT 11**  
**Summary of Unit Cost Analysis**

	Total	PORT OF SEATTLE										
		Residential	Mobile Home	Very Light	Light	Moderate	Moderately Heavy	Heavy	Very Heavy	IWS Area	All Other	Runway 3 Area
Total Surface Water Management Costs \$/Parcel	\$184.50	\$68.50	\$70.02	\$79.17	\$155.19	\$299.92	\$436.17	\$572.99	\$668.77	\$0.00	\$269.39	\$148.55
Total Surface Water Management Costs \$/Acre	\$280.99	\$60.00	\$60.00	\$60.00	\$122.11	\$252.95	\$488.45	\$619.29	\$811.17			
Current Rates												
<b>Basic Data:</b>												
Number of Parcels	6,759	5,470	107	173	32	73	88	132	111	6	103	464
Total Acres	4,437.93	941.80	13.82	290.73	152.33	78.68	179.08	193.96	137.84	369.78	1,842.55	237.36

## **Committee Member Response No. 1**

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June 3, 1999

City of Sea Tac  
Surface Water Advisory Committee

Sea Tac City Council

REC'D JUN 10 1999

RE: Recommendations for Surface Water Management

To Whom It May Concern:

The following issues are of concern to me, and should be thoroughly investigated by the City Council prior to making a final decision.

- 1.) The amount of increase, 39.6% in the application of funds, over a short four-year period is excessive. The factors that drive this increase are two fold. The \$99,000 increase in salaries & benefits seems to be high in the current employment environment. Secondly, capital projects in excess of \$4,000,000.00 over this period seem aggressive. The only equation to keep up with that kind of spending is to raise rates across the board by 10% each year for the four-year period. I am concerned that both homeowners and businesses would object. My recommendation in this area is to look closely at the budgeted expenditures and cut them to fit the market, and consider lengthening the time frame from four years to seven years for the capital projects.
- 2.) How to deal with the issue of credits should be considered from an equitable position. When a homeowner, business or the Port of Seattle expends money to improve the water quality or surface water flow into the city system, that expenditure deserves a credit from the tax. There currently is a one level discount as a credit of the tax. A lengthy discussion in our meetings centered on the Port's IWS area supported by a separate surface water system. Should this area be discounted completely or at some percentage greater than that being offered to other businesses in the City of SeaTac. My concern is, as capital projects such as 24<sup>th</sup>/28<sup>th</sup> are improved the ongoing maintenance of the surface water will be borne by the homeowners and businesses of the City of SeaTac. The benefit and use of that improvement is at least 50% City of SeaTac and 50% Port of Seattle. Port traffic utilizes the majority of the streets in the city and should be treated as any business in this city. I recommend that the IWS area at minimum remain the same plus the approved rate adjustment.
- 3.) Rate increases should be adjusted evenly in all classes. I believe that with a 6 to 7 year projection the annual rate increase should be less than 6%. That increase will cover the capital projects and the salary increases. I recommend that both the capital projects and the budget be reviewed carefully prior to any rate proposal.
- 4.) There was a brief discussion concerning the School District property. As all city buildings and projects are subject to the tax so should, at minimum, the vacant or unused property owned by the School District.
- 5.) Finally I would like to see the City of SeaTac take a more regional approach to surface water management. Commercial businesses are required to expend hundreds of thousands of dollars to control the flow and quality of surface water. We then discharge our clean water into the street storm water system, however most of the street water is untreated. A system should be investigated that would allow businesses the option to participate in a citywide point of clean water control rather than being required to build individual systems that do very little.

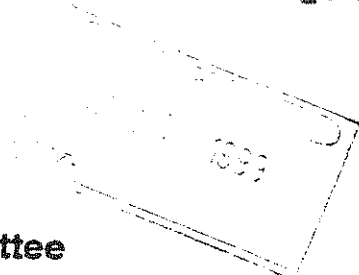
If I can be of further assistance please do not hesitate to contact me.

Yours in Service



Roger A. McCracken  
McCracken & Associates





### City of SeaTac Surface Water Rate Advisory Committee

1. Overall, do you believe the citizen's are satisfied with the City's current level of service for the surface water programs and the utility?  
 Yes  
 No - If no, please describe below the areas of dissatisfaction -

2. Should the City maintain their current service levels and programs for the surface water utility?  
 Yes  
 No; if no, does the City need to increase or decrease service levels?

*SEE ATTACHED LETTER*

3. The City has developed revenue requirement projections for the utility (see P. 12 of Handout #3). Based upon those projections, the City has projected revenue deficiencies of approximately 40% by calendar year 2002. How should the City implement any rate adjustments? Provided below are some options that were discussed at committee meetings. Each option is designed to increase SWM revenues approximately 40% over time. The rate shown in the parenthesis is the monthly residential rate and is for illustrative purposes only. Your suggested changes to the residential rate and all other rates is discussed in question 10 below. Please check the option that you believe to be most appropriate, or enter your suggested approach.

Option 1  
 1999 - 10.0% (\$5.50/month)  
 2000 - 9.1% (\$6.00)  
 2001 - 8.3% (\$6.50)  
 2002 - 7.7% (\$7.00)

Option 2  
 1999 - 20.0% (\$6.00/month)  
 2000 - 0.0% (\$6.00)  
 2001 - 0.0% (\$6.00)  
 2002 - 16.7% (\$7.00)

Option 3  
 1999 - 8.75% (\$5.45/month)  
 2000 - 8.75% (\$5.90)  
 2001 - 8.75% (\$6.45)  
 2002 - 8.75% (\$7.00)

Option 4  
 1999 - 5.75% (\$5.30/month)  
 2000 - 5.75% (\$5.60)  
 2001 - 5.75% (\$5.90)  
 2002 - 5.75% (\$6.25)  
 2003 - 5.75% (\$6.60)  
 2004 - 5.75% (\$7.00)

Option 4 (Input your option)  
 1999 - \_\_\_\_\_ %  
 2000 - \_\_\_\_\_ %  
 2001 - \_\_\_\_\_ %  
 2002 - \_\_\_\_\_ %

Option 5 (Input your option)  
 1999 - \_\_\_\_\_ %  
 2000 - \_\_\_\_\_ %  
 2001 - \_\_\_\_\_ %  
 2002 - \_\_\_\_\_ %  
 2003 - \_\_\_\_\_ %  
 2004 - \_\_\_\_\_ %

4. If you answered "no" to question 2, and believe program service levels should be reduced, how would you suggest that the City reduce program levels to offset the projected revenue deficits in the SWM utility?

5. At the present time, commercial customers with on-site retention/detention facilities are provided with a credit of 1 rate category reduction. Please answer the following questions.

5A. Should commercial customers be provided with a credit for on-site retention/detention facilities?

- Yes
- No

5B. A committee member noted that the reduction using the "1 rate category approach" provides different dollar and percentage discounts for customers in different rate categories. Should an alternative to the existing "1 rate category reduction" approach be proposed?

- Yes
- No

If yes to 5B, what approach should be used?

