

Final Report
City of Puyallup

Water, Sewer, and Storm & Surface Water
System Development Charges

November 2010



HDR *Prepared by:*
HDR Engineering, Inc.

July 11, 2011

Mr. Clifford Craig
Finance Director
333 South Meridian Street
Puyallup, WA 98371

**Subject: City of Puyallup Water, Sewer and Storm & Surface Water
System Development Charges Final Report**

Dear Mr. Craig:

Enclosed please find HDR's report regarding the City's system development charges, developed for its water, sewer, and storm & surface water utilities. The conclusions and recommendations contained within this report should enable the City to implement cost-based system development charges that meet the City's objectives for their water, sewer and storm & surface water utilities.

This report has been prepared using "generally accepted" financial and engineering principles. The City's financial, budgeting, planning, and engineering data were the primary sources for much of the information contained in this report. HDR would recommend that the City have the report reviewed by its legal counsel for compliance with Washington State law.

HDR appreciates the opportunity to assist the City in this matter. We also would like to thank you and your staff for assistance provided to us. If you have any questions, please call.

Sincerely yours,
HDR Engineering, Inc.



Cil Pierce
Project Manager



Table of Contents

	Executive Summary	
	Introduction.....	1
	Summary and Conclusions.....	1
	Council Review	2
1	Introduction	
	1.1 Introduction.....	3
	1.2 Organization of this Report.....	3
	1.3 Disclaimer	4
2	Overview of Utility Industry Practices	
	2.1 Introduction.....	5
	2.2 Defining System Development Charges.....	5
	2.3 Historical Perspective.....	5
	2.4 System Development Charges and “Generally Accepted” Practices.....	7
	2.5 Financial Objectives of System Development Charges	9
	2.6 Summary.....	10
3	Overview of System Development Charges	
	3.1 Introduction.....	11
	3.2 Economic Theory and System Development Charges	11
	3.3 System Development Charge Criteria	11
	3.4 Overview of the System Development Charge Methodology.....	12
	3.5 Summary.....	14
4	Legal Considerations in Establishing System Development Charges	
	4.1 Introduction.....	15
	4.2 Requirement under Washington State Law	15
	4.3 Summary.....	16
5	Determination of the Water System SDC	
	5.1 Introduction.....	17
	5.2 Overview of the City’s Water System	17
	5.3 Present Water System Development Charge.....	17
	5.4 Calculation of the City’s Water System Development Charge.....	18
	5.4.1 System Planning Criteria	18
	5.4.2 Residential Units	19
	5.4.3 Calculation of the Water System Development Charge for the Major System Components	19
	5.4.4 Debt Service Credits	21
	5.5 Net Allowable Water System Development Charge	21
	5.6 Key Assumptions.....	23

5.7	Implementation of the System Development Charge	23
5.8	Consultants Recommendations	24
5.9	Summary	24
6	Determination of the Sewer System SDC	
6.1	Introduction	25
6.2	Overview of the City’s Sewer System	25
6.3	Present Sewer System Development Charge.....	25
6.4	Calculation of the City’s Sewer System Development Charge	26
6.4.1	System Planning Criteria	26
6.4.2	Residential Units	26
6.4.3	Calculation of the Sewer System Development Charge for the Major System Components	27
6.4.4	Debt Service Credits	28
6.5	Net Allowable Sewer System Development Charge.....	28
6.6	Key Assumptions.....	30
6.7	Implementation of the System Development Charge	30
6.8	Consultants Recommendations	31
6.9	Summary	31
7	Determination of the Storm & Surface Water SDC	
7.2	Overview of the City’s Storm & Surface Water System	33
7.3	Present Storm & Surface Water System Development Charge	33
7.4	Calculation of the City’s Storm & Surface Water System Development Charge.....	33
7.4.1	System Planning Criteria	34
7.4.2	Residential Units	34
7.4.3	Calculation of the Storm & Surface Water System Development Charge for the Major System Components.....	34
7.4.4	Debt Service Credits	35
7.5	Net Allowable Storm & Surface Water System Development Charge	36
7.6	Key Assumptions.....	36
7.7	Implementation of the System Development Charge	37
7.8	Consultants Recommendations	37
7.9	Summary	37

Technical Appendices

Water System Development Charge Analysis

- Exhibit 1 Development of ERUs
- Exhibit 2 Determination of Source of Supply and Treatment Plant
- Exhibit 3 Determination of Storage Plant
- Exhibit 4 Determination of Transmission/Distribution Plant
- Exhibit 5 Determination of General Plant
- Exhibit 6 Debt Service Credit
- Exhibit 7 Water System Development Charge Summary
- Exhibit 8 Summary of Capital Improvement Plan

Sewer System Development Charge Analysis

- Exhibit 1 Development of ERUs
- Exhibit 2 Determination of Treatment Plant
- Exhibit 3 Determination of Collection Plant
- Exhibit 4 Determination of General Plant
- Exhibit 5 Debt Service Credit
- Exhibit 6 Sewer System Development Charge Summary
- Exhibit 7 Summary of Capital Improvement Plan

Storm & Surface Water System Development Charge Analysis

- Exhibit 1 Development of ERUs
- Exhibit 2 Determination of Collection Plant
- Exhibit 3 Debt Service Credit
- Exhibit 4 Storm & Surface Water System Development Charge Summary
- Exhibit 5 Summary of Capital Improvement Plan

This page intentionally left blank.



Executive Summary

Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Puyallup (City) to update its water, sewer and storm & surface water system development charges (SDCs). The purpose of the system development charge is to bring equity between existing customers and new customers connecting to the City's utility systems. The objective of this study was to calculate cost-based charges for new customers connecting to the City's water, sewer and storm & surface water systems. By establishing cost-based system development charges, the City attempts to have "growth pay for growth" and existing utility customers will, for the most part, be sheltered from the financial impacts of growth.

The system development charges currently in place have not been updated since November of 2004. General industry recommendations are to adjust these charges annually for changes in construction costs and to update the charges every three to five years, or whenever comprehensive planning documents for the systems have been updated. The City adopted a Water System Comprehensive Plan in 2009 and a City Sanitary Sewer Comprehensive Plan in 2008. The City has undertaken this study to determine parity between existing and new utility customers.

Additionally, the City was initially interested in reviewing alternatives for SDCs. Upon review of initial drafts and the impacts to rates, the alternatives were not further developed.

Summary and Conclusions

The system development charges are calculated in conformance with "generally accepted" rate making practices and are based on the City's water, sewer and storm & surface water system planning and design criteria. A component-by-component approach is taken in developing the charges, as each component can have different planning and design criteria. The calculations also take into account the financing mechanisms of capital improvements. Based on the sum of the component costs, the net allowable utility system development charge is determined. "Net" refers to the "gross" system development charge, net of any debt service credits. "Allowable" refers to the concept that the calculated system development charge is the City's cost-based charge. The City, as a matter of policy, may charge any amount up to the cost-based system development charge, but not over that amount. Charging an amount greater than the allowable system development charge would not meet the nexus test of a cost-based system development charge related to the benefit derived by the customer.

System development charges must be implemented according to the capacity requirement or impact each new development has on the utility system. This way, the system development charge is related to the impact the customer places on the system, and to the benefit they derive from the service provided.

The City currently implements water SDCs by plumbing fixture units. One ERU equals 15 fixture units. Customers with more fixture units are charged by dividing the number of fixture

units by 15 to determine the number of ERUs. The existing SDC and maximum allowable SDC for the water utility system, as calculated within this study, for one equivalent residential unit (ERU) is presented in Table ES-1.

Table ES - 1 Existing and Maximum Allowable Water System Development Charge (1 ERU)	
Existing Fee	Maximum Allowable
\$3,130	\$3,530

Details of the water SDC calculation are provided in Section 5.

Similar to the water SDCs, sewer SDCs are also charged based on number of fixture units, connected to ERUs. The existing charge and maximum allowable charge for the sewer utility, as calculated within this study, for one ERU is presented in Table ES-2.

Table ES - 2 Existing and Maximum Allowable Sewer System Development Charge (1 ERU)	
Existing Fee	Maximum Allowable
\$4,520	\$4,880

Details of the sewer SDC are provided in Section 6.

The existing and maximum allowable system development charge for the storm & surface water utility, as calculated within this study, for one ESU (equivalent service unit) is presented in Table ES-3. One ESU is determined to be 2,800 square feet of impervious area.

Table ES - 3 Existing and Maximum Allowable Storm and Surface Water System Development Charge (1 ESU)	
Existing Fee	Maximum Allowable
\$1,760	\$2,950

Details of the storm and surface water SDC are provided in Section 7.

The SDCs for other customer types are presented in the respective technical appendix of this report along with the detailed analyses. .

Council Review

On October 12, 2010, HDR presented the findings of this study to City Council. Council has not adopted the calculated charges at the time of printing this draft report.



Section 1 Introduction

1.1 Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Puyallup (City) to review and update its water, sewer and storm & surface water system development charges (SDCs). At the same time, the City requested HDR to develop SDC alternatives. As the study progressed and staff reviewed the draft alternative results, and HDR described the advantages and disadvantages of each alternative, the City staff determined it would be the most effective use of City resources to update the existing SDCs. Therefore, the remainder of this report presents an update to the City's water, several storm and surface water system development changes. The objective of this study is to calculate cost-based charges for new customers connecting to the City's water, sewer, and surface & storm water system. System development charges provide the means of balancing the cost requirements for new (growth-related) utility infrastructure between existing customers and new customers. The portion of existing plant and future capital improvements that will provide service (capacity) to new customers is included in the system development charges. In contrast to this, the City has future capital improvement projects that are related to renewal and replacement of existing plant in service. These infrastructure costs are typically included within the rates charged to the City's customers, and are not included within the system development charges. By establishing cost-based system development charges, the City attempts to have "growth pay for growth" and existing utility customers will, for the most part, be sheltered from the financial impacts of growth.

"By establishing cost-based system development charges, the City attempts to have 'growth pay for growth' and the existing utility customers will be, for the most part, sheltered from the financial impacts of growth."

1.2 Organization of this Report

This report documents the approach that was used to analyze and develop the City's water, sewer, and storm & surface water system development charges. This report is divided into the following seven sections:

- Section 1 provides an introduction of the study.
- Section 2 provides perspective on the economics of system development charges.
- Section 3 provides an overview of system development charges and the criteria and general methodology that should be used to calculate and establish cost-based system development charges.
- Section 4 provides an overview of the requirements under Washington State law for determining system development charges.
- Section 5 presents the City-specific calculations of the cost-based system development charge for the water utility.
- Section 6 provides the detailed discussion of the calculation for the cost-based sewer SDCs.

- Section 7 presents the City-specific calculations for the storm & surface water utility system development charges.

1.3 Disclaimer

In its calculation of the system development charges presented in this report, HDR has used “generally accepted” engineering and ratemaking principles. This should not be construed as a legal opinion with respect to Washington State law. HDR recommends that the City have its legal counsel review the system development charges set forth in this report to ensure compliance with Washington State law.



Section 2

Overview of Utility Industry Practices

2.1 Introduction

Understanding of the purpose and concept of system development charges and the financial objective of those charges is an important starting point in discussing the City's continued implementation of utility system development charges. This section of the report will discuss the concept of system development charges and the "generally accepted" practices of the industry.

2.2 Defining System Development Charges

The first step in establishing cost-based system development charges is to gain a better understanding of the definition of a system development charge. A system development charge is defined as follows:

"System development charges are one-time charges paid by new development to finance construction of public facilities needed to serve them."¹

Simply stated, system development charges, or SDCs, are a contribution of capital to either reimburse existing customers for the available system capacity, or to help finance future growth-related capacity improvements. At some utilities, system development charges may be referred to as capacity charges, general facility charges, plant investment fees, capital investment charges, impact fees, etc. Regardless of the label used to identify them, their objective is the same. That is, these charges are intended to provide funds to the utility to finance all or a part of the capital improvements needed to provide new system capacity.

2.3 Historical Perspective

System development charges are capital recovery charges that are generally established as one-time charges assessed on new utility connections as a way to recover a part or all of the cost of system capacity constructed for their use. Historically, their application has generally occurred in areas that are experiencing extensive new residential and/or commercial development."² The main objective of a system development charge is to assess against the benefiting party, their proportionate share of the cost of infrastructure required to provide them service. Stated another way, system development charges imply that new development creates new or additional costs on the system, and the system development charge assesses that cost in an equitable manner to those customers creating the additional cost.

"System development charges are capital recovery charges that are generally established as one-time charges assessed on new utility connections as a way to recover a part or all of the cost of system capacity constructed for their use."

¹ Arthur C. Nelson, System development charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1.

² George A. Raftelis, 2nd Edition, Comprehensive Guide to Water and Wastewater Finance and Pricing (Boca Raton: Lewis Publishers, 1993), p. 73.

The financing of infrastructure was historically paid for via long-term debt and “pay as you go” rates. Over the last twenty years, however, the use of system development charges as a method of financing growth related infrastructure has risen sharply. To the best of our knowledge, no clear surveys or data exist to show this change. There are, however, a number of examples that highlight this phenomenon. For example, a survey of 67 Florida communities was undertaken in 1986 and 1989. Only fifteen communities used connection charges in 1986. By 1989, the number of communities using connection charges had more than doubled to 32.³

As this funding mechanism gained popularity, legislatures across the U.S developed legislation to provide utilities with the authority to impose system development charges. Typical legislation provides the approach to be used to develop the charges and requires that the charges be used only for growth-related needs and not for current O&M requirements. At this time, the State of Washington has specific legislation related to system development charges. This specific legislation regarding the charges provides the City with the authority to establish and collect system development charges (another term for SDCs). Further discussion on the legislation and Washington State code is included in Section 4 of this report.

While many utility managers viewed system development charges as an important and alternative source of funding for new capital construction, these charges were also being rationalized from a number of different perspectives. The perspectives included:⁴

- Shifting the fiscal burdens from existing development to new development.
- Synchronizing the construction of new or expanded facility capacity with the arrival of new development.
- Subjecting new development decisions to pricing discipline.
- Responding to locally vocal anti-growth sentiments.

Each of these different perspectives is discussed in more detail below.

Historically, existing development was often subsidized by federal or state resources. As an example, in the early 1970’s, many wastewater treatment plants in the U.S. were 90% grant funded by the Environmental Protection Agency (EPA). Today grants have largely been replaced by low-interest state revolving fund (SRF) loans. Therefore, as existing customers were being impacted by the cost of growth, local communities searched for methods to help minimize rates and the impacts of the cost of growth.

Unchecked growth and sprawling expansion is very costly on a per unit basis. In response to this dilemma, many legislative bodies created urban growth boundaries. At the same time, utilities moved towards system development charges and extension policies that assist in managing system growth in an orderly and coordinated manner. As a result, improved planning and cost-based charges have helped utilities manage the costs of growth, while stabilizing rates to existing customers.

Establishing the price of a commodity equal to its cost is a basic economic and market principle. In theory, consumers of a service will make “optimal” consumption decisions when

³ James C. Nicholas, Arthur C. Nelson and Julian C. Juergensmeyer, A Practitioner’s Guide to Development Impact Fees (Chicago: Planners Press, 1991) p. 3.

⁴ Adapted from: Arthur C. Nelson, System Development Charges for Water, Wastewater and Stormwater Facilities (Boca Raton: Lewis Publishers, 1995) p. 6-7.

the price of the commodity is equated to its value. By establishing cost-based system development charges, developers should be in a position to make better and more rational decisions concerning new development. At the same time, proper pricing of system development charges also encourages “right sizing” of facilities to serve new development. In other words, given the proper price signal, the developer will properly size their service facilities to meet their needs (e.g. installing a ¾-inch meter and service pipeline versus a 2” meter service pipeline).

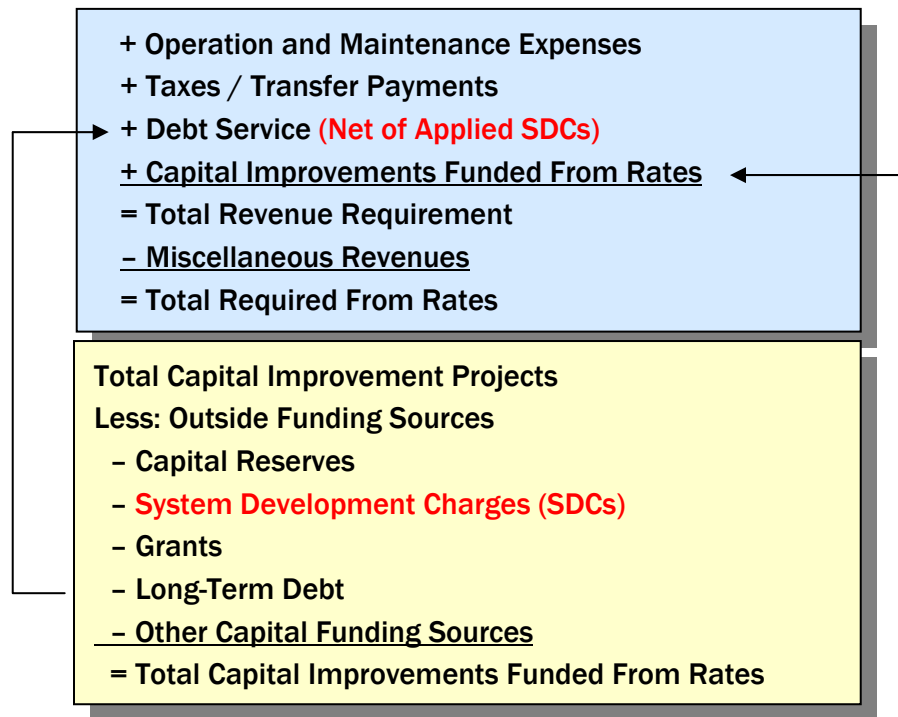
There is a segment of the population that is anti-growth within all communities. Adoption of system development charges, even if only partially cost-based, demonstrates concern and recognition of the anti-growth perspective.

The use of system development charges has changed over time, as historical funding sources such as grants have been reduced or eliminated. Many communities have in response moved towards adoption of cost-based system development charges, particularly in areas of high growth.

2.4 System Development Charges and “Generally Accepted” Practices

System development charges are one input into the rate-setting process. Therefore, it is important to understand how, within the context of “generally accepted” utility industry practices, system development charges may be used. In conducting a comprehensive rate study, three interrelated analyses are typically conducted; a revenue requirement analysis, cost of service analysis and rate design analysis. System development charges are factored into the revenue requirement analysis. A revenue requirement analysis determines the overall funding levels (sources and uses of funds) required for the utility. The revenue requirement methodology used by most municipal utilities is referred to as the “cash basis” approach. Figure 2-1, shown below, provides an overview of the key components of the “cash basis” methodology in developing the revenue requirement.

Figure 2-1
Overview of the 'Cash-Basis' Approach to Establishing Revenue Requirement



It should be noted in Figure 2-1 that system development charges can legally be used in two different ways, each of which has a different impact on the utility's revenue requirement and rates. The first possible use of system development charges is shown in the bottom or yellow box. In that particular case, the system development charges are applied directly against growth or expansion related capital projects. Using the funds in this manner helps to minimize long-term borrowing. One less dollar of long-term borrowing is required for each dollar of system development charges applied in this manner. Typically, total capital improvements funded from rates is established and fixed in the financial planning process. Therefore, applying system development charges to growth-related capital projects typically will not have a significant impact on the amount of capital improvements funded from rates.

"It should be noted.... that system development charges can legally be used in two different ways, each of which has a different impact on the utility's revenue requirements and rates."

The other potential use of system development charges is to apply the charges against growth-related debt service. As shown in the top blue box of Figure 2-1, debt service is shown as net of any system development charges. Instead of applying system development charges directly against the capital project, the charges are applied against debt that is directly related to facilities built to accommodate capacity expansion and growth. Every dollar applied in this manner causes a corresponding dollar decrease in revenue requirement and the resulting rates. This is a very effective method to help minimize rates, but even better at matching the cost of growth to the way in which customer growth and connections occur over time. In other words, a utility may build or expand a facility with

sufficient capacity to handle growth over the next ten to twenty years. That growth doesn't occur in the first year, but rather, trickles in over a number of years. Therefore, applying the system development charges against the debt service associated with the project creates a better matching of the cost incurrence (annual debt service payments) to the actual customer growth. However, in using SDCs to pay annual debt service on growth related facilities, it should be recognized that SDC revenues are not a reliable source of funding, and over-reliance upon SDCs to fund this component of the revenue requirement carries certain risks. It is recommended that no more than 50% of projected SDC revenue be applied toward debt. In this way, if revenue comes in below projections, debt obligations can still be met.

2.5 Financial Objectives of System Development Charges

Understanding that new development creates the need for new or expanded facilities provides the perspective for understanding the need for system development charges, in that these charges are necessary to fund facilities to service growth. As a result, without payment of system development charges, the utility would have insufficient revenue to provide the facilities, and therefore the community is unable to accommodate new development. With

“Understanding that new development creates the need for new or expanded facilities provides the perspective for understanding the need for system development charges, in that these charges are necessary to fund facilities to service growth.”

this said, system development charges do have certain financial objectives associated with them. While on the surface it may appear as simply a means to extract revenue from new development, the reality is far more complicated. System development charges help utilities achieve a number of different financial objectives. These objectives tend to lean more towards financial equity between customers, as opposed to simply producing revenue.

Equity is achieved in two different ways. First, a system development charge establishes equity between existing customers and new customers. For example, assume that a water treatment plant is expanded by 5 million gallons per day (MGD) to accommodate growth and the facility is financed over a 20-year period. Without a system development charge, new customers connect to the system and pay for the debt service on the facility via their rates. The customer that connects to the system in year one will contribute to the cost of that facility for 20 years. In contrast, the person who connects in year 10 will only pay for debt service on the facility for ten years, even though the “value” of the capacity was the same for the person connecting in year 1 or year 10. System development charges create equity within the system by addressing the issue of timing and the “value” of the assets and the capacity.

System development charges help to create equity in a second way after a facility is paid for. Continuing the example above, after the debt service is fully paid in year 20, and assuming that capacity is still available, a new customer connecting to the system would, in theory, receive their capacity at zero cost, because the debt service is paid in full. All the existing customers connected to the system, over the past twenty years, paid for that customer's capacity. Therefore, a system development charge is also a form of a financial reimbursement to existing ratepayers who paid for those facilities in advance of the new customer connecting to the system.

“Therefore, a system development charge is also a form of a financial reimbursement to existing ratepayers who paid for those facilities in advance of the new customer connecting to the system.”

Based on the above example, system development charges also have an equity perspective associated with the rate-setting process: they are a form of “system buy-in.” A properly

established system development charge implies that a new customer connecting to the system has bought into the system at its current cost. Therefore, from a rate-setting perspective the utility does not need to have rates for “old” and “new” customers. Again, existing customers have been equitably reimbursed for past investments.

“System development charges are most commonly adopted in high growth areas where infrastructure expansion has strained existing financial resources. Philosophically, many utilities desire to have a policy of “growth paying for growth.”

Not all communities have system development charges despite the advantages presented in the discussion above. System development charges are most commonly adopted in high growth areas where infrastructure expansion has strained existing financial resources. Philosophically, many utilities desire to have a policy of “growth paying for growth.” System development charges comport with that philosophy, and it is achieved by applying the system development charges either directly against the capital cost of the expansion facilities or against the debt service associated with it.

2.6 Summary

This section of the report has provided an overview of the financial objectives associated with system development charges and some of the issues surrounding them. This section should have provided a basic understanding of the charges such that when the City has policy discussions concerning the implementation of system development charges, the charges can be placed in proper perspective. The next section of the report will provide a perspective on the economics of system development charges.



Section 3

Overview of System Development Charges

3.1 Introduction

An important starting point in establishing system development charges is to have a basic understanding of the purpose of these charges, along with the criteria and general methodology that are used to establish cost-based system development charges. This section of the report presents an overview of system development charge methodology that was used to develop cost-based charges for the City.

3.2 Economic Theory and System Development Charges

System development charges are generally imposed as a condition of service. The objective of a system development charge is not merely to generate money for a utility, but to create fiscal balance between existing customers and new customers so that all customers seeking to connect to the utility's system bear an equitable share of the cost of capacity that is invested in both the existing and any future growth-related expansions. Through the implementation of equitable system development charges, existing customers will not be unduly burdened with the cost of new development.

By updating its cost-based system development charges, the City continues an important step in assuring adequate infrastructure to meet growth-related needs while providing this infrastructure to new customers in a cost-based, fair, and equitable manner.

3.3 System Development Charge Criteria

In the determination and establishment of the system development charges, a number of different criteria are often utilized. The criteria often used by utilities to establish system development charges are as follows:

- State/local laws
- System planning criteria
- Financing criteria
- Customer understanding

Many states and local communities have enacted laws that govern the calculation and imposition of system development charges. These laws must be followed in the development of the system development charges. Most states require a “reasonable relationship” between the charge and the cost associated with providing service (capacity) to the customer. The charges do not need to be mathematically exact, but must bear a reasonable relationship to the cost burden imposed. The utilization of the planning criteria, the actual costs of construction and the planned costs of construction provide the nexus for the reasonable relationship requirement.

“The use of system planning criteria is one of the more important aspects in the determination of the system development charge. System planning criteria provide the “rational nexus” between the amount of infrastructure necessary to provide service and the fee to the customer.”

The use of system planning criteria is one of the more important aspects in the determination of the system development charges. System planning criteria provides the “rational nexus”

between the amount of infrastructure necessary to provide service and the charge to the customer. The rational nexus test requires: (a) establishing a system development (nexus) between new development and the existing or expanded facilities required to accommodate new development, and (b) apportioning appropriate cost to the new development in relation to benefits reasonably received. An example using system planning criteria is the determination that a single-family residential customer requires 500 gallons per day of water distribution storage. The system development charge methodology then charges the customer for 500 gallons per day of water distribution storage at the cost of storage.

One of the driving forces behind establishing cost-based system development charges is that “growth pays for growth.” Therefore, system development charges are typically established as a means of having new customers pay an equitable share of the cost of their required capacity (infrastructure). The financing criteria for establishing system development charges relates to the method used to finance infrastructure on the system and assures that customers are not paying twice for infrastructure – once through system development charges and again through rates. The double payment can come in through the imposition of system development charges and then the requirement to pay debt service within a customer’s rates. The financing criteria also reviews the basis under which main line and collection line extensions were provided and assures that the customer is not charged for infrastructure that was provided (contributed) by developers.

The component of customer understanding implies that the fee is easy to understand. This criterion has implications for the way that the fee is implemented and assessed to the customer. For a water system, the fee is generally based on the size (capacity) of the customer’s meter. This makes it easy for the customer to understand that the level of fee is based on the size of a meter required to provide a certain capacity to meet that customer’s needs. In some instances, larger meter sizes are calculated based on actual usage. While this is more complicated, it applies to very few customers and they are generally more sophisticated industrial customers. The other implication of this criterion is that the methodology is clear and concise in its calculation of the amount of infrastructure necessary to provide service.

3.4 Overview of the System Development Charge Methodology

There are “generally accepted” methodologies that are used to establish system development charges. Within the “generally accepted” system development charge methodologies, there are a number of different steps undertaken. These steps are as follows:

- Determination of system planning criteria
- Determination of equivalent residential units (ERUs)
- Calculation of system component costs
- Determination of any credits

The first step in establishing system development charges is the determination of the system planning criteria. This implies calculating the amount of water required to serve a single-family residential customer, the amount of wastewater generated by a single-family residential customer, and the average square foot of impervious area for a residential unit for storm & surface water.

Generally for a water system, two different criteria are determined due to differences in planning criteria. The first planning criterion is the peak day water usage per ERU and the second is a water storage requirement per ERU. These two different planning criteria are developed since a majority of the water system infrastructure is sized to meet the peak day demand, and water storage is sized to meet equalizing, emergency and fire flow requirements.

For wastewater systems, average daily demand (wastewater contribution) per ERU is most often used, since this total flow represents the flow, imposed by the customer. Average inflow and infiltration is added to the customer's flow since this represents the total volumetric flow and hence capacity requirement at the treatment plant. For the storm and surface water system, the total impervious area is divided by the average impervious square footage of a residential lot to determine total system ERUs. These are very important calculations since they provide the linkage between the amounts of infrastructure necessary to provide service to a set number of customers. This implies that if the system is designed to provide service for demands up to the year 2028, then the infrastructure costs are divided by the ERUs in 2028 to determine the cost per ERU.

Once the number of ERUs has been determined, a component by component (e.g. source of supply, treatment, storage, etc.) analysis is undertaken to determine the component SDC in \$ per ERU. Individual plant components are analyzed separately for the water, sewer and storm & surface sewer systems given that the planning criteria for the design of the various system components differ. The calculation of the component SDC includes both historical assets and planned future assets. Historical assets can be valued in a number of different ways. These include original cost plus interest, replacement cost and depreciated replacement costs.

Washington State law allows historical asset costs to include 10 year's worth of interest. This calculation is done to reflect the fact that existing customers have provided for excess capacity in the system and hence need to be reimbursed for not only their initial investment, but also the "carrying cost" on that investment. The reimbursement to existing customers is accomplished by the fact that without system development charges, rates would otherwise be higher than they would be with system development charges. Inclusion of interest in future capital costs reflects the method used to finance the plant and hence the "true cost" to construct future infrastructure. Once the total cost of the capital infrastructure is determined, it is then divided by the appropriate number of ERUs the infrastructure will serve to develop the cost per ERU for the specific plant component.

After each plant component is analyzed and a cost per ERU is determined, the cost per ERU for each of the plant components is added together to determine the "gross system development charge". The "gross system development charge" is calculated before any credits for debt service.

The last step in the calculation of the system development charge is the determination of any credits. This is generally a calculation to prevent customers from paying twice for long-term debt financing, once through system development charges and again through debt service included within the utility rates. A similar crediting mechanism is also utilized if general obligation or tax revenue has been used to finance the infrastructure.

"Larger meter sizes are then imposed charges based on the number of ERUs for a given meter size. The number of ERUs per meter size is generally based on the safe operating capacity of the meter."

The final system development charge is determined by taking the "gross system development charge" and subtracting any credits. This results in a "net system development charge" stated in

dollars per ERU. The general basis of this calculation for a water or sewer system is the assumption that an ERU is equivalent to a typical residential meter size. Larger meter sizes are then imposed charges based on the number of ERUs for a given meter size. The number of ERUs per meter size is generally based on the industry standard safe operating capacity of the meter. The City's SDCs are based on number of fixture units equated to an ERU. This is also a common practice for implementing SDCs, which is tying to the Uniform Building Code's accounting of fixture units for various types of plumbing fixtures.

For the storm drain system, an ERU can be defined as the average impervious area of a single-family residential unit. Other types of dwellings or businesses are then assigned ERUs based on total impervious area divided by 1 ERU to determine total ERUs. Design manuals or actual flows can also be used to determine number of ERUs.

3.5 Summary

This section of the report discussed the criteria typically used in determining system development charges. In addition, an overview was provided of the "generally accepted" methodology used in calculating system development charges. Given this background, the next section of the report discusses the legal criteria that must be used in establishing its water, sewer and storm & surface water system development charges.



Section 4

Legal Considerations in Establishing SDCs

4.1 Introduction

An important consideration in establishing system development charges is review of legal requirements at the state or local level. The legal requirements often establish the methodology around which the system development charges must be calculated or how the funds must be used. Given that, it is important for the City to understand these legal requirements. This section of the report provides an overview of the legal requirements for establishing system development charges under Washington State law. This summary represents HDR's understanding of the relevant Washington State law as it relates to establishing system development charges. It in no way constitutes a legal interpretation of the state's law by HDR.

