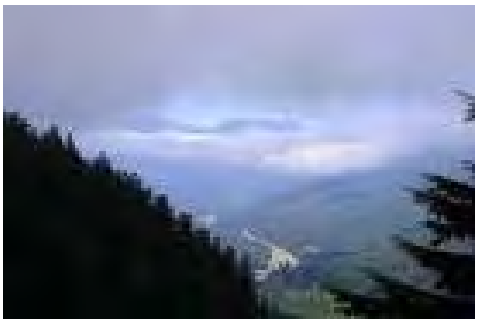
FINAL REPORT



Snoqualmie Pass Utility District
Water and Sewer
System Development Charge Update

May 2015

May 14, 2015

Mr. Terry Lenihan
PO Box 131
Snoqualmie Pass Utility District
Snoqualmie Pass, Washington 98068

Subject: Water and Sewer System Development Charges Final Report

Dear Mr. Lenihan:

Enclosed please find HDR's final report regarding the system development charges for the Snoqualmie Pass Utility District (District) water and sewer utilities. The conclusions and recommendations contained within this report should enable the District to implement cost-based system development charges.

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

HDR appreciates the opportunity to assist the District in this matter. It has been a pleasure working with you. Thank you for the assistance you provided to us. We look forward to future opportunities to work with the District.

Sincerely yours,
HDR Engineering, Inc.

Cil Pierce
Project Manager

hdrinc.com

500 108th Avenue NE, Suite 1200, Bellevue, WA 98004
T 425 450 6200 **F** 425 450 7170

Table of Contents

Executive Summary

Introduction 1
Summary and Conclusions 1
Conclusions and Recommendations 2
Board Public Process and Decisions 3

2 Overview of System Development Charges

2.1 Introduction 5
2.2 Defining System Development Charges 5
2.3 Economic Theory and System Development Charges 5
2.4 System Development Charge Criteria 6
2.5 Overview of the System Development Charge Methodology 8
2.6 Disclaimer 10
2.7 Summary 10

3 Legal Considerations in Establishing System Development Charges

3.1 Introduction 11
3.2 Requirements Under Washington State Law 11
3.3 Summary 13

4 Development of the Water System Development Charges

4.1 Introduction 15
4.2 Overview of the District's Water System 15
4.3 Present Water System Development Charge 16
4.4 Calculation of the District's Water System Development Charge 16
4.4.1 System Planning Criteria 17
4.4.2 Residential Units 17
4.4.3 Calculation of the Water System Development Charge 18
4.5 Net Allowable Water System Development Charge 20
4.6 Key Assumptions 21
4.7 Consultant's Recommendations 21
4.8 Summary 22

5 Development of the Sewer System Development Charges

5.1 Introduction 23
5.2 Overview of the District's Sewer System 23
5.3 Present Sewer System Development Charges 23
5.4 Calculation of the District's Sewer System Development Charge 24
5.4.1 System Planning Criteria 24
5.4.2 Residential Units 25
5.4.3 Calculation of the Sewer System Development Charge 25
5.5 Net Allowable Sewer System Development Charge 27
5.6 Key Assumptions 28
5.7 Consultant's Recommendations 29
5.8 Summary 29

Technical Appendix A – Water System Development Charge

Exhibit 1 Determination of ERUs
Exhibit 2 System Development Charge for Source of Supply Plant
Exhibit 3 System Development Charge for Distribution Storage Plant
Exhibit 4 System Development Charge for Transmission & Distribution Mains Plant
Exhibit 5 System Development Charge for General Plant
Exhibit 6 Debt Service Credit
Exhibit 7 Summary of the Water System Development Charge
Exhibit 8 Capital Improvement Plan

Technical Appendix B – Sewer System Development Charge

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

Executive Summary

Introduction

HDR was retained by Snoqualmie Pass Utility District (the "District") to update its water and sewer system development charges (SDCs). The current fees were developed as a part of the 2007 system development charge study and have been adjusted annually using a construction cost index. This study is an update of the prior study using updated data and information.

The purpose of the water and sewer system development charges is to bring equity between existing customers and new customers connecting to the District's utility systems. The objective of this study was to review the District's methodology for establishing their water and sewer system development charges and provide updated cost-based system development charges.

Summary and Conclusions

In developing this study, the system development charges have been calculated in a manner which conforms with "generally accepted" rate making practices and are based on the District's water and sewer 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" system development charge is determined. "Net" refers to the "gross" system development charges, net of any credits for future debt service principal to be paid within a customer's rates. "Allowable" refers to the concept that the calculated system development charge is the District's cost-based (i.e. maximum) charge. The District, 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 charging cost-based system development charges which are proportionally related to the benefit derived by the customer.

The District currently implements and assesses water system development charges by meter size. A 3/4-inch water meter is considered to serve one equivalent residential unit (ERU). Equivalent meter weighting factors are applied to larger size meters to recognize the capacity of the larger sized meter in relation to the 3/4-inch meter. The increase in charge for a 3/4-inch meter is $520. This fee is equivalent to the fee had the fee been escalated by the Seattle Engineering News Record Construction Cost Index (ENR-CCI) since 2007. Section 4 of this report details this analysis along with further details in the technical appendix.

The sewer system development charges for customers with larger meters or more than 1 ERU are presented in Section 5 of this report with the detailed analyses in the technical appendices.

The increase in charge per ERU for the sewer utility is $1,590/ERU. Had the sewer SDC been escalated by the Seattle ENR-CCI is would be approximately $4,750. The increase in fee is due to estimated improvements needed to meet regulations on the available capacity. Details of the development of the sewer system development charges are discussed in greater detail in Section 5.

Shown below in Table ES-1 are the present and proposed water and sewer system development charges.

Table ES-1
Existing and Updated Net Allowable Water and Sewer System Development Charges [1,2}

	Current SDC	Calculated SDC	$ Change
Water	$2,580	$3,100	$520
Sewer	3,870	5,460	1,590
Total	$6,450	$8,670	$2,110

[1] The calculated water SDC is based on a 3/4" meter. The calculated sewer SDC is based on 1 ERU.
[2] "Net Allowable" means that credits for funding sources such as grants, developer contributions, and outstanding principal have been included in the fee calculations.

Table ES-1 shows the water SDC to be $3,100 per 3/4" meter and the sewer SDC to be $5,460 per ERU. The overall total charges could increase by $2,110 for one ERU.

Conclusions and Recommendations

Based on our review and analysis of the District's water and sewer system and system development charges, HDR makes the following recommendations:

- ✓ The District should adopt water and sewer system development charges for new connections to these respective systems which are no greater than the net allowable system development charges as set forth in this report.
- ✓ The adopted system development charges should be updated annually by the ENR-CCI for Seattle for no more than five years before a complete update of the fee is again undertaken. This best industry practice can keep the fee relatively current with construction pricing practices.
- ✓ The District should update the actual calculations for the 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 District, when a large new facility is constructed, or every five years.

Board Public Process and Decisions

The District Board took the following actions related to the updated system development charges:

- Regular Board Meeting – Wednesday, December 10, 2014: The Board heard the results of the draft updated system development charges
- Regular Board Meeting – Wednesday, January 14, 2015: Further discussion by the Board with the District Manager, reviewed additional presentation materials.
- Regular Board Meeting – Wednesday, February 11, 2015: Further discussion by the Board with District Manager
- Special Board Meeting – Monday, March 16, 2015, 6pm: One member of the public attended. A brief summary of the results was provided. A short discussion took place. The Board decided to wait until April to make their final decision, as Jay Wiseman was called away near the beginning of the meeting. The Board noted that the ULID credits will continue to be in place and implemented consistent with the past.
- Board Meeting – April, 2015: Adoption of the rates and fees as presented March 16, 2015. Fees to be implemented June 1, 2015.

This page intentionally left blank

2. Overview of System Development Charges

2.1 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 methodologies used to develop cost-based charges for the District. It should be noted that these same generally accepted methodologies were used to establish the District's current system development charges.

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 (SDC). For the purposes of this report, an SDC 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 are a contribution of capital to either reimburse existing customers for the available capacity in the existing system, or help finance planned future growth-related capacity improvements. At some utilities, system development charges may be referred to as general facility charges, impact fees, capacity fees, plant investment 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 serve and accommodate new customer growth. Absent those fees, many utilities would likely be unwilling to build growth-related facilities (i.e., burden existing rate payers with the entire cost of growth-related capacity expansion).

2.3 Economic Theory and System Development Charges

Capacity fees are generally imposed as a condition of service. The objective of system development charges 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.

[1] Arthur C. Nelson, System Development Charges for Water, Sewer, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1,

By updating its system development charges, the District 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.

2.4 System Development Charge Criteria

In determining system development charges, a number of different criteria are utilized. Criteria most often used by utilities to establish system development charges include the following:

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

State and local laws

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 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. With the utilization of the planning criteria, the actual costs of construction and the planned costs of construction, the nexus for the "reasonable relationship" requirement is met.

System Planning Criteria

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. In general terms, the rational nexus test requires that there be a connection (nexus) established between new development and the facilities required to accommodate new development, and appropriate apportionment of the cost to the new development in relation to benefits reasonably to be received. An example using system planning criteria is the determination from the District's planning documents that a single-family residential customer on average requires 65 gallons per day of capacity. The system development charge methodology should establish the value of one (1) equivalent residential unit (ERU) at 65 gallons per day average demand.

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

A "rational nexus test" is used to evaluate the reasonable relationship between the system development charge and the infrastructure necessary to accommodate the new development. A "rational nexus test" typically contemplates the following:

1. "A connection be established between new development and the new or expanded facilities required to accommodate such development. This establishes the rational basis of public policy.
2. Identification of the cost of these new or expanded facilities needed to accommodate new development. This establishes the burden to the public of providing facilities to new development and the rational basis on which to hold new development accountable for such costs. This may be determined using the so-called Banberry factors. [Banberry Development Company v. South Jordan County (631 P.2d 899, Utah 1981)].
3. Appropriate apportionment of that cost to new development in relation to benefits it reasonably receives. This establishes the nexus between the fees being paid to finance facilities that accommodate new development and the benefit new development receives from such new facilities."[2]

The first bullet of the rational nexus test requires the establishment of a rational basis of public policy. This implies the planning and capital improvement studies that are used to establish the need for facilities to accommodate growth. Adopted master plans or facility plans should firmly meet this first test since these plans assess existing facilities and capacity, project future capacity requirements and determine the future capital infrastructure and new facilities needed to accommodate growth.

The second portion of the rational nexus test discusses the Banberry Factors. In summary form, "consideration must be given to seven factors to determine the proportionate share of costs to be borne by new development:

1. The cost of existing facilities
2. The means by which existing facilities have been financed
3. The extent to which new development has already contributed to the cost of providing existing excess capacity
4. The extent to which existing development will, in the future, contribute to the cost of providing existing facilities used community wide or non-occupants of new development
5. The extent to which new development should receive credit for providing, at its cost, facilities the community has provided in the past without charge to other development in the service area.
6. Extraordinary costs incurred in serving new development
7. The time-price differential inherent in fair comparisons of amount of money paid at different times."[3]

The final portion of the rational nexus test is the reasonable apportionment of the cost to new development in relation to benefits it reasonably receives. This is accomplished in the methodology to establish the system development charge, which is discussed below.