- Option 1 - Flat percentage rate reduction (e.g. 10%)  
My suggested % rate reduction would be \_\_\_\_\_%
- Option 2 - A flat \$/acre discount (e.g.  
My suggested \$/acre rate reduction would be \$ \_\_\_\_\_/acre

*SEE ATTACHED LETTER*

6. At the present time, commercial customers are required to maintain their on-site facilities. This is, in part, the basis for the rate reduction. An alternative approach would be to have the City maintain the facilities, but as compensation for the service, not provide the rate reduction. This would be a service option to the property owner who does not want to incur the cost and effort required to properly maintain their facilities. The property owner would still have the option of maintaining their own facilities and receiving a rate reduction. Should the service alternative of having the City maintain customer on-site facilities be offered?

- Yes
- No

7. The Port of Seattle (SeaTac Airport) has a portion of their facility in which they collect all the stormwater and it is piped to a wastewater treatment facility, treated and then discharged directly to Puget Sound. Therefore, this area does not have a direct impact on the City's surface water volumes and local streams. This area of the airport has been characterized as the Industrial Waste System area or "IWS area." Please answer the following questions and provide any comments, as you feel appropriate.

6A. The Port should receive a credit for the IWS area

- Yes
- No

6C. If you answered "yes" to 6A, for the IWS area, the Port should receive a credit of (answer one):

- \_\_\_\_\_ rate categories [specify number of rate category reductions]; or
- \_\_\_\_\_ percent (%) [specify percentage - e.g. 50%]; or
- \_\_\_\_\_ dollars (\$) [specify specific dollar credit, e.g. \$100,000]

SEE ATTACHED WRITER

7. A rate reduction credit is currently provided to the school district's for the educational programs that they provide on storm water and water quality. This rate reduction credit is presently applied to all school parcels. Should the credit be applied only to the district's classroom facilities (parcels), as opposed to administrative and maintenance facilities (parcels)?

- Yes
- No

8. Should the rate structure for the very light category be changed from a rate per parcel to a rate per acre?

- Yes
- No ?

9. Do you have any other comments or issues that you would like to see the City Council review as a part of the rate study? You may write on the back side of this form if more space is required.

**City of SeaTac**  
**Worksheet to Determine Proposed Rate Adjustments**

10. The final policy issue is the determination of rates by class of service, considering the issues discussed above (i.e. overall revenue adjustments, credits to the Port for the IWS, etc.).

The worksheet on the next page should be used to determine your recommendations for proposed rates by classes of service. This worksheet is similar to the one shown at the last committee meeting. Provided below is a simple set of directions for completing the worksheet.

***Directions for the Worksheet on the Next Page:***

- Step 1 – Determine the overall level of rate revenue adjustment. This line is shown on the worksheet on the next page, near the bottom. You will see the line that appears as follows:

$$\text{Target Revenues} = \$1,210,833 \times 1.\underline{\quad} \% = \$\underline{\hspace{2cm}}$$

You should enter your assumed % rate adjustment for the first year. Your assumed % should match to your answer to question 3 for 1999. Complete this calculation, and enter the target level of revenues. For example, if you assumed a 10% rate adjustment in 1999, the calculation would appear as:

$$\text{Target Revenue} = \$1,210,833 \times 1.10\% = \$1,331,916.$$

- Step 2 – Enter your proposed rates for each class of service under column D. Attached after the worksheet is a summary showing the cost of service results. This information was provided at the 3<sup>rd</sup> committee meeting. It may be helpful as a starting point for determining rates. From the proposed rates, the resulting (calculated) revenues can be determined (Column F). This is determined by multiplying column D by Column E. For example, a proposed rate of \$65.00 for residential results in proposed revenues of \$355,550 (\$65.00 x 5,470 parcels). Complete this calculation for each class of service.
- Step 3 – Compare the total of the calculated revenues to the target level of revenues (step 1). The total of the calculated revenues should match as closely as possible the target level of revenues. If they are significantly different, go back to step 2 and adjust the rates by class of service to either increase or decrease the calculated revenues.
- Step 4 – Once you are satisfied that the calculated revenues match your target revenues, complete columns G and H to determine the change in rates in terms of both dollars and percentage.

SEE ATTACHED LETTER

### Worksheet to Determine Proposed Rates – CY 2000

*Notes: Please read the worksheet directions on the previous page  
It is suggested that you use a pencil to allow for changes and corrections*

Classes Service (A)	Present Revenues (B)	Present Rates (C)	Proposed Rates (D)	Parcels/ Acres (E)	Calculated Revenues Col. D x E (F)	\$ Change Col. D - C (G)	% Change Col. G ÷ C (H)
Residential	\$328,200	\$60.00	\$ _____	5,470	\$ _____	\$ _____	_____%
Mobile Homes	6,420	\$60.00	\$ _____	107	\$ _____	\$ _____	_____%
Very Light	10,380	\$60.00	\$ _____	173	\$ _____	\$ _____	_____%
Light	24,127	\$122.11	\$ _____	198	\$ _____	\$ _____	_____%
Moderate	45,962	\$252.95	\$ _____	182	\$ _____	\$ _____	_____%
Moderately Heavy	88,418	\$488.45	\$ _____	181	\$ _____	\$ _____	_____%
Heavy	120,298	\$619.29	\$ _____	194	\$ _____	\$ _____	_____%
Very Heavy	111,818	\$811.17	\$ _____	138	\$ _____	\$ _____	_____%
Port – IWS	91,856	\$252.95	\$ _____	363	\$ _____	\$ _____	_____%
Port – All Other	389,124	\$252.95	\$ _____	1,459	\$ _____	\$ _____	_____%
Port - 3rd Runway	<u>14,232</u>	\$60.00	\$ _____	237	\$ _____	\$ _____	_____%
<b>Total</b>	<b>\$1,210,833</b>		\$ _____		\$ _____	\$ _____	_____%
Target Revenues = \$1,210,833 x 1._____% = \$ _____							
Port – IWS	\$91,856	\$252.95	\$ _____		\$ _____		
Port – All Other	389,124	\$252.95	\$ _____		\$ _____		
Port - 3rd Runway	<u>14,232</u>	\$59.96	\$ _____		\$ _____		
<b>Total</b>	<b>\$475,212</b>	<b>\$230.71</b>			\$ _____		

## City of SeaTac Summary of the Cost of Service Study

Provided below is a summary of the cost of service study and various scenarios developed. The "base case" scenario assumes no credits are provided for the Port's IWS area. The columns showing 25%, 50% and 100% indicate an increasing credit to the Port's IWS area. As the credit to the IWS area is increased (rate reduced), the rates to all other customers must be increased to collect the same overall level of revenue.

This page is provided simply as a reference to assist you in developing the proposed rate worksheet on the previous page.