4.2 Requirement under Washington State Law

In establishing system development charges, an important requirement is that they be developed and implemented in conformance with local laws. In particular, many states have established specific laws regarding the establishment, calculation, and implementation of system development charges. The main objective of most state laws is to assure that these charges are established in such a manner that they are fair, equitable, and cost-based. In other cases, state legislation may have been needed to provide the legislative powers to the utility to establish the charges.

"The Washington State Legislature passed Title 35, Section 35.92.025, (Washington Law), which sets forth requirements for connection charges for water and sewer systems."

The Washington State Legislature passed Title 35, Section 35.92.025, (Washington Law), which sets forth requirements for calculations of connection charges (system development charges)

for water and sewer systems. Title 35, Section 35.92.025, (Washington Law) states as follows:

"Authority to make charges for connecting to water or sewerage system - interest charges. Cities and towns are authorized to charge property owners seeking to connect to the water or sewerage system of the city or town as a condition to granting the right to so connect. In addition to the cost of such system development, such reasonable connection charge as the legislative body of the city or town shall determine proper in order that such property owners shall bear their equitable share of the cost of such system. The equitable share may include interest charges applied from the date of construction of the water or sewer system until the system development, or for a period not to exceed ten years, at a rate commensurate with the rate of interest applicable to the city or town at the time of construction or major rehabilitation of the water or sewer system, or at the time of installation of the water or sewer lines to which the property owner is seeking to connect but not to exceed the equitable share of the cost of the system allocated to such property owners. Connection charges collected shall be considered revenue of such system."

The basic principle that needs to be followed under Washington State law is that the fee be based on a proportionate share of the costs of the system required to provide service and that adoption of fees and accounting be in compliance with the State of Washington law.

In determining the equitable share, a number of points should be considered. These include:

- Capital improvements planned for construction within the next twenty (20) years can be included.
- The CIP must be contained in an adopted plan.
- The cost of the existing facilities in principle should not include those portions of the system, which have been donated or paid for through developers.
- The system development charge can include reasonable interest up to a period of ten (10) years on existing facilities.
- A credit for debt financing, if any, should be determined.

The discussion within this portion of the report is intended to be a summary of our understanding of the relevant Washington State law as it relates to establishing system development charges. It in no way constitutes a legal interpretation of Washington State law by HDR.

Given this broad authority, the City should set system development charges which are cost-based and that are “reasonable”. The use of the methodology discussed in Sections 2 and 3 will assure that the “reasonable” standard is met.

4.3 Summary

This section of the report reviewed the legal basis for establishing system development charges in Washington State. The next section of the report provides a detailed discussion of the specific calculation of the water system development charge for the City.



Section 5

Determination of the Water System SDC

5.1 Introduction

This section of the report presents the key assumptions and details used in calculating the City's water system development charge. The calculation of the City's water system development charge is based upon City-specific accounting and planning information. Specifically, the system development charges are based upon the City's fixed asset records, capital improvement plan (CIP), and planning data from the City's Water System Plan entitled *City of Puyallup Water System Comprehensive Plan, 2009* (hereafter referred to as City's Water System Plan). The City provided other financial and accounting information that was used within this analysis.

To the extent that the cost and timing of future capital improvements change, then the system development charges presented in this section of the report should be updated to reflect the changes.

5.2 Overview of the City's Water System

The City of Puyallup owns and operates a municipal water system with a service area of 6,700 acres which include 6,300 acres within the City limits. The City does not serve all areas of the City. The City has approximately 10,593 water customers in 2010.

The City's primary sources of water supply are from Salmon Springs and Maplewood Springs. The City also has five operational wells and an intertie with the City of Tacoma. The City uses chlorine to disinfect all supply sources except for a few wells which use alternate treatments.

The City's system consists of nine reservoirs with a total storage capacity of 19.3 million gallons, 142 miles of water transmission and distribution lines, with six booster stations serving five pressure zones.

5.3 Present Water System Development Charge

The City's present water system development charge is shown below in Table 5-1.

Table 5-1
Present Water System Development Charge

Meter Size	Number of ERUs	System Development Charge
Single-Family Dwelling	1	\$3,130.00
Duplex/Apartment, 1st Unit	1	3,130.00
Duplex/Apartment - each additional unit	0.75	2,347.50
Mobile Home Sub/Pad	1	3,130.00
Recreational Veh. Park, each space	0.63	1,971.90
Motel/Hotel, each unit	0.63	1,971.90
Hospital, Rest Home, each 6 beds	1	3,130.00
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	3,130.00
Each Additional Fixture Unit Weight	0.067	209.71

As shown in Table 5-1, the City’s water system development charge is based on the number of equivalent residential units (ERU). In this case, one ERU equates to 15 fixture units. Fixture units are determined within the Uniform Plumbing Code.

5.4 Calculation of the City’s Water System Development Charge

As discussed in Section 3, the process of calculating system development charges is based upon a four-step process. In summary form, these steps are as follows:

- Determination of system planning criteria
- Determination of equivalent residential units
- Calculation of the system development charge for system component costs
- Determination of any system development charge credits

Each of these steps is discussed in more detail below.

5.4.1 System Planning Criteria

System planning criteria are used to establish the capacity needs of an equivalent residential unit (ERU). Based upon the City’s Water System Plan, a volume of 219 gallons per day, per ERU, was established, based on an average residential unit. The peaking factor of a residential unit is 2.1 of the average day, which includes losses. This results in 460 gals/day/ERU peak day demand. The storage requirement per ERU is based on the utilities existing storage. Table 5-2 provides a summary of the planning criteria used to establish the City’s water system development charges.

Table 5-2
Summary of the Water System Planning Criteria

Planning Criteria Description	Gallons/Day/ERU
Average Day Flow	219 gallons/day/ERU
Peak Day Flow	460 gallons/day/ERU
Storage Requirements	632 gallons/ERU

As previously discussed, certain facilities may be planned and sized around different planning criteria. Therefore, the system planning criteria shown above were used for different plant components to determine the cost per ERU for that specific plant component.

5.4.2 Residential Units

The planning horizon of this analysis was 2010 to 2023, which aligns with the planning period of the most recent City Water System Plan. As a part of this study, a calculation of the number of new ERUs per year must be determined, along with the projected number of ERUs at 2023. The City’s total number of ERUs for each year was determined by dividing the peak day usage factor per ERU into total peak day demand. The total peak day demand was based on the City current peak data.

A summary of the ERUs for 2010 and 2023 are presented below in Table 5-3. Details of the determination of ERUs are provided in Exhibit 1 of Technical Appendix A.

Table 5-3 Water System Equivalent Residential Units	
Description	Calculated ERUs
Equivalent Residential Units – 2010	20,630 ERUs
Equivalent Residential Units – 2023	27,236 ERUs

Given the development of the water system ERUs for each year of the planning period, the focus can shift to the calculation of the system development charge for each plant component. This aspect of the analysis is discussed below.

5.4.3 Calculation of the Water System Development Charge for the Major System Components

The next step of the analysis is to review each major functional component of plant in service and determine the water system development charge for that component. In calculating the water SDC, both existing plant assets along with planned future CIP were included within the calculation. The major components of the City’s water system that were reviewed for purposes of calculating the system development charge were as follows:

- Supply/Treatment
- Storage
- Transmission/Distribution Mains
- General Plant

A brief discussion of the SDC calculated for each of the functional water plant components is provided below. Again, each component includes existing assets along with future projects. Future improvements to the water system include direct water system projects and coordination/opportunity projects. Coordination/opportunity projects are those projects that are required to be completed along with other system or department projects such as street, sewer or storm and surface water projects. These coordination/opportunity projects were segregated within this study to highlight the required completion of these projects in coordinating with other department projects.

SOURCE OF SUPPLY – Existing source of supply and treatment assets have an original value of approximately \$4.7 million. With a maximum of ten years interest (at 5% interest) applied, where applicable, the total existing plant value for source of supply and treatment is \$7.4 million.

Future source of supply and treatment capital improvements were reviewed to determine the projects, or percentage of projects, that would provide additional capacity to serve new development. These allocations were based on review and estimates by City staff and engineers. While total future improvements are \$1.8 million, the growth-related portion of source of supply and treatment plant was determined to be \$1.6 million.

Total existing and future source of supply and treatment plant assets of \$9.0 million are divided by the total treatment capacity of 9.55 MGD to determine a cost of \$0.95 per gallon. The cost per gallon for source of supply and treatment was then multiplied by the peak day planning criteria in gallons/day/ERU of 460. This resulted in a system development charge for source of supply and treatment of \$437 per ERU. Details of the calculation of the source of supply and treatment plant are shown in Exhibit 2 of Technical Appendix A.

STORAGE – The value of the existing storage plant is \$5.2 million. These original assets older than 10 years were adjusted for a maximum of ten years interest, other assets as applicable, to a total of \$8.5 million. Total growth-related future improvements amounted to \$1.2 million.

The total existing and future storage plant value of \$9.7 million ($\$8.5 + \$1.2 = \9.7) was divided by the total available storage capacity (17.22 million gallons) to determine a cost of \$0.57 per gallon. This cost per gallon is very low compared to the cost of current storage tanks, ranging between \$2.00-\$4.00 per gallon. The design criteria utilized for the determination of storage requirements is equal to 632 gallons/ERU. The cost per gallon for storage was then multiplied by the storage capacity per ERU of 632 gallons/ERU, resulting in a system development charge for storage reservoirs of \$358 per ERU. Details of the calculation and the City's existing tanks and reservoirs are provided in Exhibit 3 of Appendix A.

TRANSMISSION/DISTRIBUTION MAINS –The value of the existing transmission and distribution mains is \$42.8 million. The original value was adjusted for a maximum of ten years interest, where applicable, to a total of \$62.4 million. The total eligible existing plant was divided by the number of ERUs in 2023, resulting in a system development charge for existing distribution and transmission plant of \$2,292 per ERU.

Future transmission and distribution main capital improvements were reviewed to determine the projects, or percentage of projects, that would provide additional capacity to serve new development. These allocations were based on estimates reviewed and adjusted by City staff and engineers. While total future improvements are \$10.3 million, the growth-related portion of future transmission and distribution mains was determined to be \$1.8 million. This total was then divided by the number of new ERUs projected to be added from 2010 to 2023, resulting in a system development charge for future distribution and transmission plant of \$262 per ERU. Taken together, the existing and future transmission and distribution system development charges result in a total component fee of \$2,554 per ERU. Details of the calculation of the transmission and distribution mains are provided in Exhibit 4 of Technical Appendix A.

GENERAL PLANT – The value of the existing general plant is \$1.6 million. The original value was adjusted for a maximum of ten years interest, where applicable, to a total of \$2.3 million. The

total eligible existing plant was divided by the number of ERUs in 2023, resulting in a system development charge for existing general plant of \$88 per ERU.

Future general plant that is growth related amounted to \$168,000. This total was then divided by the number of new ERUs projected to be added from 2010 to 2023, resulting in a system development charge for future general plant of \$24 per ERU. Taken together, the existing and future general plant system development charges result in a total component fee of \$112 per ERU. Details of the calculation of the transmission and distribution mains are provided in Exhibit 5 of Technical Appendix A.

5.4.4 Debt Service Credits

The final step in calculating the water system development charge was to determine if a credit for payment on debt service is applicable for the utility's outstanding and future planned loans and bonds. The water utility currently has a few loans as outstanding debt. These bonds and loans retire in 2020. The majority of debt is related to future projects.

“Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through system development charges.”

Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through system development charges. Customers pay for debt financed infrastructure through their monthly utility rates and those costs are removed from the SDC calculation. Total debt is compared with projected annual system development charge revenue, in part because SDC revenue can be applied to growth-related debt. Whenever debt payments exceed projected SDC revenue, a credit per ERU is determined. It was determined there was a \$0 debt credit in this calculation (\$0/ERU). Details of the calculations are provided in Exhibit 6 in Appendix A.

5.5 Net Allowable Water System Development Charges

Based on the sum of the component costs calculated above, the net allowable water system development charge can be determined. “Net” refers to the “gross” system development charge, net of any debt service credits. “Allowable” refers to the concept that the calculated system development charge shown in Table 5-4 is the City’s cost-based system development charge. The City, as a matter of policy, may charge any amount up to the allowable system development charge, but not over that amount. Charging an amount greater than the net allowable system development charge would not meet the nexus test of a cost-based system development charge related to the benefit derived by the customer. A summary of the calculated net allowable water system development charge for the City is shown in Table 5-4.

Table 5-4 breaks each component calculation out by existing assets, for the “buy-in” portion of the fee, and future CIP and coordinator/opportunity CIP, resulting in the total water SDC.

Table 5-4
Calculated Net Allowable Water System Development Charge (\$/ERU)

Plant Component	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Supply/Treatment	\$0	\$77	\$360	\$437
Storage	0	46	312	358
Transmission/Distribution	123	139	2,292	2,554
General Plant	0	24	88	112
Debt Service Credit	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>
Net Allowable Charge	\$123	\$286	\$3,052	\$3,461
Plus State B&O Tax (1.8%)	<u>2</u>	<u>5</u>	<u>55</u>	<u>62</u>
Total SDC	\$125	\$291	\$3,107	\$3,524
Net Allowable SDC Rounded	\$130	\$290	\$3,110	\$3,530

The net allowable fee for one ERU is \$3,524. For ease in administration and in customer understanding it is recommended that the fee be rounded to \$3,530 for implementation. This compares to the City's current system development charge of \$3,130 for one ERU, or an increase of \$400/ERU. A detail of the net allowable system development charge for the City is shown in Exhibit 7 of Technical Appendix A.

Table 5-4 shows the water system development charge segregated in coordination/opportunity CIP, future CIP, and existing assets. The City's current fee is \$3,130 is close to just the existing asset calculation for system development charge of \$3,110.

Table 5-5 presents the system development charges by ERU. These charges are determined by multiplying the system development charge for one ERU by number of ERU by class of service.

Table 5-5
Net Allowable Water System Development Charge

System Development Charge per Equivalent Residential Unit (ERU)		
Type of Use	Number of ERUs⁽¹⁾	System Development Charge
Single-Family Dwelling	1	\$3,530
Duplex/Apartment, 1st Unit	1	3,530
Duplex/Apartment - each additional unit	0.75	2,648
Mobile Home Subd., pad	1	3,530
Recreational Veh. Park, each space	0.63	2,224
Motel/Hotel, each unit	0.63	2,224
Hospital, Rest Home, each 6 beds	1	3,530
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	3,530
Each Additional Fixture Unit Weight	0.067	237

A detail of the net allowable system development charge for the City is shown in Exhibit 7 of Technical Appendix A.

5.6 Key Assumptions

In developing the system development charges for the City's water system, a number of key assumptions were utilized. These are as follows:

- The City's asset records were used to determine the existing plant assets.
- The City provided the capital improvement plan (CIP) for future improvements, and adjusted projects based on current information.
- The base year for future CIP projects was 2010.
- The City determined the portion of future improvements that were growth-related.
- The interest rate used for calculating interest on existing investments was 5.0 percent.
- A maximum of ten year's worth of interest was included in the cost of existing plant, as appropriate.

5.7 Implementation of the System Development Charges

The methodology used to calculate the system development charges takes into account the value of money, interest charges, and inflation. Therefore, HDR recommends that the City adjust the system development charges each year by an escalation factor to reflect the cost of interest and inflation. The most frequently used source to escalate system development charges is the *Engineering News-Record Construction Cost Index (ENR-CCI)*, which tracks changes in construction costs. This method of escalating the City's system development charges should be used for no more than four to five years. After this time period, HDR recommends that the City update the charges based on the actual cost of infrastructure and

any new planned facilities that would be contained in an updated system plan, capital improvement plan or rate study.

5.8 Consultants Recommendations

Based on our review and analysis of the City's water system, HDR recommends the following:

- The City should revise and update its water system development charge for new connections to the water system that are no greater than the net allowable system development charges as set forth in this report.
- The adopted SDCs should be updated annually by the ENR-CCI for Seattle, for no more than five years before a complete update of the fee is undertaken. This practice can keep the fee current with construction pricing practices.
- The City should update the actual calculations for the system development charges based on the methodology approved by the resolution or ordinance setting forth the methodology for system development charges at such time when a new capital improvement plan, public facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the City, or every five years.

5.9 Summary

The water system development charges developed and presented in this section of the report are based on the planning and engineering design criteria of the City's water system, the value of the existing assets, future capital improvements, and "generally accepted" ratemaking principles. Adoption of the proposed system development charges will provide multiple benefits to the City and will create equitable and cost-based charges for new customers connecting to the City's water system.



Section 6

Determination of the Sewer Utility SDC

6.1 Introduction

This section of the report presents the key assumptions and details used in calculating the City's sewer system development charge. The calculation of the City's sewer system development charge based upon City-specific accounting and planning information. Specifically, the system development charges are based upon the City's fixed asset records, capital improvement plan (CIP), and planning data from the City's Sewer System Plan entitled *City of Puyallup Sanitary Sewer System Comprehensive Plan Update, 2008 Draft* (Hereafter referred to as City's Sewer System Plan). The City provided other financial and accounting information that was used within this analysis.

To the extent that the cost and timing of future capital improvements change, then the system development charges presented in this section of the report should be updated to reflect the changes.

6.2 Overview of the City's Sewer System

The City of Puyallup serves the City and portions outside the City limits and unincorporated Pierce County. The City operates a Water Pollution Control Plant (WPCP) with a maximum monthly average design flow of 13.98 million gallons a day (mgd). The WPCP influent flow and loads have remained below the design criteria and the plant has consistently met the effluent limitations required to remain in compliance with the NPDES permit.

The City's gravity collection system consists of nineteen lift stations, 128 miles of pipe, and 3,000 manholes.

6.3 Present Sewer System Development Charge

The City's present sewer system development charge is shown below in Table 6-1.

Type of Use	Number of ERUs	System Development Charge
Single-Family Dwelling	1	\$4,520.00
Duplex/Apartment, 1st Unit	1	4,520.00
Duplex/Apartment - each additional unit	0.75	3,390.00
Mobile Home Subd., pad	1	4,520.00
Recreational Veh. Park, each space	0.63	2,847.60
Motel/Hotel, each unit	0.63	2,847.60
Hospital, Rest Home, each 6 beds	1	4,520.00
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	4,520.00
Each Additional Fixture Unit Weight	0.067	302.84

As shown in Table 6-1, the City’s sewer system development charge is based number of ERUs by type of service, in a similar fashion to the implementation of the water SDCs.

6.4 Calculation of the City’s Sewer System Development Charge

As discussed in Section 2, the process of calculating system development charges is based upon a four-step process. In summary form, these steps are as follows:

- Determination of system planning criteria
- Determination of equivalent residential units
- Calculation of the system development charge for system component costs
- Determination of any system development charge credits

Each of these steps is discussed in more detail below.

6.4.1 System Planning Criteria

System planning criteria are used to establish the capacity needs of an equivalent residential unit (ERU). Based upon the City’s Sewer System Plan, a volume of 65.6 gallons per capita, per day, was established based on planning information. The persons per residence of 2.89 was based on the 2008 Comprehensive Sewer Plan. An assumed 18% for inflow and infiltration results in 224 gals/day/ERU. Table 6-2 provides a summary of the planning criteria used to establish the City’s sewer system development charges.

Table 6-2 Summary of the Sewer System Planning Criteria	
Planning Criteria Description	
Average Day Flow	65.6 gallons/capita/day
Persons per Residence	2.89 person
Percent I&I	18%
Gallons per ERU per day	224 gallons/ERU
Average daily flow at plant	4.21 mgd

As previously discussed, certain system facilities may be planned and sized around different planning criteria. Therefore, the system planning criteria shown above were used for different plant components to determine the cost per ERU for that specific plant component.

6.4.2 Residential Units

The planning horizon of this analysis was 2010 to 2028, which aligns with the planning period of the most recent sewer system plan. As a part of this study, a projection of the number of new, additional ERUs per year must be determined, along with the total number of Equivalent Residential Units (ERUs) at 2028. The City’s total number of ERUs for each year was determined by dividing average daily flow at the plant by the gallons per ERU per day. This resulted in 19,240 ERU’s in 2010. The future total ERUs was projected assuming a 2% declining growth rate. This growth reflects decline in water usage due to conservation, and planned I&I reduction. This growth varies from Sewer Comp Plan growth due to the economic downturn.

A summary of the ERUs for 2010 and 2028 are presented below in Table 6-3. Details of the determination of ERUs are provided in Exhibit 1 of Technical Appendix B.

Table 6-3
Sewer System Equivalent Residential Units

Description	Calculated ERUs
Equivalent Residential Units – 2010	19,240 ERUs
Equivalent Residential Units – 2028	28,132 ERUs

Given the development of the total sewer ERUs for each year of the planning period, the focus can shift to the calculation of the system development charge for each plant component. This aspect of the analysis is discussed below.

6.4.3 Calculation of the Sewer System Development Charge for the Major System Components

The next step of the analysis is to review each major functional component of plant in service and determine the sewer system development charge for that component. In calculating the sewer SDC, both existing plant assets, along with planned future CIP were included within the calculation. The major components of the City’s sewer system that were reviewed for purposes of calculating the system development charge were as follows:

- Treatment
- Collection
- General Plant

A brief discussion of the sewer SDC calculated for each of the functional sewer plant components is provided below. The sewer system development charge, like discussed above for water, the City also considered future improvements to the sewer system. The system development charges were calculated as coordination/opportunity projects, future capital improvement projects and existing assets. Coordination/opportunity projects are those projects that are required to be completed along with other system or department projects such as street, water or storm and surface water projects. These coordination/opportunity projects were segregated within this study to highlight the required completion of these projects in coordinating with other city-wide projects.

TREATMENT –To determine the system development charge for the treatment plant, the existing system was reviewed, as well as those planned treatment plant system improvements as identified in the City’s CIP and the 2010 sewer rate study. The cost of the existing treatment plant of \$41.4 million was adjusted for a maximum of ten years interest, as appropriate, to a total of \$64.7 million. Future plant improvements are \$12.2 million of which \$5.2 million are growth related. This resulted in total existing and future plant of \$8.1 million ($\$64.7 + \$5.2 = \69.9 million). The \$69.9 million was then divided by total plant capacity of 10.23 mgd at build-out, resulting in a cost per gallon of \$6.84. The cost per gallon of \$6.84 was then multiplied by gallons per day per ERU of 224, resulting in a total treatment plant system development charge of \$1,530. Details of the calculation of the treatment plant are provided in Exhibit 2 of Technical Appendix B.

COLLECTION –The value of the existing collection is \$45.3 million. The original value was adjusted for a maximum of ten years interest, where applicable, to a total of \$70.3 million.

The total eligible existing plant was divided by the number of ERUs in 2028, resulting in a system development charge for existing collection plant of \$2,502 per ERU.

Future collection capital improvements were reviewed to determine the projects or percentage of projects that were growth related. These allocations were based on estimates by City staff and engineers. While total future improvements are \$12.0 million, the growth-related portion of future collection was determined to be \$6.6 million. This total was then divided by the number of ERUs added from 2010 to 2028, resulting in a system development charge for future collection plant of \$717 per ERU. Taken together, the existing and future collection system development charges result in a total component fee of \$3,219 per ERU. Details of the calculation of the collection plant are provided in Exhibit 3 of Technical Appendix B.

GENERAL PLANT – The value of the existing general plant, adjusted for a maximum of ten years interest resulted in \$861,000. The total eligible existing plant was divided by the number of ERUs in 2028, resulting in a system development charge for existing general plant of \$31 per ERU.

The future general plant capital improvement (Sewer Comp Plan) was reviewed to determine the percentage related to growth. These allocations were reviewed by City staff and engineers. The growth-related portion of future general plant was determined to be \$140,000. This total was then divided by the number of ERUs added from 2010 to 2028, resulting in a system development charge for future general plant of \$15 per ERU. Taken together, the existing and future general plant system development charges result in a total component fee of \$46 per ERU. Details of the calculation of the general plant are provided in Exhibit 4 of Technical Appendix B.

6.4.4 Debt Service Credits

The final step in calculating the sewer system development charge was to determine if a credit for payment on debt service is applicable for the utility's outstanding and future planned loans and bonds. The sewer utility currently has two outstanding issues which end in 2020. New debt is at 5.5% interest for 20 years

“Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through system development charges.”

Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through system development charges. By determining a debt credit, customers pay for debt financed infrastructure through their monthly utility rates and those costs are removed from the SDC calculation. Total debt is compared with projected annual system development charge revenue for the full debt issue schedule. Whenever debt payments exceed projected SDC revenue, a credit per ERU is determined. There was debt credit calculation of \$56.74/ERU. Details of the calculation are provided in Exhibit 5 in Technical Appendix B.

6.5 Net Allowable Sewer System Development Charges

Based on the sum of the component costs calculated above, the net allowable sewer system development charge can be determined. “Net” refers to the “gross” system development charge, net of any debt service credits. “Allowable” refers to the concept that the calculated system development charge shown in Table 6-4 is the City's cost-based system development charge. The City, as a matter of policy, may charge any amount up to the allowable system development charge, but not over that amount. Charging an amount greater than the allowable system development charge would not meet the nexus test of a cost-based system

development charge related to the benefit derived by the customer. A summary of the calculated net allowable sewer system development charge for the City is shown below in Table 6-4.

Table 6-4 Calculated Net Allowable Sewer System Development Charge (\$/ERU)				
Plant Component	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Treatment	\$0	\$115	\$1,415	\$1,530
Collection	338	379	2,502	3,219
General Plant	0	15	31	46
Debt Service Credit	(0)	(0)	(0)	(0)
Net Allowable Charge	\$338	\$509	\$3,948	\$4,795
Plus State B&O Tax (1.8%)	6	9	71	86
Total SDC	\$344	\$518	\$4,019	\$4,881
Net Allowable SDC Rounded	\$340	\$520	\$4,020	\$4,880

Table 6-4 shows the sewer system development charge segregated by coordination/opportunity CIP, future CIP, and existing assets. The City's current fee is \$4,520 which is only \$500 higher than the existing asset SDC.

The net allowable fee for one ERU is \$4,881. For ease in administration and in customer understanding it is recommended that the fee be rounded to \$4,880 for implementation. This compares to the City's current system development charge of \$4,520 for one ERU, or an increase of \$360/ERU. A detail of the net allowable system development charge for the City is shown in Exhibit 6 of Technical Appendix B.

Table 6-5 presents the system development charges by ERU. These charges are determined by multiplying the system development charge for one ERU by number of ERUs by type of use or class of service.

Table 6-5
Net Allowable Sewer System Development Charge

System Development Charge per Equivalent Residential Unit (ERU)		
Type of Use	Number of ERUs ⁽¹⁾	System Development Charge
Single-Family Dwelling	1	\$4,880
Duplex/Apartment, 1st Unit	1	4,880
Duplex/Apartment - each additional unit	0.75	3,660
Mobile Home Subd., pad	1	4,880
Recreational Veh. Park, each space	0.63	3,074
Motel/Hotel, each unit	0.63	3,074
Hospital, Rest Home, each 6 beds	1	4,880
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	4,880
Each Additional Fixture Unit Weight	0.067	327

A detail of the net allowable system development charge for the City is shown in Exhibit 6 of Technical Appendix B.

6.6 Key Assumptions

In developing the system development charges for the City's sewer system, a number of key assumptions were utilized. These are as follows:

- The City's asset records were used to determine the existing plant assets.
- The City provided the capital improvement plan (CIP) for future improvements, and adjusted projects based on current information.
- The CIP costs were in 2003 dollars and escalated to 2010 dollars.
- The City determined the portion of future improvements that were growth-related.
- The interest rate used for calculating interest on existing investments was 5.0 percent.
- Ten year's worth of interest was included in the cost of existing plant, as appropriate.

6.7 Implementation of the System Development Charges

The methodology used to calculate the system development charge takes into account the cost of money, interest charges, and inflation. Therefore, HDR recommends that the City adjust the system development charges each year by an escalation factor to reflect the cost of interest and inflation. The most frequently used source to escalate system development charges is the *Engineering News-Record (ENR) Construction Cost Index (CCI)*, which tracks changes in construction costs for municipal utility projects. This method of escalating the City's system development charge should be used for no more than a 4 to 5 year period. After this time period, HDR recommends that the City update the charges based on the actual cost of infrastructure and any new planned facilities that would be contained in an updated Master Plan, Capital Improvement Plan, or Facilities Plan.

6.8 Consultants Recommendations

Based on our review and analysis of the City's sewer system, HDR recommends the following:

- The City should revise and update its sewer system development charge for new connections to the sewer system that are no greater than the net allowable system development charges as set forth in this report.
- The adopted sewer SDCs should be updated annually by the ENR-CCI for Seattle, for no more than five years before a complete update of the fee is undertaken. This practice can keep the fee current with construction pricing practices.
- The City should update the actual calculations for the system development charges based on the methodology approved by the resolution or ordinance setting forth the methodology for system development charges at such time when a new capital improvement plan, public facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the City, or every five years.

6.9 Summary

The sewer system development charges developed and presented in this section of the report are based on the planning and engineering design criteria of the City's sewer system, the value of the existing assets, future capital improvements, and "generally accepted" ratemaking principles. Adoption of the proposed system development charges will provide multiple benefits to the City and will create equitable and cost-based charges for new customers connecting to the City's sewer system.

This page intentionally left blank.



Section 7

Determination of Storm & Surface Water SDC

7.1 Introduction

This section of the report presents the key assumptions and details used in calculating the City's storm & surface water system development charge. The calculation of the City's storm & surface water system development charge is based upon City-specific accounting and planning information. The calculation of the storm & surface water system development charge presented in this section are based on the City's fixed asset records, future capital improvements as identified in the City's capital improvement plan, and planning criteria from the master plan entitled, *City of Puyallup Storm Drainage Basin Modeling*, dated July 1996.

To the extent that the cost and timing of future capital improvements change, then the system development charges presented in this section of the report should be updated to reflect the changes.

7.2 Overview of the City's Storm & Surface Water System

The City's capital improvement plan calls for a number of improvements to the storm water drainage system to service new development. The city limits include five major drainage basins, or portions thereof. These basins each have major creeks or rivers, and minor tributaries. The constructed portions of the city's drainage system consist largely of pipelines ranging from 8-inches to 30 inches, catch basins, ditches, culverts, pump stations, a lake and outfalls. The City is in the process of updating the Stormwater Master Plan, which will be completed sometime in the next year. This will have more complete and accurate data, and includes low-impact development alternatives and green solutions to some projected surface water management needs.

7.3 Present Storm & Surface Water System Development Charge

The City currently charges \$1,760 per equivalent service unit (ESU) for a storm & surface water system development charge, as presented in Table 7-1. An ESU is defined as 2,800 square feet of impervious area.

Table 7-1
Present Storm & Surface Water System Development Charge

Type of Use	Number of ESUs	System Development Charge
Single-Family Dwelling	1	\$1,760

[1] One ESU equals 2,800 square feet of impervious area.

The following sections discuss the development of the storm & surface water system development charge for the City.

7.4 Calculation of the City’s Storm & Surface Water SDC

As discussed in Section 2, the process of calculating system development charges is based upon a four-step process. In summary form, these steps are as follows:

- Determination of system planning criteria
- Determination of equivalent service unit (ESUs)
- Calculation of the system development charge for system component costs
- Determination of any system development charge credits

Each of these steps is discussed in more detail below.