[2] Ibid, p. 16 and 17.
[3] Ibid, P. 18 and 19.

Financing Criteria

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 the system development charge and again through rates. The double payment can come in through the imposition of a system development charge and then the requirement to pay debt service within a customer's rates. The financing criteria also reviews the basis under which system assets were provided such that the customer is not charged for infrastructure that was provided (contributed) by developers or paid for through grants.

Customer Understanding

The component of customer understanding implies that the charge is easy to understand. This criterion has implications for the way that the charge is implemented and assessed to the customer. For a water system, the charge 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 charge 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 or commercial 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.

2.5 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:

1. Determination of system planning criteria
2. Determination of equivalent residential units (ERUs)
3. Calculation of system component costs
4. Determination of any credits

Determination of System Planning Criteria

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. For a water system, two different criteria are generally determined: 1) the peak day water usage per ERU and, 2) the 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 also sized to meet equalizing, emergency, and fire flow requirements.

Determination of ERUs

Once the system planning criteria is determined, the number of equivalent residential units can be determined. For the water system, this is determined by utilizing the peak day water system demand and dividing it by the peak day water usage per ERU. This is a very important calculation since it provides 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 2035, then the infrastructure costs are divided by the ERUs in 2035 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 for water, treatment and collection for sewer, etc.) analysis is undertaken to determine the component system development charge in cost ($) per ERU. Individual plant components are analyzed separately for the water and sewer systems given that the planning criteria often differ for the various system components. The calculation of the component system development charge includes both historical assets and planned future assets. Historical and future asset costs include 10 year's worth of interest. This calculation is done to reflect the fact that existing customers have provided 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 due to 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.

Calculation of System Component Costs

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.

Determination of Any Credits

The last step in the calculation of the system development charge is the determination of any credits. This is generally a calculation to assure that customers are not paying twice, once through system development charges and again through debt service included within the water and sewer rates.

"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 final system development charge is determined by taking the "gross system development charge" and subtracting any credits. This results in a "net allowable system development charge" stated in dollars per ERU. The general basis of this calculation for a water system is the assumption that an ERU is equivalent to a 3/4-inch meter. 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. For the sewer system, an ERU can be defined as a 3/4-inch meter and then weighted in the same manner as the water system or can be defined as a single-family residential unit. In the latter case, other types of dwellings or businesses are then assigned ERUs based on flow from design manuals, actual flows, or plumbing codes.

2.6 Disclaimer

HDR, in its calculation of the system development charges for the District's water and sewer utilities, as presented in this report, 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 District have its legal counsel review the water and sewer system development charges as set forth in this report to ensure compliance with Washington State law.

2.7 Summary

This section of the report has provided an overview of system development charges; the basis for establishing the charges, considerations in establishing equitable system development charges, the connection (nexus) which must be established between new development and facilities required to accommodate new development, and appropriate apportionment of the cost of infrastructure to the new development in relation to benefits received. The next section of the report will provide a brief discussion of the legal considerations associated with system development charges for a utility district in Washington State.

3. Legal Considerations in Establishing System Development Charges

3.1 Introduction

An important consideration in establishing system development charges is 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 District 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. This in no way constitutes a legal interpretation of the state law by HDR.

3.2 Requirements Under Washington State Law

In establishing system development charges, an important requirement is the charges must 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 give utilities legislative power to establish the charges.

"The Washington State Legislature passed Title 57, Section 57.08.005, (Washington Law), which sets forth requirements for calculations of system development charges for water and sewer systems of special purpose districts."

The Washington State Legislature passed Title 57, Section 57.08.005 (Washington Law), which sets forth requirements for calculations of system development charges for water and sewer systems of special purpose districts. Title 57, Section 57.08.005 states as follows:

"**RCW 57.08.005 Powers.** A district shall have the following powers:

> *… (10) Subject to subsection (6) of this section, to fix rates and charges for water, sewer, and drain service supplied and to charge property owners seeking to connect to the district's systems, as a condition to granting the right to so connect, in addition to the cost of the connection, such reasonable connection charge as the board of commissioners shall determine to be proper in order that those property owners shall bear their equitable share of the cost of the system. For the purposes of calculating a connection charge, the board of commissioners shall determine the pro rata share of the cost of existing facilities and facilities planned for construction within the next ten years and contained in an adopted comprehensive plan and other costs borne by the district which are directly attributable to the improvements required by property owners seeking*

to connect to the system. The cost of existing facilities shall not include those portions of the system which have been donated or which have been paid for by grants. The connection charge may include interest charges applied from the date of construction of the system until the connection, or for a period not to exceed ten years, whichever is shorter, at a rate commensurate with the rate of interest applicable to the district at the time of construction or major rehabilitation of the system, or at the time of installation of the lines to which the property owner is seeking to connect. In lieu of requiring the installation of permanent local facilities not planned for construction by the district, a district may permit connection to the water and/or sewer systems through temporary facilities installed at the property owner's expense, provided the property owner pays a connection charge consistent with the provisions of this chapter and agrees, in the future, to connect to permanent facilities when they are installed; or a district may permit connection to the water and/or sewer systems through temporary facilities and collect from property owners so connecting a proportionate share of the estimated cost of future local facilities needed to serve the property, as determined by the district. The amount collected, including interest at a rate commensurate with the rate of interest applicable to the district at the time of construction of the temporary facilities, shall be held for contribution to the construction of the permanent local facilities by other developers or the district. The amount collected shall be deemed full satisfaction of the proportionate share of the actual cost of construction of the permanent local facilities. If the permanent local facilities are not constructed within fifteen years of the date of payment, the amount collected, including any accrued interest, shall be returned to the property owner, according to the records of the county auditor on the date of return. If the amount collected is returned to the property owner, and permanent local facilities capable of serving the property are constructed thereafter, the property owner at the time of construction of such permanent local facilities shall pay a proportionate share of the cost of such permanent local facilities, in addition to reasonable connection charges and other charges authorized by this section. A district may permit payment of the cost of connection and the reasonable connection charge to be paid with interest in installments over a period not exceeding fifteen years. The county treasurer may charge and collect a fee of three dollars for each year for the treasurer's services. Those fees shall be a charge to be included as part of each annual installment, and shall be credited to the county current expense fund by the county treasurer. Revenues from connection charges excluding permit fees are to be considered payments in aid of construction as defined by department of revenue rule. Rates or charges for on-site inspection and maintenance services may not be imposed under this chapter on the development, construction, or reconstruction of property."

Given this broad authority, the District should set system development charges that are cost-based and "reasonable". The use of the methodology discussed in Section 2 will assure that the "reasonable" standard is met. The requirements described within the statute related to capital plans, interest charges, and financing credits were incorporated into the methodology used to develop the charges.

The information presented within this portion of the report is intended to be a summary of our understanding of the relevant Washington law as it relates to establishing system development

charges for the District. It in no way constitutes a legal interpretation of Washington State law by HDR.

3.3 Summary

This section of the report reviewed the legal basis for establishing system development charges in the State of Washington and in particular for special districts. The District should have this report reviewed by District Counsel for compliance with Washington State law. The next section of the report provides a detailed discussion of the specific calculation of the water system development charges for the District.

This page intentionally left blank

4. Development of the Water System Development Charges

4.1 Introduction

This section of the report presents the key assumptions and details used in calculating the District's water system development charges. The calculation of the District's water system development charges is based on District-specific accounting and planning information. Specifically, the system development charges are based upon the District's fixed asset records, Capital Improvement Plan (CIP), and planning data from the District's Water System Plan entitled *Snoqualmie Pass Utility District Water System Plan dated May 2013* (Hereafter referred to as District's Water System Plan). The District 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, the system development charges presented in this section of the report should be updated to reflect the changes.

The present methodology used by the District is the "combined approach". The combined approach is used when capacity is available in some parts of the existing system but new or incremental capacity is also needed to serve new (future) development. In this calculation, the existing assets are divided by the total ERUs or component capacity for the projected time period. Future expansion or growth-related projects are divided by the future capacity they will provide. Both calculations are added together and the result is the total "net allowable system development charge".

4.2 Overview of the District's Water System

The District currently has 495 customer connections of which 154 of these are within the Alpental portion of the system. Water supply to the District is provided primarily by 2 wells, Wells 4 & 5. There are two other wells, wells 2 and 3, which are currently used as emergency supply only. These wells have water quality issues that must be addressed prior to routine use. There are three existing storage reservoirs amounting to a total of 565,000 gallons.

The water distribution system is comprised of approximately 14 miles of transmission mains. The system is composed of five pressure zones

The District's Water System Plan identifies a number of source of supply, pumping, storage, and distribution system improvements that will be needed to serve growth over the planning horizon. Most of these projects serve multiple purposes of meeting regulatory requirements, fire flow, system improvements and to serve growth. A summary of these projects is shown on Exhibit A-8 in Appendix A, along with the portion of projects related to existing needs and to growth (and therefore applied to the SDC calculation).

4.3 Present Water System Development Charge

The District's current water system development charge is based on the cost for one ERU, for a 3/4-inch meter. The District's present water system development charges are shown below in Table 4-1.

Table 4-1
Present Water System Development Charge

Type of Use	Weighting Factor/ Number of ERUs [1]	Water SDC
3/4-inch meter	1.00	$2,580
1-inch meter	1.67	4,309
1-1/2-inch meter	3.33	8,591
2-inch meter	5.33	13,751
3-inch meter	10.00	25,800
4-inch meter	16.67	43,009
6-inch meter	33.33	85,991

1] Based on American Water Works Association (AWWA) safe operating capacities.

In Table 4-1, the system development charges for the larger meter sizes are determined by multiplying the system development charge for a 3/4-inch meter by the meter capacity weighting factors. The weighting factors are determined based on the American Water Works Association (AWWA) safe operating capacities for the type and size of meter. The safe operating capacity of each meter is divided by the safe operating capacity for a 3/4-inch displacement-type meter to determine the weighting factor for each meter. For example, the safe operating flow capacity of a 2-inch meter is 5.33 times the safe operating flow capacity of a 3/4-inch meter. Stated another way, the capacity that a customer has with a 2-inch meter is equivalent to the capacity of five and one third single-family homes (i.e., a 3/4-inch customer).

4.4 Calculation of the District's Water System Development Charge

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

- Determination of system planning criteria
- Determination of equivalent residential units (ERUs)
- 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.

4.4.1 System Planning Criteria

System planning criteria are used to establish the capacity needs of an equivalent residential unit (ERU). Based upon the District's Water System Plan (2012), a value of 65 gals/day/ERU was used for average day flow. The peaking factor of a residential unit is 4.3 times average day. The storage requirement per ERU is based on the District's Water System Plan of 403 gallons per ERU. Table 4-2 provides a summary of the planning criteria used to establish the District's water system development charges.