### Summary of the Cost of Service Results

Classes Service (A)	Base Case (D)	IWS Credit of 25% (E)	IWS Credit of 50% (F)	IWS Credit of 100% (G)
Residential	\$60.34	\$62.18	\$64.20	\$68.58
Mobile Homes	\$61.80	\$63.50	\$65.58	\$70.11
Very Light	\$60.00	\$71.46	\$73.92	\$79.33
Light	\$111.52	\$116.87	\$122.74	\$135.47
Moderate	\$246.65	\$258.69	\$271.89	\$299.31
Moderately Heavy	\$359.23	\$376.63	\$395.70	\$437.20
Heavy	\$472.37	\$495.13	\$520.06	\$574.48
Very Heavy	\$550.40	\$577.17	\$606.51	\$670.08
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
Total				
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
Total				

## **Committee Member Response No. 2**

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CHARMA K. RUSSEFF  
2819 South 135th St.  
Sea Tac, Washington 98168-3875

June 14, 1999

City of SeaTac  
17900 International Blvd., Suite 401  
SeaTac, Washington 98188-4236

Attention: Mr. Donald G. Monaghan, P.E.  
Assistant Director of Public Works

Economic & Engineering Services, Inc.  
PO Box 1989  
Bellevue, Washington 98009

Attention: Mr. Tom Gould  
Project Manager

SUBJECT: Surface Water Management Rate Study Advisory Committee

Gentlemen:

It is unfortunate that further meetings could not have been scheduled to answer unresolved questions that have resulted from the June 2<sup>nd</sup> meeting and receipt of the rate survey questionnaire.

For me, the most important question is "*Why is there a deficit?*" You have given me all the supporting data that indicates such a deficit does exist but "*Why?*"

In October 1998, a copy of the historical budget & capital expenditures was requested and submitted to the committee for the period 1995 through 1997. You stated that "historical budget and capital expenditure data generally has little value" when forecasting future rate increases. I would disagree based upon the following information selected from that history:

- Revenues History (Period covered 1995-97)  
343.833.00.000 Storm Drainage Fees & Charges increased approximately 1.9%.
- Expenditure History (Period covered 1995-97)  
538.20.10 - Regular & Part Time Wages increased 64.4%  
538.20.20 - Personnel Benefits increased 82%

Clearly, just in comparison of these two expenditures, they far exceed revenue being received prior to the deficit we now are asked to consider for rate increases.

From my historical files on the City of SeaTac, I found the following information:

- Since incorporation, SWM fees have increased a total of 100% (\$29.89 in 1990 to \$45.00 in 1993; \$60.00 to 1994). Rates have remained the same since 1994.



- In 1994 a \$4.5 Million Revenue Bond was issued which identified 14 specific projects for implementation with these funds. Six of these projects remain incomplete in 1999.

The City of SeaTac has projected an increase of approximately 21.4% for Salaries & Benefits alone through 2002 with only a 2% anticipated increase in revenues.

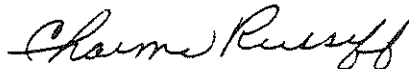
#### QUESTIONS:

- ❖ Is it possible that the City of SeaTac needs to review its internal expenditures in correlation to revenues versus asking for the public to subsidize the deficiency ahead? An individual certainly cannot justify an increase in salary based upon his/her expenses exceeding income.
- ❖ Why haven't the projects funded in 1994 been completed? Are funds being used to cover increased expenditures that appear to be excessively high?
- ❖ If the purpose of projects is to repair, replace and upgrade the system, why then, upon their completion, do expenditures not decrease?
- ❖ Why do SWM expenditures continue to increase if the Port of Seattle and other businesses handle run-off issues? Again, it would appear to me this would decrease the amount of expenditures required by SeaTac.
- ❖ How many parcels @ \$60 each have been lost as a direct result of the Port of Seattle since the last SWM rate increase in 1994?
- ❖ What does the Port of Seattle pay for an acre that previously would have generated revenues for each parcel built on that acreage?
- ❖ What was the cost of services for each specific classification in 1994?
- ❖ In response to a flooding event, what is the City's priority – residential, business or Port?

For myself, too many questions remain unresolved to offer an opinion on any rate increase based upon the information made available that could be considered fair and equitable. As I stated previously, from an individual taxpayer standpoint, we do not have the power to increase our level of income because we have failed to budget our funds properly. The Port of Seattle and businesses can pass along increases directly to their customers and still maintain their present level of income.

Without answers to my questions, for the record, my response to the questionnaire is that perhaps the city of Seatac needs to take a closer look at its' expenditures before it asks the its' citizens and businesses for further increases. Again, it is unfortunate the meetings were not held as originally planned so that we, as a committee, could receive, as well as question, the information necessary to make an intelligent response.

Respectfully submitted,



Charma Russeff

## **Committee Member Response No. 3**

### City of SeaTac Surface Water Rate Advisory Committee

1. Overall, do you believe the citizen's are satisfied with the City's current level of service for the surface water programs and the utility?

Yes

No - If no, please describe below the areas of dissatisfaction -

2. Should the City maintain their current service levels and programs for the surface water utility?

Yes

No; if no, does the City need to increase or decrease service levels?

3. The City has developed revenue requirement projections for the utility (see P. 12 of Handout #3). Based upon those projections, the City has projected revenue deficiencies of approximately 40% by calendar year 2002. How should the City implement any rate adjustments? Provided below are some options that were discussed at committee meetings. Each option is designed to increase SWM revenues approximately 40% over time. The rate shown in the parenthesis is the monthly residential rate and is for illustrative purposes only. Your suggested changes to the residential rate and all other rates is discussed in question 10 below. Please check the option that you believe to be most appropriate, or enter your suggested approach.

Option 1

1999 - 10.0% (\$5.50/month)  
2000 - 9.1% (\$6.00)  
2001 - 8.3% (\$6.50)  
2002 - 7.7% (\$7.00)

Option 2

1999 - 20.0% (\$6.00/month)  
2000 - 0.0% (\$6.00)  
2001 - 0.0% (\$6.00)  
2002 - 16.7% (\$7.00)

Option 3

1999 - 8.75% (\$5.45/month)  
2000 - 8.75% (\$5.90)  
2001 - 8.75% (\$6.45)  
2002 - 8.75% (\$7.00)

Option 4

1999 - 5.75% (\$5.30/month)  
2000 - 5.75% (\$5.60)  
2001 - 5.75% (\$5.90)  
2002 - 5.75% (\$6.25)  
2003 - 5.75% (\$6.60)  
2004 - 5.75% (\$7.00)

Option 4 (Input your option)

1999 - 5 %  
2000 - 7 %  
2001 - 10 %  
2002 - 10 %

Option 5 (Input your option)

1999 - \_\_\_\_\_ %  
2000 - \_\_\_\_\_ %  
2001 - \_\_\_\_\_ %  
2002 - \_\_\_\_\_ %  
2003 - \_\_\_\_\_ %  
2004 - \_\_\_\_\_ %

WE ARE ON TOP OF THE HILL  
WE SHOULD BE CHEAPER THAN  
THE CITIES BELOW US

4. If you answered "no" to question 2, and believe program service levels should be reduced, how would you suggest that the City reduce program levels to offset the projected revenue deficits in the SWM utility?

I LOOK AT THE WORK DONE ON 175<sup>TH</sup> (2 TIMES I LOOK AT THE WORK DONE ON 166<sup>TH</sup> AND THINK WITH A LITTLE MORE THINKING WE COULD HAVE A LOT MORE FOR OUR MONEY

5. At the present time, commercial customers with on-site retention/detention facilities are provided with a credit of 1 rate category reduction. Please answer the following questions.

5A. Should commercial customers be provided with a credit for on-site retention/detention facilities?

- Yes
- No

5B. A committee member noted that the reduction using the "1 rate category approach" provides different dollar and percentage discounts for customers in different rate categories. Should an alternative to the existing "1 rate category reduction" approach be proposed?

- Yes
- No

If yes to 5B, what approach should be used?