7.4.1 System Planning Criteria

System planning criteria are used to establish the capacity needs of an equivalent service unit (ESU). With information in the City’s Master Plan it was determined that 2,800 square feet of impervious area equates to one ESU. This determination is also supported by industry averages and ranges for ESUs.

7.4.2 Residential Units

The planning horizon of this analysis was 2010 to 2028. As a part of this study, a projection of the number of new, additional ESUs per year must be determined, along with the total number of Equivalent Service Units (ESUs) at 2028. The City provided total impervious area for 2009. The City’s equivalent service unit impervious area is 2,800 square feet. Total impervious area was divided by the ESU equivalent of 2,800 square feet. This resulted in 34,106 ESUs. Growth was estimated at 1 percent per year. These factors were the primary means for calculating the ESUs for the period of 2010 to 2028.

A summary of the ESUs for 2010 and 2028 are presented below in Table 7-1. Details of the determination of ESUs are provided in Exhibit 1 of Technical Appendix C.

Table 7-1 Storm & Surface Water System Equivalent Service Units	
Description	Calculated ESUs
Equivalent Service Units – 2010	34,106 ESUs
Equivalent Service Units – 2028	40,796 ESUs

Given the development of the total storm & surface water ESUs for each year of the planning period, the focus can shift to the calculation of the system development charge for each plant component. This aspect of the analysis is discussed below.

7.4.3 Calculation of the Storm & Surface Water SDC

The next step of the analysis is to review each major functional component of plant in service and determine the system development charge for that component. In calculating the system development charge for the City, both existing plant assets, along with planned future

improvements were included within the calculation. For the storm water system, all assets were included in a single group called collection.

The storm & surface water system development charge, like discussed above for water and sewer, was segregated by coordination/opportunity projects, future capital improvement projects and existing assets. Coordination/opportunity projects are those projects that are required to be completed along with other system utility projects such as street, water or sewer projects. These coordination/opportunity projects were segregated within this study to highlight the required completion of these projects to coordinating with other utility projects.

To determine the storm water system development charge, an examination of the City's fixed assets was undertaken. These assets were subsequently increased from their original cost to include interest up to a maximum term of ten years. This asset value was then reduced by the percent that was contributed by developers or grants. The next phase of the analysis reviewed the future capital improvements that were identified by the City as being eligible for system development charges. These were adjusted upward from 2007 costs to 2010. An item-by-item review was undertaken for future capital improvements to determine the percentage that would serve new development.

COLLECTION –The value of the existing collection is \$33.5 million. The original value was adjusted for a maximum of ten years interest, where applicable, to a total of \$50.3 million. The total eligible existing plant was divided by the number of ERUs in 2028, resulting in a system development charge for existing collection plant of \$1,233 per ERU.

Future collection capital improvements were reviewed to determine the projects or percentage of projects that were growth related. These allocations were based on estimates by City staff and engineers. While total future improvements are \$15.6 million, the growth-related portion of future collection was determined to be \$11.76 million. This total was then divided by the number of ERUs added from 2010 to 2028, resulting in a system development charge for future collection plant of \$1,671 per ERU. Taken together, the existing and future collection system development charges result in a total component fee of \$2,904 per ERU. Details of the calculation of the collection plant are provided in Exhibit 2 of Technical Appendix C.

7.4.4 Debt Service Credits

The final step in calculating the storm water system development charge was to determine a credit for debt service. The storm & surface water utility has three current debt service obligations. The last one ends in 2023. The new debt service obligations are based 5% interest for 20 years.

Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through system development charges. By determining a debt credit, customers pay for debt financed infrastructure through their monthly utility rates and those costs are removed from the SDC calculation. Total debt is compared with projected annual system development charge revenue for the full debt issue schedule. Whenever debt payments exceed projected SDC revenue, a credit per ESU is determined. Debt payments did not exceed projected SDC revenue therefore there was no debt service credit. Details of the calculation are provided in Exhibit 3 in Technical Appendix C.

7.5 Net Allowable Storm & Surface Water System Development Charges

Based on the sum of the component costs calculated above, the net allowable storm & surface water system development charge can be determined. “Net” refers to the “gross” system development charge, net of any debt service credits. “Allowable” refers to the concept that the calculated system development charge shown in Table 7-2 is the City’s cost-based system development charge. The City, as a matter of policy, may charge any amount up to the allowable system development charge, but not over that amount. Charging an amount greater than the allowable system development charge would not meet the nexus test of a cost-based system development charge related to the benefit derived by the customer. A summary of the calculated net allowable system development charge for the City is shown below in Table 7-2.

Table 7-2
Calculated Net Allowable Storm & Surface Water System Development Charge
(\$/ESU)

Plant Component	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Collection	\$684	\$970	\$1,234	\$2,887
Debt Service Credit	(0)	(0)	(0)	(0)
Net Allowable Charge	\$684	\$970	\$1,234	\$2,887
Plus State B&O Tax (1.8%)	12	17	22	52
Total SDC	\$696	\$987	\$1,256	\$2,939
Net Allowable SDC Rounded	\$700	\$990	\$1,260	\$2,950

For ease of administration and customer understanding, the recommended charge for a single equivalent service unit is rounded to \$2,950. A detail of the net allowable system development charge for the City is shown in the Technical Appendix C.

Table 7-1
Net Allowable Storm & Surface Water System Development Charge

Type of Use	Number of ESUs	System Development Charge
Single-Family Dwelling	1	\$2,950

An ESU is defined as 2,800 square feet of impervious area. Details of the analysis are provided in the Technical Appendix C.

7.6 Key Assumptions

In developing the system development charges for the City’s storm & surface water system, a number of key assumptions were utilized. These are as follows:

- The City’s asset records were used to determine the existing plant assets.

- An equivalent service unit (ESU) is equivalent to 2,800 square feet of impervious area.
- The City provided the capital improvement plan (CIP) for future improvements, and adjusted projects based on current information.
- The base year for the CIP costs was calculated from 2007 to 2010.
- The City determined the portion of future improvements that were growth-related.
- The interest rate used for calculating interest on existing investments was 5.0 percent.
- Ten year's worth of interest was included in the cost of existing plant, as appropriate.

7.7 Implementation of the System Development Charge

The methodology used to calculate the system development charges takes into account the cost of money or interest charges and inflation. Therefore, HDR would recommend that the City adjust the system development charges each year by an escalation factor to reflect the cost of interest and inflation. The most frequently used source to escalate system development charges is the *Engineering News-Record (ENR) Construction Cost Index (CCI)*, which tracks changes in construction costs for municipal utility projects. The City should update the charges based on the actual cost of infrastructure and any new planned facilities that would be contained in an updated master plan, capital improvement plan or rate study.

7.8 Consultants Recommendations

Based on our review and analysis of the City's storm & surface water system, HDR recommends the following:

- The City should implement system development charges for new hookups to the storm & surface water system that are no greater than the system development charges as set forth in this report.
- The adopted storm and surface water SDCs should be updated annually by the ENR-CCI for Seattle, for no more than five years before a complete update of the fee is undertaken. This practice can keep the fee current with construction pricing practices.
- The City should update the actual calculations for the system development charges based on the methodology approved by the resolution or ordinance setting forth the methodology for system development charges at such time when a new capital improvement plan, public facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the City, or every five years.

7.9 Summary

The storm & surface water system development charges developed and presented in this section of the report are based on the planning and engineering design criteria of the City's storm & surface water system, the value of the existing assets, future capital improvements, and "generally accepted" ratemaking principles. Adoption of the proposed system development charges will provide multiple benefits to the City and will create equitable and cost-based charges for new customers connecting to the City's storm & surface water system.

This page intentionally left blank.



Technical Appendix



Appendix A – Water Utility SDC

City of Puyallup
 Exhibit 1
 Water System Development Charge - 2010
 Development of ERUs

ERU = Equivalent Residential Unit

ERU Average Day Demand	219 Gallons/Day/ERU [1]
ERU Peak Day Demand	460 Gallons/Day/ERU [2]
ERU Storage Capacity	632 Gallons/ERU [3]

Year [4]	Peak Day (mgd) [5]	Total ERUs [1]	Additional ERUs	Total Additional ERUs	Rate of Growth
2009	9.28	20,178			
2010	9.49	20,630	452	452	2.24%
2011	9.70	21,090	460	912	2.23%
2012	9.91	21,557	467	1,379	2.22%
2013	10.13	22,032	475	1,854	2.21%
2014	10.35	22,516	484	2,338	2.19%
2015	10.58	23,007	491	2,829	2.18%
2016	10.81	23,507	500	3,329	2.17%
2017	11.04	24,014	507	3,836	2.16%
2018	11.28	24,530	516	4,352	2.15%
2019	11.52	25,055	525	4,877	2.14%
2020	11.77	25,587	532	5,409	2.13%
2021	12.02	26,129	542	5,951	2.12%
2022	12.27	26,678	549	6,500	2.10%
2023	12.53	27,236	558	7,058	2.09%

Notes:

- [1] From 2009 City Water System Comprehensive Plan; page 2-5 on Table 2-6.and Table 2-8.
- [2] 2.1 peaking factor, from 2009 Water System Comprehensive Plan; page 2-9.
- [3] 2009 Water System Comp. Plan storage of 200 gallons per ERU; page 3-19. This based on total available storage (Exhibit 3) divided by total ERU's in 2023.
- [4] 2009 Water System Comp. Plan is based on 2002 data & 2023 was the 20 year projection period. on 2009 City Water System Comprehensive Plan, page 2-11.
- [5] From City current peak data and 5% conservation over next ten years based on 2009 City Water System Comprehensive Plan, page 2-11.

Exhibit 2

Water System Development Charge - 2010

Determination of Source of Supply and Treatment Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Supply and Treatment Reservoir					
1908	Land - Salmon Springs	\$5,000	100%	\$5,000	\$8,144
1969	Land - 1300 - 23Rd Ave Se	1,831	100%	1,831	2,983
1984	Land - 39Th Ave Se	1,981	100%	1,981	3,228
1989	Land - Stemp Property	231,804	100%	231,804	377,584
1990	Land - Pratt Property	138,556	100%	138,556	225,693
1997	Land - Kinard Property	68,712	100%	68,712	111,925
2001	Land - 1108-1110 39Th Ave Se	160,456	100%	160,456	248,920
2001	Land - 910 25Th St	25,000	100%	25,000	38,783
1978	Buildings & Structures - Chlorination Building	13,818	100%	13,818	22,508
1970	Other Improvements - Fence At 23Rd Ave. S.E.	5,566	100%	5,566	9,066
1981	Other Improvements - Fence At Maplewood Springs	5,370	100%	5,370	8,747
2002	Other Improvements - Water Rights Study	119,400	0%	0	0
1962	Wells - Well No. 13	64,200	100%	64,200	104,575
1991	Wells - Well No. 27	301,300	100%	301,300	490,786
1991	Wells - Well No. 33	96,800	100%	96,800	157,677
1991	Wells - Well No. 43	117,300	100%	117,300	191,069
1993	Wells - Well No. 17	511,200	100%	511,200	832,691
1996	Wells - Salmon Springs	435,500	100%	435,500	709,384
1998	Wells - Maplewood Springs	354,600	100%	354,600	577,606
1972	Booster Stations - 15Th Ave. Se	86,900	100%	86,900	141,551
1972	Booster Stations - 19Th Ave. Se	86,900	100%	86,900	141,551
1972	Booster Stations - 23rd Ave. Se	86,900	100%	86,900	141,551
1972	Booster Stations - Maplewood Springs (Booster)	86,900	100%	86,900	141,551
1978	Booster Stations - Maplewood Springs (Pumping)	521,600	100%	521,600	849,631
1982	Booster Stations - 39Th Ave. Se	392,600	100%	392,600	639,504
1996	Booster Stations - 23Th Ave. Sw	53,400	100%	53,400	86,983
1997	Booster Stations - Wildwood Park	604,900	100%	604,900	985,318
1997	Heavy Equipment - Chlorinator - Maplewood	6,279	100%	6,279	10,228
1997	Heavy Equipment - Chlorinator - Maplewood	6,279	100%	6,279	10,228
1997	Heavy Equipment - Chlorinator	6,279	100%	6,279	10,228
1998	Heavy Equipment - Tablet Chlorinator	5,221	100%	5,221	8,504
1998	Heavy Equipment - Water Pump	28,482	100%	28,482	46,395
1999	Heavy Equipment - Pump And Motor - Inground	34,146	100%	34,146	55,620
2000	Heavy Equipment - Chlorinator -Salmon Springs #1	9,436	100%	9,436	15,370
2000	Heavy Equipment - Pump For Well #43	14,697	100%	14,697	23,940
2001	Heavy Equipment - Vault - Maplewood Springs	13,203	100%	13,203	20,482
2003	Heavy Equipment - Vault - 14Th S	5,222	100%	5,222	7,348
2008	Heavy Equipment - Submersible Pump & Motor	16,900	100%	16,900	18,632
Total Existing Storage		\$4,724,639		\$4,605,239	\$7,475,986

City of Puyallup
 Exhibit 2
 Water System Development Charge - 2010
 Determination of Source of Supply and Treatment Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Future Improvements [1]			[2]		
	Develop Salmon Springs	\$360,000	100%	\$360,000	\$360,000
	Salmon Springs Main Replacement	251,000	35%	87,797	87,797
	Recreation Center Well No. 2, Treatment included	1,102,000	100%	1,102,000	1,102,000
	Maplewood Springs Pump Station Improvements	100,000	50%	50,000	50,000
Total Future Improvements		\$1,813,000		\$1,599,797	\$1,599,797
Total Existing and Future Supply and Treatment Plant		\$6,537,639		\$6,205,036	\$9,075,782
Capacity (mgd) [3]					9.55
Cost (\$/Gal)					\$0.95
Peak Gals per ERU [4]					460
Total Source of Supply and Treatment System Development Charge per ERU					\$437

Notes:

[1] Future CIP costs are estimated in 2010 dollars.

[2] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

[3] City 2009 Water System Comprehensive Plan; Table 1-2, page 1-9.

Station	MGD
Salmon Springs	1.70
Maplewood Springs	3.31
Well No 13	1.08
Well No 17	1.44
Well No 27	1.44
Well No 33	0.22
Well No 43	0.36
Tacoma Intertie	2.00
Totals	11.55

Not included in capacity above

[4] See Exhibit 1.

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Storage					
Reservoir					
2002	Land - N. Puyallup Reservoir	\$78,415	100%	\$78,415	\$115,854
1994	Other Improvements - 23Rd Ave Sw Tank Painting Proj	446,050	100%	446,050	726,568
1995	Other Improvements - Water Reservoir - Painting	162,442	100%	162,442	264,602
1996	Other Improvements - Water Reservoir Painting	224,213	100%	224,213	365,219
1996	Other Improvements - Wildwood Reservoir Fence	8,859	100%	8,859	14,430
2000	Other Improvements - Painting 39Th Ave Reservoir	45,333	100%	45,333	73,842
1947	Reservoirs - Maplewood Springs	76,700	100%	76,700	124,936
1955	Reservoirs - 15Th Ave. Se No. 1	122,600	100%	122,600	199,702
1955	Reservoirs - Wildwood Park No. 2	56,800	100%	56,800	92,521
1964	Reservoirs - 23rd Ave. Se	183,000	100%	183,000	298,088
1971	Reservoirs - 23Rd Ave. Sw	330,200	100%	330,200	537,861
1978	Reservoirs - 39Th Ave. Se No. 1	697,900	100%	697,900	1,136,806
1978	Reservoirs - Wildwood Park No. 1	567,700	100%	567,700	924,723
1982	Reservoirs - 39Th Ave. Se No. 2	990,400	100%	990,400	1,613,257
1996	Reservoirs - 15Th Ave. Se No. 2	1,237,200	100%	1,237,200	2,015,268
Total Existing Storage		\$5,227,812		\$5,227,812	\$8,503,679
Future Improvements		[3]	[4]		
<u>Opportunity Projects</u>					
	N Puyallup 2MG Reservoir - Tank	\$1,200,000	100%	\$1,200,000	\$1,200,000
	23rd Ave SW 12" WM 13th Reservoir	100,000	50%	50,000	50,000
Total Future Improvements		\$1,300,000		\$1,250,000	\$1,250,000
Total Existing and Future Storage Plant		\$6,527,812		\$6,477,812	\$9,753,679
Capacity (million gallons) [1]					17.22
Cost per Gallon					\$0.57
Storage Requirement per ERU [2]					632
Total Storage Plant System Development Charge per ERU					\$358

Notes:

[1] City 2009 Water System Comprehensive Plan; Table 1-4, page 1-16.

Structure Type	Capacity (MG)	Dead Storage (MG)	Available Storage (MG)
Maplewood Springs	2.0		2.0
15th Ave SE No.1	2.0		2.0
15th Ave SE No.2	2.5		2.5
Wildwood Park No. 1	0.5	(0.09)	0.4
Wildwood Park No. 2	2.0	(0.08)	1.9
23rd Ave SW	2.5	(1.28)	1.2
23rd Ave SE	2.0		2.0
39th Ave SE No.1	2.9	(0.64)	2.3
39th Ave SE No.2 (Zone 5)	2.9		2.9
	19.3	(2.09)	17.2

[2] See Exhibit 1 for storage requirement per ERU.

[3] Future CIP costs are estimated in 2010 dollars.

[4] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Distribution Plant					
1990	105th Ave	\$728,800	100%	\$728,800	\$1,187,138
1992	107th Ave	31,400	100%	31,400	51,147
1992	109th Ave	39,900	100%	39,900	64,993
1975	10th Ave	24,500	100%	24,500	39,908
1998	10th Ave	12,300	100%	12,300	20,035
1971	10th Ave	74,100	100%	74,100	120,701
1979	10th Ave	62,600	100%	62,600	101,969
2002	10th Ave	69,100	100%	69,100	102,092
1985	10th St	20,500	100%	20,500	33,392
1972	10th St	18,000	100%	18,000	29,320
1972	10th St	33,600	100%	33,600	54,731
1969	10th St Ct	6,700	100%	6,700	10,914
2005	10th St.	14,705	100%	14,705	18,768
1994	114th Ave Ct	55,600	100%	55,600	90,567
1994	119th Ave	317,800	100%	317,800	517,663
2006	11th at River Road	53,856	100%	53,856	65,462
1979	11th Ave	9,600	100%	9,600	15,637
1979	11th Ave	48,200	100%	48,200	78,513
1991	11th St	32,300	100%	32,300	52,613
1991	11th St	137,000	100%	137,000	223,159
1968	11th St	7,100	100%	7,100	11,565
1969	11th St	8,600	100%	8,600	14,008
1988	11th St Pl	27,100	100%	27,100	44,143
1988	11th St Pl	57,700	100%	57,700	93,987
1981	122nd St	34,300	100%	34,300	55,871
2002	127th Ave	40,800	100%	40,800	60,280
1955	12th Ave	900	100%	900	1,466
1990	12th Ave	49,500	100%	49,500	80,630
1996	12th Ave	72,300	100%	72,300	117,769
2001	12th Ave	66,500	100%	66,500	103,163
2001	12th Ave	94,300	100%	94,300	146,290
1971	12th Ave	104,100	100%	104,100	169,568
1971	12th Ave	51,800	100%	51,800	84,377
1972	12th Ave	25,800	100%	25,800	42,025
1980	12th Ave	5,300	100%	5,300	8,633
1999	12th St	49,700	100%	49,700	80,956
1927	12th St	3,300	100%	3,300	5,375
1978	12th St	34,900	100%	34,900	56,848
1992	130th Ave	88,700	100%	88,700	144,483
1994	130th Ave	66,500	100%	66,500	108,321
2001	13th Ave	43,500	100%	43,500	67,483
1971	13th Ave	28,900	100%	28,900	47,075
1996	13th Ave	47,600	100%	47,600	77,535
1996	13th Ave	75,600	100%	75,600	123,144
1993	13th Ave Esmt	51,400	100%	51,400	83,725
2004	13th Ave.	237,500	100%	237,500	318,273
1955	13th St	12,200	100%	12,200	19,873
1992	13th St	22,000	100%	22,000	35,836
1998	13th St	92,400	100%	92,400	150,510
1937	13th St	4,600	100%	4,600	7,493

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1969	13th St	10,500	100%	10,500	17,103
1997	13th St	36,200	100%	36,200	58,966
2002	13th St	438,600	100%	438,600	648,012
1983	14th Ave	31,500	100%	31,500	51,310
1955	14th Ave	9,400	100%	9,400	15,312
1955	14th Ave	12,200	100%	12,200	19,873
1972	14th Easement	7,200	100%	7,200	11,728
1955	14th St	57,000	100%	57,000	92,847
1990	14th St	47,900	100%	47,900	78,024
1993	14th St	111,300	100%	111,300	181,296
1947	14th St	6,200	100%	6,200	10,099
1955	14th St	10,800	100%	10,800	17,592
1955	14th St	21,800	100%	21,800	35,510
1978	15th Ave	43,300	100%	43,300	70,531
1990	15th Ave	61,800	100%	61,800	100,666
1995	15th Ave	129,500	100%	129,500	210,942
1995	15th Ave	115,400	100%	115,400	187,974
1955	15th Ave	24,600	100%	24,600	40,071
1955	15th Ave	22,600	100%	22,600	36,813
1971	15th Ave	69,400	100%	69,400	113,045
1971	15th Ave	83,800	100%	83,800	136,501
1978	15th Ave	16,900	100%	16,900	27,528
1978	15th Ave	152,000	100%	152,000	247,592
1978	15th Ave	126,100	100%	126,100	205,404
1996	15th Ave Res.	68,500	100%	68,500	111,579
1996	15th Ave Res.	26,700	100%	26,700	43,491
2005	15th Ave.	59,300	100%	59,300	75,684
1979	15th Pl	14,500	100%	14,500	23,619
1971	15th St	57,100	100%	57,100	93,010
1971	15th St	81,000	100%	81,000	131,940
1973	15th St	34,300	100%	34,300	55,871
1975	15th St	25,800	100%	25,800	42,025
1990	15th St	158,200	100%	158,200	257,691
2002	15th St	103,000	100%	103,000	152,178
1972	15th St	14,200	100%	14,200	23,130
1980	15th St	46,000	100%	46,000	74,929
1990	15th St	66,200	100%	66,200	107,833
2000	15th St	589,500	100%	589,500	960,233
1982	15th St Esmt	108,400	100%	108,400	176,572
1990	16th Ave	94,600	100%	94,600	154,093
2001	16th Ave	95,900	100%	95,900	148,772
2002	16th St	103,000	100%	103,000	152,178
1975	16th St	25,000	100%	25,000	40,722
1992	16th St	153,400	100%	153,400	249,872
1996	16th St Pl	43,600	100%	43,600	71,020
1990	17th Ave	45,800	100%	45,800	74,603
1999	17th Ave	60,600	100%	60,600	98,711
1955	17th Ave	12,200	100%	12,200	19,873
1996	17th Ave Ct	17,600	100%	17,600	28,669
1967	17th St	26,500	100%	26,500	43,166
2002	17th St	103,000	100%	103,000	152,178
1974	17th St	11,700	100%	11,700	19,058
1979	17th St	24,100	100%	24,100	39,256
1988	17th St Pl	117,800	100%	117,800	191,884
1984	18th St	58,800	100%	58,800	95,779
1989	18th St	189,000	100%	189,000	307,861

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1991	18th St	193,200	100%	193,200	314,702
1992	18th St	104,400	100%	104,400	170,057
1995	18th St	29,700	100%	29,700	48,378
1973	19th Ave	27,200	100%	27,200	44,306
1995	19th Ave	33,400	100%	33,400	54,405
1995	19th Ave	67,700	100%	67,700	110,276
1996	19th Ave	175,400	100%	175,400	285,708
1998	19th Ave	311,500	100%	311,500	507,401
1955	19th Ave	5,700	100%	5,700	9,285
1967	19th Ave	25,600	100%	25,600	41,700
1971	19th Ave	35,800	100%	35,800	58,314
1967	19th Easement	9,600	100%	9,600	15,637
1991	19th Pl	36,000	100%	36,000	58,640
1995	19th St	49,200	100%	49,200	80,142
2008	19th St. (Leppell Short Plat)	32,357	100%	32,357	35,674
1971	2.5 MG Res	8,700	100%	8,700	14,171
1971	2.5 MG Res	69,400	100%	69,400	113,045
1995	20th Ave	23,500	100%	23,500	38,279
1979	20th Ave	124,300	100%	124,300	202,472
1990	20th Ave Ct	8,100	100%	8,100	13,194
1995	20th Ave Ct	60,400	100%	60,400	98,385
1991	20th St	147,300	100%	147,300	239,936
1995	20th St	34,300	100%	34,300	55,871
1995	20th St	80,600	100%	80,600	131,289
1983	20th St	67,700	100%	67,700	110,276
1983	20th St	77,100	100%	77,100	125,588
2002	20th St	16,800	100%	16,800	24,821
1995	21st Ave	41,800	100%	41,800	68,088
1995	21st Ave	46,800	100%	46,800	76,232
1955	21st Ave	2,800	100%	2,800	4,561
1972	21st Ave	14,400	100%	14,400	23,456
1999	21st Ave	19,600	100%	19,600	31,926
1978	21st St	51,100	100%	51,100	83,237
1996	21st St	32,700	100%	32,700	53,265
1923	21st St	4,500	100%	4,500	7,330
1979	21st St	43,300	100%	43,300	70,531
1988	22nd Ave	20,000	100%	20,000	32,578
1990	22nd Ave	16,600	100%	16,600	27,040
1995	22nd Ave	117,800	100%	117,800	191,884
1984	22nd St	98,100	100%	98,100	159,795
1995	22nd St	73,100	100%	73,100	119,072
1996	22nd St	32,700	100%	32,700	53,265
1979	22nd St	16,900	100%	16,900	27,528
1969	23rd Ave	41,200	100%	41,200	67,110
1980	23rd Ave	80,000	100%	80,000	130,312
1988	23rd Ave	119,900	100%	119,900	195,304
1998	23rd Ave	244,700	100%	244,700	398,591
1999	23rd Ave	260,000	100%	260,000	423,513
1969	23rd Ave	20,100	100%	20,100	32,741
1972	23rd Ave	43,200	100%	43,200	70,368
1972	23rd Ave	61,900	100%	61,900	100,829
1979	23rd Ave	49,700	100%	49,700	80,956
1993	23rd Ave	126,400	100%	126,400	205,892
1991	23rd Ave Ct	53,900	100%	53,900	87,797
1980	23rd Ave Ct	27,100	100%	27,100	44,143
2006	23rd Ave.	186,164	100%	186,164	226,284

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1997	23rd St	254,800	100%	254,800	415,042
1923	23rd St	3,200	100%	3,200	5,212
1932	23rd St	2,700	100%	2,700	4,398
1999	23rd St	171,400	100%	171,400	279,193
1999	23rd St Pl	84,900	100%	84,900	138,293
1991	24th Ave	15,900	100%	15,900	25,899
1991	24th Ave	27,300	100%	27,300	44,469
1972	24th Ave	6,000	100%	6,000	9,773
1980	24th Ave Ct	15,800	100%	15,800	25,737
1990	24th St	21,200	100%	21,200	34,533
1969	24th St	3,500	100%	3,500	5,701
1969	24th St	5,200	100%	5,200	8,470
1990	24th St Pl	38,500	100%	38,500	62,712
1991	25th Ave	46,700	100%	46,700	76,069
1969	25th Ave	9,600	100%	9,600	15,637
1969	25th Ave	12,200	100%	12,200	19,873
1974	25th Ave	15,600	100%	15,600	25,411
1979	25th Ave Ct	16,900	100%	16,900	27,528
1969	25th St	1,700	100%	1,700	2,769
1990	25th St Pl	24,400	100%	24,400	39,745
1990	26th Ave	32,700	100%	32,700	53,265
1990	26th Ave	63,600	100%	63,600	103,598
2001	26th Pl	65,500	100%	65,500	101,612
1980	26th St	65,700	100%	65,700	107,018
1999	27th Ave	54,700	100%	54,700	89,101
1979	27th Ave	248,600	100%	248,600	404,943
1981	27th Ave Esmt	47,000	100%	47,000	76,558
1989	27th Pl	35,100	100%	35,100	57,174
1970	27th St	41,600	100%	41,600	67,762
1990	27th St	25,400	100%	25,400	41,374
1990	27th St	27,300	100%	27,300	44,469
1990	27th St Esmt	49,300	100%	49,300	80,305
1990	28th Ave	21,900	100%	21,900	35,673
1999	28th Ave	32,800	100%	32,800	53,428
1999	28th Ave	45,200	100%	45,200	73,626
1969	28th Ave	3,500	100%	3,500	5,701
1990	28th St	39,400	100%	39,400	64,178
1969	29th Ave	3,500	100%	3,500	5,701
1990	29th Ave	23,600	100%	23,600	38,442
1999	29th Ave	21,400	100%	21,400	34,858
1999	29th Ave	55,600	100%	55,600	90,567
1997	29th St	123,300	100%	123,300	200,843
1983	2nd Ave	115,300	100%	115,300	187,812
1989	2nd Ave	57,400	100%	57,400	93,499
1970	2nd Ave	28,500	100%	28,500	46,423
2001	2nd St	135,200	100%	135,200	209,740
2001	2nd St	142,700	100%	142,700	221,375
1955	2nd St	4,700	100%	4,700	7,656
1966	2nd St	12,300	100%	12,300	20,035
1970	2nd St	54,400	100%	54,400	88,612
1997	2nd St	47,100	100%	47,100	76,721
2000	2nd St	47,600	100%	47,600	77,535
1985	2nd St Easement	152,600	100%	152,600	248,569
1990	30th Ave	78,200	100%	78,200	127,380
1969	30th Ave	3,500	100%	3,500	5,701
1990	30th St	43,100	100%	43,100	70,205

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1980	30th St Ct	21,000	100%	21,000	34,207
1990	31st Ave	89,900	100%	89,900	146,438
1991	31st Ave	158,600	100%	158,600	258,343
1969	31st Ave	3,500	100%	3,500	5,701
1969	31st Ave	12,300	100%	12,300	20,035
1989	31st Ave Esmt	213,400	100%	213,400	347,606
1990	31st Pl	28,100	100%	28,100	45,772
1990	31st St	87,400	100%	87,400	142,365
1990	31st St Ct	24,200	100%	24,200	39,419
1990	32nd Ave	71,900	100%	71,900	117,118
1990	32nd St Pl	33,200	100%	33,200	54,079
1990	33rd Ave	96,900	100%	96,900	157,840
1979	33rd Ave	57,800	100%	57,800	94,150
1995	34th St	94,000	100%	94,000	153,116
1979	34th St	65,000	100%	65,000	105,878
1995	34th St Pl	32,100	100%	32,100	52,288
1995	35th St Pl	23,800	100%	23,800	38,768
1979	36th Ave	28,900	100%	28,900	47,075
1979	36th St	65,000	100%	65,000	105,878
1979	36th St	77,100	100%	77,100	125,588
1979	36th St	43,500	100%	43,500	70,857
1979	38th St	57,800	100%	57,800	94,150
1981	39th Ave	285,800	100%	285,800	465,538
1974	39th Ave	29,200	100%	29,200	47,564
1977	39th Ave	76,600	100%	76,600	124,773
1977	39th Ave	78,600	100%	78,600	128,031
1980	39th Ave	252,700	100%	252,700	411,622
1981	39th Ave	19,500	100%	19,500	31,763
1995	39th St	121,200	100%	121,200	197,422
1979	39th St	24,100	100%	24,100	39,256
2001	3rd Ave	37,800	100%	37,800	58,640
1980	3rd Ave Esmt	60,200	100%	60,200	98,059
1988	3rd St	44,900	100%	44,900	73,137
1998	3rd St	134,200	100%	134,200	218,598
2000	3rd St	130,400	100%	130,400	212,408
1979	41st St	62,600	100%	62,600	101,969
1979	41st St	65,000	100%	65,000	105,878
1979	43rd St	34,400	100%	34,400	56,034
1979	43rd St	131,700	100%	131,700	214,525
1987	4th Ave	25,600	100%	25,600	41,700
2000	4th Ave	102,800	100%	102,800	167,450
1966	4th Ave	20,000	100%	20,000	32,578
1981	4th St	39,800	100%	39,800	64,830
1993	4th St	81,600	100%	81,600	132,918
2000	4th St	125,900	100%	125,900	205,078
2001	4th St	36,700	100%	36,700	56,934
1965	4th St	19,100	100%	19,100	31,112
1982	4th St	55,700	100%	55,700	90,729
2000	4th St	124,300	100%	124,300	202,472
2004	5th/7th St.	23,856	100%	23,856	31,969
2002	54th St	5,100	100%	5,100	7,535
1925	5th Ave	4,400	100%	4,400	7,167
2000	5th Ave	22,700	100%	22,700	36,976
2001	5th Ave	99,500	100%	99,500	154,357
1920	5th Ave	10,000	100%	10,000	16,289
1942	5th Ave	9,800	100%	9,800	15,963