Table 4-2
Summary of the Water System Planning Criteria

Planning Criteria Description	Gallons/Day/ERU
Average Day Demand	65 gallons/day/ERU
Peak Day Demand	280 gallons/day/ERU
Storage Requirements	403 gallons/ERU

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

4.4.2 Residential Units

The planning horizon of this analysis was the 20-year period 2014 to 2032, which closely aligns with the planning period of the 2012 Water System Plan, which analyzed system needs through 2032. 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 ERUs at 2035. The District'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 projections in the District's Water System Plan. Peak day demand for future years was projected assuming an equal annual growth rate between the demand projection years. The assumed growth rate for the test period was approximately two percent based on the Water System Plan.

A summary of the ERUs for 2014 and 2032 are presented below in Table 4-3. Details of the determination of ERUs are provided in Exhibit 1 of Technical Appendix A.

Table 4-3
Water System Equivalent Residential Units

Description	Calculated ERUs
Equivalent Residential Units – 2014	1,282 ERUs
Equivalent Residential Units – 2032[1]	1,831 ERUs
Equivalent Residential Units – 2035	1,978 ERUs

1] Presents the Water System Plan planning period.

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

4.4.3 Calculation of the Water System Development Charge

In calculating the system development charge for the District a number of infrastructure and cost components were reviewed. These included the District's existing infrastructure components, any outstanding principal on existing facilities, and the future expansion-related capital improvements. Overall, the general methodology used to calculate each component of the water system development charge was the "combined method". In this calculation the existing assets are divided by the total ERUs for the projected time period, while the future or expansion-related capital projects are divided by the future capacity they will provide or the number of additional ERU's, which ever is greater. These component calculations are added together and the result is the total "net allowable system development charge".

The District's water system components that were reviewed for purposes of calculating the system development charge were as follows:

- Source of Supply
- Storage
- Transmission/Distribution Mains
- General Plant

A brief discussion of the system development charge calculated for each of the functional water plant components is provided below.

Source of Supply – Source of supply plant components include treatment assets and assets related to providing a source of potable drinking water. The future plant improvements that are attributable to growth were added to the existing plant asset value. This total cost was then divided by the total planned source of supply capacity (0.544 million gallons per day) to determine a cost of $2.06 per gallon. The cost per gallon for source of supply was then multiplied by the peak day planning criteria in gallons/day/ERU (280 gpd). This resulted in a system development charge for source of supply of $576 per ERU. Details of the calculation of the source of supply plant are shown in Exhibit A-2 of Appendix A.

Storage – As noted in Table 4-2, the design criterion utilized by the District for the determination of storage requirements is equal to 403 gallons/ERU. The storage requirements per ERU changed since the 2007 SDC calculations, with the updating of the Water System Plan and changes in reservoirs needed to serve growth. The total storage plant value was divided by the total planned storage capacity (797,500 gallons) to determine a cost of $0.95 per gallon. This represents a blended cost per gallon; the lower cost per gallon of existing reservoirs and the estimated $2.00 per gallon cost for the future reservoir. The cost per gallon for storage was then multiplied by the storage capacity per ERU based on a storage planning criterion of 403 gallons/ERU. This resulted in a system development charge for storage reservoirs of $384 per ERU. Details of the calculation are provided in Exhibit A-3 of Appendix A.

Transmission and Distribution Mains – To determine the charge for transmission and distribution mains, an inventory of the existing system was reviewed, as well as those planned transmission and distribution main improvements identified in the District's Water System Plan. The cost of the existing transmission and distribution mains, less the portion contributed by developers, was divided by the number of ERUs in 2035, resulting in a system development charge for existing distribution and transmission mains of $1,370 per ERU. Future transmission and distribution main capital improvements were reviewed to determine the portion of projects that would provide additional capacity to serve new development. These allocations were based on estimates by District staff. The growth-related portion of future transmission and distribution mains was then divided by the number of ERUs added from 2014 to 2035, resulting in a system development charge for future distribution and transmission mains of $105 per ERU. Taken together, the existing and future transmission and distribution main charges result in a total system development charge of $1,474 per ERU. Details of the calculation of the transmission and distribution mains are provided in Exhibit A-4 of Appendix A.

General Plant – The District currently has general plant items, such as trucks, communication equipment, and telemetry which are used to provide service and develop the water system. The cost of general plant assets was divided by the number of ERUs in 2035, resulting in a plant investment charge for existing general plant of $668 per ERU. There were no future planned general plant projects. Therefore the existing and future transmission and distribution mains charges result in a total system development charge of $668 per ERU. Details of the general plant investment charge calculation are provided in Exhibit A-5 of Appendix A.

Debt Credit – The final step in calculating the water system development charge was to determine a credit for payment on any applicable outstanding principal on system assets.

Credits for outstanding principal are necessary since the payment of debt service is through rates. The credit is to avoid the possibility of double charging, once through the SDC's and then also through the debt service payments in rates. The water utility does not currently have any outstanding debt therefore there is no debt credit. Details of the calculations are provided in Exhibit A-6 in Appendix A.

In total, the component of the water system development charge was determined to be $3,100 per ERU. A summary of these calculations is provided below in Table 4-4.

Table 4-4 Calculated Water SDC by Component (1 ERU)	
Plant Component	**SDC by Component $/ ERU**
Source of Supply Plant	$576
Storage Plant	384
Transmission and Distribution Plant	1,474
General Plant	668
Less: Outstanding Principal	0
Total Calculated Water SDC by Component	**$3,102**
Total Water SDC per ERU (3/4" Meter)	**$3,100**

1] Credits for existing ULIDs will continue to be implemented consistent with past practices.

For ease of administration, the net allowable charge per ERU is rounded to $3,100. This compares to the District's current system development charge of $2,580 per ERU, or an increase of $520/ERU. The fee has not changed since 2007. Had the water SDC been escalated annually since 2007 by the Seattle Engineering News Record Construction Cost Index it would be approximately $3,100 in 2014. Exhibit A-7, of Appendix A, details the calculation of the net allowable water SDC.

4.5 Net Allowable Water System Development Charge

The methodology used to establish the water system development charges is a "combined approach". The combined approach adds the buy-in component and the incremental or future component together, and accounts for any outstanding principal, resulting in a "net allowable system development charge". Based on the sum of the component costs calculated above, the net allowable water system development charge is $3,100. A summary of this calculation is shown below in Table 4-5.

Table 4-5 Proposed Net Allowable Water System Development Charge		
Type of Use	**Weighting Factor/ Number of ERUs [1]**	**Water SDC [2]**
3/4-inch meter	1.00	$3,100
1-inch meter	1.67	5,177
1-1/2-inch meter	3.33	10,323
2-inch meter	5.33	16,523
3-inch meter	10.00	31,000
4-inch meter	16.67	51,577
6-inch meter	33.33	103,323

1] Based on American Water Works Association (AWWA) safe operating capacities.

2] Credits for existing ULIDs will continue to be implemented consistent with past practices.

In Table 4-5, the system development charges for the larger meter sizes are determined by multiplying the system development charge for a 3/4-inch meter by the meter capacity weighting factors. The weighting factors are determined based on the American Water Works Association (AWWA) safe operating capacities for the type and size of meter. The safe operating capacity of each meter is divided by the safe operating capacity for a 3/4-inch displacement-type meter to determine the weighting factor for each meter. For example, the safe operating flow capacity of a 2-inch meter is 5.33 times the safe operating flow capacity of a 3/4-inch meter. Stated another way, the capacity that a customer has with a 2-inch meter is equivalent to the capacity of five and one third single-family homes (i.e., a 3/4-inch customer).

It is important to note that for meter sizes larger than 2-inch, those are estimates of the cost. It is recommended that charges for meters larger than 2-inch be based on actual projected usage, which can exceed safe operating capacities. The District's resolution should provide for this flexibility in calculation of the fee for unusual customers.

4.6 Key Assumptions

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

- The District provided the planning criteria, from the Water System Plan.
- The methodology used is the "combined" methodology. The buy-in and incremental/future component are added together for a net allowable charge.
- The interest rate used for calculating interest on existing investments was 5.0% to 2007 assets and 1.0% for assets from 2008 to present.
- The District's asset records were used to determine the existing plant assets, as appropriate.
- Up to ten (10) years worth of interest were included in the cost of existing plant.
- The base year for calculations is 2014.
- The District provided the CIP for future improvements
- Credits for existing ULIDs will be implemented consistent with past practices.

The District determined and/or reviewed the portion of future improvements that were growth related.

4.7 Consultant's Recommendations

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

- ✓ The District should adopt water system development charges 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 system development charges should be updated annually by a local construction cost index, such as the Engineering New Record Construction Cost Index (ENR-CCI), for no more than five years before a complete update of the fee is

undertaken. This best industry practice can keep the fee relatively current with construction pricing practices.

- ✓ The District should update the actual calculations for the system development charges at such time when a new capital improvement plan, facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the District, or every five years, or when a major infrastructure project is completed.

4.8 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 District's water system, the value of the existing assets, and "generally accepted" ratemaking principles. Adoption of the proposed system development charges will provide multiple benefits to the District and will create equitable and cost-based charges for new customers connecting to the District's water system.

5. Development of the Sewer System Development Charges

5.1 Introduction

This section of the report presents the key assumptions and details used in calculating the District's sewer system development charge. The calculation of the District's sewer system development charge is based on District-specific accounting and planning information. Specifically, the system development charges are based upon the District's fixed asset records, and wastewater capital improvement plan. The District provided other financial and accounting information.

The "combined methodology" applied to the water utility to determine the water system development charges was also applied to the sewer system development charges. The charge is based on the value of the system in place with capacity available for growth (i.e. the buy-in component), and future or incremental capacity projects. The buy-in component and the incremental component are added together, including a debt credit, resulting in the total "net allowable system development charge" under the combined methodology.

5.2 Overview of the District's Sewer System

The Snoqualmie Pass Utility District operates and maintains a sewer utility which provides collection and treatment of domestic and commercial wastewater using a two-cell aerated lagoon process. Secondary treatment is performed through oxidation in the lagoons, which converts BOD to biological growth. The effluent from the second lagoon is disinfected with chlorine and discharged to a forested spray field. The treatment facilities were improved in 1982 and now are designed for 0.368 million gallons per day (mgd).

The District's General Manager identified the future system improvements that will need to be constructed over the planning horizon. Those projects are described and included in the analyses below.

5.3 Present Sewer System Development Charge

The District sewer system development charge is based on type of use and an ERU weighting factor associated with that use. Each single-family unit is one ERU. Non-residential customers are based on industry standards for various types of uses (schools, hotels, boarding homes) broken into fractions of ERUs to determine the overall charge. The District's present sewer system development charges are shown below in Table 5-1.