- Option 1 - Flat percentage rate reduction (e.g. 10%)  
My suggested % rate reduction would be \_\_\_\_\_%
- Option 2 - A flat \$/acre discount (e.g.  
My suggested \$/acre rate reduction would be \$ \_\_\_\_\_/acre

DEPENDING ON SIZE OF DETENTION SYSTEM

6. At the present time, commercial customers are required to maintain their on-site facilities. This is, in part, the basis for the rate reduction. An alternative approach would be to have the City maintain the facilities, but as compensation for the service, not provide the rate reduction. This would be a service option to the property owner who does not want to incur the cost and effort required to properly maintain their facilities. The property owner would still have the option of maintaining their own facilities and receiving a rate reduction. Should the service alternative of having the City maintain customer on-site facilities be offered?

- Yes
- No

GOVERNMENT IS TOO BIG AND TOO EXPENSIVE NOW, LETS MAKE THE BUSINESSES TO THEIR OWN AND CUT GOVERNMENT EXPENSE

7. The Port of Seattle (SeaTac Airport) has a portion of their facility in which they collect all the stormwater and it is piped to a wastewater treatment facility, treated and then discharged directly to Puget Sound. Therefore, this area does not have a direct impact on the City's surface water volumes and local streams. This area of the airport has been characterized as the Industrial Waste System area or "IWS area." Please answer the following questions and provide any comments, as you feel appropriate.

6A. The Port should receive a credit for the IWS area  
 Yes I CANT BELIEVE IT IS PIPED DIRECTLY  
 No INTO PUGGET SOUND, IF IT IS PIPED INTO  
 A STREAM THEN THEY SHOULD BE CHARGED

6C. If you answered "yes" to 6A, for the IWS area, the Port should receive a credit of (answer one):

\_\_\_\_\_ rate categories [specify number of rate category reductions]; or

\_\_\_\_\_ percent (%) [specify percentage - e.g. 50%]; or

\_\_\_\_\_ dollars (\$) [specify specific dollar credit, e.g. \$100,000]

COST OF MAINTAINING STREAM

7. A rate reduction credit is currently provided to the school district's for the educational programs that they provide on storm water and water quality. This rate reduction credit is presently applied to all school parcels. Should the credit be applied only to the district's classroom facilities (parcels), as opposed to administrative and maintenance facilities (parcels)?

Yes

No THEY HAVE VERY LITTLE WATER RETENTION SYSTEMS

8. Should the rate structure for the very light category be changed from a rate per parcel to a rate per acre?

Yes IF THEY HAVE NO WATER DETENTION

No SYSTEMS IN PLACE THEY GET NO REDUCTIONS

9. Do you have any other comments or issues that you would like to see the City Council review as a part of the rate study? You may write on the back side of this form if more space is required.

USING OUR SCHOOLS AS A CROSS SECTION OF THE PEOPLE LIVING IN THE CITY OF SEATAC, YOU CAN SEE THEY ARE LIVING FROM DAY TO DAY OR ON A GOVERNMENT SUBSIDY PROGRAM. WE SHOULD TRY AND GET THE BIGGEST BANG FOR OUR BUCK



### Worksheet to Determine Proposed Rates - CY 2000

Notes: Please read the worksheet directions on the previous page  
It is suggested that you use a pencil to allow for changes and corrections

Classes Service	Present Revenues	Present Rates	Proposed Rates	Parcels/ Acres	Calculated Revenues Col. D x E	\$ Change Col. D - C	% Change Col. G ÷ C
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Residential	\$328,200	\$60.00	\$ _____	5,470	\$ _____	\$ _____	____%
Mobile Homes	8,420	\$60.00	\$ _____	107	\$ _____	\$ _____	____%
Very Light	10,380	\$60.00	\$ _____	173	\$ _____	\$ _____	____%
Light	24,127	\$122.11	\$ _____	198	\$ _____	\$ _____	____%
Moderate	45,962	\$252.95	\$ _____	182	\$ _____	\$ _____	____%
Moderately Heavy	88,418	\$488.45	\$ _____	181	\$ _____	\$ _____	____%
Heavy	120,298	\$619.29	\$ _____	194	\$ _____	\$ _____	____%
Very Heavy	111,818	\$811.17	\$ _____	138	\$ _____	\$ _____	____%
Port - IWS	91,856	\$252.95	\$ _____	363	\$ _____	\$ _____	____%
Port - All Other	389,124	\$252.95	\$ _____	1,459	\$ _____	\$ _____	____%
Port - 3rd Runway	<u>14,232</u>	\$60.00	\$ _____	237	\$ _____	\$ _____	____%
<b>Total</b>	<b>\$1,210,833</b>		\$ _____		\$ _____	\$ _____	____%

Target Revenues = \$1,210,833 x 1.\_\_\_\_% = \$ \_\_\_\_\_

Port - IWS	\$91,856	\$252.95	\$ _____	\$ _____
Port - All Other	389,124	\$252.95	\$ _____	\$ _____
Port - 3rd Runway	<u>14,232</u>	\$58.96	\$ _____	\$ _____
<b>Total</b>	<b>\$475,212</b>	<b>\$230.71</b>		\$ _____

I THINK YOU SHOULD SPREAD YOUR WORK  
 LOAD OUT FOR A LONGER TIME SCHEDULE  
 SO WE DON'T GET THESE BIG INCREASES.  
 IF INFLATION IS 3% LIKE EVERY BODY  
 CLAIMS A 5% INCREASE SHOULD BE PRETTY

## Committee Member Response No. 4

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## City of SeaTac Summary of the Cost of Service Study

Provided below is a summary of the cost of service study and various scenarios developed. The "base case" scenario assumes no credits are provided for the Port's IWS area. The columns showing 25%, 50% and 100% indicate an increasing credit to the Port's IWS area. As the credit to the IWS area is increased (rate reduced), the rates to all other customers must be increased to collect the same overall level of revenue.

This page is provided simply as a reference to assist you in developing the proposed rate worksheet on the previous page.

<b>Summary of the Cost of Service Results</b>				
<u>Classes</u> <u>Service</u> (A)	<u>Base</u> <u>Case</u> (D)	<u>IWS</u> <u>Credit of</u> <u>25%</u> (E)	<u>IWS</u> <u>Credit of</u> <u>50%</u> (F)	<u>IWS</u> <u>Credit of</u> <u>100%</u> (G)
Residential	\$60.34	\$62.18	\$64.20	\$68.58
Mobile Homes	\$61.80	\$63.50	\$65.58	\$70.11
Very Light	\$60.00	\$71.46	\$73.92	\$79.33
Light	\$111.52	\$118.87	\$122.74	\$135.47
Moderate	\$246.65	\$258.69	\$271.89	\$299.31
Moderately Heavy	\$359.23	\$378.83	\$395.70	\$437.20
Heavy	\$472.37	\$495.13	\$520.06	\$574.48
Very Heavy	\$550.40	\$577.17	\$606.51	\$670.08
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
<b>Total</b>				
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
<b>Total</b>				

*OVER*

IF YOU HAVE A RETENTION SYSTEM IN  
BASE ON 2 HOUSES YOUR FACILITY SHOULDN'T  
BE PAYING ANY MORE THAN THE PRICE OF  
TWO HOUSES. IF YOU HAVE NO RETENTION  
SYSTEM IN THEN YOU SHOULD PAY A YEARLY  
FEE BIG ENOUGH TO MAKE YOU WANT TO PUT  
IN IT. LETS GIVE THE GUYS CREDIT FOR  
THE \$40,000 - \$100,000 DOLLARS THEY HAVE  
ALREADY SPENT ON WATER RETENTION SYSTEMS

**City of SeaTac  
Surface Water Rate Advisory Committee**

1. Overall, do you believe the citizen's are satisfied with the City's current level of service for the surface water programs and the utility?