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1942	5th Ave SW	10,600	100%	10,600	17,266
1985	5th St	162,800	100%	162,800	265,184
1994	5th St	111,700	100%	111,700	181,948
1999	5th St	46,700	100%	46,700	76,069
1920	5th St	3,700	100%	3,700	6,027
1920	5th St	9,800	100%	9,800	15,963
1921	5th St	1,900	100%	1,900	3,095
1933	5th St	3,500	100%	3,500	5,701
1955	5th St	4,700	100%	4,700	7,656
1955	5th St	12,700	100%	12,700	20,687
1955	5th St	6,100	100%	6,100	9,936
1971	5th St	29,600	100%	29,600	48,215
1975	5th St	26,300	100%	26,300	42,840
1986	5th St	13,100	100%	13,100	21,339
2000	5th St	42,200	100%	42,200	68,739
2007	5th St.	60,134	100%	60,134	69,612
2007	5th St. Townhomes Developer Extension	23,010	0%	0	0
1993	61st St Ct Loop	152,500	100%	152,500	248,406
2000	6th Ave	42,600	100%	42,600	69,391
2000	6th Ave	119,800	100%	119,800	195,142
2001	6th Ave	99,500	100%	99,500	154,357
1965	6th St	7,200	100%	7,200	11,728
1989	6th St	24,100	100%	24,100	39,256
1997	6th St	54,400	100%	54,400	88,612
1999	6th St	61,600	100%	61,600	100,340
1968	7th Ave	34,900	100%	34,900	56,848
2000	7th Ave	74,100	100%	74,100	120,701
2000	7th Ave	318,400	100%	318,400	518,640
2002	7th Ave	43,400	100%	43,400	64,122
1923	7th Ave	15,400	100%	15,400	25,085
1970	7th Ave	40,200	100%	40,200	65,482
1972	7th Ave	38,500	100%	38,500	62,712
1972	7th Ave	86,600	100%	86,600	141,062
2000	7th Ave	89,800	100%	89,800	146,275
2000	7th Ave	159,200	100%	159,200	259,320
1982	7th St	22,600	100%	22,600	36,813
1983	7th St	47,300	100%	47,300	77,047
1993	7th St	227,600	100%	227,600	370,736
1993	7th St	162,600	100%	162,600	264,858
1998	7th St	115,500	100%	115,500	188,137
1999	7th St	95,300	100%	95,300	155,234
1955	7th St	12,200	100%	12,200	19,873
1972	7th St	25,800	100%	25,800	42,025
1981	7th St	97,800	100%	97,800	159,306
2000	7th St Pl	57,500	100%	57,500	93,661
2004	7th St.	297,812	100%	297,812	399,097
1992	8th Ave	50,700	100%	50,700	82,585
2000	8th Ave	39,600	100%	39,600	64,504
1927	8th Ave	1,500	100%	1,500	2,443
1998	8th Ave	49,000	100%	49,000	79,816
2000	8th Ave	19,500	100%	19,500	31,763
1976	8th St	8,800	100%	8,800	14,334
1999	8th St	20,800	100%	20,800	33,881
1999	8th St	239,300	100%	239,300	389,794
2000	8th St	42,400	100%	42,400	69,065
2000	8th St	63,200	100%	63,200	102,946

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1955	9th Ave	16,300	100%	16,300	26,551
1993	9th Ave	634,500	100%	634,500	1,033,534
2000	9th Ave	38,600	100%	38,600	62,875
1971	9th Ave	8,700	100%	8,700	14,171
1978	9th Ave	23,400	100%	23,400	38,116
1978	9th Ave	22,500	100%	22,500	36,650
1979	9th Ave	24,100	100%	24,100	39,256
1982	9th Ave	127,800	100%	127,800	208,173
1995	9th Ave	245,100	100%	245,100	399,242
2001	9th Ave	102,700	100%	102,700	159,321
2006	9th Ave.	55,444	100%	55,444	67,393
1955	9th St	23,300	100%	23,300	37,953
1922	9th St	4,000	100%	4,000	6,516
1925	9th St	900	100%	900	1,466
1950	9th St	6,100	100%	6,100	9,936
1955	9th St	13,400	100%	13,400	21,827
1955	9th St	1,900	100%	1,900	3,095
1955	9th St	6,600	100%	6,600	10,751
1955	9th St	10,900	100%	10,900	17,755
1982	9th St	33,800	100%	33,800	55,057
1982	9th St	68,200	100%	68,200	111,091
1982	9th St	121,400	100%	121,400	197,748
1984	9th St	48,700	100%	48,700	79,327
1984	9th St	30,900	100%	30,900	50,333
1984	9th St	125,900	100%	125,900	205,078
1999	9th St	56,100	100%	56,100	91,381
1981	9th St Esmt	321,000	100%	321,000	522,875
1995	Amber Blvd	226,300	100%	226,300	368,619
2007	Apple Physical Therapy Developer Extension	3,510	0%	0	0
2004	Ashley Meadows Developer Extension	71,208	0%	0	0
2006	Ashley Meadows Phase III Developer Extension	46,280	0%	0	0
2008	Beckstrom Developer Extension	1,625	0%	0	0
1994	Benston Dr	286,100	100%	286,100	466,027
2004	Bjerk Short Plat Developer Extension	31,820	0%	0	0
2008	Blueberry Circle Developer Extension	27,365	0%	0	0
2005	BPCI Developer Extension	43,870	0%	0	0
2006	BPCI Phase II Developer Extension	60,320	0%	0	0
1969	Briarwood Ct	2,600	100%	2,600	4,235
2005	Bridge St.	176,342	100%	176,342	225,062
1990	Brookmonte	205,400	100%	205,400	334,575
2005	Cancer Center Developer Extension	4,085	0%	0	0
1969	Cherokee Blvd	24,600	100%	24,600	40,071
1980	Cherokee Blvd	124,700	100%	124,700	203,123
1974	Clarks Creek Est.	104,000	100%	104,000	169,405
1995	Crystal Lane	278,700	100%	278,700	453,973
1995	Crystal Ridge	165,900	100%	165,900	270,234
1995	Crystal Ridge	234,500	100%	234,500	381,976
2007	Cypress Manor (Walrath) Developer Extension	31,785	0%	0	0
2007	De Valeria Short Plat Developer Extension	14,625	0%	0	0
2008	Diane's Faithful Lane Developer Extension	51,025	0%	0	0
2006	DSHS Developer Extension	2,730	0%	0	0
2005	E. Pioneer	346,835	100%	346,835	442,659
1985	Easement	152,300	100%	152,300	248,081
1989	Easement	102,400	100%	102,400	166,799
1991	Easement	121,400	100%	121,400	197,748
1989	Esmt Loop	49,800	100%	49,800	81,119
1989	Esmt Loop	71,900	100%	71,900	117,118
1989	Esmt Loop	377,000	100%	377,000	614,093
1989	Esmt Loop	135,800	100%	135,800	221,204
1990	Esmt Loop	188,700	100%	188,700	307,372
1994	Esmt Loop	108,400	100%	108,400	176,572

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1996	Esmt Loop	175,400	100%	175,400	285,708
1998	Esmt Loop	103,900	100%	103,900	169,242
1998	Esmt Loop	19,000	100%	19,000	30,949
2000	Esmt Loop	446,800	100%	446,800	727,790
2000	Esmt Loop	132,200	100%	132,200	215,340
2001	Esmt Loop	137,700	100%	137,700	213,618
1969	Forest Green Blvd	91,700	100%	91,700	149,370
1978	Fruitland	176,700	100%	176,700	287,826
1984	Fruitland	153,500	100%	153,500	250,035
1978	Fruitland Ave	8,400	100%	8,400	13,683
2007	Harbough (21st St. N.W. & W. Stewart) Developer Extension	2,275	0%	0	0
1967	Highland	3,700	100%	3,700	6,027
1967	Highland	11,000	100%	11,000	17,918
1923	Inter Ave	12,200	100%	12,200	19,873
1935	Inter Ave	12,100	100%	12,100	19,710
1935	Inter Ave	2,000	100%	2,000	3,258
2001	Inter Ave	70,300	100%	70,300	109,058
2007	Jerome Center Developer Extension	2,860	0%	0	0
2008	Kalles Jr. High School Developer Extension	113,035	0%	0	0
2004	Korum Nissan Developer Extension	39,848	0%	0	0
1991	Larkspur	141,200	100%	141,200	230,000
1996	Levee Rd	535,700	100%	535,700	872,599
2005	LOI Developer Extension	184,145	0%	0	0
1965	Main	40,200	100%	40,200	65,482
1988	Main	81,100	100%	81,100	132,103
1997	Main	62,700	100%	62,700	102,132
1997	Main	23,400	100%	23,400	38,116
1997	Main	46,700	100%	46,700	76,069
1997	Main	141,400	100%	141,400	230,326
1997	Main	262,300	100%	262,300	427,259
1998	Main	88,600	100%	88,600	144,320
1998	Main	117,000	100%	117,000	190,581
1998	Main	29,800	100%	29,800	48,541
2000	Main	103,700	100%	103,700	168,916
2001	Main	30,200	100%	30,200	46,850
2001	Main	121,600	100%	121,600	188,642
2001	Main	158,200	100%	158,200	245,420
2008	Manners/Schwartz/Shaaapveld Short Plat Developer Extension	520	0%	0	0
1981	Manorwood Dr	38,500	100%	38,500	62,712
2005	Maple Heights Developer Extension	32,594	0%	0	0
2001	Maplewood Spring	27,100	100%	27,100	42,041
1997	Meeker	71,100	100%	71,100	115,814
2005	Meeker Court Condos Developer Extension	27,692	0%	0	0
2006	Meeker Elementary Developer Extension	3,250	0%	0	0
2006	Meekers Landing Developer Extension	12,805	0%	0	0
1923	Meridian	2,000	100%	2,000	3,258
1923	Meridian	2,700	100%	2,700	4,398
1923	Meridian	3,700	100%	3,700	6,027
1955	Meridian	15,700	100%	15,700	25,574

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1971	Meridian	18,800	100%	18,800	30,623
1971	Meridian	24,100	100%	24,100	39,256
1979	Meridian	15,500	100%	15,500	25,248
1979	Meridian	131,400	100%	131,400	214,037
1979	Meridian	222,900	100%	222,900	363,081
1979	Meridian	184,600	100%	184,600	300,694
1988	Meridian	65,600	100%	65,600	106,855
1997	Meridian	201,100	100%	201,100	327,571
2000	Meridian	129,800	100%	129,800	211,431
2008	Millmar Developer Extension	148,070	0%	0	0
1935	Milwaukee	4,900	100%	4,900	7,982
1935	Milwaukee	5,700	100%	5,700	9,285
1993	Milwaukee	34,400	100%	34,400	56,034
2002	Milwaukee	38,400	100%	38,400	56,734
1969	Parkwood Blvd	47,000	100%	47,000	76,558
2001	Peach Park	58,600	100%	58,600	90,908
2008	Pierce College Health Education Building Developer Extension	9,360	0%	0	0
1924	Pioneer	11,000	100%	11,000	17,918
1927	Pioneer	3,400	100%	3,400	5,538
1927	Pioneer	1,100	100%	1,100	1,792
1927	Pioneer	2,600	100%	2,600	4,235
1937	Pioneer	2,000	100%	2,000	3,258
1972	Pioneer	28,800	100%	28,800	46,912
1979	Pioneer	27,900	100%	27,900	45,446
1979	Pioneer	270,700	100%	270,700	440,942
1992	Pioneer	427,400	100%	427,400	696,190
1994	Pioneer	63,500	100%	63,500	103,435
1994	Pioneer	116,500	100%	116,500	189,766
1995	Pioneer	151,500	100%	151,500	246,778
1997	Pioneer	76,000	100%	76,000	123,796
2008	Pioneer Place Developer Extension	19,500	0%	0	0
2007	Pool Short Plat Developer Extension	11,570	0%	0	0
2006	Puerto Vallarta Developer Extension	1,625	0%	0	0
2008	Puyallup Executive Park Developer Extension	2,665	0%	0	0
2007	Puyallup High School Ball Field Developer Extension	37,505	0%	0	0
2007	Puyallup Highlands Phase I Developer Extension	245,109	0%	0	0
2006	Puyallup Square Lots 7 & 8 Developer Extension	24,635	0%	0	0
1969	Rainier Blvd	1,700	100%	1,700	2,769
1969	Rainier Blvd	20,900	100%	20,900	34,044
1978	Rainier School	30,700	100%	30,700	50,007
2004	Ramsaur Short Plat Developer Extension	41,293	0%	0	0
2007	Reider Medical Developer Extension	8,775	0%	0	0
1972	Reservoir	10,800	100%	10,800	17,592
1972	Reservoir	10,800	100%	10,800	17,592
1980	Reservoir	111,200	100%	111,200	181,133
1981	Reservoir	97,900	100%	97,900	159,469
1982	River Rd	255,500	100%	255,500	416,183
1982	River Rd	437,600	100%	437,600	712,804
1987	River Rd	57,100	100%	57,100	93,010
2006	Riverfront Industrial Park	9,142	100%	9,142	11,112
2007	Riverfront Industrial Park Developer Extension	447,015	0%	0	0
2008	Riverfront Industrial Park Phase II Developer Extension	259,054	0%	0	0
2007	Riverside Villages (Lot 10) Developer Extension	7,410	0%	0	0
2007	Riverside Villages (Lots 7 & 8) Developer Extension	23,985	0%	0	0
2005	Rivertrail Apartments Developer Extension	116,401	0%	0	0
1979	Rodesco Ct	38,600	100%	38,600	62,875
1979	Rodesco Dr	7,200	100%	7,200	11,728
1979	Rodesco Dr	71,800	100%	71,800	116,955
1940	Rose Place	2,400	100%	2,400	3,909

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
2004	Ruiz Short Plat Developer Extension	10,277	0%	0	0
1956	Salmon Springs	245,600	100%	245,600	400,057
2006	Scafco Developer Extension	90,400	0%	0	0
2007	Schwan Distribution Developer Extension	123,630	0%	0	0
2007	SeaTac Packaging II Developer Extension	53,170	0%	0	0
1990	Shaw	202,600	100%	202,600	330,014
1992	Shaw	167,400	100%	167,400	272,677
1974	Shaw Rd	49,300	100%	49,300	80,305
1974	Shaw Rd	109,600	100%	109,600	178,527
1999	Shaw Rd	248,200	100%	248,200	404,292
2005	Shaw Road Developer Extension	43,602	0%	0	0
2004	Sister's Ridge Developer Extension	26,088	0%	0	0
1920	Stewart	12,900	100%	12,900	21,013
1984	Stewart Ave	54,100	100%	54,100	88,123
1984	Stewart Ave	21,000	100%	21,000	34,207
1984	Stewart Ave	251,500	100%	251,500	409,667
1993	Stewart Ave	111,200	100%	111,200	181,133
1981	Tacoma Intertie	508,200	100%	508,200	827,804
2007	The Lake Offsites Developer Extension	171,798	0%	0	0
2008	The Lakes Phase 1-A Developer Extension	206,436	0%	0	0
2008	The Lakes Phase 1-B Developer Extension	77,168	0%	0	0
1991	Thornhill	101,900	100%	101,900	165,984
2003	Traffic Ave.	36,151	100%	36,151	50,867
1935	Valley Ave	42,200	100%	42,200	68,739
1979	Valley Ave	200,400	100%	200,400	326,430
1989	Valley Ave	281,600	100%	281,600	458,697
1991	Valley Ave	252,500	100%	252,500	411,296
2005	Valley Ave.	136,732	100%	136,732	174,508
2007	Valley Ave. Business Park Developer Extension	460,675	0%	0	0
2008	Villages Developer Extension	352,950	0%	0	0
2006	W. Pioneer	44,938	100%	44,938	54,622
2007	Water Crossing (SR167 Right of Way) Developer Extension	89,712	0%	0	0
2005	Western Washington Fair Green Gate Developer Extension	23,822	0%	0	0
2007	Western Washington Fair Kiddy Land Developer Extension	35,555	0%	0	0
1969	Wildwood Park	3,700	100%	3,700	6,027
1969	Wildwood Park	3,700	100%	3,700	6,027
1972	Wildwood Park	65,600	100%	65,600	106,855
1981	Wildwood Park	45,800	100%	45,800	74,603
1981	Wildwood Park	99,400	100%	99,400	161,912
1969	Wildwood Park Dr	12,300	100%	12,300	20,035
1955	Wildwood Res	6,700	100%	6,700	10,914
1982	WWTP	85,800	100%	85,800	139,759
1955	PRV No. 1	5,500	100%	5,500	8,959
1955	PRV No. 3	5,200	100%	5,200	8,470
1977	PRV No. 5	21,800	100%	21,800	35,510
1989	PRV No. 4	39,100	100%	39,100	63,690
1990	PRV No. 11	40,800	100%	40,800	66,459
1990	PRV No. 6	40,800	100%	40,800	66,459
1991	PRV No. 10	41,700	100%	41,700	67,925
1992	PRV No. 12	43,200	100%	43,200	70,368
1992	PRV No. 7	43,200	100%	43,200	70,368
1992	PRV No. 8	43,200	100%	43,200	70,368
1993	PRV No. 13	45,400	100%	45,400	73,952
1996	PRV No. 9	46,800	100%	46,800	76,232
1999	PRV No. 16	57,500	100%	57,500	93,661
1999	PRV No. 17	57,500	100%	57,500	93,661
1999	PRV No. 18	57,500	100%	57,500	93,661
1996	Other Improvements - 19 St Sewer	7,167	100%	7,167	11,674

Exhibit 4

Water System Development Charge - 2010

Determination of Transmission/Distribution Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1996	Other Improvements - Cascade Chri	61,310	100%	61,310	99,868
2001	Heavy Equipment - 12 Attitude Valve"	18,502	100%	18,502	28,703
1997	Heavy Equipment - 60 Horse Power Bj Pump	26,641	100%	26,641	43,396
1987	Heavy Equipment - Altitude Valve	5,744	100%	5,744	9,357
1970	Heavy Equipment - Booster Equipment	9,188	100%	9,188	14,966
1993	Heavy Equipment - Pump/Motor 5 Stage, 6	22,536	100%	22,536	36,708
2003	Heavy Equipment - Rigid Telemetry Unit	7,922	100%	7,922	11,147
2002	Heavy Equipment - Stage Pump Well #43	6,293	100%	6,293	9,298
1991	Heavy Equipment - Telemetering System	75,457	100%	75,457	122,911
1993	Heavy Equipment - Water Pump For Maplewood	22,994	100%	22,994	37,454
2007	Machinery Equipment - 39Th Pump Station Control Panel	7,942	100%	7,942	9,194
2007	Machinery & Equipment - 9Th & 19Th Control Panel	7,507	100%	7,507	8,691
2007	Machinery & Equipment - Cherokee Control Panel	7,507	100%	7,507	8,691
2007	Machinery & Equipment - Wildwood Control Panel	7,942	100%	7,942	9,194
1999	Software - Scada System	20,271	100%	20,271	33,019
Total Existing Transmission and Distribution Plant		\$42,883,029		\$38,881,492	\$62,425,491
Existing ERU at 2023 [1]					27,236
Existing Transmission and Distribution System Development Charge per ERU					\$2,292
Future Improvements					
		[2]	[3]		
	System Improvements	\$1,610,000	0%	\$0	\$0
	Water Main Replacement - Forest Green	673,000	0%	0	0
	Water Main Replacement - 7th St SE	1,680,000	0%	0	0
	Water Main Replacement 14th St. SW (1000 to 1500 Block)	471,000	0%	0	0
	Water Main Replacement - Forest Green Phase 2	527,000	0%	0	0
	NE Street Improvement Project	268,000	0%	0	0
	11th St NW (Stewart to River Rd)	752,000	100%	752,000	752,000
	Water Main Replacement - 23rd Ave. SW	1,000,000	0%	0	0
	Water Main Replacement - Parkwood	497,000	0%	0	0
	Water Main Replacement 14th St. SW (Pioneer to 5th St.)	140,000	0%	0	0
	Water Main Replacement - Maplewood (Pumps to Reservoir)	500,000	0%	0	0
	Water Main Replacement - Vista	600,000	0%	0	0
	Water Main Replacement - 9th St. SE (15th to 23rd)	450,000	35%	157,500	157,500
	Water Main Replacement - 14th St. SW (1200 to 1500 Block)	150,000	50%	75,000	75,000
	<u>Coordination/Opportunity Projects</u>				
	Zone 2 Pumping Improvements	200,000	50%	100,000	100,000
	15th St NW/SW Storm-4th Ave SW to Stewart	409,500	100%	409,500	409,500
	W Main; 7th to 12th St	215,000	50%	107,500	107,500
	9th St SW; Pioneer to 9th Ave SW	250,000	100%	250,000	250,000
	11th St NW; Stewart to River Road	0	0%	0	0
Total Future Improvements		\$10,392,500		\$1,851,500	\$1,851,500
2010-2023 ERUs [1]					7,058
Future Transmission and Distribution Plant System Development Charge per ERU					\$262
Total Transmission and Distribution Plant System Development Charge per ERU					\$2,554

Notes:

[1] See Exhibit 1.

[2] Future CIP costs are estimated in 2010 dollars.

[3] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing General Plant					
1991	Heavy Equipment - Hydraulic Vehicle Lift	23,274	100%	\$23,274	\$37,911
1991	Heavy Equipment - Trenchbox	5,501	100%	5,501	8,961
1991	Other Improvements - Cherokee Park Sidewalks	17,580	100%	17,580	28,636
1991	Other Improvements - Loop Road At Corporate Yard	24,945	100%	24,945	40,633
1992	Heavy Equipment - Auto Irrigation System	39,912	100%	39,912	65,012
1992	Heavy Equipment - Exhaust System	21,642	100%	21,642	35,252
1992	Heavy Equipment - Fuel Card System	7,670	100%	7,670	12,494
1992	Heavy Equipment - Security System - Corp Yard 2	10,873	100%	10,873	17,710
1993	Machinery & Equipment - Konica 3035 Copier	7,038	100%	7,038	11,464
1998	Heavy Equipment - Universal Pipe Cutter	6,362	100%	6,362	10,363
1999	Buildings & Structures - Corp. Yard Conf. Room Remodel	154,666	100%	154,666	251,935
1999	Other Improvements - Paving Corporate Yard	23,166	100%	23,166	37,734
2001	Heavy Equipment - Crane For Truck	9,300	100%	9,300	14,427
2002	Buildings & Structures - Corp Yard Bldg	1,129,697	100%	1,129,697	1,669,077
2002	Heavy Equipment - 2002 Service Body - 6310	24,216	100%	24,216	35,778
2004	Other Improvements - Waterworks Utility Rate Study	31,262	50%	15,631	20,947
2004	Other Improvements - Water System Plan	64,192	80%	51,353	68,818
2004	Software - Invensys Technology Adv. Software	6,618	100%	6,618	8,869
2007	Other Improvements - Rainier Woods Park Fence	6,726	100%	6,726	7,786
2008	Software - Wonderware Software	11,862	100%	11,862	13,078
Total Existing General Plant		\$1,626,501		\$1,598,032	\$2,396,887
Existing ERU at 2023 [1]					27,236
Existing General Plant System Development Charge per ERU					\$88
Future Improvements					
		[1]	[2]		
	Water Comprehensive Plan	\$40,000	80%	\$32,000	\$32,000
	Comp Plan Update	170,000	80%	136,000	136,000
Total Future Improvements		\$210,000		\$168,000	\$168,000
2010-2023 ERUs [1]					7,058
Future General Plant System Development Charge per ERU					\$24
Total General Plant System Development Charge per ERU					\$112

Notes:

[1] See Exhibit 1.

[2] Future CIP costs are estimated in 2010 dollars.

[3] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

City of Puyallup
 Exhibit 6
 Water System Development Charge - 2010
 Debt Service Credit

Year	Total Existing Debt Service [1]	New Debt [2]	Total Debt	SDC Revenue	Net Debt Service	ERUs	Debt/ ERU	Debt/ERU (\$2010)
2010	\$544,685	\$0	\$544,685	\$1,595,560	\$0	20,630	\$0.00	\$0.00
2011	544,208	94,976	639,184	1,672,514	0	21,090	0.00	0.00
2012	553,066	215,976	769,042	1,748,904	0	21,557	0.00	0.00
2013	556,337	270,201	826,538	1,832,230	0	22,032	0.00	0.00
2014	547,545	317,647	865,192	1,922,954	0	22,516	0.00	0.00
2015	537,607	438,312	975,919	2,009,289	0	23,007	0.00	0.00
2016	550,910	438,312	989,223	2,107,502	0	23,507	0.00	0.00
2017	369,857	438,312	808,169	2,201,118	0	24,014	0.00	0.00
2018	265,978	438,312	704,290	2,307,396	0	24,530	0.00	0.00
2019	266,573	438,312	704,885	2,418,071	0	25,055	0.00	0.00
2020	87,692	438,312	526,004	2,523,821	0	25,587	0.00	0.00
2021	0	438,312	438,312	2,648,399	0	26,129	0.00	0.00
2022	0	438,312	438,312	2,763,082	0	26,678	0.00	0.00
2023	0	438,312	438,312	2,892,630	0	27,236	0.00	0.00
2024	0	438,312	438,312	3,026,659	0	27,803	0.00	0.00
2025	0	438,312	438,312	3,165,139	0	28,378	0.00	0.00
2026	0	438,312	438,312	3,309,492	0	28,963	0.00	0.00
2027	0	438,312	438,312	3,459,944	0	29,556	0.00	0.00
2028	0	438,312	438,312	3,616,728	0	30,157	0.00	0.00
2029	0	438,312	438,312	3,780,085	0	30,768	0.00	0.00
2030	0	438,312	438,312	3,950,262	0	31,388	0.00	0.00
2031	0	343,336	343,336	4,127,516	0	32,016	0.00	0.00
2032	0	343,336	343,336	4,312,113	0	32,654	0.00	0.00
2033	0	343,336	343,336	4,504,324	0	33,300	0.00	0.00
2034	0	343,336	343,336	4,704,433	0	33,956	0.00	0.00
2035	0	343,336	343,336	4,912,729	0	34,621	0.00	0.00
Total Debt Service Credit (\$ per ERU)							\$0.00	

Notes:

[1] Existing debt obtained from City debt schedules.

[2] From rate study projection of debt to fund all CIP, including water portions of opportunity projects.

New debt for improvements at 5.5% for 20 years. Interest rate includes bond issuance and reserve requirements.