Table 5-1 Present Sewer System Development Charge		
Type of Use	**ERU Weighting Factor [1]**	**System Development Charge**
Single Family	1.00	$3,870
Multi-family	.80	3,096
Mobile Home space in park	1.67	6,463
Schools (100)	.03 per student capacity	11,610
Hotels/Motels (80)	.25 per room	77,400
Hospitals - general (50)	1 per bed	193,500
Convalescent Hospitals (50)	.5 per bed	96,750
Residential Boarding Homes (5)	.025 per unit	4,838
Laundry facilities (150 sq. ft.)	0.3 per 100 sq. ft.	1,742
Food Preparation/Serving (150)	0.15 per 100 sq. ft.	871
Other Commercial [1]	Charge per fixture	Varies

[1] ERU determination based on industry standards.

In Table 5-1 the system development charges are determined by multiplying the system development charge for one ERU by the appropriate ERU weighting factor. The weighting factors are determined based on industry standards for estimated water use by assumed plumbing fixtures.

5.4 Calculation of the District'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 (ERUs)
- 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). Sewer ERU's were based on the water ERU's which were developed in the water system development charge analysis since both water and sewer utilities are the same service areas.

5.4.2 Residential Units

The planning horizon of this analysis was 2014 to 2035, to provide a twenty year time frame, for the sewer system development charge. Based on growth factors from the 2012 Water Plan and build out of 1,978 ERUs in 2035 the growth is approximately 2% per year. A summary of the ERUs for 2014 and 2035 are presented below in Table 5-3. Details of the determination of ERUs are provided in Exhibit B-1 of Technical Appendix B.

Table 5-3
Sewer System Equivalent Residential Units

Description	Calculated ERUs
Equivalent Residential Units – 2014	1,282 ERUs
Equivalent Residential Units – 2035	1,978 ERUs

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

5.4.3 Calculation of the Sewer System Development Charge

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 system development charge, both existing plant assets along with planned future capital improvements were included within the calculation. The major components of the District's sewer system that were reviewed for purposes of calculating the system development charge were as follows:

- Wastewater Treatment Plant (WWTP)
- Collection Plant
- General Plant

In calculating the system development charge for the District a number of infrastructure and cost components were reviewed. These included the District's existing infrastructure components, the outstanding debt for existing facilities, and future expansion-related capital improvements. Overall, the general methodology used to calculate each component of the sewer system development charge was the "combined method". In this calculation the existing assets are divided by the total ERUs for the projected time period, while the future or expansion-related capital projects are divided by the future capacity these projects will provide or the additional ERUs added during the time period, which ever is greater. Both calculations are added together and the result is the total "net allowable system development charge".

Provided below is a brief discussion of each sewer component.

Treatment – The existing plant value ($4.6 million) is brought into 2014 dollars ($7.4 million). This total plant value ($7.4 million) minus 1984 grant funding of $1.7 million, divided by the

total 2035 ERUs served by the treatment plant, derives an existing cost per ERU of $2,891. Future growth related WWTP improvement costs between 2014 and 2035 ($920,000) are divided by projected new ERUs, to derive the cost per ERU for future WWTP improvements of $1,276 per ERU. This results in a total charge for wastewater treatment of $4,167 per ERU. Details of the calculation of the treatment plant system development charge are shown in Exhibit B-2 of Appendix B.

Collection – To determine the system development charge for collection plant, an inventory of the existing system was reviewed, as well as those planned collection plant system improvements as identified in the District's CIP. The cost of the existing collection plant was divided by the number of ERUs in 2035, with contributed capital from developers deducted from existing collection assets. Based on the financial information provided by the District, the District received approximately $2.4 million of contributed capital for system infrastructure. This amount was netted against the existing collection plant for the District. This resulted in a collection plant system development charge for existing collection plant of $635 per ERU.

Future collection plant improvements were reviewed to determine the projects or percentage of projects that would provide additional capacity. The existing future collection plant, less contributed capital, results in a total plant investment charge of $142 per ERU. This results in a total charge for sewer collection of $777 per ERU. Details of the calculation of the component for collection are shown on Exhibit B-3 of Appendix B.

General Plant – The District currently has general plant items, such as trucks and maintenance vehicles, which are used to maintain and operate the sewer system. The cost of existing general plant assets were divided by the number of ERUs in 2035, resulting in existing general plant of $387 per ERU. Future general plant related to growth (Updating the Sewer Comprehensive Plan) was divided by the number of ERUs added from the planning period of 2014 to 2035. This resulted in a system development charge for future plant of $125. The total system development charge for general plant is $511. Details of the general plant system development charge calculation are provided in Exhibit B-4 of Appendix B.

Debt Credit – The sewer utility does not currently have any outstanding debt issues therefore there is no debt credit. Details of the calculations are provided in Exhibit B-5 of Appendix B.

In total, the sewer system connection charge was determined to be $5,460 per ERU. A summary of these calculations is provided in Table 5-4.

Table 5-4 Calculated Sewer SDC by Component (1 ERU)	
Plant Component	**Sewer Development Charge by Component $/ ERU**
Treatment Plant	$4,167
Collection Plant	777
General Plant	511
Less: Debt Credit	0
Total Calculated Buy-In Sewer System Development Charge	**$5,455**
Sewer System Development Charge per ERU	**$5,460**

1] Credits for existing ULIDs will continue to be implemented consistent with past practices.

For ease of administration, the recommended charge for 1 ERU is rounded to $5,460. This compares to the District's current system development charge of $3,870 for the equivalent of a 1 ERU connection. Details of the net allowable system development charge for the District are shown in Exhibit B-6 of Appendix B.

5.5 Net Allowable Sewer System Development Charge

The District's present methodology used to establish the sewer system development charge is a "combined approach". The combined approach adds the buy-in component and the incremental or future component together and the result is the total "net allowable system development charge". Based on the sum of the component costs calculated above, the net allowable sewer system development charge is $5,460. A summary of this calculation is shown below in Table 5-5.

Table 5-5
Proposed Net Allowable Sewer System Development Charge

Type of Use	ERU Weighting Factor [1]	System Development Charge [2]
Single Family	1.00	$5,460
Multi-family	.80	4,368
Mobile Home space in park	1.67	9,118
Schools (100)	.03 per student capacity	16,380
Hotels/Motels (80)	.25 per room	109,200
Hospitals - general (50)	1 per bed	273,000
Convalescent Hospitals (50)	.5 per bed	136,500
Residential Boarding Homes (5)	.25 per unit	6,825
Laundry facilities (150 sq. ft.)	0.3 per 100 sq. ft.	2,457
Food Preparation/Serving (150)	0.15 per 100 sq. ft.	1,229
Other Commercial [1]	Charge per fixture	Varies

1] ERU determination based on industry standards.

2] Credits for existing ULIDs will continue to be implemented consistent with past practices

In Table 5-5, the system development charges are determined by multiplying the system development charge for one ERU by the appropriate ERU weighting factor. The weighting factors are determined based on industry standards.

5.6 Key Assumptions

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

- The District provided and/or reviewed the planning criteria.
- The methodology used is the "combined" methodology. The buy-in and incremental/future component are added together for a net allowable charge.
- Up to ten (10) years worth of interest were included in the cost of existing plant.
- The interest rate used for calculating interest on existing investments was 5.0% to 2007 assets and 1.0% for assets from 2008 to 2014.
- The District's asset records were used to determine the existing plant assets.
- The base year for calculations is 2014.
- The District provided the CIP for future improvements
- The District determined the portion of future improvements that were growth related.

- Credits for existing ULIDs will continue to be implemented consistent with past practices.

5.7 Consultant's Recommendations

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

- ✓ The District should adopt sewer system development charges 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 system development charges should be updated annually by a local construction cost index such as the Engineering New Record Construction Cost Index (ENR-CCI) for no more than five years before a complete update of the fee is undertaken. This best industry practice can keep the fee relatively current with construction pricing practices.
- ✓ The District should update the actual calculation for the 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 District, or every five years or when a major infrastructure project is completed.

5.8 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 District's sewer system, the value of the existing assets, future capital improvements, and "generally accepted" ratemaking principles. Adoption of the calculated net allowable system development charges will create equitable and cost-based charges for new customers connecting to the District's sewer system.

Technical Appendix A – Water SDC

Snoqualmie Pass Utility District
Exhibit A-1
Water System Development Charge - 2014
Development of ERUs

Peak Day Flow [1]	**280**	gallons per day/ERU
Average Day Flow [2]	**65**	gallons per day/ERU
Storage Capacity [3]	**403**	gallons per day/ERU

Year	Peak Day (MGD) [4]	Total ERUs	Additional ERUs/Year
2012	**0.34**	**1,232**	
2013	0.35	1,257	
2014	0.36	1,282	25
2015	0.37	1,308	26
2016	0.37	1,334	26
2017	0.38	1,361	27
2018	**0.39**	**1,388**	27
2019	0.40	1,416	28
2020	0.40	1,444	28
2021	0.41	1,473	29
2022	0.42	1,503	29
2023	0.43	1,533	30
2024	0.44	1,563	31
2025	0.45	1,594	31
2026	0.45	1,626	32
2027	0.46	1,659	32
2028	0.47	1,692	33
2029	0.48	1,726	34
2030	0.49	1,760	34
2031	0.50	1,795	35
2032	**0.51**	**1,831**	36
2033	0.53	1,879	48
2034	0.54	1,928	49
2035	0.55	1,978	50
Total Additional ERUs			721

Notes:

[1] Peaking factor of 4.3 times ADD based on 2012 Water Master Plan, pg 3-9.
[2] Average daily flow based on 65.0 gpd/ERU based on 2012 Water Master Plan, pg 3-9.
[3] Current and planned storage divided by 2032 ERUs.
[4] Based on growth factors to achieve Table 3-2 ERUs from 2012 Water Master Plan, pg 3-9 and build out of 1,978 ERUs in 2035. Growth approximately 2% per year.