Yes

No - If no, please describe below the areas of dissatisfaction -

*LACK OF TIMELY ATTENTION TO MAINTENANCE*

2. Should the City maintain their current service levels and programs for the surface water utility?

Yes

No; if no, does the City need to increase or decrease service levels?

*INCREASE SERVICE*

3. The City has developed revenue requirement projections for the utility (see P. 12 of Handout #3). Based upon those projections, the City has projected revenue deficiencies of approximately 40% by calendar year 2002. How should the City implement any rate adjustments? Provided below are some options that were discussed at committee meetings. Each option is designed to increase SWM revenues approximately 40% over time. The rate shown in the parenthesis is the monthly residential rate and is for illustrative purposes only. Your suggested changes to the residential rate and all other rates is discussed in question 10 below. Please check the option that you believe to be most appropriate, or enter your suggested approach.

Option 1

1999 - 10.0% (\$5.50/month)  
2000 - 9.1% (\$6.00)  
2001 - 8.3% (\$6.50)  
2002 - 7.7% (\$7.00)

Option 2

1999 - 20.0% (\$6.00/month)  
2000 - 0.0% (\$6.00)  
2001 - 0.0% (\$6.00)  
2002 - 16.7% (\$7.00)

Option 3

1999 - 8.75% (\$5.45/month)  
2000 - 8.75% (\$5.90)  
2001 - 8.75% (\$6.45)  
2002 - 8.75% (\$7.00)

Option 4

1999 - 5.75% (\$5.30/month)  
2000 - 5.75% (\$5.60)  
2001 - 5.75% (\$5.90)  
2002 - 5.75% (\$6.25)  
2003 - 5.75% (\$6.60)  
2004 - 5.75% (\$7.00)

Option 4 (Input your option)

1999 - 40 %  
2000 - \_\_\_\_\_ %  
2001 - \_\_\_\_\_ %  
2002 - \_\_\_\_\_ %

Option 5 (Input your option)

1999 - \_\_\_\_\_ %  
2000 - \_\_\_\_\_ %  
2001 - \_\_\_\_\_ %  
2002 - \_\_\_\_\_ %  
2003 - \_\_\_\_\_ %  
2004 - \_\_\_\_\_ %

4. If you answered "no" to question 2, and believe program service levels should be reduced, how would you suggest that the City reduce program levels to offset the projected revenue deficits in the SWM utility?

N/A

5. At the present time, commercial customers with on-site retention/detention facilities are provided with a credit of 1 rate category reduction. Please answer the following questions.

5A. Should commercial customers be provided with a credit for on-site retention/detention facilities?

- Yes  
 No

5B. A committee member noted that the reduction using the "1 rate category approach" provides different dollar and percentage discounts for customers in different rate categories. Should an alternative to the existing "1 rate category reduction" approach be proposed?

- Yes  
 No

If yes to 5B, what approach should be used?

- Option 1 - Flat percentage rate reduction (e.g. 10%)

My suggested % rate reduction would be 10 %

- Option 2 - A flat \$/acre discount (e.g.

My suggested \$/acre rate reduction would be \$ \_\_\_\_\_/acre

6. At the present time, commercial customers are required to maintain their on-site facilities. This is, in part, the basis for the rate reduction. An alternative approach would be to have the City maintain the facilities, but as compensation for the service, not provide the rate reduction. This would be a service option to the property owner who does not want to incur the cost and effort required to properly maintain their facilities. The property owner would still have the option of maintaining their own facilities and receiving a rate reduction. Should the service alternative of having the City maintain customer on-site facilities be offered?

- Yes  
 No

7. The Port of Seattle (SeaTac Airport) has a portion of their facility in which they collect all the stormwater and it is piped to a wastewater treatment facility, treated and then discharged directly to Puget Sound. Therefore, this area does not have a direct impact on the City's surface water volumes and local streams. This area of the airport has been characterized as the Industrial Waste System area or "IWS area." Please answer the following questions and provide any comments, as you feel appropriate.

6A. The Port should receive a credit for the IWS area

- Yes  
 No

6C. If you answered "yes" to 6A, for the IWS area, the Port should receive a credit of (answer one):

\_\_\_\_\_ rate categories [specify number of rate category reductions]; or  
10 percent (%) [specify percentage - e.g. 50%]; or  
\_\_\_\_\_ dollars (\$) [specify specific dollar credit, e.g. \$100,000]

7. A rate reduction credit is currently provided to the school district's for the educational programs that they provide on storm water and water quality. This rate reduction credit is presently applied to all school parcels. Should the credit be applied only to the district's classroom facilities (parcels), as opposed to administrative and maintenance facilities (parcels)?

- Yes  
 No

8. Should the rate structure for the very light category be changed from a rate per parcel to a rate per acre?

- Yes WITH A MINIMUM OF \$60.00  
 No

9. Do you have any other comments or issues that you would like to see the City Council review as a part of the rate study? You may write on the back side of this form if more space is required.

I BELIEVE THE HILLSIDE DRAINAGE NEAR 28/24TH  
ARTERIAL AND SR 509 NEEDS TO BE ADDRESSED.  
PARTICULAR ATTENTION NEEDS TO BE PAID TO  
NEW DEVELOPMENT AND NEW STREETS.

**City of SeaTac**  
**Worksheet to Determine Proposed Rate Adjustments**

10. The final policy issue is the determination of rates by class of service, considering the issues discussed above (i.e. overall revenue adjustments, credits to the Port for the IWS, etc.).

The worksheet on the next page should be used to determine your recommendations for proposed rates by classes of service. This worksheet is similar to the one shown at the last committee meeting. Provided below is a simple set of directions for completing the worksheet.

*Directions for the Worksheet on the Next Page:*

- Step 1 – Determine the overall level of rate revenue adjustment. This line is shown on the worksheet on the next page, near the bottom. You will see the line that appears as follows:

$$\text{Target Revenues} = \$1,210,833 \times 1. \underline{40}\% = \$ \underline{\hspace{2cm}}$$

You should enter your assumed % rate adjustment for the first year. Your assumed % should match to your answer to question 3 for 1999. Complete this calculation, and enter the target level of revenues. For example, if you assumed a 10% rate adjustment in 1999, the calculation would appear as:

$$\text{Target Revenue} = \$1,210,833 \times 1.10\% = \$1,331,916.$$

- Step 2 – Enter your proposed rates for each class of service under column D. Attached after the worksheet is a summary showing the cost of service results. This information was provided at the 3<sup>rd</sup> committee meeting. It may be helpful as a starting point for determining rates. From the proposed rates, the resulting (calculated) revenues can be determined (Column F). This is determined by multiplying column D by Column E. For example, a proposed rate of \$65.00 for residential results in proposed revenues of \$355,550 (\$65.00 x 5,470 parcels). Complete this calculation for each class of service.