City of Puyallup
 Exhibit 7
 Water System Development Charge - 2010
 Summary

Current Water System Development Charge	\$3,130
Calculated Water System Development Charge (Rounded)	\$3,530
Difference	\$400

Water System Development Charge Calculation Results

	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Supply/Treatment	\$0	\$77	\$360	\$437
Storage	0	46	312	358
Transmission/Distribution	123	139	2,292	2,554
General Plant	0	24	88	112
Debt Service Credit	0		0	0
Total	\$123	\$286	\$3,052	\$3,461
Plus State B&O Tax (1.8%)	\$2	\$5	\$55	\$62
Total SDC	\$125	\$291	\$3,107	\$3,524
Net Allowable Water System Development Charge	\$125	\$291	\$3,107	\$3,524
Rounding for Implementation Purposes	\$130	\$290	\$3,110	\$3,530

Current Charge Implementation Method by ERU's

Water Customer Description	No. of	Water System Development
Single-Family Dwelling	1	\$3,530
Duplex/Apartment, 1st Unit	1	3,530
Duplex/Apartment - each additional unit	0.75	2,648
Mobile Home Subd., pad	1	3,530
Recreational Veh. Park, each space	0.63	2,224
Motel/Hotel, each unit	0.63	2,224
Hospital, Rest Home, each 6 beds	1	3,530
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	3,530
Each Additional Fixture Unit Weight	0.067	237

City of Puyallup
 Exhibit 8
 Water System Development Charge - 2010
 Summary of Capital Improvement Plan

	2010 Budget	2011	2012	2013	2014	2015	2016	Total	% Growth Related
Capital Improvements									
System Improvements	\$160,000	\$200,000	\$200,000	\$250,000	\$250,000	\$250,000	\$300,000	\$1,610,000	0%
Water Comprehensive Plan	40,000	0	0	0	0	0	0	40,000	80%
Develop Salmon Springs	0	360,000	0	0	0	0	0	360,000	100%
Salmon Springs Main Replacement	0	251,000	0	0	0	0	0	251,000	0%
Water Main Replacement - Forest Green	0	673,000	0	0	0	0	0	673,000	0%
NE Street Improvement Project	0	0	268,000	0	0	0	0	268,000	0%
Water Main Replacement (Design) - 7th St SE	0	252,000	1,428,000	0	0	0	0	1,680,000	0%
Recreation Center Well No. 2 (Design) Treatment included	0	0	0	165,000	937,000	0	0	1,102,000	100%
Water Main Replacement 14th St. SW (1000 to 1500 Block)	0	0	0	471,000	0	0	0	471,000	0%
Maplewood Springs Pump Station Improvements	0	0	0	100,000	0	0	0	100,000	50%
Water Main Replacement - Forest Green Phase 2	0	0	0	527,000	0	0	0	527,000	0%
11th St NW (Stewart to River Rd)	0	0	0	0	0	752,000	0	752,000	100%
Water Main Replacement - 23rd Ave. SW (Design)	0	0	0	0	150,000	850,000	0	1,000,000	0%
Water Main Replacement - Parkwood	0	0	0	0	497,000	0	0	497,000	0%
Water Main Replacement 14th St. SW (Pioneer to 5th St.)	0	0	0	0	0	140,000	0	140,000	0%
Water Main Replacement - Maplewood (Pumps to Reservoir)	0	0	0	0	0	500,000	0	500,000	0%
Comp Plan Update	0	0	0	0	0	0	170,000	170,000	80%
Water Main Replacement - Vista	0	0	0	0	0	0	600,000	600,000	0%
Water Main Replacement - 9th St. SE (15th to 23rd)	0	0	0	0	0	0	450,000	450,000	35%
Water Main Replacement - 14th St. SW (1200 to 1500 Block)	0	0	0	0	0	0	150,000	150,000	50%
Future Unidentified Improvement	0	0	0	0	0	0	0	0	
Total Capital Improvement	\$200,000	\$1,736,000	\$1,896,000	\$1,513,000	\$1,834,000	\$2,492,000	\$1,670,000	\$11,341,000	
Coordination/Opportunity Projects									
<u>Capacity adding projects</u>									
N Puyallup 2MG Reservoir - Tank	\$0	\$1,200,000	\$0	\$0	\$0	\$0	\$0	\$1,200,000	100%
23rd Ave SW 12" WM 13th Reservoir	0	0	0	0	100,000	0	0	100,000	50%
Zone 2 Pumping Improvements	0	0	0	0	200,000	0	0	200,000	50%
Tacoma Road Water Main (Developer Funded)	0	0	0	0	960,000	0	0	960,000	25%
Total	0	1,200,000	0	0	1,260,000	0	0	2,460,000	
<u>Other System Coordination/Opportunity Projects</u>									
15th St NW/SW Storm-4th Ave SW to Stewart	0	409,500	0	0	0	0	0	\$409,500	100%
W Main; 7th to 12th St	0	215,000	0	0	0	0	0	215,000	50%
9th St SW; Pioneer to 9th Ave SW	0	250,000	0	0	0	0	0	250,000	100%
11th St NW; Stewart to River Road	0	0	0	0	0	0	0	0	0%
Total	0	874,500	0	0	0	0	0	\$874,500	
Total Opportunity Projects	\$0	\$2,074,500	\$0	\$0	\$1,260,000	\$0	\$0	\$3,334,500	
TOTAL CAPITAL IMPROVEMENT PROJECTS	\$200,000	\$3,810,500	\$1,896,000	\$1,513,000	\$3,094,000	\$2,492,000	\$1,670,000	\$14,675,500	



Appendix B – Sewer Utility SDC

City of Puyallup
 Exhibit 1
 Sewer System Development Charge - 2010
 Development of ERUs

ERU = Equivalent Residential Unit

Average Daily Flow, gallons per day (gpcd) [1]	65.6
Persons per residence [2]	2.89
Percent I and I [3]	18%
Gallons per ERU per day [4]	224
Average daily flow at the plant (MGD) [5]	4.21
ERU's [6]	18,819

Year [7]	Total Gallons (MGD) [2]	Total ERUs	Additional ERUs	Total Additional ERUs	Rate of Growth [8]
2009	4.21	18,819		0	
2010	4.30	19,240	421	421	2.24%
2011	4.40	19,669	429	850	2.23%
2012	4.50	20,105	436	1,286	2.22%
2013	4.60	20,548	443	1,729	2.21%
2014	4.70	20,999	451	2,180	2.19%
2015	4.80	21,457	458	2,638	2.18%
2016	4.90	21,923	466	3,104	2.17%
2017	5.01	22,397	474	3,578	2.16%
2018	5.12	22,878	481	4,059	2.15%
2019	5.23	23,367	489	4,548	2.14%
2020	5.34	23,864	497	5,045	2.13%
2021	5.45	24,369	505	5,549	2.12%
2022	5.57	24,881	513	6,062	2.10%
2023	5.68	25,402	521	6,583	2.09%
2024	5.80	25,931	529	7,112	2.08%
2025	5.92	26,468	537	7,649	2.07%
2026	6.04	27,014	546	8,195	2.06%
2027	6.17	27,569	554	8,750	2.05%
2028	6.29	28,132	563	9,313	2.04%

Notes:

- [1] Average daily flow from 2008 City Sanitary Sewer Comprehensive Plan, page 6-10.
- [2] Person per residence from 2008 City Sanitary Sewer Comprehensive Plan, Table 6-9, page 6-16.
- [3] I&I; 18% from I&I page 6-17 of 2008 City Sanitary Sewer Comprehensive Plan.
- [4] Gallons per ERU from 2008 City Sanitary Sewer Comprehensive Plan, Table 6-9, page 6-16.
- [5] Average daily flow at plant from 2008 City Sanitary Sewer Comprehensive Plan, page 6-10.
- [6] ERUs calculated based on gallons per ERU and average daily flow.
- [7] The Draft 2008 Sanitary Sewer System Comprehensive Plan update forecasts out 20 years, to 2028.
- [8] Historical growth from 2008 City Sanitary Sewer Comprehensive Plan; page 4-7, is 1.78%
 This growth reflects decline in water usage due to conservation, per the 2009 Water Comp Plan and the planned I&I reduction. Varies from Sewer Comp Plan growth due to economic downturn. Sewer Comp. Plan documents growth of 4.78% to reach 10.23 MGD in 2028 (Table 6-10, page 6-17).

Exhibit 2

Sewer System Development Charge - 2010

Determination of Treatment Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Treatment					
1984	Land - Treatment Plant	\$211,623	100%	\$211,623	\$344,712
1989	Land - Stemp Property	44,578	100%	44,578	72,613
1990	Land - Pratt Property	26,645	100%	26,645	43,402
1996	Land - Donoghue Property	78,087	100%	78,087	127,195
1996	Land - Kodiak Detention Pond	97,902	100%	97,902	159,472
1997	Land - Iron Gate Property	151,695	100%	151,695	247,095
1999	Land - Geinger Development	145,000	100%	145,000	236,190
2004	Land - Blackstone/Calvert Ridge Easement	160,000	100%	160,000	214,415
2008	Land - Addison's Green	1	100%	1	1
1983	Other Improvements - Fence, Concrete	277,000	100%	277,000	451,204
2001	Other Improvements - WWTP Entryway Fencing	13,042	100%	13,042	20,233
2003	Other Improvements - Reroof Bldg	31,292	100%	31,292	44,031
2003	Other Improvements - Permit Renewal	62,717	100%	62,717	88,249
2006	Other Improvements - WWTP Quality Assurance Plan	35,852	100%	35,852	43,578
2007	Other Improvements - Treatment Plant Automated Gate	12,564	100%	12,564	14,545
1974	Heavy Equipment - Sewage Pump For Lift Station	5,517	100%	5,517	8,987
1980	Heavy Equipment - Sewage Pumps - Pioneer Lift St	21,199	100%	21,199	34,530
1981	Heavy Equipment - Sewage Pump	14,552	100%	14,552	23,704
1981	Heavy Equipment - Sewage Pump NW#1	14,552	100%	14,552	23,704
1981	Heavy Equipment - Sewage Pump NW #2	14,552	100%	14,552	23,704
1981	Heavy Equipment - Sewage Pump Nw #3	20,292	100%	20,292	33,054
1982	Heavy Equipment - Sewage Pump Sw #3	17,276	100%	17,276	28,141
1982	Heavy Equipment - Cummings Generator	52,008	100%	52,008	84,716
1982	Heavy Equipment - Allis Chalmer Generator	13,442	100%	13,442	21,896
1982	Heavy Equipment - Sewage Pump N #1	5,187	100%	5,187	8,449
1982	Heavy Equipment - Sewage Pump N #2	5,187	100%	5,187	8,449
1982	Heavy Equipment - Sewage Pump N #3	5,187	100%	5,187	8,449
1983	Heavy Equipment - Screw Pump #1	557,763	100%	557,763	908,537
1983	Heavy Equipment - Electrical Controls	234,000	100%	234,000	381,161
1983	Heavy Equipment - Standby Generator - Bldg. #8	90,500	100%	90,500	147,415
1983	Heavy Equipment - Magnum Press - Building #7	93,188	100%	93,188	151,793
1983	Heavy Equipment - Liquid Polymer Feed - Bldg #7	68,900	100%	68,900	112,231
1983	Heavy Equipment - Auxiliary Pump - 3 Trash Pump	7,800	100%	7,800	12,705
1983	Heavy Equipment - Portable Generator - Bldg #6	12,800	100%	12,800	20,850
1983	Heavy Equipment - Digester Covers - Building #3	152,610	100%	152,610	248,586
1983	Heavy Equipment - Sludge Collector	15,400	100%	15,400	25,085
1983	Heavy Equipment - Scum Collector	35,200	100%	35,200	57,337
1983	Heavy Equipment - Sludge Collector - Bldg #3	232,800	100%	232,800	379,207
1983	Heavy Equipment - Scum Collector	35,200	100%	35,200	57,337
1983	Heavy Equipment - Water Pump (1 Of 2)	31,600	100%	31,600	51,473
1990	Heavy Equipment - Sewer Pump - Building #6	13,332	100%	13,332	21,716
1991	Heavy Equipment - Trenchbox	6,938	100%	6,938	11,301
1991	Heavy Equipment - TV Inspection System	72,819	100%	72,819	118,614
1991	Heavy Equipment - Sewer Flowmeter	5,807	100%	5,807	9,459
1991	Heavy Equipment - Sewer Flowmeter	5,807	100%	5,807	9,459
1991	Heavy Equipment - Sewer Flowmeter	5,807	100%	5,807	9,459
1991	Heavy Equipment - Sewer Flowmeter	5,807	100%	5,807	9,459
1991	Heavy Equipment - Sewer Flowmeter	5,807	100%	5,807	9,459
1995	Heavy Equipment - Pump Station Panel- Tacoma Rd	7,962	100%	7,962	12,969
1996	Heavy Equipment - Multi-Angle Camera	29,075	100%	29,075	47,360

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1997	Heavy Equipment - Ultrasonic Head Control System	12,516	100%	12,516	20,388
1997	Heavy Equipment - Impeller Pump	5,125	100%	5,125	8,348
1999	Heavy Equipment - Flyght Pump - 18Th & E Main	6,053	100%	6,053	9,860
1999	Heavy Equipment - Microtox Analyzer	15,821	100%	15,821	25,771
1999	Heavy Equipment - Drying/Ignition Furnace	5,316	100%	5,316	8,659
1999	Heavy Equipment - Pure Water System	14,016	100%	14,016	22,830
2000	Heavy Equipment - Radiator Cooler	8,448	100%	8,448	13,761
2000	Heavy Equipment - Heat Pump For Laboratory	7,302	100%	7,302	11,894
2001	Heavy Equipment - Digester Heater	12,910	100%	12,910	20,028
2001	Heavy Equipment - Digester Pump	15,413	100%	15,413	23,911
2001	Heavy Equipment - Heating System	14,309	100%	14,309	22,198
2002	Heavy Equipment - Els Camera W/Monitor	7,507	100%	7,507	11,092
2002	Heavy Equipment - Wells Cargo Trailer	6,359	100%	6,359	9,396
2002	Heavy Equipment - Impeller Pump	6,159	100%	6,159	9,100
2002	Heavy Equipment - 2002 Impeller Pump	6,159	100%	6,159	9,100
2002	Heavy Equipment - 2002 Variable Frequency Driver	8,222	100%	8,222	12,147
2003	Heavy Equipment - Rotating Asmbl	195,568	100%	195,568	275,184
2006	Heavy Equipment - Boerger PI300 Pump	8,197	100%	8,197	9,964
2008	Heavy Equipment - Hydromatic 30Hp Pump	13,205	100%	13,205	14,558
1983	Buildings & Structures - WWTP Facilities (Historical Cost)	10,791,900	100%	10,791,900	17,578,868
2001	Buildings & Structures - WWTP Upgrade (Incl. Change Orders)	25,740,000	100%	25,740,000	39,931,188
2007	Buildings Structures - Aeration Basin #3	1,235,686	100%	1,235,686	1,430,461
Total Existing Treatment		\$41,400,063		\$41,400,063	\$64,706,395
Future Improvements		[1]	[2]		
	Treatment Plant Repairs and Upgrades	\$5,550,000	0%	\$0	\$0
	Replace Generators	521,000	0%	0	0
	Modify Influent Pump	1,100,000	50%	550,000	550,000
	Secondary Clarifier 3 ³	4,700,000	100%	4,700,000	4,700,000
	Aeration Blowers Replacement	388,000	0%	0	0
Total Future Improvements		\$12,259,000		\$5,250,000	\$5,250,000
Total Existing and Future Treatment Plant		\$53,659,063		\$46,650,063	\$69,956,395
Capacity of Treatment Plant (MGD) [4]					10.23
Cost per Gallon					\$6.84
Gallons/Day per ERU					224
Total Treatment Plant System Development Charge per ERU					\$1,530

Notes:

[1] Future CIP costs are estimated in 2010 dollars.

[2] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

[3] The 2011 - 2016 City CIP has \$700,000 for the Clarifier. The \$4.6 million Clarifier project from 2009 will occur in the next ten year, per City.

[4] Average monthly flow from 2008 City Sanitary Sewer Comprehensive Plan, page 6-17, Table 6-10.

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Collection Plant [1]					
2002	Other Improvements - Manhole Covers 2002	\$62,112	100%	\$62,112	\$91,768
2002	Other Improvements - Sewer Line Evaluation 2002	25,847	100%	25,847	38,188
2003	Machinery Equipment - Camera Transpo	7,060	100%	7,060	9,934
2006	Machinery Equipment - Rigid Kd-200 Inspection Camera	9,020	100%	9,020	10,963
2008	Machinery Equipment - Flood Control Tubes	45,885	100%	45,885	50,589
2008	Machinery & Equipment - Unimag 4411E Transmitter	5,005	100%	5,005	5,518
2008	Machinery & Equipment - Armstrong A37Kbs Generator	20,304	100%	20,304	22,385
2008	Machinery & Equipment - Fujitsu Air Conditioner	5,334	100%	5,334	5,881
2004	Software - Operator 10 Plus/Allmax Task Manager	22,739	100%	22,739	30,473
2005	Software - Lims Express Software	5,435	100%	5,435	6,936
1949	10th Ave NW	8,400	100%	8,400	13,683
1949	10th Ave NW (group)	18,100	100%	18,100	29,483
1949	10th Ave SW	2,800	100%	2,800	4,561
1949	10th St SW	1,700	100%	1,700	2,769
1949	10th St SW	4,100	100%	4,100	6,678
1949	11th Ave NW	2,700	100%	2,700	4,398
1949	11th St NW	22,100	100%	22,100	35,999
1949	11th St SW	27,000	100%	27,000	43,980
1949	12th Ave SW	4,300	100%	4,300	7,004
1949	12th St NW	13,000	100%	13,000	21,176
1949	12th St NW	5,200	100%	5,200	8,470
1949	12th St SW	4,700	100%	4,700	7,656
1949	13th Pl NW	2,600	100%	2,600	4,235
1949	13th St NW	5,500	100%	5,500	8,959
1949	13th St SW	10,100	100%	10,100	16,452
1949	14th Pl NW	1,200	100%	1,200	1,955
1949	14th Pl NW	500	100%	500	814
1949	14th St SW	5,700	100%	5,700	9,285
1949	15th Pl NW	1,800	100%	1,800	2,932
1949	15th St NW	4,500	100%	4,500	7,330
1949	15th St NW	2,200	100%	2,200	3,584
1949	15th St NW	7,800	100%	7,800	12,705
1949	16th St Pl NW	2,800	100%	2,800	4,561
1949	16th St SW	19,400	100%	19,400	31,601
1949	17th Pl NW	3,700	100%	3,700	6,027
1949	17th St NW	20,300	100%	20,300	33,067
1949	17th St NW	5,200	100%	5,200	8,470
1949	18th St NW	23,700	100%	23,700	38,605
1949	18th St NW (group)	24,400	100%	24,400	39,745
1949	18th St NW, N of 10th Ave	2,200	100%	2,200	3,584
1949	18th St SW	10,500	100%	10,500	17,103
1949	18th St SW (esmt)	10,500	100%	10,500	17,103
1949	19th St Ct NW	1,700	100%	1,700	2,769
1949	19th St NW	13,500	100%	13,500	21,990
1949	19th St NW	4,900	100%	4,900	7,982
1949	20th St NW	4,700	100%	4,700	7,656
1949	21st St NW	6,200	100%	6,200	10,099
1949	21st St NW	3,200	100%	3,200	5,212
1949	21st St NW	58,700	100%	58,700	95,616
1949	21st St NW (N of Stewart)	1,000	100%	1,000	1,629
1949	22nd St NW (groups)	26,900	100%	26,900	43,817
1949	23rd St NW	12,500	100%	12,500	20,361
1949	2nd Ave NW (group)	20,900	100%	20,900	34,044
1949	2nd St SE	17,300	100%	17,300	28,180
1949	2nd St SW	15,900	100%	15,900	25,899
1949	3rd Ave NW	6,700	100%	6,700	10,914
1949	3rd Ave NW (group)	23,500	100%	23,500	38,279
1949	3rd St SE	16,300	100%	16,300	26,551
1949	3rd St SW	3,700	100%	3,700	6,027
1949	3rd St SW	8,800	100%	8,800	14,334

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1949	4th Ave NW (group)	24,500	100%	24,500	39,908
1949	4th Ave SE	6,600	100%	6,600	10,751
1949	4th Ave SE	10,600	100%	10,600	17,266
1949	4th Ave SW	6,700	100%	6,700	10,914
1949	4th Ave SW (group)	28,500	100%	28,500	46,423
1949	4th St SE	9,300	100%	9,300	15,149
1949	4th St SW	3,500	100%	3,500	5,701
1949	4th St SW	9,000	100%	9,000	14,660
1949	5th Ave NW	1,400	100%	1,400	2,280
1949	5th Ave NW (group)	3,400	100%	3,400	5,538
1949	5th Ave SE	4,500	100%	4,500	7,330
1949	5th Ave SW (group)	5,400	100%	5,400	8,796
1949	5th Ave SW (group)	31,700	100%	31,700	51,636
1949	5th St NW	7,300	100%	7,300	11,891
1949	5th St SE	3,600	100%	3,600	5,864
1949	5th St SE	9,000	100%	9,000	14,660
1949	5th St SW	3,000	100%	3,000	4,887
1949	5th St SW	7,700	100%	7,700	12,542
1949	5th St SW	4,500	100%	4,500	7,330
1949	6th Ave SW	5,400	100%	5,400	8,796
1949	6th Ave SW (group)	21,200	100%	21,200	34,533
1949	6th Ave SW (group)	4,200	100%	4,200	6,841
1949	6th St SW	3,400	100%	3,400	5,538
1949	7th Ave NW	9,700	100%	9,700	15,800
1949	7th Ave SE	7,700	100%	7,700	12,542
1949	7th Ave SW	26,200	100%	26,200	42,677
1949	7th Ave SW	27,100	100%	27,100	44,143
1949	7th Ave SW	31,500	100%	31,500	51,310
1949	7th St SW (group)	18,800	100%	18,800	30,623
1949	8th Ave NW	2,100	100%	2,100	3,421
1949	8th Ave NW	9,100	100%	9,100	14,823
1949	8th Ave SW (alley)	5,500	100%	5,500	8,959
1949	8th Ave SW (easement)	6,200	100%	6,200	10,099
1949	8th St NW	5,200	100%	5,200	8,470
1949	8th St SW	4,200	100%	4,200	6,841
1949	9th Ave SE	11,000	100%	11,000	17,918
1949	9th Ave SW	10,300	100%	10,300	16,778
1949	9th Ave SW	49,800	100%	49,800	81,119
1949	9th Ave SW	56,000	100%	56,000	91,218
1949	9th St NW	14,900	100%	14,900	24,271
1949	9th St NW	2,000	100%	2,000	3,258
1949	9th St SW (group)	40,700	100%	40,700	66,296
1949	Alley N of 4th Ave SW	1,800	100%	1,800	2,932
1949	Alley N of W Meeker	2,300	100%	2,300	3,746
1949	Alley N of W Pioneer	2,100	100%	2,100	3,421
1949	Alley N of W Pioneer	2,100	100%	2,100	3,421
1949	Alley S of W Pioneer	10,600	100%	10,600	17,266
1949	Btwn 4th St & 5th St	6,200	100%	6,200	10,099
1949	E Pioneer	4,400	100%	4,400	7,167
1949	E Pioneer	14,500	100%	14,500	23,619
1949	E Pioneer	1,800	100%	1,800	2,932
1949	Esmt (N of Pioneer)	1,400	100%	1,400	2,280
1949	Esmt N of E Meeker	2,600	100%	2,600	4,235
1949	Garden Way	2,100	100%	2,100	3,421
1949	McElroy (group)	12,100	100%	12,100	19,710
1949	McElroy (group)	3,000	100%	3,000	4,887
1949	Rose Pl	5,800	100%	5,800	9,448
1949	S Meridian (group)	18,200	100%	18,200	29,646
1949	Tacoma Rd	19,800	100%	19,800	32,252
1949	W Main	1,100	100%	1,100	1,792
1949	W Main (group)	41,800	100%	41,800	68,088

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1949	W Meeker	14,200	100%	14,200	23,130
1949	W Pioneer	12,100	100%	12,100	19,710
1949	W Pioneer (group)	12,100	100%	12,100	19,710
1949	W Pioneer (group)	38,200	100%	38,200	62,224
1949	W Pioneer (group)	7,100	100%	7,100	11,565
1949	W Pioneer (group)	27,700	100%	27,700	45,120
1949	W Stewart	16,500	100%	16,500	26,877
1949	W Stewart	16,100	100%	16,100	26,225
1949	W Stewart	7,200	100%	7,200	11,728
1949	Wilson Dr (group)	3,100	100%	3,100	5,050
1954	10th Ave Ct NE	2,100	100%	2,100	3,421
1954	10th Ave NW	12,400	100%	12,400	20,198
1954	10th Ave NW	5,200	100%	5,200	8,470
1954	10th Ave SE	17,600	100%	17,600	28,669
1954	10th St SE	5,400	100%	5,400	8,796
1954	10th St SE	9,000	100%	9,000	14,660
1954	10th St SE	8,600	100%	8,600	14,008
1954	11th Ave NW (group)	4,700	100%	4,700	7,656
1954	11th St SE	5,200	100%	5,200	8,470
1954	12th Ave NW	14,200	100%	14,200	23,130
1954	12th Ave NW	8,900	100%	8,900	14,497
1954	12th Ave SE (group)	13,100	100%	13,100	21,339
1954	12th St Ct NW	2,600	100%	2,600	4,235
1954	12th St SE	9,900	100%	9,900	16,126
1954	13th Ave Ct NW	2,400	100%	2,400	3,909
1954	13th Ave NW	38,700	100%	38,700	63,038
1954	13th Ave NW (group)	5,700	100%	5,700	9,285
1954	13th Ave SE	17,500	100%	17,500	28,506
1954	13th Ave SE, esmt	10,400	100%	10,400	16,941
1954	13th St Ct NW	5,900	100%	5,900	9,610
1954	13th St NW	6,500	100%	6,500	10,588
1954	13th St SE (group)	3,100	100%	3,100	5,050
1954	13th St SE (group) (2001 Also)	38,300	100%	38,300	62,387
1954	14th Ave Ct SE	1,700	100%	1,700	2,769
1954	14th Ave SE (group)	26,000	100%	26,000	42,351
1954	14th Ave SE (South of)	3,000	100%	3,000	4,887
1954	14th St NW	2,700	100%	2,700	4,398
1954	15th Ave SE (group)	18,400	100%	18,400	29,972
1954	15th St NW	18,000	100%	18,000	29,320
1954	16th Ave Ct SE	5,200	100%	5,200	8,470
1954	17th Ave SE (group)	12,200	100%	12,200	19,873
1954	17th St NW	7,400	100%	7,400	12,054
1954	18th Ave SE (easement)	7,300	100%	7,300	11,891
1954	19th Ave SE	10,000	100%	10,000	16,289
1954	2nd Ave NE	9,900	100%	9,900	16,126
1954	2nd Ave NE inc. S of group	22,200	100%	22,200	36,161
1954	2nd St NE	9,900	100%	9,900	16,126
1954	2nd St NE	7,700	100%	7,700	12,542
1954	2nd St NE	4,600	100%	4,600	7,493
1954	2nd St NW	7,900	100%	7,900	12,868
1954	2nd St SE	6,500	100%	6,500	10,588
1954	3rd Ave NE	3,800	100%	3,800	6,190
1954	3rd St NE	12,300	100%	12,300	20,035
1954	3rd St NE (group)	3,700	100%	3,700	6,027
1954	3rd St NW	2,800	100%	2,800	4,561
1954	3rd St NW	300	100%	300	489
1954	3rd St SE	8,200	100%	8,200	13,357
1954	4th Ave NE	2,900	100%	2,900	4,724
1954	4th Ave NE	3,300	100%	3,300	5,375
1954	4th Ave NW (group)	19,400	100%	19,400	31,601
1954	4th Ave SE (alley S of)	3,900	100%	3,900	6,353

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1954	4th Ave SE (alley S of)	7,900	100%	7,900	12,868
1954	4th St NE	4,000	100%	4,000	6,516
1954	4th St NE	5,800	100%	5,800	9,448
1954	4th St NE	16,100	100%	16,100	26,225
1954	4th St NW	6,100	100%	6,100	9,936
1954	4th St NW	29,700	100%	29,700	48,378
1954	4th St SE	4,700	100%	4,700	7,656
1954	5th Ave NE	4,500	100%	4,500	7,330
1954	5th Ave NE	3,300	100%	3,300	5,375
1954	5th Ave NE	7,400	100%	7,400	12,054
1954	5th Ave NW	13,800	100%	13,800	22,479
1954	5th Ave NW	3,700	100%	3,700	6,027
1954	5th Ave NW	7,900	100%	7,900	12,868
1954	5th St NE	8,800	100%	8,800	14,334
1954	5th St NE	15,400	100%	15,400	25,085
1954	5th St NW	6,300	100%	6,300	10,262
1954	5th St SE	17,800	100%	17,800	28,994
1954	6th Ave NW	7,200	100%	7,200	11,728
1954	6th St NW	8,500	100%	8,500	13,846
1954	7th Ave NE	4,900	100%	4,900	7,982
1954	7th Ave NW	7,600	100%	7,600	12,380
1954	7th Ave NW (incl)	23,200	100%	23,200	37,790
1954	7th Ave NW, North of	6,800	100%	6,800	11,076
1954	7th Ave SE	12,000	100%	12,000	19,547
1954	7th St NE	8,500	100%	8,500	13,846
1954	7th St NW	4,100	100%	4,100	6,678
1954	7th St NW	7,800	100%	7,800	12,705
1954	7th St SE	4,900	100%	4,900	7,982
1954	8th Ave NE	5,900	100%	5,900	9,610
1954	8th Ave NW	4,600	100%	4,600	7,493
1954	8th Ave NW	2,600	100%	2,600	4,235
1954	8th Ave NW	4,900	100%	4,900	7,982
1954	8th Ave NW	13,400	100%	13,400	21,827
1954	8th Ave SE	3,800	100%	3,800	6,190
1954	8th Pl NW (group)	11,300	100%	11,300	18,407
1954	8th St NW	7,100	100%	7,100	11,565
1954	8th St NW	6,800	100%	6,800	11,076
1954	8th St NW (group)	6,300	100%	6,300	10,262
1954	9th Ave NE	7,800	100%	7,800	12,705
1954	9th Ave NW	5,500	100%	5,500	8,959
1954	9th Ave NW	25,800	100%	25,800	42,025
1954	9th Ave NW	3,700	100%	3,700	6,027
1954	9th Ave NW (inc. S)	9,900	100%	9,900	16,126
1954	9th Ave SE	2,400	100%	2,400	3,909
1954	9th Ave SE	5,900	100%	5,900	9,610
1954	9th Ave SE	23,300	100%	23,300	37,953
1954	9th St NE	3,400	100%	3,400	5,538
1954	9th St NW	7,200	100%	7,200	11,728
1954	9th St SE	6,900	100%	6,900	11,239
1954	9th St SE	4,600	100%	4,600	7,493
1954	9th St SE	6,600	100%	6,600	10,751
1954	9th St SE	8,500	100%	8,500	13,846
1954	Alley	4,400	100%	4,400	7,167
1954	alley S of 2nd Ave NE	3,800	100%	3,800	6,190
1954	Betw 12th St & 13th St	5,300	100%	5,300	8,633
1954	Between 10th/9th Ave NW	5,000	100%	5,000	8,144
1954	Btwn 3rd St & 4th St	4,400	100%	4,400	7,167
1954	Btwn 4th St & 5th St	4,600	100%	4,600	7,493
1954	E Pioneer	7,900	100%	7,900	12,868
1954	E Pioneer (alley S of)	8,500	100%	8,500	13,846
1954	Esmt (E. of S Meridian)	1,900	100%	1,900	3,095

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1954	Esmt (S. of 3rd St SE)	3,600	100%	3,600	5,864
1954	Esmt (W. of S Meridian)	4,700	100%	4,700	7,656
1954	Esmt W of 11th St SE	5,300	100%	5,300	8,633
1954	Esmt W of 12th St SE	5,200	100%	5,200	8,470
1954	Group W of N Meridian	2,600	100%	2,600	4,235
1954	Group W of N Meridian	1,100	100%	1,100	1,792
1954	Group W of N Meridian)	2,300	100%	2,300	3,746
1954	N Meridian	7,600	100%	7,600	12,380
1954	N Meridian	23,800	100%	23,800	38,768
1954	River Rd SR 167	22,100	100%	22,100	35,999
1954	River Rd SR 167 (group)	47,400	100%	47,400	77,210
1954	S Meridian (group)	46,200	100%	46,200	75,255
1954	W Stewart	1,600	100%	1,600	2,606
1954	W Stewart	14,400	100%	14,400	23,456
1969	10th St PI SE	9,900	100%	9,900	16,126
1969	11th St SE	10,400	100%	10,400	16,941
1969	12th Ave SE	138,600	100%	138,600	225,765
1969	12th PI SE	4,000	100%	4,000	6,516
1969	12th St SE	8,800	100%	8,800	14,334
1969	13th St SE	7,100	100%	7,100	11,565
1969	13th St SE & Esmt Line	25,000	100%	25,000	40,722
1969	14th Ave SE	4,100	100%	4,100	6,678
1969	14th St PI SE	8,700	100%	8,700	14,171
1969	14th St SE	8,600	100%	8,600	14,008
1969	15th Ave SE (group)	27,600	100%	27,600	44,957
1969	21st St SE	21,100	100%	21,100	34,370
1969	22nd St SE	7,000	100%	7,000	11,402
1969	23rd Ave SE	17,700	100%	17,700	28,831
1969	24th Ave SE	12,100	100%	12,100	19,710
1969	24th Ave SE	10,500	100%	10,500	17,103
1969	24th St SE	9,400	100%	9,400	15,312
1969	24th St SE	11,000	100%	11,000	17,918
1969	25th Ave SE (group)	16,300	100%	16,300	26,551
1969	25th St SE	18,000	100%	18,000	29,320
1969	25th St SE & Esmt line	25,200	100%	25,200	41,048
1969	26th Ave SE	6,600	100%	6,600	10,751
1969	26th Ave SE (group)	31,700	100%	31,700	51,636
1969	27th Ave SE	13,100	100%	13,100	21,339
1969	27th St SE	2,400	100%	2,400	3,909
1969	28th Ave SE	11,100	100%	11,100	18,081
1969	29th Ave SE	9,100	100%	9,100	14,823
1969	29th St Ct SE	8,700	100%	8,700	14,171
1969	30th Ave SE	9,000	100%	9,000	14,660
1969	30th St Ct SE	9,300	100%	9,300	15,149
1969	31st Ave SE	3,200	100%	3,200	5,212
1969	31st Ave SE	20,400	100%	20,400	33,229
1969	Acadia Ct	3,400	100%	3,400	5,538
1969	Alderbrook Ct N & S	26,900	100%	26,900	43,817
1969	Big Bend Ct, Esmt N & S of	18,300	100%	18,300	29,809
1969	Bonnie Brae Ct SE	6,400	100%	6,400	10,425
1969	Briarwood Ct N & S	19,900	100%	19,900	32,415
1969	Bryce Canyon Ct	1,500	100%	1,500	2,443
1969	Canyonlands Ct	2,500	100%	2,500	4,072
1969	Carlsbad Ct	7,200	100%	7,200	11,728
1969	Cherokee Blvd	21,300	100%	21,300	34,695
1969	Crater lake Ct	2,600	100%	2,600	4,235
1969	Esmt E of 29th St Ct SE	15,800	100%	15,800	25,737
1969	Esmt Line (group)	36,600	100%	36,600	59,618
1969	Esmt Line (group)	16,300	100%	16,300	26,551
1969	Esmt Line (group)	12,300	100%	12,300	20,035
1969	Everglades Ct	3,400	100%	3,400	5,538
1969	Forest Park Ct N	8,600	100%	8,600	14,008