Snoqualmie Pass Utility District
Exhibit A-2
Water System Development Charge - 2014
System Development Charge for Source of Supply Plant

Year	Equipment List	Original Cost	2014 Cost [1]	% SDC Eligible	SDC Eligible
Existing Source of Supply					
1985	Wells	$47,897	$78,019	100.0%	$78,019
1989	Wells	827	1,347	100.0%	1,347
1994	Equipment	961	1,565	100.0%	1,565
1994	Wells	9,183	14,958	100.0%	14,958
1997	Wells	31,810	51,815	100.0%	51,815
2000	Wells	36,980	60,237	100.0%	60,237
2000	Equipment	9,994	16,279	100.0%	16,279
2001	Well Installation	7,101	11,567	100.0%	11,567
2002	Well	2,376	3,870	100.0%	3,870
2002	Well 3	2,276	3,707	100.0%	3,707
2002	Control Panels	11,134	18,136	100.0%	18,136
2002	Well 4	30,000	48,867	100.0%	48,867
2002	Well 5	35,000	57,011	100.0%	57,011
2003	Well 5	7,652	12,464	100.0%	12,464
2004	DOH Consultants	759	1,236	100.0%	1,236
2007	Well 4&5 Aresenic	11,334	15,948	100.0%	15,948
2007	Sutter Paving Arsenic	12,212	17,184	100.0%	17,184
2007	Arsenic Prj Rock	7,118	10,016	100.0%	10,016
2008	Well 5 Pump	19,898	21,122	100.0%	21,122
2008	Well 5 Calvert Tech	6,154	6,533	100.0%	6,533
2008	Well 5	31,027	32,936	100.0%	32,936
2009	Well #5	82,833	87,058	100.0%	87,058
2010	Calvert Tech Srv	174	181	100.0%	181
2011	Calvert Tech	8,173	8,421	100.0%	8,421
2014	Well House	2,560	2,560	100.0%	2,560
Total Existing Source of Supply		**$415,433**	**$583,038**		**$583,038**
Future Source of Supply				[2]	
	Backup power improvements Wells 2 and 3	$141,000	$149,587	100.0%	$149,587
	Evaluate potential consolidation, addition water rights	50,000	53,045	100.0%	53,045
	Land acquisition 50/50 water and sewer	43,500	46,149	100.0%	46,149
	Study, design, constr. trt impr arsenic, iron, mang Wells 2 and 3	758,600	804,799	40.0%	321,919
Total Future Source of Supply		**$993,100**	**$1,053,580**		**$570,701**
Total Source of Supply					**$1,153,738**
Capital Contributions Credit [3]					
1987	Grant Funding '85-'89 Assets (40%)	($19,490)	($31,747)	100.0%	($31,747)
Capacity (mgd) [4]					0.54
Cost per Gallon					**2.06**
Peak Day use per ERU					280
Source of Supply System Development Charge per ERU					**$576**

Notes:
[1] Interest based on 5% to 2007 and 1% from 2008 to present.
[2] Based on percentage of capacity available of .21 MGD to total of .544 MGD, 2012 Water Master Plan, Table 3-8 page 3-11.
[3] Based on District provided information.
[4] Based on Alpental Addendum Water Comp Plan, page 2-1. Use Well 4 & 5.

Well 1	Not in Use
Well 2	Emergency Only
Well 3	Emergency Only
Well 4	185 gpm
Well 5	200 gpm

Snoqualmie Pass Utility District
Exhibit A-3
Water System Development Charge - 2014
System Development Charge for Distribution Storage Plant

Year	Equipment List	Original Cost	2014 Cost [1]	% SDC Eligible	SDC Eligible
Existing Storage					
1985	Structure	$23,783	$38,740	100.0%	$38,740
1988	Structure	212,099	345,487	100.0%	345,487
1989	Structure	163	266	100.0%	266
1995	Structure	430	700	100.0%	700
2002	100,000 GL Storage	25,000	40,722	100.0%	40,722
2009	Structure	20,915	21,982	100.0%	21,982
		$282,390	**$447,897**		**$447,897**
Future Storage Plant					
	Alpental Tank Replacement on existing footprint	$0	$0	0.0%	$0
	Summit 3rd Tank 232,500 gallons [2]	465,000	465,000	100.0%	465,000
Total Future Storage Plant		**$465,000**	**$465,000**		**$465,000**
Total Storage					**$912,897**
Capital Contributions Credit [3]					
1988	Grant Funding '85-'89 Assets (40%)	($94,418)	(153,797)	100.0%	($153,797)
Capacity (gallons) [4]					797,500
Cost per Gallon					**$0.95**
Storage Requirement per ERU [5]					403
Storage Plant System Development Charge per ERU					**$384**

Notes:

[1] Interest based on 5% to 2007 and 1% from 2008 to now.

[3] Based on District provided information.

[4] Current 2 tanks 232,500 gal. each; plus 100,000 gal. Alpental

Summit	232,500	gallons
Summit	232,500	gallons
Alpental	100,000	gallons
Total Current	565,000	
Planned Summit 3	232,500	gallons
Total Current and Planned	797,500	

[5] From ERU Exhibit, Exhibit 1; total storage divided by buildout ERUs.

Snoqualmie Pass Utility District
Exhibit A-4
Water System Development Charge - 2014
System Development Charge for Transmission/Distribution Mains Plant

Year	Equipment List	Original Cost	2014 Cost [1]	% SDC Eligible	SDC Eligible
Existing Transmission/Distribution Plant					
1985	Transmission Lines	$160,303	$261,117	100.0%	$261,117
1987	Transmission Lines	642,108	1,045,926	100.0%	1,045,926
1988	Transmission Lines	1,197,303	1,950,280	100.0%	1,950,280
1989	Transmission Lines	1,508	2,456	100.0%	2,456
1991	Transmission Lines	25,967	42,298	100.0%	42,298
1992	Transmission Lines	306,637	499,479	100.0%	499,479
1995	Transmission Lines	793	1,292	100.0%	1,292
1997	Transmission Lines	400,867	652,970	100.0%	652,970
1998	Transmission Lines	34,275	55,830	100.0%	55,830
1999	Waterline Extension	321	523	100.0%	523
2002	Coll & Trans Lines	274,698	447,454	100.0%	447,454
2002	Collection & Trans Lines	118,487	193,003	100.0%	193,003
Total Existing Transmission and Distribution Plant		**$3,163,267**	**$5,152,629**		**$5,152,629**
Capital Contributions Credit [2]					
1992	Developer	($700,000)	(1,140,226)	100.0%	($1,140,226)
1987	Grant Funding '85-'89 Assets (40%)	($800,489)	(1,303,912)	100.0%	($1,303,912)
Total Capital Contributions Credit		**($1,500,489)**	**($2,444,138)**		**($2,444,138)**
Total ERUs 2035					1,978
Existing Transmission/Distribution Plant SDC per ERU					**$1,370**
Future Transmission/Distribution Plant					
2012	Alpental PRV station to allow full utilization in Aplental Tank	$0	$0	50.0%	$0
2012	SCADA control and monitoring on all PRV stations	52,900	56,122	0.0%	0
2012	Improve pipe looping in Lower Hyak zone [3]	177,500	188,310	40.0%	75,324
2012	Improve fire flow capacity in Alpental zone	208,000	220,667	0.0%	0
2012	Improve fire flow capacity in Alpental zone	197,900	209,952	0.0%	0
2012	Reduce fire flow velocities in Aplental zone	170,600	180,990	0.0%	0
2012	Reduce fire flow in Conifer zone	114,700	121,685	0.0%	0
2012	Reduce fire flow velocities in Lower Hyak zone	113,300	120,200	0.0%	0
2012	Additional storage requires 6" lines be replaced 12" [4]	482,600	511,990	0.0%	0
2012	Maintain ongoing leak detection	95,000	100,786	0.0%	0
2012	Add pipe looping of zones [5]	0	0	50.0%	0
Total Future Transmission/Distribution Plant		**$1,612,500**	**$1,710,701**		**$75,324**
New ERUs 2014 to 2035					721
Future Transmission/Distribution Plant System Development Charge per ERU					**$105**
Total Transmission/Distribution Plant System Development Charge per ERU					**$1,474**

Notes:
[1] Interest based on 5% to 2007 and 1% from 2008 to now.
[2] CIAC from internal SDC analysis memo (2003) earmarking $0.7 million as CIAC for water.
[3] Better for fire flow & O&M, but required for growth.
[4] Not neeeded. Alpental tank changed to 3rd Summit tank.
[5] Future opportunities to further loop and connect the water system will be explored as system growth and development occur.

Snoqualmie Pass Utility District
Exhibit A-5
Water System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost	% SDC Eligible	SDC Eligible
Existing General Plant					
	Machinery & Equipment				
1988	Flushing Truck	$4,324	$5,519	100.0%	$5,519
1989	ID 855 Tractor	7,794	9,947	100.0%	9,947
1989	Trailer for Tractor	962	1,228	100.0%	1,228
1989	Misc Equipment	212	270	100.0%	270
1989	Equip Storage Building	20,305	25,915	100.0%	25,915
1989	Pipe Saw	361	460	100.0%	460
1990	Snowplow blade	746	951	100.0%	951
1990	Winch & Cover	450	574	100.0%	574
1990	Hoist & Trolley	764	974	100.0%	974
1990	Press, Hose Hand Pump	644	822	100.0%	822
1990	Misc Equipment	242	308	100.0%	308
1990	Flood Light for Truck	234	298	100.0%	298
1990	Radio for Truck	241	308	100.0%	308
1991	Misc Equipment	224	285	100.0%	285
1992	Backhoe	25,329	32,326	100.0%	32,326
1993	Misc Equipment	1,202	1,534	100.0%	1,534
1994	Equipment	1,455	1,856	100.0%	1,856
1995	Equipment	1,288	1,644	100.0%	1,644
1996	Equipment	4,053	5,172	100.0%	5,172
1997	Equipment	373	476	100.0%	476
2001	Water Pump	744	950	100.0%	950
2002	Welder	410	523	100.0%	523
2003	Vaccum Truck	7,451	9,509	100.0%	9,509
2003	Vatrom	11,042	14,093	100.0%	14,093
2005	Jack Hammer W Generator	843	1,076	100.0%	1,076
2006	1984 Intl Dump Truck	1,250	1,595	100.0%	1,595
2007	1978 Blade Grader	750	957	100.0%	957
2007	Utility Trailer	2,750	3,510	100.0%	3,510
2007	1995 Ford Truck w/ Sprayer	3,510	4,480	100.0%	4,480
2007	Excavator	16,759	21,389	100.0%	21,389
2008	Bombadier Snowcat	2,638	2,772	100.0%	2,772
2008	Stihe Chainsaw	462	485	100.0%	485
2009	24 HP Honda Jetter	4,788	5,032	100.0%	5,032
2009	Equipment Trailer	3,318	3,487	100.0%	3,487
2009	Compressor	823	864	100.0%	864
2009	Leak Detector	1,138	1,196	100.0%	1,196
2009	Forklift	450	473	100.0%	473
2008	Equipment	1,124	1,181	100.0%	1,181
2010	Excavator/Ditching Buck	8,000	8,325	100.0%	8,325
2010	Truck Wrecker	2,500	2,602	100.0%	2,602
2011	Daywireless/Radios	1,566	1,613	100.0%	1,613
2011	Brush Chiper & Trailor	3,115	3,209	100.0%	3,209
2011	Chainsaw	196	201	100.0%	201
2011	Dumptruck	535	551	100.0%	551
2011	Snow Removal Truck	660	680	100.0%	680
2012	Truck Tractor	400	408	100.0%	408
2012	JD Tractor/Trailer	3,300	3,366	100.0%	3,366
2012	Snow Blower	2,500	2,550	100.0%	2,550
2013	AquaAerobics Lagoon	2,087	2,108	100.0%	2,108
2013	Vaccon (1992 Forn LN 8000)	31,407	31,721	100.0%	31,721
2013	Vvaccon Nozzel Pkg	1,045	1,055	100.0%	1,055
	Less: Disposal & Transfers	(11,084)	(11,649)	100.0%	(11,649)
	Total Machinery & Equipment	$177,670	$211,180		$211,180