- Step 3 – Compare the total of the calculated revenues to the target level of revenues (step 1). The total of the calculated revenues should match as closely as possible the target level of revenues. If they are significantly different, go back to step 2 and adjust the rates by class of service to either increase or decrease the calculated revenues.

- Step 4 – Once you are satisfied that the calculated revenues match your target revenues, complete columns G and H to determine the change in rates in terms of both dollars and percentage.

## Worksheet to Determine Proposed Rates – CY 2000

Notes: Please read the worksheet directions on the previous page

It is suggested that you use a pencil to allow for changes and corrections

Classes Service (A)	Present Revenues (B)	Present Rates (C)	Proposed Rates (D)	Parcels/ Acres (E)	Calculated Revenues Col. D x E (F)	\$ Change Col. D – C (G)	% Change Col. G ÷ C (H)
Residential	\$328,200	\$60.00	\$ _____	5,470	\$ _____	\$ _____	____%
Mobile Homes	6,420	\$60.00	\$ _____	107	\$ _____	\$ _____	____%
Very Light	10,380	\$60.00	\$ _____	173	\$ _____	\$ _____	____%
Light	24,127	\$122.11	\$ _____	198	\$ _____	\$ _____	____%
Moderate	45,962	\$252.95	\$ _____	182	\$ _____	\$ _____	____%
Moderately Heavy	88,418	\$488.45	\$ _____	181	\$ _____	\$ _____	____%
Heavy	120,298	\$619.29	\$ _____	194	\$ _____	\$ _____	____%
Very Heavy	111,818	\$811.17	\$ _____	138	\$ _____	\$ _____	____%
Port – IWS	91,856	\$252.95	\$ _____	363	\$ _____	\$ _____	____%
Port – All Other	389,124	\$252.95	\$ _____	1,459	\$ _____	\$ _____	____%
Port - 3rd Runway	<u>14,232</u>	\$60.00	\$ _____	237	\$ _____	\$ _____	____%
<b>Total</b>	<b>\$1,210,833</b>		\$ _____		\$ _____	\$ _____	____%
Target Revenues = \$1,210,833 x 1.____% = \$ _____							
Port – IWS	\$91,856	\$252.95	\$ _____		\$ _____		
Port – All Other	389,124	\$252.95	\$ _____		\$ _____		
Port - 3rd Runway	<u>14,232</u>	\$58.96	\$ _____		\$ _____		
<b>Total</b>	<b>\$475,212</b>	<b>\$230.71</b>			\$ _____		

## City of SeaTac Summary of the Cost of Service Study

Provided below is a summary of the cost of service study and various scenarios developed. The "base case" scenario assumes no credits are provided for the Port's IWS area. The columns showing 25%, 50% and 100% indicate an increasing credit to the Port's IWS area. As the credit to the IWS area is increased (rate reduced), the rates to all other customers must be increased to collect the same overall level of revenue.

This page is provided simply as a reference to assist you in developing the proposed rate worksheet on the previous page.

Summary of the Cost of Service Results				
Classes Service (A)	Base Case (D)	IWS Credit of 25% (E)	IWS Credit of 50% (F)	IWS Credit of 100% (G)
Residential	\$60.34	\$62.18	\$64.20	\$68.58
Mobile Homes	\$61.80	\$63.50	\$65.58	\$70.11
Very Light	\$60.00	\$71.46	\$73.92	\$79.33
Light	\$111.52	\$116.87	\$122.74	\$135.47
Moderate	\$246.65	\$258.69	\$271.89	\$299.31
Moderately Heavy	\$359.23	\$376.63	\$395.70	\$437.20
Heavy	\$472.37	\$495.13	\$520.06	\$574.48
Very Heavy	\$550.40	\$577.17	\$606.51	\$670.08
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
Total				
Port - IWS	\$539.75	\$419.83	\$288.42	\$0.00
Port - All Other	\$222.05	\$232.76	\$244.49	\$270.59
Port - 3rd Runway	\$130.78	\$134.79	\$139.19	\$149.11
Total				



ORDINANCE NO. 99-1042

AN ORDINANCE of the City Council of the City of SeaTac, Washington amending the Surface Water Management Program and establishing a rate structure.

WHEREAS, the City Council, in the absence of staff and equipment, initially passed Resolution No. 90-48 appointing King County as the City's agent, pursuant to an approved Interlocal Agreement (ILA) for surface water management services and for charging and collection of surface water management fees; and

WHEREAS, through Ordinance No. 90-1016, adopted February 13, 1990, now codified as Chapter 12.10 of the SeaTac Municipal Code, the Council adopted by reference a number of Sections of Chapter 9.08, King County Code, to constitute the City's surface water management program and rate structure substantially conforming to the County program, as required by the said ILA; and

WHEREAS, because King County thereafter updated its surface water design manual, the City Council adopted Ordinance No. 90-1046, on August 14, 1990, which established definitions, requirements for drainage review and engineering plans, standards for construction of storm drainage control facilities, provisions for bonds and insurance, and requirements for maintenance of retention/detention facilities, all in conformance with the new County standards; and

WHEREAS, due to the Council's concern with a substantial surface water management fee increase by King County, and in recognition of professional staff then employed by the City, Ordinance No. 92-1004 was adopted on February 10, 1992, to transfer surface water management authority from King County to the City's Public Works Director (but retaining King

County as collecting and disbursing agent) and establishing a rate structure considerably less than that of the rates of King County; and

**WHEREAS**, as a "technical corrections" matter, the Council adopted Ordinance No. 92-1007 on February 25, 1992, to effect certain amendments including reductions to certain rates and acknowledging pre-emption of RCW 90.03.525 as to rates pertaining to state highways; and

**WHEREAS**, following conclusion of a surface water management system review and evaluation, the City Council adopted Ordinance No. 92-1052, on December 8, 1992, establishing a new, and increased, rate structure for surface water management fees applicable to the year 1993 and to the year 1994 and thereafter; and

**WHEREAS**, following consideration of public improvements benefiting surface water management facilities, the Council, by Ordinance No. 93-1045, enacted on November 23, 1993, exempted City roads and streets to the same extent as the exemption applicable to state highways, and further provided for a rate adjustment, in lieu of King County's one-class adjustment, of 25% of the surface water management fee applicable to properties in the residential, VL and L classes served by local retention/detention facilities; and

**WHEREAS**, in conjunction with a general amendment of authority, the City Council changed the surface water management official from the Public Works Director to the City Manager by Ordinance No. 95-1012, adopted on March 28, 1995; and

**WHEREAS**, in recognition of a substantially amended King County Surface Water Design Manual, the City Council enacted Ordinance No. 98-1054, on December 8, 1998, which eliminated the "purpose" statement of SMC 12.10.010, adopted the 1998 Edition of the County Surface Water Design Manual, and repealed various definitions and provisions of the SeaTac Municipal Code of which were included in the new Surface Water Design Manual; and

**WHEREAS**, a dispute arose between the City and the Port of Seattle in regard to respective municipal powers and jurisdiction, including authority of the City to impose surface water management fees against Port property devoted to the Seattle-Tacoma International Airport, which dispute resulted in a declaratory judgment lawsuit; and