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1969	Forest Ridge Ct N & S	30,200	100%	30,200	49,193
1969	Forest Rim Ct N & S	27,000	100%	27,000	43,980
1969	Forest View Ct N & S	30,100	100%	30,100	49,030
1969	Glacier Ct	4,100	100%	4,100	6,678
1969	Greenwood Ct S	19,200	100%	19,200	31,275
1969	Heather Ct	9,300	100%	9,300	15,149
1969	Highland Ct	7,900	100%	7,900	12,868
1969	Highland Dr	14,600	100%	14,600	23,782
1969	Kilt Ct	7,100	100%	7,100	11,565
1969	Mammoth Ct (group)	5,700	100%	5,700	9,285
1969	Mesa Verde Ct	5,400	100%	5,400	8,796
1969	Mt McKinley Ct (group)	11,800	100%	11,800	19,221
1969	Olympic Blvd	32,600	100%	32,600	53,102
1969	Parkwood Blvd	7,300	100%	7,300	11,891
1969	Parkwood Blvd (group)	43,500	100%	43,500	70,857
1969	Rainier Blvd	26,500	100%	26,500	43,166
1969	Rainier Blvd	2,200	100%	2,200	3,584
1969	Rocky Mt Ct (group)	6,800	100%	6,800	11,076
1969	Shaw Rd	127,300	100%	127,300	207,358
1969	Shaw Road	6,200	100%	6,200	10,099
1969	Shaw Road (group)	89,500	100%	89,500	145,786
1969	Tartan Ct	5,400	100%	5,400	8,796
1969	Terrace Dr (group)	28,500	100%	28,500	46,423
1969	Valley View Dr	35,400	100%	35,400	57,663
1969	Vista DR (group)	48,300	100%	48,300	78,676
1969	Wildwood Park Drive	32,200	100%	32,200	52,450
1970	10th St SE	9,000	100%	9,000	14,660
1970	12th St SE	6,100	100%	6,100	9,936
1970	12th St SE (group)	16,400	100%	16,400	26,714
1970	15th St SE	19,800	100%	19,800	32,252
1970	23rd St NE	8,400	100%	8,400	13,683
1970	23rd St SE	38,600	100%	38,600	62,875
1970	23rd St SE (W of)	8,800	100%	8,800	14,334
1970	27th St NE	28,300	100%	28,300	46,098
1970	29th St NE (group)	20,400	100%	20,400	33,229
1970	5th Ave NE	24,900	100%	24,900	40,559
1970	8th St SE (East of)	18,500	100%	18,500	30,135
1970	E Main	86,000	100%	86,000	140,085
1970	E Main (group)	231,600	100%	231,600	377,252
1970	Inter Ave SE (group)	68,100	100%	68,100	110,928
1970	Linden Ln (group)	18,900	100%	18,900	30,786
1970	no-name (group)	42,400	100%	42,400	69,065
1970	Rainier St (group)	9,500	100%	9,500	15,474
1973	10th Ave SE	20,600	100%	20,600	33,555
1973	11th Ave SE	5,500	100%	5,500	8,959
1973	14th St SE	21,100	100%	21,100	34,370
1973	15th St SE (group)	88,300	100%	88,300	143,831
1973	16th St SE (group)	42,400	100%	42,400	69,065
1973	17th St SE	60,900	100%	60,900	99,200
1973	19th St SE	19,800	100%	19,800	32,252
1973	21st St SE	65,500	100%	65,500	106,693
1973	5th Ave SE	41,500	100%	41,500	67,599
1973	7th Ave SE	79,800	100%	79,800	129,986
1973	8th Ave Ct SE	6,000	100%	6,000	9,773
1973	8th Ave SE	15,600	100%	15,600	25,411
1973	9th Ave Ct SE	3,800	100%	3,800	6,190
1973	9th Ave Ct SE	11,000	100%	11,000	17,918
1973	9th Ave SE	43,400	100%	43,400	70,694
1973	9th Ave SE	12,200	100%	12,200	19,873
1973	Bet. 14th St & 15th St	8,400	100%	8,400	13,683
1973	E Pioneer	45,300	100%	45,300	73,789

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1973	Park Ave	25,600	100%	25,600	41,700
1974	18th St SW, esmt	161,000	100%	161,000	262,252
1974	22nd Ave SW	27,000	100%	27,000	43,980
1974	23rd St SW	9,600	100%	9,600	15,637
1974	23rd St SW	29,100	100%	29,100	47,401
1974	77th Ave E	34,600	100%	34,600	56,360
1974	7th Ave SW (group)	67,600	100%	67,600	110,113
1974	8th Ave SW	15,600	100%	15,600	25,411
1974	9th Ave SW	7,700	100%	7,700	12,542
1974	Fruitland (group W of)	175,100	100%	175,100	285,219
1974	Fruitland Ave E	4,700	100%	4,700	7,656
1974	Historic Way (group)	50,000	100%	50,000	81,445
1977	12th St SW	17,300	100%	17,300	28,180
1977	19th Ave SE	110,300	100%	110,300	179,667
1977	20th Ave SE	20,000	100%	20,000	32,578
1977	20th Ave SE	25,600	100%	25,600	41,700
1977	21st Ave SE	19,900	100%	19,900	32,415
1977	21st St SE	37,300	100%	37,300	60,758
1977	22nd Ave Ct SE	15,300	100%	15,300	24,922
1977	22nd St SE	34,400	100%	34,400	56,034
1977	7th St SE	128,500	100%	128,500	209,313
1977	9th St SE	86,900	100%	86,900	141,551
1977	Esmt (7th & 9th St)	11,300	100%	11,300	18,407
1978	W Pioneer	64,900	100%	64,900	105,715
1979	107th St E	24,200	100%	24,200	39,419
1979	109th St E	26,200	100%	26,200	42,677
1979	130th Ave E	59,600	100%	59,600	97,082
1979	19th St PI SE	28,300	100%	28,300	46,098
1979	20th St PI SE & W Esmt	62,700	100%	62,700	102,132
1979	21st St PI SE	17,300	100%	17,300	28,180
1979	21st St PI SE & W Esmt	39,500	100%	39,500	64,341
1979	21st St SE	23,400	100%	23,400	38,116
1979	21st St SE	53,900	100%	53,900	87,797
1979	22nd St SE	45,900	100%	45,900	74,766
1979	24th St SE	17,700	100%	17,700	28,831
1979	25th St SE	42,700	100%	42,700	69,554
1979	26th St SE	64,400	100%	64,400	104,901
1979	26th St SE	11,300	100%	11,300	18,407
1979	27th St SE	29,900	100%	29,900	48,704
1979	27th St SE & Esmt Line	88,300	100%	88,300	143,831
1979	32nd Ave SE	70,100	100%	70,100	114,186
1979	33rd Ave SE (group)	52,900	100%	52,900	86,169
1979	34th Ave SE	81,600	100%	81,600	132,918
1979	35th Ave SE	42,000	100%	42,000	68,414
1979	35th Ave SE	24,100	100%	24,100	39,256
1979	35th Ave SE	31,100	100%	31,100	50,659
1979	36th Ave SE	42,900	100%	42,900	69,880
1979	36th PI SE	48,000	100%	48,000	78,187
1979	37th Ave SE	6,900	100%	6,900	11,239
1979	37th Ave SE	17,900	100%	17,900	29,157
1979	37th Ave SE & Esmt	209,000	100%	209,000	340,439
1979	38th Ave SE	21,600	100%	21,600	35,184
1979	38th Ave SE	40,100	100%	40,100	65,319
1979	Easement line	105,600	100%	105,600	172,011
1979	Manorwood Dr	163,500	100%	163,500	266,324
1979	Manorwood Dr	30,800	100%	30,800	50,170
1980	23rd Ave Ct SE	18,500	100%	18,500	30,135
1980	23rd St NW	36,900	100%	36,900	60,106
1980	24th Ave Ct SE	35,500	100%	35,500	57,826
1980	24th Ave SE	31,900	100%	31,900	51,962
1980	25th Ave Ct SE	31,900	100%	31,900	51,962

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1980	26th Ave SE	40,200	100%	40,200	65,482
1980	26th St SE	68,300	100%	68,300	111,254
1980	27th Ct SE	11,400	100%	11,400	18,569
1980	Cherokee Blvd	147,300	100%	147,300	239,936
1980	N Levee Road (group)	77,700	100%	77,700	126,565
1980	River Rd SR 167	347,500	100%	347,500	566,041
1980	Valley Ave NE	183,300	100%	183,300	298,576
1980	Valley Ave NW	23,100	100%	23,100	37,627
1980	Valley Ave NW	230,600	100%	230,600	375,623
1980	Valley Ave NW	85,300	100%	85,300	138,945
1981	104th St E	171,300	100%	171,300	279,030
1981	106th St E (group)	55,100	100%	55,100	89,752
1981	10th Ave SE (group)	113,700	100%	113,700	185,205
1981	10th St SE (group)	161,500	100%	161,500	263,066
1981	10th St SW (easement)	15,400	100%	15,400	25,085
1981	110th Ave E	46,200	100%	46,200	75,255
1981	117th ST Ct E	34,000	100%	34,000	55,382
1981	11th Ave SE	32,700	100%	32,700	53,265
1981	11th Ave SE	61,000	100%	61,000	99,363
1981	11th Ave SE	89,200	100%	89,200	145,297
1981	11th Ave SW	32,500	100%	32,500	52,939
1981	11th St PI SW	39,600	100%	39,600	64,504
1981	11th St PI SW	104,400	100%	104,400	170,057
1981	11th St PI SW	26,500	100%	26,500	43,166
1981	12th Ave SE	14,800	100%	14,800	24,108
1981	12th Ave SW	97,200	100%	97,200	158,329
1981	12th Ave SW (esmt S of)	30,700	100%	30,700	50,007
1981	12th St SW (group)	206,600	100%	206,600	336,530
1981	13th St SW	91,600	100%	91,600	149,207
1981	13th St SW	30,600	100%	30,600	49,844
1981	13th St SW	63,200	100%	63,200	102,946
1981	14th St PI SW (group)	93,800	100%	93,800	152,790
1981	14th St SW	169,100	100%	169,100	275,446
1981	15th Ave SW	120,500	100%	120,500	196,282
1981	15th Ave SW (group)	265,100	100%	265,100	431,820
1981	15th St SW	10,400	100%	10,400	16,941
1981	16th Ct SW	16,600	100%	16,600	27,040
1981	17th Ave Ct SW	14,100	100%	14,100	22,967
1981	17th St SW	24,800	100%	24,800	40,397
1981	19th Ave SW	168,200	100%	168,200	273,980
1981	19th Ave SW	34,800	100%	34,800	56,686
1981	20th Ave Ct SW	33,700	100%	33,700	54,894
1981	20th Ave SW	13,200	100%	13,200	21,501
1981	21st Ave SW	79,500	100%	79,500	129,497
1981	21st Ave SW	40,800	100%	40,800	66,459
1981	22nd Ave Ct SW	11,000	100%	11,000	17,918
1981	22nd Ave SW	25,900	100%	25,900	42,188
1981	23rd Ave Ct SW	14,300	100%	14,300	23,293
1981	23rd Ave SE	183,900	100%	183,900	299,554
1981	23rd Ave SE	267,400	100%	267,400	435,566
1981	23rd Ave SW	37,300	100%	37,300	60,758
1981	24th Ave SE (easement)	23,600	100%	23,600	38,442
1981	27th Ave SE	22,200	100%	22,200	36,161
1981	27th Ave SE	15,000	100%	15,000	24,433
1981	27th Ave SE (group)	88,600	100%	88,600	144,320
1981	28th Ave SE	32,400	100%	32,400	52,776
1981	28th Ave SE (group)	148,300	100%	148,300	241,565
1981	29th Ave SE (group)	91,900	100%	91,900	149,695
1981	30th Ave SW	66,900	100%	66,900	108,973
1981	31st Ave SE	76,500	100%	76,500	124,610

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1981	35th Ave SE	51,000	100%	51,000	83,074
1981	35th Ave SW (esmt)	154,500	100%	154,500	251,664
1981	35th Ave SW (esmt)	197,800	100%	197,800	322,195
1981	37th Ave SE	185,000	100%	185,000	301,346
1981	39th Ave SE	224,300	100%	224,300	365,361
1981	39th Ave SE	54,400	100%	54,400	88,612
1981	39th Ave SW	56,000	100%	56,000	91,218
1981	39th Ave SW (S of)	115,500	100%	115,500	188,137
1981	3rd St SE	29,300	100%	29,300	47,727
1981	3rd St SE	28,300	100%	28,300	46,098
1981	3rd St SE -tie to 8"	163,600	100%	163,600	266,487
1981	3rd St SW	70,800	100%	70,800	115,326
1981	3rd St SW/Frontage Rd	48,800	100%	48,800	79,490
1981	43rd Ave SW	64,000	100%	64,000	104,249
1981	5th St SE	85,400	100%	85,400	139,108
1981	5th St SE	89,200	100%	89,200	145,297
1981	5th St SE	86,200	100%	86,200	140,411
1981	5th St SE	123,300	100%	123,300	200,843
1981	5th St SW	60,300	100%	60,300	98,222
1981	5th St SW	106,200	100%	106,200	172,989
1981	6th St SE	88,600	100%	88,600	144,320
1981	6th St SW	40,700	100%	40,700	66,296
1981	7th St SE	78,800	100%	78,800	128,357
1981	7th St SE	44,700	100%	44,700	72,812
1981	7th St SE	293,500	100%	293,500	478,081
1981	7th St SE	41,800	100%	41,800	68,088
1981	7th St SW	133,400	100%	133,400	217,295
1981	7th St SW	16,500	100%	16,500	26,877
1981	86th Ave E	53,300	100%	53,300	86,820
1981	8th Ave SE	40,100	100%	40,100	65,319
1981	8th St Ct SW	35,300	100%	35,300	57,500
1981	8th St SE	16,600	100%	16,600	27,040
1981	8th St SW	49,400	100%	49,400	80,467
1981	90th Ave E	153,700	100%	153,700	250,361
1981	98th St E (group)	79,700	100%	79,700	129,823
1981	9th St SE (group)	79,300	100%	79,300	129,171
1981	9th St SW	213,800	100%	213,800	348,258
1981	9th St SW	495,500	100%	495,500	807,117
1981	Esmt (E of 5th St SE)	104,900	100%	104,900	170,871
1981	Esmt E of Meridian St S	80,800	100%	80,800	131,615
1981	Esmt W of 101st Ave E	179,200	100%	179,200	291,898
1981	Esmt W of 5th St SE	56,000	100%	56,000	91,218
1981	Meridian St S	30,300	100%	30,300	49,356
1981	S Meridian	85,300	100%	85,300	138,945
1981	S Meridian	207,200	100%	207,200	337,507
1990	15th St SE	45,100	100%	45,100	73,463
1990	15th St SE (group)	48,100	100%	48,100	78,350
1990	16th Ave Ct SE	19,200	100%	19,200	31,275
1990	16th Ave SE	38,100	100%	38,100	62,061
1990	16th St SE (group)	79,900	100%	79,900	130,149
1990	17th Ave SE	25,400	100%	25,400	41,374
1990	17th St PI SE	52,600	100%	52,600	85,680
1990	18th St SE	192,300	100%	192,300	313,236
1990	19th Ave Ct SE	23,800	100%	23,800	38,768
1990	19th PI SE	39,100	100%	39,100	63,690
1990	20th Ave Ct SE	24,000	100%	24,000	39,093
1990	20th Ave Ct SE (group)	50,300	100%	50,300	81,933
1990	20th St SE (group)	172,800	100%	172,800	281,473
1990	21st Ave Ct SE	9,200	100%	9,200	14,986
1990	22nd Ave Ct SE	12,600	100%	12,600	20,524
1990	23rd Ave Ct SE	61,800	100%	61,800	100,666

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1990	23rd Ave SE	172,000	100%	172,000	280,170
1990	24th Ave Ct SE	23,700	100%	23,700	38,605
1990	24th Ave SE	61,400	100%	61,400	100,014
1990	24th Ave SE	31,400	100%	31,400	51,147
1990	24th Ave SE	26,400	100%	26,400	43,003
1990	24th St PI SE	11,400	100%	11,400	18,569
1990	24th St PI SE	237,800	100%	237,800	387,351
1990	24th St SE	41,500	100%	41,500	67,599
1990	25th Ave Ct SE (group)	47,400	100%	47,400	77,210
1990	25th Ave SE (group)	134,900	100%	134,900	219,738
1990	25th St SE	42,000	100%	42,000	68,414
1990	26th Ave Ct SE	19,700	100%	19,700	32,089
1990	26th Ave SE	55,800	100%	55,800	90,892
1990	26th PI SE	33,000	100%	33,000	53,754
1990	27th Ave SE	46,300	100%	46,300	75,418
1990	27th St SE	122,100	100%	122,100	198,888
1990	27th St SE	143,500	100%	143,500	233,746
1990	28th Ave SE	27,300	100%	27,300	44,469
1990	28th PI SE	83,200	100%	83,200	135,524
1990	28th St SE	70,100	100%	70,100	114,186
1990	28th St SE	83,800	100%	83,800	136,501
1990	29th Ave SE	30,400	100%	30,400	49,518
1990	29th Ave SE (group)	73,400	100%	73,400	119,561
1990	29th PI SE	48,600	100%	48,600	79,164
1990	30st St PI SE	11,800	100%	11,800	19,221
1990	30th Ave SE	82,500	100%	82,500	134,384
1990	30th St SE & Esmt Line	65,900	100%	65,900	107,344
1990	31st Ave SE	86,400	100%	86,400	140,736
1990	31st Ave SE	91,400	100%	91,400	148,881
1990	31st PI SE	35,000	100%	35,000	57,011
1990	31st St Ct SE	28,800	100%	28,800	46,912
1990	31st St PI SE & Esmt	39,600	100%	39,600	64,504
1990	31st St SE (group)	81,700	100%	81,700	133,081
1990	32nd Ave Ct SE	86,400	100%	86,400	140,736
1990	32nd St PI SE	40,700	100%	40,700	66,296
1990	32nd St PI SE & Esmt	35,500	100%	35,500	57,826
1990	33rd Ave SE	38,800	100%	38,800	63,201
1990	Brookmonte Dr (group)	185,100	100%	185,100	301,508
1990	Esmt (21st Ave SE)	24,200	100%	24,200	39,419
1990	Esmt (22nd Ct SE)	36,100	100%	36,100	58,803
1990	Larkspur Ct	10,800	100%	10,800	17,592
1990	Larkspur Drive	126,400	100%	126,400	205,892
1990	Thornhill Ct	14,900	100%	14,900	24,271
1990	Thornhill Rd (group)	107,800	100%	107,800	175,595
1990	Wildflower	10,400	100%	10,400	16,941
1991	12th Ave SE	613,400	100%	613,400	999,164
1991	12th Ave SE	469,800	100%	469,800	765,255
1991	12th Ave SW, esmt	576,500	100%	576,500	939,058
1991	15th Ave SE	94,500	100%	94,500	153,931
1991	15th Ave SE	75,500	100%	75,500	122,982
1991	19th Ave Ct SE (group)	50,300	100%	50,300	81,933
1991	19th Ave SE	44,900	100%	44,900	73,137
1991	20th Ave SE	63,000	100%	63,000	102,620
1991	23rd Ave SE	9,900	100%	9,900	16,126
1991	23rd Ave SE	57,300	100%	57,300	93,336
1991	41st St PI SE	29,300	100%	29,300	47,727
1991	Amber Blvd	175,700	100%	175,700	286,197
1991	Crystal Lane Loop (group)	281,100	100%	281,100	457,882
1991	Crystal Ridge Dr SE	271,800	100%	271,800	442,734
1991	Easement Line	70,100	100%	70,100	114,186
1992	14th St SW	61,700	100%	61,700	100,503

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1992	14th St SW (group)	531,300	100%	531,300	865,432
1992	18th St SW	597,500	100%	597,500	973,265
1992	5th Ave SW	391,600	100%	391,600	637,875
1992	W Pioneer (group)	93,500	100%	93,500	152,302
1993	101st Ave E	53,700	100%	53,700	87,472
1993	37th Ave SW Esmt	285,800	100%	285,800	465,538
1993	43rd Ave SW	41,700	100%	41,700	67,925
1993	5th St SE	41,300	100%	41,300	67,273
1993	7th St SW	354,300	100%	354,300	577,117
1993	South Park Dr (group)	137,300	100%	137,300	223,647
1995	10th Ave SE	127,000	100%	127,000	206,870
1995	16th St NW	165,200	100%	165,200	269,093
1995	18th St SE	51,000	100%	51,000	83,074
1995	19th Ave SE (group)	52,300	100%	52,300	85,191
1995	19th St SE	80,000	100%	80,000	130,312
1995	20th Ave SE	23,500	100%	23,500	38,279
1995	20th St SE (group)	147,700	100%	147,700	240,588
1995	21st Ave SE	42,000	100%	42,000	68,414
1995	21st Ave SE	18,900	100%	18,900	30,786
1995	22nd Ave PI SE	19,800	100%	19,800	32,252
1995	22nd Ave SE	26,900	100%	26,900	43,817
1995	22nd Ave SE	140,000	100%	140,000	228,045
1995	22nd St SE	58,800	100%	58,800	95,779
1995	23rd Ave SE	59,500	100%	59,500	96,919
1995	23rd St PI SE	44,400	100%	44,400	72,323
1995	34th St SE	141,200	100%	141,200	230,000
1995	35th St SE	68,000	100%	68,000	110,765
1995	39th Ave SW (group)	235,700	100%	235,700	383,930
1995	39th St SE	119,600	100%	119,600	194,816
1995	5th St SW	223,800	100%	223,800	364,547
1995	5th St SW	120,300	100%	120,300	195,956
1995	5th St SW	359,700	100%	359,700	585,913
1995	N Levee Road (group)	358,000	100%	358,000	583,144
1997	19th St NW	17,200	100%	17,200	28,017
1999	120th St E (easement group)	160,100	100%	160,100	260,786
1999	13th Ave NW	88,900	100%	88,900	144,809
1999	14th Ave NW	64,400	100%	64,400	104,901
1999	21st St NW	279,300	100%	279,300	454,950
1999	22nd St NW	21,300	100%	21,300	34,695
1999	23rd St NW	50,200	100%	50,200	81,771
1999	23rd St PI NW	85,400	100%	85,400	139,108
1999	7th St PI SE	64,500	100%	64,500	105,064
1999	91st Ave E (easement)	128,400	100%	128,400	209,150
1999	E Main	76,400	100%	76,400	124,448
1999	N Levee Road (group)	125,600	100%	125,600	204,589
1999	N Meridian	173,100	100%	173,100	281,962
2000	101st St Ct E (group)	187,800	100%	187,800	305,906
2000	15th St NW	56,200	100%	56,200	91,544
2000	15th St NW	170,900	100%	170,900	278,378
2000	7th St PI SE	136,100	100%	136,100	221,693
2001	Peach Park Ln (group)	122,900	100%	122,900	190,658
2002	10th Ave Ct SE	37,500	100%	37,500	55,405
2002	30th Ave SW (N of)	28,400	100%	28,400	41,960
2002	Esmt btwn 17th & 21st St	57,400	100%	57,400	84,806
2002	Esmt btwn 17th & 21st St	20,800	100%	20,800	30,731
2004	109, 209, & 307 5th Ave. N.W. Side Sewers	50,779	100%	50,779	68,049
2004	13th Ave. NW	296,431	100%	296,431	397,246
2004	20th St. N.W. Developer Extension	10,669	0%	0	0
2004	7th St SE	235,317	100%	235,317	315,347
2004	Ashley Meadows Developer Extension	52,864	0%	0	0
2004	Bjerk Short Plat Developer Extension	25,325	0%	0	0

Exhibit 3

Sewer System Development Charge - 2010

Determination of Collection Plant

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
2004	Calvert Ridge	286,299	100%	286,299	383,668
2004	Clements Short Plat Developer Extension	10,368	0%	0	0
2004	Eagle's Heights Developer Extension	15,328	0%	0	0
2004	Heartland Meadows Developer Extension	36,208	0%	0	0
2004	Maple Heights Developer Extension	24,480	0%	0	0
2004	Maple Tree Developer Extension	24,822	0%	0	0
2004	Outback Apartments Developer Extension	4,000	0%	0	0
2004	Ramsaur Short Plat Developer Extension	20,000	0%	0	0
2004	Ruiz Short Plat Developer Extension	6,368	0%	0	0
2004	Sister's Ridge Developer Extension	57,437	0%	0	0
2005	10th St. S.W.	3,952	100%	3,952	5,044
2005	15th Ave. S.E.	3,140	100%	3,140	4,007
2005	2nd St. S.E. Developer Extension	16,368	0%	0	0
2005	China Buffet Developer Extension	10,131	0%	0	0
2005	E. Pioneer	428,161	100%	428,161	546,454
2005	La Grande Phase I Developer Extension	119,296	0%	0	0
2005	LOI Developer Extension	52,437	0%	0	0
2005	Shaw Road Developer Extension	39,968	0%	0	0
2006	12th Ave. S.W. Developer Extension	7,276	0%	0	0
2006	23rd Ave. S.E.	3,581	100%	3,581	4,353
2006	Ashley Meadows Phase III Developer Extension	9,270	0%	0	0
2006	Bentley Sewer Developer Extension	6,435	0%	0	0
2006	La Grande Phase II Developer Extension	34,605	0%	0	0
2006	Scafco Developer Extension	14,220	0%	0	0
2006	Shaw Road Short Plat Developer Extension	32,940	0%	0	0
2006	W. Pioneer	32,857	100%	32,857	39,937
2006	Wal-Mart Expansion Developer Extension	1,485	0%	0	0
2007	5th Ave. N.W./10th Pl. N.W.	73,078	100%	73,078	84,597
2007	5th St. S.E.	82,245	100%	82,245	95,209
2007	Children's World (43rd Ave. S.E.) Developer Extension	11,466	0%	0	0
2007	Cypress Manor (Walrath) Developer Extension	19,440	0%	0	0
2007	De Valeria Short Plat Developer Extension	9,315	0%	0	0
2007	Meridian Place Developer Extension	26,775	0%	0	0
2007	Pool Short Plat Developer Extension	6,615	0%	0	0
2007	Puyallup Highlands Phase I Developer Extension	209,565	0%	0	0
2007	Riverfront Industrial Park Developer Extension	47,645	0%	0	0
2008	10th St. S.E.	37,204	100%	37,204	41,018
2008	Bock Short Plat Developer Extension	7,605	0%	0	0
2008	Diane's Faithful Lane Developer Extension	48,780	0%	0	0
2008	Millmar Developer Extension	96,390	0%	0	0
2008	Millmar Sewer Improvements	45,954	100%	45,954	50,664
2008	Pioneer Place Developer Extension	10,080	0%	0	0
2008	Puyallup Highlands Phase II Developer Extension	63,630	0%	0	0
2008	Schwartz Developer Extension	6,165	0%	0	0
2008	Villages Developer Extension	429,525	0%	0	0
1965	Force Mains - 9th & Pioneer	26,000	100%	26,000	42,351
1976	Force Mains - Clark's Creek	29,000	100%	29,000	47,238
1978	Force Mains - 4th & River	61,000	100%	61,000	99,363
1980	Force Mains - North Puyallup	248,000	100%	248,000	403,966
1981	Force Mains - 86th Ave E	334,000	100%	334,000	544,051
1982	Force Mains - Candlewood	56,000	100%	56,000	91,218
1986	Force Mains - Riverside	113,000	100%	113,000	184,065
1988	Force Mains - East Main	141,000	100%	141,000	229,674
1988	Force Mains - Cherokee	30,000	100%	30,000	48,867
1988	Force Mains - South Hill Mall	58,000	100%	58,000	94,476
1991	Force Mains - 23rd & Tacoma	44,000	100%	44,000	71,671
1992	Force Mains - Flansburg Addition	127,000	100%	127,000	206,870
1992	Force Mains - Crystal Ridge S	67,000	100%	67,000	109,136
1992	Force Mains - Crystal Ridge N	58,000	100%	58,000	94,476
1995	Force Mains - 19th & W Pioneer	309,000	100%	309,000	503,328
1999	Force Mains - Meadows (104th St)	105,000	100%	105,000	171,034

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1999	Force Mains - Costco	213,000	100%	213,000	346,955
1999	Force Mains - MASCA/Fairchild	3,346,000	100%	3,346,000	5,450,281
2001	Force Mains - Brookstone	395,000	100%	395,000	612,775
2004	Force Mains - Blackstone	46,603	100%	46,603	62,453
2007	Force Mains - Millmarr Force Main Extension	55,880	100%	55,880	64,688
1980	Lift Stations - North Puyallup	104,000	100%	104,000	169,405
1976	Lift Stations - Clark's Creek	56,000	100%	56,000	91,218
1980	Lift Stations - 4th & River	104,000	100%	104,000	169,405
1980	Lift Stations - 9th & Pioneer	36,000	100%	36,000	58,640
1981	Lift Stations - 86th Ave E	90,000	100%	90,000	146,601
1982	Lift Stations - Candlewood	94,000	100%	94,000	153,116
1986	Lift Stations - Riverside	99,000	100%	99,000	161,261
1988	Lift Stations - East Main	160,000	100%	160,000	260,623
1988	Lift Stations - Cherokee	103,000	100%	103,000	167,776
1988	Lift Stations - South Hill Mall	103,000	100%	103,000	167,776
1991	Lift Stations - 23rd & Tacoma	109,000	100%	109,000	177,550
1992	Lift Stations - Flansburg Addition	147,000	100%	147,000	239,448
1992	Lift Stations - Crystal Ridge S	147,000	100%	147,000	239,448
1992	Lift Stations - Crystal Ridge N	147,000	100%	147,000	239,448
1996	Lift Stations - 19th & W. Pioneer	1,599,000	100%	1,599,000	2,604,603
1999	Lift Stations - Meadows (104th St)	217,000	100%	217,000	353,470
1999	Lift Stations - Costco	422,000	100%	422,000	687,394
2001	Lift Stations - Brookstone	206,000	100%	206,000	319,574
2004	Lift Stations - Blackstone	223,038	100%	223,038	298,892
Total Existing Collection Plant		\$45,318,356		\$43,693,060	\$70,385,402
Existing ERU at 2028 [2]					28,132
Existing System Development Charge per ERU					\$2,502
Future Improvements					
		[3]	[4]		
	System Improvements	\$1,900,000	0%	\$0	\$0
	I/I Reduction	1,100,000	50%	550,000	550,000
	Riverside LS Upgrade	745,000	100%	745,000	745,000
	NE Street Improvement Project	415,000	0%	0	0
	W. Pioneer Line Replacement (18th to 19th St SE)	450,000	0%	0	0
	North Puyallup Lift Station Upgrade	452,000	50%	226,000	226,000
	14th St. Line Replacement (7th to 9th Ave SW)	767,000	0%	0	0
	12th Ave SE Line Replacement (East of 13th St SE)	312,000	0%	0	0
	11th St NW (Stewart to River Rd)	65,000	100%	65,000	65,000
	East Main Force Main Upgrade	1,475,000	100%	1,475,000	1,475,000
	East Main Lift Station	470,000	100%	470,000	470,000
<u>Coordination/Oppportunity Projects</u>					
	Fruitland Ave Sewer Main Pahe I/II/III/IV	3,000,000	100%	3,000,000	3,000,000
	4th St SED; 4th Ave to Pioneer	150,000	100%	150,000	150,000
	15th St NW/SW Storm-4th Ave SW to Stewart	515,000	0%	0	0
	W Main; 7th to 12th St	130,000	0%	0	0
	9th St SW; Pioneer to 9th Ave SW	150,000	0%	0	0
Total Future Improvements		\$12,096,000		\$6,681,000	\$6,681,000
2010-2028 ERUs [2]					9,313
Future System Development Charge per ERU					\$717
Total Collection Plant System Development Charge per ERU					\$3,219

Notes:

[1] Prior contributions noted as developer contributions/extensions.