Snoqualmie Pass Utility District
Exhibit A-5
Water System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost	% SDC Eligible	SDC Eligible
	Office Equipment				
1986	Equipment	$150	$191	100.0%	$191
1987	Equipment	450	574	100.0%	574
1988	Equipment	200	255	100.0%	255
1989	Map File	356	454	100.0%	454
1989	Map File	41	52	100.0%	52
1989	Washer Dryer	579	738	100.0%	738
1990	Misc Equipment	308	393	100.0%	393
1990	Panasonic Printer	266	339	100.0%	339
1990	Furniture	466	594	100.0%	594
1990	Furniture	289	368	100.0%	368
1990	Air Conditioner	322	410	100.0%	410
1990	Carpet & Pad	1,063	1,357	100.0%	1,357
1990	Bookcases	179	228	100.0%	228
1990	Blinds	154	197	100.0%	197
1991	Computer	1,225	1,563	100.0%	1,563
1991	Epson Printer	436	556	100.0%	556
1991	Computer Hutch	160	204	100.0%	204
1992	Equipment	2,415	3,082	100.0%	3,082
1993	Equipment	1,233	1,574	100.0%	1,574
1994	Equipment	3,178	4,056	100.0%	4,056
1995	Equipment	3,630	4,633	100.0%	4,633
1996	Equipment	2,214	2,825	100.0%	2,825
1997	Equipment	180	230	100.0%	230
1998	Equipment	380	485	100.0%	485
1999	Office Furniture	991	1,265	100.0%	1,265
1999	Continental Computer	1,958	2,498	100.0%	2,498
1999	Konica Copier	1,665	2,125	100.0%	2,125
2000	Electronic Data Equipment	2,156	2,752	100.0%	2,752
2000	Copier & Postage Lease	1,299	1,657	100.0%	1,657
2001	Copier Addition	1,524	1,944	100.0%	1,944
2002	Office Addition	5,865	7,485	100.0%	7,485
2002	Copier Addition	1,212	1,547	100.0%	1,547
2003	Copier Addition	1,711	2,183	100.0%	2,183
2004	Copier	1,744	2,226	100.0%	2,226
2005	Sharp Copier	2,137	2,727	100.0%	2,727
2007	Sharp Copier	3,670	4,683	100.0%	4,683
2009	Dell Computer	760	798	100.0%	798
2010	Repeater & Radios	6,874	7,153	100.0%	7,153
2011	Autoread Handheld	4,655	4,796	100.0%	4,796
	Total Office Equipment	$58,087	$71,199		$71,199
	System Wide				
1996	Structures	$85,874	$109,599	100.0%	$109,599
	Total System Wide	$85,874	$109,599		$109,599
	Transp Equipment				
1974	IMP	$2,073	$2,645	100.0%	$2,645
1982	82 Chev Pickup	4,855	6,196	100.0%	6,196
1995	Equipment	1,288	1,644	100.0%	1,644
1996	Equipment	197	251	100.0%	251
1996	Pickups	25,068	31,994	100.0%	31,994
1997	BO Equipment	1,013	1,292	100.0%	1,292
2002	1999 Jeep	4,410	5,628	100.0%	5,628
2002	1975 Ford Dump Truck	1,510	1,927	100.0%	1,927
2002	1983 System Groot	4,522	5,771	100.0%	5,771
2004	Chevy Van 77	1,747	2,229	100.0%	2,229
2005	Vactron	192	244	100.0%	244
2005	1993 Ford Ambulance	4,510	5,756	100.0%	5,756
2007	Equipment	1,010	1,289	100.0%	1,289
2008	Flatbed Truck	4,010	4,215	100.0%	4,215
2009	Chev Truck Dump Box	1,325	1,393	100.0%	1,393
2009	2005 F 250	14,825	15,581	100.0%	15,581
2009	Utility Trailer	1,875	1,971	100.0%	1,971
2010	2001 Ford Van	2,000	2,081	100.0%	2,081
2010	Crane Truck	1,500	1,561	100.0%	1,561
2010	Truck Tractor M920	900	937	100.0%	937
2011	Forklift	400	412	100.0%	412
2011	Hovervraft	1,555	1,602	100.0%	1,602
2012	Hovercraft Boat Trailer	473	482	100.0%	482
2012	Ford F 250	6,250	6,376	100.0%	6,376
2012	Truck Service Body	3,818	3,895	100.0%	3,895
2013	2000 Ford F450	3,250	3,283	100.0%	3,283
	Total Transp Equipment	$94,573	$110,654		$110,654

Snoqualmie Pass Utility District
Exhibit A-5
Water System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost	% SDC Eligible	SDC Eligible
	LAND & LAND RIGHTS				
1988	Land & Land Rights	$20,231	$25,820	100.0%	$25,820
1989	Land & Land Rights	7	9	100.0%	9
1993	Land & Land Rights	452	576	100.0%	576
1993	Land & Land Rights	3,669	4,682	100.0%	4,682
1996	Land & Land Rights	74	94	100.0%	94
1997	Land & Land Rights	1,643	2,096	100.0%	2,096
1998	Land & Land Rights	16	20	100.0%	20
1999	Land & Land Rights	2,820	3,598	100.0%	3,598
2001	Engineering Comp Plan	9,356	11,941	100.0%	11,941
2002	Comp Plan	2,740	3,497	100.0%	3,497
2004	Alpental Com Plan	8,882	11,335	100.0%	11,335
2005	RHZ Engineering Alpental	7,401	9,445	100.0%	9,445
2007	RHZ Engineering	1,930	2,463	100.0%	2,463
2007	RHZ Engineering	51	64	100.0%	64
2007	RHZ Engineering	149	190	100.0%	190
2007	RHZ Engineering	177	226	100.0%	226
2008	Water Plan Update	13,091	13,758	100.0%	13,758
2009	Engineering Water System	28,602	30,060	100.0%	30,060
2010	Engineering Water System	12,739	13,256	100.0%	13,256
2011	Brown & Caldwell Engineering	13,056	13,452	100.0%	13,452
2012	Engineering	9,236	9,421	100.0%	9,421
2013	Brown & Caldwell Engineering	4,237	4,279	100.0%	4,279
	Total Land	$140,553	$160,285		$160,285
	Water Equipment				
1985	Equipment	$101,918	$130,076	100.0%	$130,076
1988	Equipment	114,877	146,615	100.0%	146,615
1989	Equipment	757	966	100.0%	966
1992	Equipment	518	661	100.0%	661
1994	Equipment	74,834	95,509	100.0%	95,509
1995	Equipment	31,322	39,976	100.0%	39,976
1996	Equipment	10,077	12,861	100.0%	12,861
1997	Equipment	22,582	28,821	100.0%	28,821
1999	CLA Values Well #1, #2	2,643	3,373	100.0%	3,373
1999	Pump Control Units	15,624	19,941	100.0%	19,941
2001	Equipment	410	523	100.0%	523
2002	Telemetry	546	697	100.0%	697
2002	Telemetry ALP	23,311	29,751	100.0%	29,751
2002	Hydrants	0	0	100.0%	0
2002	Values - ACC	22,300	28,461	100.0%	28,461
2001	Telemetry	81	103	100.0%	103
2004	Water Master	5,433	6,934	100.0%	6,934
2007	Calvert Tech Sys	7,398	9,442	100.0%	9,442
2010	Meters	0	0	100.0%	0
2012	Backflow Test Kit	1,158	1,181	100.0%	1,181
	Total Water Equipment	$435,789	$555,893		$555,893
	HYAK MAINT SHOP				
2012	Hyak Maint Shop	$4,360	$4,448	100.0%	$4,448
2013	Shop Building	95,950	96,909	100.0%	96,909
2013	Shop Electric	210	212	100.0%	212
	Total Hyak Maint Shop	$100,519	$101,568		$101,568
Total Existing General Plant		**$1,093,065**	**$1,320,379**		**$1,320,379**
Total ERUs 2035					1,978
Existing General Plant System Development Charge per ERU					**$668**
Future General Plant					
		$0	$0	0.0%	$0
Total Future General Plant		**$0**	**$0**		**$0**
New ERUs 2014 to 2032					721
Future General Plant System Development Charge per ERU					**$0**
Total General Plant System Development Charge per ERU					**$668**

Notes:
[1] Interest based on 5 Years of interest at 5% to 2007 and 1% from 2008 to now.
[2] 50% of total general plant is water related.

Snoqualmie Pass Utility District
Exhibit A-6
Water System Development Charge - 2014
Debt Service Credit

Year	Total Outstanding Existing Principle [1]	ERUs	Debt/ ERU	Debt/ERU ($2014)
2014	$0	25	$0	$0
2015	0	26	0	0
2016	0	26	0	0
2017	0	27	0	0
2018	0	27	0	0
2019	0	28	0	0
2020	0	28	0	0
2021	0	29	0	0
2022	0	29	0	0
2023	0	30	0	0
2024	0	31	0	0
2025	0	31	0	0
2026	0	32	0	0
2027	0	32	0	0
2028	0	33	0	0
2029	0	34	0	0
2030	0	34	0	0
2031	0	35	0	0
2032	0	36	0	0
Total Debt Service Credit	**($ per ERU)**			**$0**

Notes:
[1] No existing debt service.

Snoqualmie Pass Utility District
Exhibit A-7
Water System Development Charge - 2014
Summary

Current Charge	**$2,580**
Difference in Calculated Fee to Existing SDC	**$520**

Water System Development Charge Calculation Results	
Source of Supply	$576
Storage	384
Distribution	1,474
General Plant	668
Debt Service Credit	0
Total	$3,102
Net Allowable Water SDC	**$3,100**

Sample SDC by Meter Size (inches)

Meter Size	Weighting Factor [1]	System Development Charge
5/8" X 3/4"	1.00	$3,100
3/4"	1.00	3,100
1	1.67	5,177
1 1/2	3.33	10,323
2	5.33	16,523
3	10.00	31,000
4	16.67	51,677
6	33.33	103,323
8	53.33	165,323
10	76.67	237,677
12	112.50	348,750

Notes:
[1] Weighting factor based on AWWA meter equivalencies

Snoqualmie Pass Utility District
Exhibit A-8
Water System Development Charge - 2014
Capital Improvement Plan