**WHEREAS**, the City and the Port, over a considerable period of time, negotiated an Interlocal Agreement (ILA), as authorized by Chapter 39.34 RCW, effective September 4, 1997, to resolve the aforesaid lawsuit and to establish the relative jurisdictional authorities of the two parties; and

**WHEREAS**, Section 3 and Exhibit B to the said ILA acknowledged the salutary purposes of surface water management programs and recited that a surface water management study would be completed to determine whether the fees are accurately and fairly applied to all property in the City, including the Port's property, but that adjustments to any fees paid by the Port will only occur if certain statutory conditions are met; and

**WHEREAS**, Item 1 of the said Exhibit B, although not a basis for modifying or changing the City's SWM program or rates, allows the Port and City to review and jointly discuss whether rate adjustments are appropriate and whether any fee reduction or rebate should be owed the Port for City drainage detained and treated by the Port facilities; and

**WHEREAS**, the requisite surface water management study was completed by Economic and Engineering Services, Inc. as of September, 1999, a copy of which is available for public review at the office of the City Clerk; and

**WHEREAS**, the City is willing to discuss with the Port any rate adjustment over and beyond that provided by this Ordinance, based upon the said study and the applicable criteria of RCW 35.67.020 and RCW 90.03.510; and

**WHEREAS**, the said study appropriately details surface water management facility needs, extensions, maintenance, and improvement requirements, and on-going operational expenses, pro-rated as to each class of percentage of impervious surface; and

**WHEREAS**, the Council desires to clarify the previous provisions of SMC 12.10.220 which were intended, upon adoption, to eliminate the King County “one class” reduction and to emplace in lieu thereof the sole reduction of the applicable surface water management fee by 25% as to only those properties classified as Residential, VL, and L, without any other adjustment whatsoever;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SEATAC, WASHINGTON, DO ORDAIN** as follows:

Section 1. Section 12.10.160 of the SeaTac Municipal Code is hereby amended to read as follows:

**12.10.160 Maintenance of ~~subdivision~~ retention/detention facilities.**

A drainage facility or retention/detention facility located within and servicing only an individual parcel shall not be accepted by the City for maintenance and will remain the responsibility of persons holding title to the property within which the facility is located.

Maintenance of all subdivision drainage facilities or retention/detention facilities shall remain the responsibility of the person required to construct the ~~retention/detention~~ facilities until all conditions of this section have been met.

Only after all of the following conditions have been met shall the City assume maintenance of the subdivision retention/detention facility:

A. All of the requirements of SMC 12.10.110 through 12.10.150 have been fully met.

B. All necessary easements of tracts entitling the City to ingress and egress and to properly maintain the retention/detention facility have been conveyed to the City and boundary survey stakes established.

C. The Public Works Director has conducted an inspection and determined that the facility has been properly maintained and is operating as designed. This inspection shall occur within two (2) years after posting of the defect and maintenance bond.

~~D. Exception: A retention/detention facility located within and servicing only an individual lot shall not be accepted by the City for maintenance and will remain the responsibility of persons holding title to the property within which the facility is located.~~

Section 2. A new Section 12.10.165 is hereby added to the SeaTac Municipal Code to read as follows:

**12.10.165 Contracts for cleaning.**

Any person responsible for the maintenance of a drainage facility may apply to the Department of Public Works for cleaning services, at cost, by the City's storm drain cleaning contractor. "Cleaning" is generally defined as the removal of trash, debris, and sediment from tanks, vaults, pipes, catch basins, control structures, flow restrictors, wetvaults, and oil/water separators requiring maintenance as set forth in Appendix A to the Surface Water Design Manual.

Section 3. Section 12.10.220 of the SeaTac Municipal Code is hereby amended to read as follows:

**12.10.220 Surface water management program.**

A. There is hereby created and established a Surface Water Utility and SWM Program, implementation of which shall be governed by the SWD Manual adopted pursuant to Section 12.10.010 of this Code.

B. The Surface Water Management Program is necessary in order to promote public health, safety and welfare by establishing and operating a comprehensive approach to surface and storm water problems which would reduce flooding, erosion and sedimentation, prevent and mitigate habitat loss, enhance groundwater recharge and prevent water quality degradation. This comprehensive approach includes the following elements: basin and sub-basin planning, land use regulation, construction of facilities, maintenance, public education, and provision of surface water management services. The most cost effective and beneficial approach to surface water management is through preventative actions and protection of the natural drainage system. In approaching surface water problems the Surface Water Management Program shall give priority to methods which provide

protection or enhancement of the natural surface water drainage system over means which primarily involve construction of new drainage facilities or systems. The purpose of the rates and charges established at Section 12.10.225 is to provide a method for payment of all or any part of the cost and expense of surface water management services or to pay or secure the payment of all or any portion of any issue of general obligation or revenue bonds issued for such services and facilities. These rates and charges are necessary in order to promote the public health, safety and welfare by minimizing uncontrolled surface and storm water, erosion, and water pollution; to preserve and utilize the many values of the City's natural drainage system including water quality, open space, fish and wildlife habitat, recreation, education, urban separation and drainage facilities; and to provide for the comprehensive management and administration of surface water.

C. The following sections of Chapter 9.08 King County Code as now in effect, and as may be subsequently amended, are adopted by reference, except that, unless the context indicates otherwise, the word "county" and the words "King County" shall refer to the City; and references to County Codes shall be deemed references to the Surface Water Design Manual or Municipal Code, as applicable:

~~9.08.010 — Definitions~~

~~9.08.020 — Authority.~~

~~9.08.040 — Purpose.~~

~~9.08.050 — Applicability.~~

~~Subsections B through L and N through Q of 9.08.060 Policy.~~

~~9.08.080 — Rate adjustments and appeals.~~

~~Except that where property in the "Light", "Very Light" and "Residential" classifications, as set out in Section 12.10.225 of the City Code, are entitled to a discount or a rate reduction pursuant to Section 9.08.080 of the King County Code, the rate as set by Section 12.10.225 of the City Code shall be reduced by twenty-five percent (25%).~~

~~9.08.090 — Billing procedure.~~

~~9.08.120 — Administrative procedures.~~

Section 4.  
follows:

Section 12.10.225 of the SeaTac Municipal Code is hereby amended to read as

**12.10.225 Rate structure {effective 1994}.**

A. Surface water management service charges shall be based on the relative contribution of increased surface and storm water runoff from a given parcel to the surface and storm water management system, a pro-rata share of City-wide surface water management services, and the policy considerations adopted at Section 12.10.220 of this Code. The percentage

of impervious surfaces on the parcel and the total parcel acreage will be used to indicate the relative contribution of increased surface and storm water runoff from the parcel to the surface and storm water management system. The relative contribution of increased surface and storm water runoff from each parcel determines that parcel's share of the ~~service charge program's~~ revenue needs. The service charge revenue needs of the program are based upon all or any part, as determined by the Council with advice of the Department of Public Works, of the cost and expense within the service area of maintaining and operating ~~storm~~ surface water control facilities, all or any part of the cost and expense of planning, designing, establishing, acquiring, developing, constructing, and improving any of such facilities, or to pay or secure the payment of all or any portion of any issue of general obligation or revenue bonds issued for such purpose.