[2] From Exhibit 1

[3] Future CIP costs are estimated in 2010 dollars, provided by Public Works Director 4/12/20 email and City 2010 CFP budget.

[4] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

Year	Equipment List	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing General Plant					
2004	Other Improvements - Waterworks Utility Rate Study [1]	\$61,165	50%	\$30,582	\$30,582
2002	Heavy Equipment - Clark Forklift	7,324	100%	7,324	7,324
2002	Heavy Equipment - 2002 John Deere Backhoe	5,326	100%	5,326	5,326
1991	Buildings & Structures - Corporate Yard Building	818,705	100%	818,705	818,705
Total Existing Treatment		\$892,519		\$861,937	\$861,937
Existing ERU at 2028 [2]					28,132
Existing System Development Charge per ERU					\$31
Future Improvements					
		[1]	[2]		
	Sewer Comp Plan Update	\$175,000	80%	\$140,000	\$140,000
Total Future Improvements		\$175,000		\$140,000	\$140,000
2010-2028 ERUs [2]					9,313
Future System Development Charge per ERU					\$15
Total System Development Charge per ERU					\$46

Notes:

[1] Percent eligible for Rate Study based on percent difference in ERUs from 2010 to 2028.

[2] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

City of Puyallup
 Exhibit 5
 Sewer System Development Charge - 2010
 Debt Service Credit

Year	Total Existing Debt Service [1]	New Debt [2]	Total Debt	SDC Revenue	Net Debt Service	ERUs	Debt/ ERU	Debt/ERU (\$2010)
2010	\$2,176,425	\$97,277	\$2,273,702	\$2,056,003	\$217,699	19,240	\$11.31	\$11.31
2011	2,175,432	121,963	2,297,394	2,154,213	143,181	19,669	7.28	6.93
2012	2,388,303	208,571	2,596,874	2,256,808	340,065	20,105	16.91	15.34
2013	2,392,626	271,749	2,664,375	2,363,969	300,406	20,548	14.62	12.63
2014	2,356,288	312,166	2,668,453	2,475,880	192,573	20,999	9.17	7.54
2015	2,319,552	352,750	2,672,302	2,592,736	79,566	21,457	3.71	2.91
2016	2,363,953	352,750	2,716,703	2,714,736	1,967	21,923	0.09	0.07
2017	1,702,112	352,750	2,054,863	2,842,088	0	22,397	0.00	0.00
2018	1,157,561	352,750	1,510,311	2,975,005	0	22,878	0.00	0.00
2019	1,153,602	737,675	1,891,277	3,113,711	0	23,367	0.00	0.00
2020	698,195	737,675	1,435,870	3,258,434	0	23,864	0.00	0.00
2021	374,006	737,675	1,111,681	3,409,412	0	24,369	0.00	0.00
2022	373,881	737,675	1,111,556	3,566,893	0	24,881	0.00	0.00
2023	377,541	737,675	1,115,216	3,731,130	0	25,402	0.00	0.00
2024	375,594	737,675	1,113,269	3,904,729	0	25,931	0.00	0.00
2025	378,241	737,675	1,115,916	4,085,912	0	26,468	0.00	0.00
2026	375,281	737,675	1,112,956	4,274,983	0	27,014	0.00	0.00
2027	375,844	737,675	1,113,519	4,472,260	0	27,569	0.00	0.00
2028	375,750	737,675	1,113,425	4,678,071	0	28,132	0.00	0.00
2029	0	640,398	640,398	4,892,756	0	28,703	0.00	0.00
2030	0	615,713	615,713	5,116,669	0	29,284	0.00	0.00
2031	0	529,104	529,104	5,350,173	0	29,873	0.00	0.00
2032	0	465,927	465,927	5,593,648	0	30,472	0.00	0.00
2033	0	425,509	425,509	5,847,483	0	31,079	0.00	0.00
2034	0	384,925	384,925	6,112,084	0	31,695	0.00	0.00
2035	0	384,925	384,925	6,387,869	0	32,320	0.00	0.00

Total Debt Service Credit (\$ per ERU)

(\$56.74)

Notes:

[1] Existing debt obtained from City debt schedules.

[2] From rate study projection of debt to fund all CIP, including sewer portions of opportunity projects.

New debt for improvements at 5.5% for 20 years. Interest rate includes bond issuance and reserve requirements.

City of Puyallup
 Exhibit 6
 Sewer System Development Charge - 2010
 Summary

Current Sewer System Development Charge	\$4,520
Calculated Sewer System Development Charge (Rounded)	\$4,880
Difference	\$360

Sewer System Development Charge Calculation Results

	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Treatment	\$0	\$115	\$1,415	\$1,530
Collection	338	379	2,502	3,219
General Plant	0	15	31	46
Debt Service Credit	0	0	0	0
Total	\$338	\$509	\$3,948	\$4,795
Plus State B&O Tax (1.8%)	\$6	\$9	\$71	\$86
Total SDC	\$344	\$518	\$4,019	\$4,881
Net Allowable Sewer System Development Charge	\$344	\$518	\$4,019	\$4,881
Rounding for Implementation Purposes	\$340	\$520	\$4,020	\$4,880

Current Charge Implementation Method by ERU's

Sewer Customer Description	No. of ERU's	System Development Charge
Single-Family Dwelling	1	\$4,880
Duplex/Apartment, 1st Unit	1	4,880
Duplex - each additional unit	0.75	3,660
Mobile Home Subd., pad	1	4,880
Recreational Veh. Park, each space	0.63	3,074
Motel/Hotel, each unit	0.63	3,074
Hospital, Rest Home, each 6 beds	1	4,880
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	4,880
Each Additional Fixture Unit Weight	0.067	327

City of Puyallup
 Exhibit 7
 Sewer System Development Charge - 2010
 Summary of Sewer Capital Improvement Plan

	2010	2011	2012	2013	2014	2015	2016	Total	% Growth Related	Notes
Capital Improvements										
C System Improvements	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$300,000	\$300,000	\$1,900,000	0%	From CIP Plan
T Treatment Plant Repairs and Upgrades	850,000	800,000	700,000	800,000	800,000	800,000	800,000	5,550,000	0%	Modified from CIP Plan
T Replace Generators	0	521,000	0	0	0	0	0	521,000	0%	From CIP Plan
C I/I Reduction	0	500,000	300,000	300,000	0	0	0	1,100,000	50%	From CIP Plan
C Riverside LS Upgrade	0	115,000	630,000	0	0	0	0	745,000	100%	From CIP Plan
C NE Street Improvement Project	0	0	415,000	0	0	0	0	415,000	0%	From Updated CIP Plan
T Modify Influent Pump	0	0	165,000	935,000	0	0	0	1,100,000	50%	From CIP Plan
T Secondary Clarifier 3	0	0	700,000	0	0	0	0	700,000	100%	From CIP Plan
C W. Pioneer Line Replacement (18th to 19th St SE)	0	0	0	450,000	0	0	0	450,000	0%	From CIP Plan
C North Puyallup Lift Station Upgrade	0	0	0	0	452,000	0	0	452,000	50%	From CIP Plan
C 14th St. Line Replacement (7th to 9th Ave SW)	0	0	0	0	767,000	0	0	767,000	0%	From CIP Plan
C 12th Ave SE Line Replacement (East of 13th St SE)	0	0	0	0	312,000	0	0	312,000	0%	From CIP Plan
C 11th St NW (Stewart to River Rd)	0	0	0	0	0	65,000	0	65,000	100%	From Updated CIP Plan
C East Main Force Main Upgrade	0	0	0	0	0	225,000	1,250,000	1,475,000	100%	From CIP Plan
C East Main Lift Station	0	0	0	0	0	470,000	0	470,000	100%	From CIP Plan
T Aeration Blowers Replacement	0	0	0	0	0	388,000	0	388,000	0%	From CIP Plan
G Sewer Comp Plan Update	0	0	0	0	0	0	175,000	175,000	80%	From CIP Plan
Future Unidentified Replacement Projects	0	0	0	0	0	0	0	0	0%	
Total Capital Improvement	\$1,100,000	\$2,186,000	\$3,160,000	\$2,735,000	\$2,631,000	\$2,248,000	\$2,525,000	16,585,000		
Coordination/Opportunity Projects										
<u>Capacity adding projects</u>										
C Fruitland Ave Sewer Main Pahe I/II/III/IV	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000	\$3,000,000	100%	From Budget page 5-10
C 4th St SED; 4th Ave to Pioneer	0	0	0	150,000	0	0	0	150,000	100%	From Budget page 5-10
Total	0	0	0	150,000	0	1,500,000	1,500,000	\$3,150,000		
<u>Other System Opportunity Projects</u>										
C 15th St NW/SW Storm-4th Ave SW to Stewart	0	515,000	0	0	0	0	0	\$515,000	0%	From Budget page 5-10
C W Main; 7th to 12th St	0	130,000	0	0	0	0	0	130,000	0%	From Budget page 5-10
C 9th St SW; Pioneer to 9th Ave SW	0	150,000	0	0	0	0	0	150,000	0%	From Budget page 5-10
Total	0	795,000	0	0	0	0	0	\$795,000		
Total Opportunity Projects	\$0	\$795,000	\$0	\$150,000	\$0	\$1,500,000	\$1,500,000	\$3,945,000		
TOTAL CAPITAL IMPROVEMENT PROJECTS	\$1,100,000	\$2,981,000	\$3,160,000	\$2,885,000	\$2,631,000	\$3,748,000	\$4,025,000	\$20,530,000		



Appendix C – Storm & Surface Water SDC

City of Puyallup
Exhibit 1
Storm and Surface Water System Development Charge - 2010
Development of ESUs

ESU = Equivalent Service Unit

Average Impervious Area per ESU [1]	2,800
Total impervious area [2]	94,552,260
ESUs [3]	33,769

Year [4]	ESUs [3]	Additional ESUs per Year	Total New ESUs	Rate of Growth
2009	33,769			
2010	34,106	338	338	1.0%
2011	34,447	341	679	1.0%
2012	34,792	344	1,023	1.0%
2013	35,140	348	1,371	1.0%
2014	35,491	351	1,723	1.0%
2015	35,846	355	2,077	1.0%
2016	36,205	358	2,436	1.0%
2017	36,567	362	2,798	1.0%
2018	36,932	366	3,164	1.0%
2019	37,302	369	3,533	1.0%
2020	37,675	373	3,906	1.0%
2021	38,051	377	4,283	1.0%
2022	38,432	381	4,663	1.0%
2023	38,816	384	5,048	1.0%
2024	39,204	388	5,436	1.0%
2025	39,596	392	5,828	1.0%
2026	39,992	396	6,224	1.0%
2027	40,392	400	6,624	1.0%
2028	40,796	404	7,028	1.0%

Notes:

[1] One equivalent single-family unit (ESU) is equal to 2,800 square feet of impervious area, per City rate schedule.

[2] Calculated in storm utility rate study, based on City billing data.

[3] Calculated by dividing impervious area by 2,800 square feet (per ESU).

[4] The City is currently updating the Storm and Surface Water Comp. Plan. This goes out to 2028 as the most recently completed Comp Plan, Sewer Comprehensive Plan.

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
Existing Collection Plant					
LAND					
2002	LAND-MORTENSEN PROPERTY	\$180,359	100%	\$180,359	\$266,473
2002	E PIONEER LAND	67,883	100%	67,883	100,294
2001	LAND - 1023 11TH ST SW	36,808	100%	36,808	57,101
2002	EASEMENT-925 18TH ST SW/MEEKER	12,864	100%	12,864	19,006
1989	LAND-STEMP PROPERTY	44,578	100%	44,578	72,613
1990	LAND-PRATT PROPERTY	26,645	100%	26,645	43,402
1998	LAND - E. PIONEER AVE.	118,878	100%	118,878	193,639
1998	LAND - 1016 12TH AVE SW	147,217	100%	147,217	239,801
1989	LAND - ARCO 15TH AVE SE	196,615	100%	196,615	320,265
1998	LAND - SAFEWAY WETLANDS	17,513	100%	17,513	28,528
2001	1919 PIONEER PLACE PROPERTY	26,032	100%	26,032	40,385
1999	LAND - 10TH ST SE	29,951	100%	29,951	48,786
1999	LAND - O'MALLEY	60,911	100%	60,911	99,217
1999	LAND - WWF/SILVER LOT	31,137	100%	31,137	50,720
2004	HANSEN 25TH ST SE-DEER CREEK	57,866	100%	57,866	77,546
2008	PUYALLUP HIGHLANDS (SHAW ROAD POND)	300,633	100%	300,633	331,447
OTHER IMPROVEMENTS					
1995	PAVING ON 12TH AVE SE	5,648	100%	5,648	9,200
1999	SILVER PARKING LOT	115,106	100%	115,106	187,495
2004	WATERWORKS UTILITY RATE STUDY	31,262	0%	0	0
2005	CLARKS CREEK TMDL	317,359	100%	317,359	405,039
2007	HIGHWAY BASIN PLAN	101,520	100%	101,520	117,523
HEAVY EQUIPMENT					
2000	ULTRASONIC FLOWMETER	5,582	100%	5,582	9,093
1991	TRENCHBOX	5,501	100%	5,501	8,961
1994	WEED-CUTTING BOAT	14,011	100%	14,011	22,822
1996	DATASONDE MUTLIPROBE	6,928	100%	6,928	11,285
1996	STEWART GARDENTS CONTROL PANEL	44,738	100%	44,738	72,874
1997	TRASH PUMP - 6"	14,917	100%	14,917	24,297
2002	PUMP	21,671	100%	21,671	32,018
MACHINERY & EQUIPMENT					
2008	FLOOD CONTROL TUBES	45,885	100%	45,885	50,589
2008	TRIMBLE GEO XH SYSTEM	11,451	100%	11,451	12,624
STORM PIPES					
1970	73' N of E Pioneer	10,000	100%	10,000	16,289
1970	BNRR	10,500	100%	10,500	17,103
1970	5th St. SW	128,100	100%	128,100	208,661
1970	15th Ave. SW	31,700	100%	31,700	51,636
1990	20th Ct. SE	5,700	100%	5,700	9,285
1999	Shaw Rd	4,700	100%	4,700	7,656
1972	SW of E Pioneer	2,200	100%	2,200	3,584
1979	W Pioneer	20,500	100%	20,500	33,392
1991	Larkspur Dr.	42,600	100%	42,600	69,391
1969	Forest Ridge Ct.	11,000	100%	11,000	17,918
1984	9th St. SW	6,600	100%	6,600	10,751
1955	15th Ave. SE	200	100%	200	326
1979	Manorwood Dr.	3,500	100%	3,500	5,701
1980	23rd Ave. SE	2,000	100%	2,000	3,258
1969	Wildwood Pk. Dr.	1,700	100%	1,700	2,769
1992	E. Pioneer	14,200	100%	14,200	23,130
1984	23rd Ave. SW	10,100	100%	10,100	16,452
1979	39th Ave. SE	5,700	100%	5,700	9,285
1982	River Rd	8,300	100%	8,300	13,520
1969	SE of 27th Ave	2,900	100%	2,900	4,724
1995	Crystal Ln Loop	20,100	100%	20,100	32,741
1979	26th St. SE	11,100	100%	11,100	18,081
1979	39th Ave. SE	15,800	100%	15,800	25,737
1991	18th St. SE	21,000	100%	21,000	34,207
1982	W of 18th St NW	17,300	100%	17,300	28,180

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1980	29th Ct. SE	17,200	100%	17,200	28,017
1980	27th Ave. SE	17,300	100%	17,300	28,180
1980	Cherokee Blvd	19,200	100%	19,200	31,275
1979	Easement?	18,300	100%	18,300	29,809
1980	Easement?	22,000	100%	22,000	35,836
1980	26th Ave SE, esmt	25,000	100%	25,000	40,722
1994	E. Pioneer	44,400	100%	44,400	72,323
1979	Manorwood Dr.	25,400	100%	25,400	41,374
1979	Esmt, 35th Ave SE	27,300	100%	27,300	44,469
1995	Crystal Ln Loop	55,400	100%	55,400	90,241
1995	39th St. SE	55,400	100%	55,400	90,241
1968	11th St. SW	16,300	100%	16,300	26,551
1979	Manorwood Dr.	42,400	100%	42,400	69,065
1979	26th St. SE	49,200	100%	49,200	80,142
1995	15th Ave. SE	99,400	100%	99,400	161,912
1980	Cherokee Blvd	83,200	100%	83,200	135,524
1994	5th Ave. NE	9,100	100%	9,100	14,823
1994	29th St. NE	36,800	100%	36,800	59,943
1979	Easement?	27,400	100%	27,400	44,632
1969	Esmt, 7th St SE	500	100%	500	814
1995	E of Shaw Rd	6,300	100%	6,300	10,262
1979	Manorwood Dr.	1,600	100%	1,600	2,606
1979	26th Pl. SE	6,000	100%	6,000	9,773
1995	E of Shaw Rd	8,800	100%	8,800	14,334
1980	23rd Ave. SE	5,800	100%	5,800	9,448
1999	Shaw Rd	6,800	100%	6,800	11,076
1967	27th St. SE	1,200	100%	1,200	1,955
1969	Parkwood Blvd	2,300	100%	2,300	3,746
1955	20th Ave. SW	1,900	100%	1,900	3,095
1969	Parkwood Blvd	4,900	100%	4,900	7,982
1980	Easement?	25,600	100%	25,600	41,700
1982	River Rd	24,900	100%	24,900	40,559
1979	Easement?	21,100	100%	21,100	34,370
1973	Fruitland Ave. E	12,600	100%	12,600	20,524
1982	River Rd	36,600	100%	36,600	59,618
1994	5th Ave. NE	48,900	100%	48,900	79,653
1969	Easement?	16,200	100%	16,200	26,388
1955	3rd St. SE	11,600	100%	11,600	18,895
1980	Cherokee Blvd	71,400	100%	71,400	116,303
1991	20th St. SE	118,700	100%	118,700	193,350
1967	27th St. SE	1,800	100%	1,800	2,932
1999	Shaw Rd	11,800	100%	11,800	19,221
1972	39th Ave. SE	11,000	100%	11,000	17,918
1977	39th Ave. SE	16,200	100%	16,200	26,388
1979	14th St. SW	22,000	100%	22,000	35,836
1969	Forest Green Blvd	11,100	100%	11,100	18,081
1979	Manorwood Dr.	45,100	100%	45,100	73,463
1974	Easement?	32,500	100%	32,500	52,939
1969	Cherokee Blvd, esmt	27,300	100%	27,300	44,469
1971	10th Ave. SE	80,800	100%	80,800	131,615
1979	W. Pioneer	252,200	100%	252,200	410,807
1996	Shaw Rd	0	100%	0	0
1967	25th St. SE	1,000	100%	1,000	1,629
1955	11th St. SW	600	100%	600	977
1980	23rd Ave. SE	3,400	100%	3,400	5,538
1979	Manorwood Dr.	7,100	100%	7,100	11,565
1982	Esmt, River Rd	10,000	100%	10,000	16,289
1967	25th St. SE	1,600	100%	1,600	2,606
1967	25th St. SE	2,500	100%	2,500	4,072
1967	12th Ave. SE	2,600	100%	2,600	4,235
1990	15th Ave. SE	23,400	100%	23,400	38,116

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1990	15th Ave. SE	23,400	100%	23,400	38,116
1972	Shaw Rd	6,400	100%	6,400	10,425
1955	11th St. SW	1,900	100%	1,900	3,095
1990	SE of 21st Ct SE	19,500	100%	19,500	31,763
1985	23rd Ave. SW	18,900	100%	18,900	30,786
1985	22nd Ave. SW	24,400	100%	24,400	39,745
1969	Easement?	8,300	100%	8,300	13,520
1985	9th St. SW	28,700	100%	28,700	46,749
1990	16th Ave. SE	44,700	100%	44,700	72,812
1968	Easement?	8,500	100%	8,500	13,846
1985	15th Ave SW	37,200	100%	37,200	60,595
1981	Easement?	34,600	100%	34,600	56,360
1990	Easement?	37,300	100%	37,300	60,758
1979	3rd Ave. NW	35,000	100%	35,000	57,011
1991	Larkspur Dr.	50,600	100%	50,600	82,422
1981	Esmt, N of 43rd Ave	46,500	100%	46,500	75,744
1990	Easement?	56,700	100%	56,700	92,358
1979	Manorwood Dr.	40,000	100%	40,000	65,156
1995	240'N of Crys Ln Lp	63,400	100%	63,400	103,272
1995	Esmt, 15th Ave SE	63,700	100%	63,700	103,761
1969	Easement	23,500	100%	23,500	38,279
1994	29th St. NE	107,900	100%	107,900	175,758
1982	Easement	89,100	100%	89,100	145,135
1979	Esmt, McElroy Pl	94,000	100%	94,000	153,116
1981	Easement?	136,400	100%	136,400	222,181
1994	Easement?	208,700	100%	208,700	339,950
1981	19th Pl. SE	151,300	100%	151,300	246,452
1971	9th Ave. SE	61,400	100%	61,400	100,014
1972	E of SR 512	65,400	100%	65,400	106,530
1972	7th Ave. SE	105,100	100%	105,100	171,197
1968	9th St. SW	1,600	100%	1,600	2,606
1992	25th St. SE	4,600	100%	4,600	7,493
1928	14th St. SW	300	100%	300	489
1928	14th St. SW	300	100%	300	489
1968	7th Ave. SW	36,100	100%	36,100	58,803
1972	7th Ave. SE	80,300	100%	80,300	130,800
1968	SE of E Main	13,100	100%	13,100	21,339
1955	Esmt 13th Ave SE	10,300	100%	10,300	16,778
2001	13th Ave. SE	141,200	100%	141,200	219,048
1979	W. Pioneer	77,900	100%	77,900	126,891
1979	W. Pioneer	241,900	100%	241,900	394,030
1968	7th Ave. SW	134,600	100%	134,600	219,249
1978	W of N. Meridian	66,700	100%	66,700	108,647
1978	N of Valley Ave NE	87,100	100%	87,100	141,877
1999	E. Main	51,800	100%	51,800	84,377
1990	Brookmonte Dr	38,500	100%	38,500	62,712
1972	40' S of 10th Ave SE	36,600	100%	36,600	59,618
1978	W. Valley Ave.	94,800	100%	94,800	154,419
1990	Brookmonte Dr	5,600	100%	5,600	9,122
1990	16th Ave. SE	14,000	100%	14,000	22,805
1995	15th Ave. SE	23,200	100%	23,200	37,790
1978	Wapato Creek Div	866,200	100%	866,200	1,410,949
1992	E Pioneer	2,800	100%	2,800	4,561
1992	25th St. SE	4,500	100%	4,500	7,330
1992	25th St. SE	4,500	100%	4,500	7,330
1992	E Pioneer	14,400	100%	14,400	23,456
1992	E Pioneer	15,100	100%	15,100	24,596
1997	W of Linden Ln	36,100	100%	36,100	58,803
1965	Central Int'n	14,500	100%	14,500	23,619
1968	15th St. SE	21,400	100%	21,400	34,858
1978	Central Int'n	46,100	100%	46,100	75,092

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1979	Central Int'n	84,100	100%	84,100	136,990
1973	Central Int'n	44,000	100%	44,000	71,671
1984	E of 9th St SE	135,300	100%	135,300	220,389
1970	N. Meridian	40,200	100%	40,200	65,482
1965	Central Int'n	30,600	100%	30,600	49,844
1980	Cherokee Blvd	141,700	100%	141,700	230,814
1968	Central Int'n	51,000	100%	51,000	83,074
1982	N of River Rd	179,700	100%	179,700	292,712
1976	E. Main	134,500	100%	134,500	219,086
1997	Todd Road	382,300	100%	382,300	622,726
1972	E. Pioneer	108,400	100%	108,400	176,572
1967	Valley View Dr.	75,200	100%	75,200	122,493
1971	S of 15th Ave SW	110,900	100%	110,900	180,644
1984	W. Stewart	366,100	100%	366,100	596,338
1990	E of Shaw Rd dev	481,900	100%	481,900	784,964
1969	Rainier Blvd	125,600	100%	125,600	204,589
1969	Forest Green Blvd	165,300	100%	165,300	269,256
1979	Manorwood Dr dev	586,100	100%	586,100	954,695
1942	S of Stewart	70,500	100%	70,500	114,837
1970	S of SR 512	346,300	100%	346,300	564,086
1920	N of Stewart	85,700	100%	85,700	139,596
1955	Central Int'n	598,200	100%	598,200	974,405
1955	9th St. SW	600	100%	600	977
1996	Shaw Rd	6,700	100%	6,700	10,914
1924	W. Main	300	100%	300	489
1994	7th St. NW	3,100	100%	3,100	5,050
1955	5th Ave, 2nd St NE	400	100%	400	652
1994	7th St. NW	4,300	100%	4,300	7,004
1979	Esmt from pond	4,100	100%	4,100	6,678
1979	W. Pioneer	2,000	100%	2,000	3,258
1982	4th St. NW	6,400	100%	6,400	10,425
1982	4th St. NW	8,100	100%	8,100	13,194
1955	Meridian St. S	900	100%	900	1,466
1994	7th St. NW	17,400	100%	17,400	28,343
1982	River Rd	9,600	100%	9,600	15,637
1994	5th Ave. NE	16,800	100%	16,800	27,365
1981	25th St. SE	13,300	100%	13,300	21,664
1970	Meridian, Puy River	3,700	100%	3,700	6,027
1933	5th St. NW	700	100%	700	1,140
1968	E. Main	5,200	100%	5,200	8,470
1981	Esmt	15,300	100%	15,300	24,922
1955	Esmt	2,400	100%	2,400	3,909
1998	Esmt, 19th Ave SW	28,400	100%	28,400	46,261
1970	Meridian, Puy River	5,300	100%	5,300	8,633
1972	Pioneer ramp	8,400	100%	8,400	13,683
1968	11th St. SW	4,900	100%	4,900	7,982
1955	3rd St. SE	2,800	100%	2,800	4,561
1979	22nd St. SE	18,800	100%	18,800	30,623
1955	9th St. SE	5,500	100%	5,500	8,959
1979	21st St. SE	30,500	100%	30,500	49,681
1942	Tacoma Rd, esmt	2,500	100%	2,500	4,072
1933	5th St NW	1,600	100%	1,600	2,606
1982	11th St. NW	41,000	100%	41,000	66,785
1942	2nd St. SE	3,900	100%	3,900	6,353
1982	13th Ave. NW	53,600	100%	53,600	87,309
1979	W. Valley Ave.	47,100	100%	47,100	76,721
1955	5th St. SE	9,100	100%	9,100	14,823
1968	Easement?	21,200	100%	21,200	34,533
1985	5th St SW	103,600	100%	103,600	168,753
1972	Shaw Rd	33,000	100%	33,000	53,754
1955	SE of 14th St	400	100%	400	652

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1942	W. Main	0	100%	0	0
1979	Manorwood Dr.	4,100	100%	4,100	6,678
1955	5th St. SW	400	100%	400	652
1955	240' E of 5th St SE	400	100%	400	652
1955	114' E of 5th St SE	400	100%	400	652
1955	5th St. SW	400	100%	400	652
1955	5th St. SW	400	100%	400	652
1972	23rd Ave SE	1,300	100%	1,300	2,118
1990	31st Ave. SE	6,900	100%	6,900	11,239
2000	10th Ave. NW	10,100	100%	10,100	16,452
1971	S. Meridian	3,400	100%	3,400	5,538
1974	26th Ave. SE	4,500	100%	4,500	7,330
1955	Esmt, 475' E of 9th St	1,600	100%	1,600	2,606
1971	19th Ave. SW	5,800	100%	5,800	9,448
1978	Fruitland Ave. E	9,700	100%	9,700	15,800
1965	Easement?	2,900	100%	2,900	4,724
1990	17th Pl. SE	20,900	100%	20,900	34,044
1920	9th St. NW	900	100%	900	1,466
1972	24th Ave SE, esmt	5,400	100%	5,400	8,796
1990	130th Ave E, esmt	18,700	100%	18,700	30,460
1920	4th Ave. NE	1,500	100%	1,500	2,443
1990	Esmt, 33rd Ave SE	24,200	100%	24,200	39,419
1972	E. Pioneer	9,800	100%	9,800	15,963
1920	5th St. NE	1,500	100%	1,500	2,443
1920	20th St. NW	1,400	100%	1,400	2,280
2000	10th Ave. NW	38,000	100%	38,000	61,898
1979	W. Valley Ave.	18,100	100%	18,100	29,483
1982	4th St. NW	31,600	100%	31,600	51,473
1990	Easement?	32,600	100%	32,600	53,102
1955	S Meridian, Esmt	5,500	100%	5,500	8,959
1923	N. Meridian	1,900	100%	1,900	3,095
1980	17th St. SE	25,100	100%	25,100	40,885
1955	10th St. SE	6,800	100%	6,800	11,076
1955	3rd St. SE	5,800	100%	5,800	9,448
1976	E of 9th St. NE	21,100	100%	21,100	34,370
1970	Across Puy River	14,700	100%	14,700	23,945
1989	4th St. NW	50,600	100%	50,600	82,422
1955	10th Ave. SE	7,600	100%	7,600	12,380
1923	21st St. SE	2,300	100%	2,300	3,746
1955	Easement?	6,500	100%	6,500	10,588
1980	Rainier Blvd	49,400	100%	49,400	80,467
1920	7th Ave. NW	3,200	100%	3,200	5,212
1955	7th St. SE	8,100	100%	8,100	13,194
1972	15th St, 24th Ave	25,500	100%	25,500	41,537
1997	Inter Ave. SE	112,400	100%	112,400	183,088
1980	NW of Park Ave	74,700	100%	74,700	121,678
1974	Shaw Rd	37,400	100%	37,400	60,921
1955	14th St. SW	13,100	100%	13,100	21,339
1984	Easement?	98,200	100%	98,200	159,957
1955	12th Ave. SE	13,600	100%	13,600	22,153
1955	Meridian St. S	17,100	100%	17,100	27,854
1970	7th Ave. SW	39,500	100%	39,500	64,341
1972	Shaw Rd	44,400	100%	44,400	72,323
1979	W. Valley Ave.	100,700	100%	100,700	164,030
1955	9th Ave. SW	19,400	100%	19,400	31,601
1979	Valley Ave. NE	116,300	100%	116,300	189,440
1989	4th Ave. SE	153,300	100%	153,300	249,710
1975	Esmt (Private)	71,300	100%	71,300	116,140
1965	2nd St. NE	41,900	100%	41,900	68,251
1920	5th Ave. NW	1,700	100%	1,700	2,769
1920	5th Ave. NW	1,700	100%	1,700	2,769