Capital Outlays [1]		CIP YR	2014	2015	2016	2017	2018	2019 - 2022	2023 - 2032	Total	Existing	Growth
Source 1	Backup power improvements Wells 2 and 3	2012	$0	$0	$0	$0	$0	$141,000	$0	$141,000	100.0%	0.0%
Treatment 1	Study, design, constr. improve arsenic, iron, mang Wells 2 and 3 [2]	2012	20,000	50,000	100,000	0	0	588,600	0	758,600	100.0%	0.0%
Storage 1	Alpental Tank Replacement on existing footprint	2012	0	0	0	0	0	0	0	0	100.0%	0.0%
Distribution 1	Alpental PRV station to allow full utilization in Alpental Tank	2012	0	0	0	0	0	0	0	0	50.0%	50.0%
Distribution 2	SCADA control and monitoring on all PRV stations	2012	0	52,900	0	0	0	0	0	52,900	100.0%	0.0%
Distribution 3	Improve pipe looping in Lower Hyak zone	2012	0	0	0	0	0	177,500	0	177,500	100.0%	0.0%
Distribution 4	Improve fire flow capacity in Alpental zone	2012	0	0	0	0	208,000	0	0	208,000	100.0%	0.0%
Distribution 5	Improve fire flow capacity in Alpental zone	2012	0	0	0	0	0	197,900	0	197,900	100.0%	0.0%
Distribution 6	Reduce fire flow velocities in Aplental zone	2012	0	0	0	0	0	0	170,600	170,600	100.0%	0.0%
Distribution 7	Reduce fire flow in Conifer zone	2012	0	0	0	0	0	0	114,700	114,700	100.0%	0.0%
Distribution 8	Reduce fire flow velocities in Lower Hyak zone	2012	0	0	0	0	0	0	113,300	113,300	100.0%	0.0%
Distribution 9	Additional storage requires 6" lines be replaced 12"	2012	0	0	0	0	0	482,600	0	482,600	50.0%	50.0%
Distribution	Maintain ongoing leak detection	2012	10,000	0	5,000	5,000	5,000	20,000	50,000	95,000	100.0%	0.0%
Source	Evaluate potential consolidation, addition water rights	2012	0	0	50,000	0	0	0	0	50,000	0.0%	100.0%
Distribution	Add pipe looping of zones	2012	0	0	0	0	0	0	0	0	50.0%	50.0%
O&M 1	Operations & Maintenance 1 - Update CADD	2012	0	0	25,000	0	0	0	0	25,000	100.0%	0.0%
O&M 2	Operations & Maintenance 2	2012	5,000	0	0	0	0	5,000	40,000	50,000	100.0%	0.0%
O&M 3	Operations & Maintenance 3	2012	0	0	0	25,000	0	0	0	25,000	100.0%	0.0%
Source [3]	Land acquisition 50/50 water and sewer	2014	43,500	0	0	0	0	0	0	43,500	0.0%	100.0%
Storage 1	Summit 3rd Tank 232,500 gallons [4]	2014	0	0	0	0	0	465,000	0	465,000	0.0%	100.0%
	Total Capital Outlays		$78,500	$102,900	$180,000	$30,000	$213,000	$2,077,600	$488,600	$3,170,600		

Notes:

[1] Capital outlays are in 2012 dollars except for last two CIP projects are in 2014 dollars.
[2] Wells 2 & 3 are now planned to be for emergency only. If this plan prevails, less water quality work will be required in the next 5-10 years.
[3] Land aqusition of $87,000 split 50/50 for water and sewer.
[4] Estimated tank cost for third Summit Tank 232,500 MGD based on $2.00/gallon. The Alpental replacement project is $2.64/gallon in 2012$. That has a steeper slope and environmental issues than the Summit site.

Technical Appendix B – Sewer SDC

Snoqualmie Pass Utility District
Exhibit B-1
Sewer System Development Charge - 2014
Development of ERUs

	Year	ERUs [2]	Additional ERUs per Year
[1]	2013	1,257	
	2014	1,282	25
	2015	1,308	26
	2016	1,334	26
	2017	1,361	27
	2018	1,388	27
	2022	1,503	29
	2023	1,533	30
	2024	1,563	31
	2025	1,594	31
	2026	1,626	32
	2027	1,659	32
	2028	1,692	33
	2029	1,726	34
	2030	1,760	34
	2031	1,795	35
	2032	1,831	36
	2033	1,879	48
	2034	1,928	49
	2035	1,978	50
	Total Additional ERUs		721

Notes:

[1] From ERU's developed in water SDC model. Same service area.

[2] Based on growth factors to achieve Table 3-2 ERUs from 2012 Water Master Plan, pg 3-9 and build out of 1,978 ERUs in 2035.

Snoqualmie Pass Utility District
Exhibit B-2
Sewer System Development Charge - 2014
System Development Charge for Treatment Plant

Year	Equipment List	Original Cost	2014 Cost [1]	% SDC Eligible	SDC Eligible
Existing Treatment					
	LAGOONS				
1972	Lagoons	$31,122	$50,694	100%	$50,694
1982	Lagoons	93,641	152,531	100%	152,531
1983	Lagoons	873	1,422	100%	1,422
1984	Lagoons	1,142,534	1,861,067	100%	1,861,067
1985	Lagoons	169	275	100%	275
1986	Lagoons	624	1,016	100%	1,016
1989	Lagoons	929,015	1,513,268	100%	1,513,268
1990	Lagoons	1,462	2,381	100%	2,381
1991	Lagoons	10,578	17,230	100%	17,230
1997	Lagoons	269,623	439,187	100%	439,187
1998	Lagoons	4,500	7,330	100%	7,330
2000	Lagoons	1,872	3,049	100%	3,049
2002	Lagoons	6,223	10,137	100%	10,137
	Pumping Plant - Sewer 1				
1972	Land and Rights	$5,873	$9,566	100%	$9,566
1974	Land & Land Rights	68	111	100%	111
1975	Land & Land Rights	32	52	100%	52
1976	Land & Land Rights	3,085	5,025	100%	5,025
	Pumping Plant - Sewer 2				
1972	Structures and Improvements	$29,716	$48,404	100%	$48,404
1974	Structures and Improvements	9,782	15,934	100%	15,934
1975	Structures and Improvements	3	5	100%	5
1976	Structures and Improvements	2,884	4,698	100%	4,698
1998	Structures and Improvements	4,801	7,820	100%	7,820
	Pumping Plant - Sewer 3				
1972	Equipment	$20,145	$32,814	100%	$32,814
1974	Equipment	6,579	10,716	100%	10,716
1976	Equipment	2,884	4,698	100%	4,698
1981	Equipment	60	98	100%	98
1985	Equipment	3,927	6,397	100%	6,397
1986	Equipment	12,639	20,588	100%	20,588
1989	Equipment	16,371	26,667	100%	26,667
1992	Equipment	518	844	100%	844
1994	Equipment	1,200	1,955	100%	1,955
1995	Equipment	1,752	2,854	100%	2,854
1996	Equipment	441	718	100%	718
1997	Equipment	2,949	4,804	100%	4,804
1998	Equipment	4,231	6,892	100%	6,892
2002	Transfer Switch	4,571	7,446	100%	7,446
2007	Pollard Water Co Pump	539	758	100%	758
2007	IPEC 300 in Channel System	49,441	69,568	100%	69,568
2008	Equipment	7,637	8,107	100%	8,107
2013	Chlorinator	6,287	6,350	100%	6,350
2013	Spector Laser	882	891	100%	891
	Pumping Plant - Sewer 4				
1972	Overflow Signal Equip	$2,549	$4,152	100%	$4,152
1974	Overflow Signal Equip	731	1,191	100%	1,191
1976	Overflow Signal Equip	2,884	4,698	100%	4,698
	Sewage Treatment				
1997	Sewage Treatment	$145,703	$237,335	100%	$237,335
1998	Sewage Treatment	6,877	11,202	100%	11,202
1999	Engineering Cap Issue	5,003	8,149	100%	8,149
2000	Capacity Issue	5,743	9,355	100%	9,355
2001	Engineering Com Plan	24,037	39,154	100%	39,154
2002	Waste Water Facilities	38,159	62,157	100%	62,157
2003	Capacity Issue	3,032	4,939	100%	4,939
2005	Water Discharge	305	473	100%	473
	Sewage Treatment Plant 1				
1972	Land & Land Rights	$17,795	$28,986	100%	$28,986
1976	Land & Land Rights	2,884	4,698	100%	4,698
1982	Land & Land Rights	2,450	3,991	100%	3,991
1984	Land & Land Rights	122,557	199,632	100%	199,632
1992	Land & Land Rights	250	407	100%	407
1993	Land & Land Rights	8,618	14,038	100%	14,038

Snoqualmie Pass Utility District
Exhibit B-2
Sewer System Development Charge - 2014
System Development Charge for Treatment Plant

Year	Equipment List	Original Cost	2014 Cost [1]	% SDC Eligible	SDC Eligible
1995	Land & Land Rights	6,401	10,427	100%	10,427
1999	Land - State Parks	35,483	57,798	100%	57,798
2003	Land & Land Rights	835	1,360	100%	1,360
2009	Engineering	25,754	27,068	100%	27,068
2010	Engineering	4,143	4,311	100%	4,311
2011	Engineering	2,637	2,717	100%	2,717
	Sewage Treatment Plant 2				
1972	Structure & Improvements	$3,000	$4,887	100%	$4,887
1982	Structure & Improvements	84,042	136,896	100%	136,896
1983	Structure & Improvements	873	1,422	100%	1,422
1984	Structure & Improvements	499,483	813,605	100%	813,605
1985	Structure & Improvements	169	275	100%	275
1991	Structure & Improvements	2,028	3,303	100%	3,303
1992	Structure & Improvements	876	1,427	100%	1,427
1993	Structure & Improvements	22,007	35,847	100%	35,847
1994	Structure & Improvements	12,910	21,029	100%	21,029
1995	Structure & Improvements	1,047	1,705	100%	1,705
1997	Structure & Improvements	84,348	137,394	100%	137,394
1998	Structure & Improvements	592	964	100%	964
1999	Galvanized Gate	2,417	3,937	100%	3,937
2002	Structure & Improvements	84	137	100%	137
2004	Plant Office Remodel	2,526	4,115	100%	4,115
2008	Headworks Project	7,348	7,800	100%	7,800
2009	Influent Bldg Structure	121,768	127,979	100%	127,979
2010	Influent Bldg Electrical	2,189	2,278	100%	2,278
2010	Bowlus Flume Influent	2,479	2,580	100%	2,580
2011	Calvert Tech Headworks	2,450	2,524	100%	2,524
	Sewage Treatment Plant 3				
1972	Equipment	$18,500	$30,135	100%	$30,135
1979	Equipment	1,788	2,912	100%	2,912
1982	Equipment	84,490	137,625	100%	137,625
1083	Equipment	1,331	2,168	100%	2,168
1984	Equipment	252,453	411,219	100%	411,219
1985	Equipment	298	485	100%	485
1986	Equipment	443	722	100%	722
1087	Equipment	18,326	29,851	100%	29,851
1989	Equipment	9,063	14,763	100%	14,763
1990	Equipment	6,371	10,378	100%	10,378
1991	Equipment	3,605	5,872	100%	5,872
1992	Equipment	876	1,427	100%	1,427
1992	Equipment	518	844	100%	844
1993	Equipment	9,935	16,183	100%	16,183
1994	Equipment	23,145	37,701	100%	37,701
1995	Equipment	3,223	5,250	100%	5,250
1996	Equipment	14,712	23,964	100%	23,964
1997	Equipment	57,037	92,907	100%	92,907
1999	Software & Data Collection	6,156	10,027	100%	10,027
2000	Data Logger	3,970	6,467	100%	6,467
2001	Data Logger	448	730	100%	730
2004	Sprayfield Pump Issue	1,420	2,313	100%	2,313
2004	Aerators	23,196	37,784	100%	37,784
2005	Installation On Aerators	93	144	100%	144
2005	Aerators for Lagoon	31,545	48,937	100%	48,937
2005	Aerators	1,038	1,610	100%	1,610
2005	Aerator Project	15,699	24,354	100%	24,354
2006	Aerator Project	2,987	4,413	100%	4,413
2007	Flow Meter Project	10,773	15,159	100%	15,159
2009	Boom Truck	1,950	2,049	100%	2,049
2010	Control Panel Influent	2,685	2,794	100%	2,794
2011	NESCO Headworks Moter	680	701	100%	701
2011	Analytical Balance	9,454	9,740	100%	9,740
2011	Calvert Tech Panel	18,259	18,812	100%	18,812
2012	Calvert Tech Program	12,259	12,505	100%	12,505
2013	Pipe/Adadters	175	177	100%	177
2013	Enviro Safety Products	1,312	1,325	100%	1,325
Total Existing Treatment		**$4,659,212**	**$7,437,159**		**$7,437,159**
Capital Contributions Credit [2]					
1984	Grant Funding (50%)	($1,720,662)	($1,720,662)	100%	($1,720,662)
Total Contributions Credit					
ERUs at 2035					1,978
Existing Treatment Plant System Development Charge per ERU					**$2,891**
Future Treatment					
	Sewer Plant Improvements [2]	$2,000,000	$2,000,000	45%	$900,000
	Land Acquisition 50/50 water sewer	43,500	43,500	45%	19,575
Total Future Treatment		**$2,043,500**	**$2,043,500**		**$919,575**
New ERUs 2014 to 2035					721
Future Treatment Plant System Development Charge per ERU					**$1,276**
Total Treatment Plant System Development Charge per ERU					**$4,167**