B. The Department of Public Works shall determine the service charge for each parcel within the service area by the following methodology: Residential and ~~very light nonresidential~~ parcels shall receive a flat rate. Parcels shall be classified into the appropriate rate category in subsection C of this section by their percentage of impervious surface coverage. Land use codes and data collected from parcel investigations will be used to determine each parcel's percentage of impervious surface coverage. After a parcel has been assigned to the appropriate rate category, the service charge for the parcel will be calculated by multiplying the total acreage of the parcel times the rate of that category.

C. There is imposed upon all developed properties in the service area annual service charges as follows:

Class	<u>Impervious</u>	
	<u>Surface</u>	Rate
	Percentage	
Residential (R) ‡	NA	<del>\$60.00</del> <u>82.80</u> /parcel/year
Very Light (VL)	0 - 10%	<del>\$60.00</del> <u>49.50</u> /parcel/acre/year
Light (L)	10 - 20%	<del>\$122.11</del> <u>168.50</u> /acre/year
Moderate (M) **	20 - 45%	<del>\$252.95</del> <u>349.00</u> /acre/year
Moderately Heavy (MH) **	45 - 65%	<del>\$488.45</del> <u>674.00</u> /acre/year
Heavy (H) **	65 - 85%	<del>\$619.29</del> <u>855.00</u> /acre/year
Very Heavy (VH) **	85 - 100%	<del>\$811.17</del> <u>1,120.00</u> /acre/year
City Roads, State Highways	n/a	***

D. ‡ The charge for a residential parcel which is owned by and is the personal residence of a person or persons determined by the King County Assessor as qualified for a low income senior citizen rate adjustment or a low income disabled citizen rate adjustment pursuant to ~~Section 9.08.080 of the King County Code~~ RCW 84.36.381, or as the same may hereafter be amended, shall be \$29.89, rather than the rates set forth above.

E. ~~\*\*~~ The minimum service charge for parcels within the VL class shall be \$49.50, and the minimum service charge for parcels within the L, M, MH, H, and VH classes shall be \$60.00 \$2.80/parcel/year. The maximum annual service charge for mobile home parks shall be \$60.00 (the minimum service charge) times the number of mobile home spaces.

F. The rate charged mobile home parks shall be \$62.10 multiplied by the total number of spaces available for rent or lease.

G. Non-residential parcels upon which are located one or more retention/detention facility, or equivalent, designed, engineered, and maintained to the standards of the Surface Water Design Manual shall be entitled, upon application, to a rebate equal to 25% of the surface water management fee which would be applicable to the acreage served by each facility multiplied by the surface water management fee applicable to that acreage. Application for rebates shall be submitted prior to October 31 of each year in which a rebate is requested. Applications shall include documentation that the retention/detention facility, or equivalent, has been maintained in accordance with the requirements of Appendix A of the Surface Water Design Manual. If all maintenance has been performed as required by the said Appendix A, the rebate will be forwarded to the applicant prior to December 31 of the said year, provided that the annual surface water management fee applicable to that year has been paid in full.

H. Parcels owned by a public school district shall be exempt from surface water management charges, pursuant to Section 9.08.060B of the King County Code.

I. The rate charged to the City of SeaTac and/or the Washington State Department of Transportation for public highways, roads and right-of-ways will be determined in accordance with RCW 90.03.525.

~~D.~~ J. The City Council, by ordinance, may supplement or alter charges within specific basins or subbasins of the service area so as to charge properties or parcels of one basin or subbasin for improvements, studies, or maintenance which the Council deems to provide service or benefit the property owners of one or more basin(s) or subbasin(s).



Section 5. A new Section 12.10.227 is hereby added to the SeaTac Municipal Code to read as follows:

**12.10.227 Rate Adjustments and Appeals.**

A. Any person billed for service charges may file a "Request for Rate Adjustment" with the Public Works Department within three years of the date from which the bill was sent. However, filing of such a request does not extend the period for payment of the charge.

B. Requests for rate adjustment may be granted or approved by the director only when one of the following conditions exists:

1. The acreage of the parcel charged is in error;
2. The parcel is non-residential and the actual impervious surface coverage of the parcel charged places it in a different rate category than the rate category assigned by the Department;
3. The parcel is non-residential and the parcel meets the definition of open space in section 15.10.435 of this Code. Parcels qualifying hereunder will be charged only for the area of impervious surface and at the rate which the parcel is classified under using the total parcel acreage;
4. The service charge bill was otherwise not calculated in accordance with the terms of this chapter.

C. The property owner shall have the burden of proving that the rate adjustment sought should be granted.

D. Decisions on requests for rate adjustments shall be made by the director based on information submitted by the applicant and by the division within thirty days of the adjustment request except when additional information is needed. The applicant shall be notified in writing of the director's decision. If an adjustment is granted which reduces the charge for the current year or two prior years, the applicant shall be refunded the amount overpaid in the current and two prior years.

E. If the director finds that a service charge bill has been undercharged, then either an amended bill shall be issued which reflects the increase in the service charge or the undercharged amount will be added to the next year's bill. The director may include in the bill the amount undercharged for two previous billing years in addition to the current bill.

F. Decisions of the director on requests for rate adjustments shall be final unless within thirty days of the date the decision was mailed, the applicant submits in writing to the director a notice of appeal setting forth a brief statement

of the grounds for appeal and requesting a hearing before the City Hearing Examiner. The Examiner's decision shall be a final decision.

Section 6. Section 12.10.230 of the SeaTac Municipal Code shall be amended to read as follows:

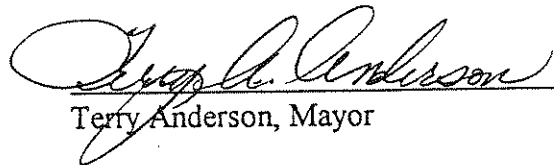
**12.10.230 Delinquencies and foreclosures.**

Delinquent service charges shall bear interest at the rate of eight percent (8%) per annum from the date of delinquency until paid. The City shall have a lien for delinquent service charges, including interest thereon, against any property subject to service charges. The lien shall be superior to all other liens and encumbrances except general taxes and local and special assessments. Such lien shall be effective as to a total amount not in excess of one year's delinquent charges without necessity for any writing or recording of the lien. ~~shall be effective and shall be enforced and foreclosed pursuant to Chapter 35.67 RCW.~~

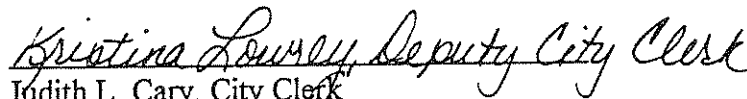
Section 7. This Ordinance shall be in full force and effect thirty (30) days after passage.

ADOPTED this 30<sup>th</sup> day of November, 1999, and signed in authentication thereof on this 30<sup>th</sup> day of November, 1999.

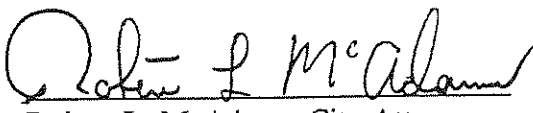
CITY OF SEATAC

  
Terry Anderson, Mayor

ATTEST:

*for*   
Judith L. Cary, City Clerk

Approved as to Form:

  
Robert L. McAdams, City Attorney

[Effective Date: 12/30/99 ]