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1920	9th St. NW	1,900	100%	1,900	3,095
1955	9th St. SE	9,700	100%	9,700	15,800
1955	Easement?	10,500	100%	10,500	17,103
1955	9th St. SW	1,300	100%	1,300	2,118
1955	14th St. SW	2,900	100%	2,900	4,724
1950	9th St. SW	1,300	100%	1,300	2,118
1967	Easement?	500	100%	500	814
1967	27th St. SE	700	100%	700	1,140
1955	10th Ave. SE	500	100%	500	814
1982	4th St NW, Esmt	3,600	100%	3,600	5,864
1927	5th St. SW	400	100%	400	652
1982	4th St NW, Esmt	11,100	100%	11,100	18,081
1920	Easement?	700	100%	700	1,140
1979	W Valley Ave	7,000	100%	7,000	11,402
1969	Rainier Blvd, Esmt	3,900	100%	3,900	6,353
1996	34th St. SE	21,200	100%	21,200	34,533
1972	SR 512 S ramp	7,600	100%	7,600	12,380
2002	10th Ct. SE	44,600	100%	44,600	65,895
1925	5th Ave. NW	1,300	100%	1,300	2,118
1920	5th St. NE	1,500	100%	1,500	2,443
1955	SR 512	5,500	100%	5,500	8,959
1920	5th St. NE	1,900	100%	1,900	3,095
1997	Easement?	42,500	100%	42,500	69,228
1984	15th Ave. SE	47,900	100%	47,900	78,024
1955	10th Ave. SE	5,300	100%	5,300	8,633
1920	5th Ave. NW	2,400	100%	2,400	3,909
1927	13th St. SW	2,100	100%	2,100	3,421
1965	9th Ave. NE	9,500	100%	9,500	15,474
1955	11th St. SE	7,400	100%	7,400	12,054
1920	9th St. NW	2,500	100%	2,500	4,072
1984	8th St. SE	52,400	100%	52,400	85,354
1920	4th Ave. NE	2,900	100%	2,900	4,724
1955	9th St. SE	7,900	100%	7,900	12,868
1969	13th St. SE	16,700	100%	16,700	27,203
1984	14th Ct SE, Esmt	65,500	100%	65,500	106,693
1955	9th Ave. SW	7,700	100%	7,700	12,542
1982	Easement	61,000	100%	61,000	99,363
1955	10th Ave. SE	9,400	100%	9,400	15,312
1955	13th St. SE	8,600	100%	8,600	14,008
1991	Larkspur Dr.	88,000	100%	88,000	143,343
1955	10th St. SE	10,900	100%	10,900	17,755
1976	E. Main	53,200	100%	53,200	86,657
1991	18th St. SE	95,600	100%	95,600	155,722
1978	W of N Meridian	62,000	100%	62,000	100,991
1979	17th St. SE	94,700	100%	94,700	154,256
1996	Easement?	172,900	100%	172,900	281,636
1984	9th St. SE	143,200	100%	143,200	233,258
1955	E-W Esmt / SR 512	21,700	100%	21,700	35,347
1923	7th Ave. SE	7,500	100%	7,500	12,217
1979	27th Ave NW	171,800	100%	171,800	279,844
1942	4th Ave. SW	16,200	100%	16,200	26,388
1979	W. Valley Ave.	220,100	100%	220,100	358,520
1955	Meridian St. S	73,600	100%	73,600	119,887
1955	10th Ave. SE	600	100%	600	977
1995	7th St, 9th Ave SE	12,700	100%	12,700	20,687
1927	5th St. SW	300	100%	300	489
1927	5th St. SW	300	100%	300	489
1982	9th St. NW	9,800	100%	9,800	15,963
1981	Esmt, 19th Pl. SE	13,200	100%	13,200	21,501
1971	9th Ave. SE	7,300	100%	7,300	11,891
1955	Easement?	2,700	100%	2,700	4,398

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1955	9th St. SE	3,100	100%	3,100	5,050
1971	9th Ave. SE	9,000	100%	9,000	14,660
1925	5th Ave. NW	1,600	100%	1,600	2,606
1920	9th St. NW	2,200	100%	2,200	3,584
1955	10th Ave. SE	6,800	100%	6,800	11,076
1979	21st St. SE	45,800	100%	45,800	74,603
1923	7th Ave. SE	3,800	100%	3,800	6,190
1920	9th St. NW	4,600	100%	4,600	7,493
1982	9th St. NW	99,400	100%	99,400	161,912
1979	37th Ave. SE	140,200	100%	140,200	228,371
1979	4th Ave. SW	263,100	100%	263,100	428,562
1996	Shaw Rd	18,500	100%	18,500	30,135
1920	4th St. NW	200	100%	200	326
1995	19th St. SE	30,500	100%	30,500	49,681
1985	19th Ave. SW	38,600	100%	38,600	62,875
1925	5th Ave. NW	4,700	100%	4,700	7,656
1972	E of SR 512	64,200	100%	64,200	104,575
1955	15th Ave. SW	31,400	100%	31,400	51,147
1955	9th Ave. SE	34,800	100%	34,800	56,686
1920	4th St. NW	15,200	100%	15,200	24,759
1955	9th Ave. SE	39,100	100%	39,100	63,690
1955	5th St. SW	9,600	100%	9,600	15,637
1955	5th St. SW	16,100	100%	16,100	26,225
1955	9th Ave. SW	43,400	100%	43,400	70,694
1997	9th St. SW	14,200	100%	14,200	23,130
1928	9th St. SW	500	100%	500	814
1955	5th St. SW	8,500	100%	8,500	13,846
1920	440' S of River Rd	3,800	100%	3,800	6,190
1982	4th St. NW	67,900	100%	67,900	110,602
1982	4th St NW, Esmt	143,900	100%	143,900	234,398
1955	5th St. SW	36,100	100%	36,100	58,803
1996	Easement?	445,200	100%	445,200	725,184
1928	11th St. SW	300	100%	300	489
1995	7th St. SW	10,000	100%	10,000	16,289
1928	13th St. SW	400	100%	400	652
1935	BNRR culvert	500	100%	500	814
1997	21st St. SE	175,400	100%	175,400	285,708
2000	15th St. NW	1,714,000	100%	1,714,000	2,791,925
2002	7th St. SE	36,100	100%	36,100	53,336
1978	Easement?	21,400	100%	21,400	34,858
1978	Easement?	21,400	100%	21,400	34,858
1999	Shaw Rd	3,800	100%	3,800	6,190
1990	9th St. SW	9,000	100%	9,000	14,660
2000	43rd Ave. SW	12,800	100%	12,800	20,850
1990	9th St. SW	9,400	100%	9,400	15,312
1990	39th Ave. SW	69,800	100%	69,800	113,697
1990	W of 9th St. SW	114,900	100%	114,900	187,160
1984	W. Stewart	3,900	100%	3,900	6,353
1984	W. Stewart	194,000	100%	194,000	316,006
2001	13th St. SE	11,000	100%	11,000	17,065
2002	13th St. SE	120,000	100%	120,000	177,295
1955	13th St. SE	2,900	100%	2,900	4,724
1955	13th St. SE	21,000	100%	21,000	34,207
1985	E Main / NE of City	16,500	100%	16,500	26,877
2001	26th Pl. SE	52,500	100%	52,500	81,445
1979	Valley Ave.	33,100	100%	33,100	53,916
1998	Near Levee Road	74,900	100%	74,900	122,004
1997	Meridian, Spencer Rd	92,500	100%	92,500	150,673
1985	Shaw Rd	78,400	100%	78,400	127,705
1997	Main nr Rainier St	102,500	100%	102,500	166,962
1998	E. Main	121,400	100%	121,400	197,748

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
1977	39th Ave. SE	47,800	100%	47,800	77,861
1992	E. Pioneer	106,100	100%	106,100	172,826
1995	Shaw Rd, E of dev	121,900	100%	121,900	198,562
1994	Central Int'n	128,100	100%	128,100	208,661
1994	7th St. NW	135,500	100%	135,500	220,715
1972	Shaw Rd	52,600	100%	52,600	85,680
1994	E. Pioneer	206,100	100%	206,100	335,715
1974	Inter Ave.	80,600	100%	80,600	131,289
1990	Wildwood Pk Dr	212,900	100%	212,900	346,792
1996	Shaw Rd, E of dev	249,200	100%	249,200	405,921
1984	Central Int'n	193,300	100%	193,300	314,865
1981	10th St SE	194,100	100%	194,100	316,168
1995	20th St. SE	376,200	100%	376,200	612,790
1981	39th Ave. SE	305,300	100%	305,300	497,302
1980	Central Int'n	356,300	100%	356,300	580,375
1991	Larkspur Dr.	691,500	100%	691,500	1,126,381
1995	Crystal Ridge	869,800	100%	869,800	1,416,813
1990	Brookmonte Dr.	889,000	100%	889,000	1,448,087
1996	Shaw Rd	0	100%	0	0
1996	E of Shaw Rd	7,400	100%	7,400	12,054
1984	19th St. NW	4,200	100%	4,200	6,841
1994	SW of 29th St NE	6,300	100%	6,300	10,262
2000	15th St. NW	20,400	100%	20,400	33,229
1923	S. Meridian	800	100%	800	1,303
1985	Fruitland Ave E	13,000	100%	13,000	21,176
1994	29th St. NE	27,000	100%	27,000	43,980
1990	Easement?	30,600	100%	30,600	49,844
2000	10th Ave. NW	42,400	100%	42,400	69,065
2000	N of 27th Ave SE	66,400	100%	66,400	108,159
1999	21st St. NW	73,100	100%	73,100	119,072
2001	27th Ave. SE	69,900	100%	69,900	108,438
1990	16th St SE	65,000	100%	65,000	105,878
1995	37th Ave. SE	146,700	100%	146,700	238,959
1968	E. Main	1,400	100%	1,400	2,280
1999	E of 18th St NW	8,100	100%	8,100	13,194
1969	Easement	1,600	100%	1,600	2,606
1985	9th St. NW	8,900	100%	8,900	14,497
1995	24th Ave. SE	17,900	100%	17,900	29,157
1990	SE of 21st Ct SE	16,700	100%	16,700	27,203
1995	Crystal Ridge Dr	24,900	100%	24,900	40,559
1995	35th Ave SE	33,900	100%	33,900	55,220
1995	Crystal Ridge Dr	27,300	100%	27,300	44,469
1985	20th St. NW	27,200	100%	27,200	44,306
1995	Crystal Ridge Dr	33,200	100%	33,200	54,079
1995	21st St SE, esmt	42,800	100%	42,800	69,717
1955	5th Ave. SW	7,400	100%	7,400	12,054
1995	5th St. SE	83,200	100%	83,200	135,524
2001	26th Pl. SE	94,000	100%	94,000	145,825
1990	15th St SE	82,900	100%	82,900	135,035
1955	18th St. SW	11,100	100%	11,100	18,081
1974	Shaw Rd	42,000	100%	42,000	68,414
1995	22nd St	164,800	100%	164,800	268,442
1969	N of Wildwood Pk	900	100%	900	1,466
1985	8th Ave. NW	7,700	100%	7,700	12,542
1972	Shaw Rd	4,100	100%	4,100	6,678
1998	Shaw Rd	21,500	100%	21,500	35,021
1985	E of 9th St. SW	11,800	100%	11,800	19,221
2001	13th Ave. NW	21,500	100%	21,500	33,354
2000	15th St. NW	28,600	100%	28,600	46,586
2001	18th St. NW	31,500	100%	31,500	48,867
1994	Easement	25,800	100%	25,800	42,025

Exhibit 2

Storm and Surface Water System Development Charge - 2010

Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
2001	13th Ave. NW	61,500	100%	61,500	95,407
2001	300' S of River Rd	55,100	100%	55,100	85,478
1985	S of 43rd Ave SW	48,400	100%	48,400	78,838
2001	13th Ave. NW	87,700	100%	87,700	136,051
1995	20th St. SE	70,300	100%	70,300	114,511
2001	18th St. NW	80,400	100%	80,400	124,727
2001	W of 18th St NW	251,500	100%	251,500	390,159
2000	Easement?	26,100	100%	26,100	42,514
2000	12th Ave. NW	350,100	100%	350,100	570,276
2003	17th & Pioneer	22,463	100%	22,463	31,607
2004	Ramsaur Short Plat Developer Extension	13,748	0%	0	0
2004	Clements Short Plat Developer Extension	11,445	0%	0	0
2004	Sister's Ridge Developer Extension	24,714	0%	0	0
2004	Outback Apartments Developer Extension	9,275	0%	0	0
2004	Bjerk Short Plat Developer Extension	5,530	0%	0	0
2004	Ruiz Short Plat Developer Extension	4,200	0%	0	0
2004	Heartland Meadows Developer Extension	34,615	0%	0	0
2004	Ashley Meadows Developer Extension	39,515	0%	0	0
2004	Meridian St. S.	51,955	100%	51,955	69,624
2004	13th Ave. NW	735,584	100%	735,584	985,753
2004	7th St. S.E.	575,465	100%	575,465	771,177
2004	5th/7th St. S.E. Interconnect	18,703	100%	18,703	25,064
2005	E. Pioneer	274,370	100%	274,370	350,173
2005	15th Ave. S.E.	20,339	100%	20,339	25,958
2005	Shaw Road Developer Extension	33,670	0%	0	0
2005	La Grande Phase I Developer Extension	105,315	0%	0	0
2005	Rivertrail Apartments Developer Extension	171,720	0%	0	0
2005	BPCI Developer Extension	11,865	0%	0	0
2005	Maple Heights Developer Extension	20,510	0%	0	0
2006	23rd Ave. S.E.	193,928	100%	193,928	235,721
2006	11th at River Road	78,302	100%	78,302	95,177
2006	W. Pioneer	3,262	100%	3,262	3,965
2006	La Grande Phase II Developer Extension	57,616	0%	0	0
2006	Ashley Meadows Phase III Developer Extension	28,964	0%	0	0
2006	Flansburg (12th Ave. S.W.) Developer Extension	13,260	0%	0	0
2006	South Hill Veterinary Clinic Developer Extension	14,092	0%	0	0
2007	5th Ave. N.W./10th Pl. N.W.	20,387	100%	20,387	23,600
2007	5th St. S.E.	33,024	100%	33,024	38,229
2007	20th St. N.W.	2,848	100%	2,848	3,297
2007	5th/9th Couplet	355,188	100%	355,188	411,174
2007	Reider Medical Developer Extension	18,252	0%	0	0
2007	Rawson Short Plat Developer Extension	1,560	0%	0	0
2007	Chrysler/Kia Developer Extension	41,496	0%	0	0
2007	De Valeria Short Plat Developer Extension	7,800	0%	0	0
2007	Cypress Manor (Walrath) Developer Extension	46,956	0%	0	0
2007	Puyallup Highlands Phase I Developer Extension	298,961	0%	0	0
2007	Riverfront Industrial Park Developer Extension	113,984	0%	0	0
2008	Villages Developer Extension	196,040	0%	0	0
2008	Puyallup Highlands Phase II Developer Extension	284,024	0%	0	0
2008	Pioneer Place Developer Extension	21,580	0%	0	0
2008	Millmar Developer Extension	79,248	0%	0	0
2008	Leppell Short Plat (17th St. N.W.) Developer Extension	12,324	0%	0	0
2008	Diane's Faithful Lane Developer Extension	44,668	0%	0	0
2008	Bock Short Plat Developer Extension	4,420	0%	0	0
2008	5th Ave. (Good Samaritan Hospital)	17,540	100%	17,540	19,338
PUMP STATIONS					
1960	10th Ave SW and 14th St SW (old)	10,300	100%	10,300	16,778
1989	10th Ave SW and 14th St SW (new)	65,700	100%	65,700	107,018
1979	200 Block of Todd Road	73,100	100%	73,100	119,072
1994	E Pioneer and 21st Street SE	79,900	100%	79,900	130,149
1978	1201 4th Street NW	55,000	100%	55,000	89,589

Exhibit 2

Storm and Surface Water System Development Charge - 2010
 Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
PONDS					
1970	790' N of W. Stewart / 75' W of 23rd St. NW	4,200	100%	4,200	6,841
1970	N end of 16th Pl. NW cul-de-sac	1,200	100%	1,200	1,955
1970	Behind fire station #1 on 7th St. NW	3,800	100%	3,800	6,190
1970	135' W of 11th Pl. SW / 12th Ave. SW int'n	1,200	100%	1,200	1,955
1970	12th Ave. SW / 10th St. SW	1,400	100%	1,400	2,280
1971	330' W of 12th St. SW / 15th Ave. SW int'n	3,700	100%	3,700	6,027
1971	15th Ave. SW / 14th St. SW (Ridgewest)	8,300	100%	8,300	13,520
1970	NE of 17th Ave. SW / 5th St. SW int'n	500	100%	500	814
1984	W of 9th St. SW / 21st Ave. SW int'n	10,500	100%	10,500	17,103
1997	N. Meridian / Spencer Road	20,000	100%	20,000	32,578
1980	NW of Park Ave. / 15th St. SE int'n	3,600	100%	3,600	5,864
1970	SE of SR 512 / 15th Ave. SW int'n	8,000	100%	8,000	13,031
1990	Katmandu Sand Filter - 15th Ave. SE	16,300	100%	16,300	26,551
1984	620' N of Wildwood Pk Dr / 23rd Ave SE	1,300	100%	1,300	2,118
1984	19th St. SE / 20th Ave. SE (Stonegate)	10,700	100%	10,700	17,429
1995	NW of 19th St. SE / 21st Ave. SE int'n	18,400	100%	18,400	29,972
1970	NE of Meridian St. S / 28th Ave. SE int'n	1,000	100%	1,000	1,629
1990	NE of Wildwood Pk Dr. / 26th Ave. SE int'n	10,400	100%	10,400	16,941
1991	18th St. SE / Larkspur Dr. (The Farms)	89,000	100%	89,000	144,972
1979	N of 37th Ave. SE / Manorwood Dr. int'n	61,700	100%	61,700	100,503
1979	NW of 21st St. SE / 37th Ave. SE int'n	3,900	100%	3,900	6,353
1981	SE of 10th St. SE / 39th Ave. SE int'n	4,300	100%	4,300	7,004
1981	SW of Wildwood Pk Dr. / 39th Ave. SE int'n	12,500	100%	12,500	20,361
1985	NE of 15th Ave. SE / Shaw Road int'n	2,700	100%	2,700	4,398
1990	SE of 27th St. SE / 15th Ave. SE int'n	28,700	100%	28,700	46,749
1990	NE of Brookmonte Dr. / 24th St. SE int'n	1,200	100%	1,200	1,955
1990	SE of Brookmonte Dr. / 24th St. SE int'n	13,800	100%	13,800	22,479
1996	340' E of Shaw Road / 885' N of 20th Ave	13,300	100%	13,300	21,664
1996	E of 34th St. SE	12,600	100%	12,600	20,524
1995	SE of 15th Ave. SE / Amber Blvd int'n	8,600	100%	8,600	14,008
1995	NW of Crystal Ridge Dr. / Crystal Ln Loop	16,000	100%	16,000	26,062
1990	NE of 26th Ave. SE / Shaw Road int'n	27,400	100%	27,400	44,632
1979	Manorwood Dr. 210' SW of 26th St. SE	20,200	100%	20,200	32,904
1970	9th St. SW / S of SR 512	2,300	100%	2,300	3,746
1984	N end of 13th St. SW cul-de-sac	4,500	100%	4,500	7,330
Total Existing Collection Plant		\$33,531,393		\$31,728,765	\$50,340,581
Existing ESU at 2025 [1]					40,796
Net Existing Collection Plant System Development Charge per ESU					\$1,234
Future Improvements [2]			[3]		
	System Improvements	\$1,390,000	0%	\$0	\$0
	Basin Plan Update	150,000	80%	120,000	120,000
	12th Ave SE Regional Stormwater Facility (Land Acq.)	700,000	100%	700,000	700,000
	E Main Deer Creek Crossing	60,000	50%	30,000	30,000
	Puyallups contributions to US Army Corps Eng. GI Study	90,000	50%	45,000	45,000
	NE Street Improvement Project	179,000	0%	0	0
	Stormwater Flow Calibrations	237,000	100%	237,000	237,000
	9th St SW (15th Ave to 31sr Ave)	835,000	50%	417,500	417,500
	21st St. Deer Creek Railroad Crossing	310,000	21%	63,875	63,875
	Tacoma Road Improvement	470,000	50%	235,000	235,000
	8th Ave Low Impact Development Retrofit	482,510	21%	99,420	99,420
	East Main Sidewalk	346,000	100%	346,000	346,000
	11th St NW (Stewart to River Rd)	1,054,000	100%	1,054,000	1,054,000
	39th AVE SE Regional Stormwater Detention Facility (Land Acq.)	3,000,000	100%	3,000,000	3,000,000
	Bradley Lake and Puyallup Downs Wetland Outfalls Modifications	255,000	50%	127,500	127,500
	5th St SW/7th Ave SW Signal	90,000	100%	90,000	90,000

Storm and Surface Water System Development Charge - 2010
Determination of System Development Charge for Collection Plant

Year	Type	Original Cost	Percent SDC Eligible	SDC Eligible	2010 \$ Cost
	39th Ave, Meridian to 9th	500,000	50%	250,000	250,000
	Coordination/Opportunity Projects				
	15th St NW/SW Storm - 4th Av SW to Stewart	1,691,406	100%	1,691,406	1,691,406
	39th Ave SW 9th to 14th St	50,000	0%	0	0
	East Main SD & S Side Road - 23rd to 15th	288,086	100%	288,086	288,086
	9th St SW; Pioneer to 9th Ave SW	400,000	100%	400,000	400,000
	11th St NW; Stewart to River Road	0	0%	0	0
	Meecker - 14th Land Acquisition	325,000	100%	325,000	325,000
	Shaw Road; 23rd to Pioneer	1,000,000	100%	1,000,000	1,000,000
	NPDES Dat Management System	35,000	21%	7,212	7,212
	NPDES DeCoursy Pond Retrofit	100,000	21%	20,605	20,605
	NPDES Corp Yard Wash Facility	350,000	21%	72,117	72,117
	39th Ave SW; 14th to 17th St	100,000	100%	100,000	100,000
	W Main; 7th to 12th St	380,000	50%	190,000	190,000
	4th St SE; 4th Ave to Pioneer	210,000	100%	210,000	210,000
	43rd Ave SE; Meridian to 5th w/Signal	500,000	100%	500,000	500,000
	43rd Ave Se; 10th to 12 St SE (N. 1/2)	120,000	100%	120,000	120,000
	Total Future Improvements	\$15,698,002		\$11,739,721	\$11,739,721
	2010-2025 ESUs [1]				7,028
	Future Collection Plant System Development Charge per ESU				\$1,671
	Total Collection System Development Charge per ESU				\$2,904

Notes:

[1] See Exhibit 1

[2] Future CIP costs from the Public Works Capital Plan, provided by the Public Works Director and the budget CIP, estimated in 2010 dollars.

[3] Future growth related based on City input from Public Works Director in 8/3/10 teleconference in review of estimated growth assumptions.

City of Puyallup
 Exhibit 3
 Storm and Surface Water System Development Charge - 2010
 Debt Service Credit

Year	Total Existing Debt Service [1]	New Debt [2]	Total Debt	SDC Revenue [3]	Net Debt Service	ESUs	Debt/ ESU	Debt/ESU (\$2010)
2010	\$499,408	\$0	\$499,408	\$996,176	\$0	34,106	\$0.00	\$0.00
2011	495,227	0	495,227	1,036,321	0	34,447	0.00	0.00
2012	347,709	14,979	362,688	1,078,085	0	34,792	0.00	0.00
2013	350,046	84,851	434,897	1,121,532	0	35,140	0.00	0.00
2014	349,409	124,180	473,590	1,166,730	0	35,491	0.00	0.00
2015	344,676	241,331	586,008	1,213,749	0	35,846	0.00	0.00
2016	346,215	241,331	587,546	1,262,663	0	36,205	0.00	0.00
2017	344,359	241,331	585,690	1,313,548	0	36,567	0.00	0.00
2018	171,012	241,331	412,343	1,366,484	0	36,932	0.00	0.00
2019	172,049	241,331	413,380	1,421,554	0	37,302	0.00	0.00
2020	12,902	241,331	254,233	1,478,842	0	37,675	0.00	0.00
2021	11,539	241,331	252,870	1,538,440	0	38,051	0.00	0.00
2022	11,482	241,331	252,813	1,600,439	0	38,432	0.00	0.00
2023	11,425	241,331	252,756	1,664,937	0	38,816	0.00	0.00
2024	0	241,331	241,331	1,732,033	0	39,204	0.00	0.00
2025	0	241,331	241,331	1,856,432	0	40,796	0.00	0.00
Total Debt Service Credit (\$ per ESU)							\$0.00	

Notes:

[1] Existing debt as provided by the City for the 2010 rate study.

[2] From rate study projection of debt to fund all CIP, including storm portions of opportunity projects.

New debt for improvements at 5.5% for 20 years. Interest rate includes bond issuance and reserve requirements.

[3] SDC revenue as projected in rate study draft, with all CIP projects, including coordination/opportunity projects.

City of Puyallup
 Exhibit 4
 Storm and Surface Water System Development Charge - 2010
 Summary

Current Storm and Surface Water System Development Charge	\$1,760
Calculated Storm and Surface Water System Development Charge	\$2,950
Difference	\$1,190

Storm and Surface Water System Development Charge Calculation Results

	Coordination/ Opportunity CIP	Future CIP	Existing Assets	Total
Collection	\$684	\$970	\$1,234	\$2,887
General Plant	0	0	0	0
Debt Service Credit	0	0	0	0
Total	\$684	\$970	\$1,234	\$2,887
Plus State B&O Tax (1.8%)	\$12	\$17	\$22	\$52
Total SDC	\$696	\$987	\$1,256	\$2,939
Net Allowable Storm System Development Charge	\$696	\$987	\$1,256	\$2,939
Rounding for Implementation Purposes	\$700	\$990	\$1,260	\$2,950

Current Charge Implementation Method by ESU's

Storm and Surface Water Customer Description	No. of ESUs	Storm System SDC
Single-Family Dwelling	1	\$2,950
Duplex/Apartment, 1st Unit	1	2,950
Duplex - each additional unit	0.75	2,213
Mobile Home Subd., pad	1	2,950
Recreational Veh. Park, each space	0.63	1,900
Motel/Hotel, each unit	0.63	1,900
Hospital, Rest Home, each 6 beds	1	2,950
Commercial/Industrial:		
First 15 Fixture Unit Weights	1	2,950
Each Additional Fixture Unit Weight	0.067	200

City of Puyallup
Storm and Surface Water Utility
Summary of Capital Improvement Plan
Exhibit 5

	2010	2011	2012	2013	2014	2015	2016	Total	% Growth Related
Capital Improvements									
System Improvements	\$200,000	\$200,000	\$170,000	\$170,000	\$200,000	\$200,000	\$250,000	\$1,390,000	0%
Basin Plan Update	0	150,000	0	0	0	0	0	150,000	80%
12th Ave SE Regional Stormwater Facility (Land Acq.)	0	700,000	0	0	0	0	0	700,000	100%
E Main Deer Creek Crossing	0	60,000	0	0	0	0	0	60,000	50%
Puyallups contributions to US Army Corps Eng. GI Study	0	30,000	30,000	30,000	0	0	0	90,000	50%
NE Street Improvement Project	0	0	179,000	0	0	0	0	179,000	0%
Stormwater Flow Calibrations	0	0	237,000	0	0	0	0	237,000	100%
9th St SW (15th Ave to 31sr Ave)	0	0	0	835,000	0	0	0	835,000	50%
21st St. Deer Creek Railroad Crossing	0	0	0	310,000	0	0	0	310,000	21%
Tacoma Road Improvement	0	0	0	0	470,000	0	0	470,000	50%
8th Ave Low Impact Development Retrofit	0	0	0	0	482,510	0	0	482,510	21%
East Main Sidewalk	0	0	0	0	0	346,000	0	346,000	100%
11th St NW (Stewart to River Rd)	0	0	0	0	0	1,054,000	0	1,054,000	100%
39th AVE SE Regional Stormwater Detention Facility (Land Acq.)	0	0	0	0	0	3,000,000	0	3,000,000	100%
Bradley Lake and Puyallup Downs Wetland Outfalls Modifications	0	0	0	0	0	0	255,000	255,000	50%
5th St SW/7th Ave SW Signal	0	0	0	0	0	0	90,000	90,000	100%
39th Ave, Meridian to 9th	0	0	0	0	0	0	500,000	500,000	50%
Total Capital Improvement	\$200,000	\$1,140,000	\$616,000	\$1,345,000	\$1,152,510	\$4,600,000	\$1,095,000	\$10,148,510	
Coordination/Opportunity Projects									
<u>Capacity adding projects</u>									
15th St NW/SW Storm - 4th Av SW to Stewart	\$0	\$1,691,406	\$0	\$0	\$0	\$0	\$0	\$1,691,406	100%
39th Ave SW 9th to 14th St	0	50,000	0	0	0	0	0	50,000	0%
East Main SD & S Side Road - 23rd to 15th	0	288,086	0	0	0	0	0	288,086	100%
9th St SW; Pioneer to 9th Ave SW	0	400,000	0	0	0	0	0	400,000	100%
11th St NW; Stewart to River Road	0	0	0	0	0	0	0	0	0%
Meeker - 14th Land Acquisition	0	0	0	0	325,000	0	0	325,000	100%
Shaw Road; 23rd to Pioneer	0	0	0	0	1,000,000	0	0	1,000,000	100%
Total	0	2,429,492	0	0	1,325,000	0	0	\$3,754,492	
<u>Other System Coordination/Opportunity Projects</u>									
NPDES Dat Management System	35,000	0	0	0	0	0	0	\$35,000	21%
NPDES DeCoursy Pond Retrofit	100,000	0	0	0	0	0	0	100,000	21%
NPDES Corp Yard Wash Facility	0	0	0	0	0	0	350,000	350,000	21%
39th Ave SW; 14th to 17th St	0	100,000	0	0	0	0	0	100,000	100%
W Main; 7th to 12th St	0	380,000	0	0	0	0	0	380,000	50%
4th St SE; 4th Ave to Pioneer	0	0	0	210,000	0	0	0	210,000	100%
43rd Ave SE; Meridian to 5th w/Signal	0	0	0	0	500,000	0	0	500,000	100%
43rd Ave Se; 10th to 12 St SE (N. 1/2)	0	0	0	0	120,000	0	0	120,000	100%
Total	135,000	480,000	0	210,000	620,000	0	350,000	\$1,795,000	
Total Coordination/Opportunity Projects	\$135,000	\$2,909,492	\$0	\$210,000	\$1,945,000	\$0	\$350,000	\$5,549,492	
TOTAL CAPITAL IMPROVEMENT PROJECTS	\$335,000	\$4,049,492	\$616,000	\$1,555,000	\$3,097,510	\$4,600,000	\$1,445,000	\$15,698,002	