Notes:
[1] Interest based on 5% to 2007 and 1% from 2008 to now.
[2] Based on District provided information, 55% of available capacity is for existing customers.

Snoqualmie Pass Utility District
Exhibit B-3
Sewer System Development Charge - 2014
System Development Charge for Collection Plant

Year	Equipment List	Original Cost	2014 Cost [1]	Percent SDC Eligible	SDC Eligible
Existing Collection Plant					
1972	Collection & Transmission Lines	$698,208	$1,137,307	100.0%	$1,137,307
1973	Collection & Transmission Lines	121,536	197,969	100.0%	197,969
1974	Collection & Transmission Lines	264,516	430,869	100.0%	430,869
1976	Collection & Transmission Lines	2,884	4,698	100.0%	4,698
1981	Collection & Transmission Lines	912	1,486	100.0%	1,486
1984	Collection & Transmission Lines	42,791	69,702	100.0%	69,702
1987	Collection & Transmission Lines	296,765	483,399	100.0%	483,399
1988	Collection & Transmission Lines	345,604	562,952	100.0%	562,952
1989	Collection & Transmission Lines	74,821	121,876	100.0%	121,876
1990	Collection & Transmission Lines	2,004	3,264	100.0%	3,264
1991	Collection & Transmission Lines	2,827	4,605	100.0%	4,605
1992	Collection & Transmission Lines	369,384	601,688	100.0%	601,688
1995	Collection & Transmission Lines	793	1,292	100.0%	1,292
1997	Collection & Transmission Lines	13,528	22,036	100.0%	22,036
1998	Collection & Transmission Lines	34,275	55,830	100.0%	55,830
Total Existing Collection Plant		**$2,270,848**	**$3,698,972**		**$3,698,972**
Capital Contributions Credit [2]					
1987	Developer	($1,500,000)	($2,443,342)	100.0%	($2,443,342)
Total Contributions Credit		**($1,500,000)**	**($2,443,342)**		**($2,443,342)**
ERUs at 2035					1,978
Existing Collection Plant System Development Charge per ERU					**$635**
Future Collection Plant [3]					
	I/I Maintenance	$228,000	$228,000	45.0%	$102,600
Total Future Collection Plant		**$228,000**	**$228,000**		**$102,600**
New ERUs 2014 to 2035					721
Future Collection Plant System Development Charge per ERU					**$142**
Total Collection Plant System Development Charge per ERU					**$777**

Notes:
[1] Interest based on 5% to 2007 and 1% from 2008 to now.
[2] CIAC from internal SDC analysis memo (2003) earmarking $1.5 million as CIAC for wastewater.
[3] Based on District provided information, 55% of available capacity is for existing customers.

Snoqualmie Pass Utility District
Exhibit B-4
Sewer System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost [1]	Percent SDC Eligible	SDC Eligible
Existing Transmission/Distribution Plant					
	Machinery & Equipment				
1988	Flushing Truck	$4,324	$5,519	100.0%	$5,519
1989	ID 855 Tractor	7,794	9,947	100.0%	9,947
1989	Trailer for Tractor	962	1,228	100.0%	1,228
1989	Misc Equipment	212	270	100.0%	270
1989	Equip Storage Building	20,305	25,915	100.0%	25,915
1989	Pipe Saw	361	460	100.0%	460
1990	Snowplow blade	746	951	100.0%	951
1990	Winch & Cover	450	574	100.0%	574
1990	Hoist & Trolley	764	974	100.0%	974
1990	Press, Hose Hand Pump	644	822	100.0%	822
1990	Misc Equipment	242	308	100.0%	308
1990	Flood Light for Truck	234	298	100.0%	298
1990	Radio for Truck	241	308	100.0%	308
1991	Misc Equipment	224	285	100.0%	285
1992	Backhoe	25,329	32,326	100.0%	32,326
1993	Misc Equipment	1,202	1,534	100.0%	1,534
1994	Equipment	1,455	1,856	100.0%	1,856
1995	Equipment	1,288	1,644	100.0%	1,644
1996	Equipment	4,053	5,172	100.0%	5,172
1997	Equipment	373	476	100.0%	476
2001	Water Pump	744	950	100.0%	950
2002	Welder	410	523	100.0%	523
2003	Vaccum Truck	7,451	9,509	100.0%	9,509
2003	Vatrom	11,042	14,093	100.0%	14,093
2005	Jack Hammer W Generator	843	1,076	100.0%	1,076
2006	1984 Intl Dump Truck	1,250	1,595	100.0%	1,595
2007	1978 Blade Grader	750	957	100.0%	957
2007	Utility Trailer	2,750	3,510	100.0%	3,510
2007	1995 Ford Truck w/ Sprayer	3,510	4,480	100.0%	4,480
2007	Excavator	16,759	21,389	100.0%	21,389
2008	Bombadier Snowcat	2,638	2,772	100.0%	2,772
2008	Stihe Chainsaw	462	485	100.0%	485
2009	24 HP Honda Jetter	4,788	5,032	100.0%	5,032
2009	Equipment Trailer	3,318	3,487	100.0%	3,487
2009	Compressor	823	864	100.0%	864
2009	Leak Detector	1,138	1,196	100.0%	1,196
2009	Forklift	450	473	100.0%	473
2008	Equipment	1,124	1,181	100.0%	1,181
2010	Excavator/Ditching Buck	8,000	8,325	100.0%	8,325
2010	Truck Wrecker	2,500	2,602	100.0%	2,602
2011	Daywireless/Radios	1,566	1,613	100.0%	1,613
2011	Brush Chiper & Trailor	3,115	3,209	100.0%	3,209
2011	Chainsaw	196	201	100.0%	201
2011	Dumptruck	535	551	100.0%	551
2011	Snow Removal Truck	660	680	100.0%	680
2012	Truck Tractor	400	408	100.0%	408
2012	JD Tractor/Trailer	3,300	3,366	100.0%	3,366
2012	Snow Blower	2,500	2,550	100.0%	2,550
2013	AquaAerobics Lagoon	2,087	2,108	100.0%	2,108
2013	Vaccon (1992 Forn LN 8000)	31,407	31,721	100.0%	31,721
2013	Vvaccon Nozzel Pkg	1,045	1,055	100.0%	1,055
	Less: Disposal & Transfers	(11,084)	(11,649)	100.0%	(11,649)
	Total Machinery & Equipment	$177,670	$211,180		$211,180

Snoqualmie Pass Utility District
Exhibit B-4
Sewer System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost [1]	Percent SDC Eligible	SDC Eligible
	Office Equipment				
1986	Equipment	$150	$191	100.0%	$191
1987	Equipment	450	574	100.0%	574
1988	Equipment	200	255	100.0%	255
1989	Map File	356	454	100.0%	454
1989	Map File	41	52	100.0%	52
1989	Washer Dryer	579	738	100.0%	738
1990	Misc Equipment	308	393	100.0%	393
1990	Panasonic Printer	266	339	100.0%	339
1990	Furniture	466	594	100.0%	594
1990	Furniture	289	368	100.0%	368
1990	Air Conditioner	322	410	100.0%	410
1990	Carpet & Pad	1,063	1,357	100.0%	1,357
1990	Bookcases	179	228	100.0%	228
1990	Blinds	154	197	100.0%	197
1991	Computer	1,225	1,563	100.0%	1,563
1991	Epson Printer	436	556	100.0%	556
1991	Computer Hutch	160	204	100.0%	204
1992	Equipment	2,415	3,082	100.0%	3,082
1993	Equipment	1,233	1,574	100.0%	1,574
1994	Equipment	3,178	4,056	100.0%	4,056
1995	Equipment	3,630	4,633	100.0%	4,633
1996	Equipment	2,214	2,825	100.0%	2,825
1997	Equipment	180	230	100.0%	230
1998	Equipment	380	485	100.0%	485
1999	Office Furniture	991	1,265	100.0%	1,265
1999	Continental Computer	1,958	2,498	100.0%	2,498
1999	Konica Copier	1,665	2,125	100.0%	2,125
2000	Electronic Data Equipment	2,156	2,752	100.0%	2,752
2000	Copier & Postage Lease	1,299	1,657	100.0%	1,657
2001	Copier Addition	1,524	1,944	100.0%	1,944
2002	Office Addition	5,865	7,485	100.0%	7,485
2002	Copier Addition	1,212	1,547	100.0%	1,547
2003	Copier Addition	1,711	2,183	100.0%	2,183
2004	Copier	1,744	2,226	100.0%	2,226
2005	Sharp Copier	2,137	2,727	100.0%	2,727
2007	Sharp Copier	3,670	4,683	100.0%	4,683
2009	Dell Computer	760	798	100.0%	798
2010	Repeater & Radios	6,874	7,153	100.0%	7,153
2011	Autoread Handheld	4,655	4,796	100.0%	4,796
	Total Office Equipment	$58,087	$71,199		$71,199
	System Wide				
1996	Structures	85,874	109,599	100.0%	109,599
	Total System Wide	$85,874	$109,599		$109,599
	Transp Equipment				
1974	IMP	$2,073	$2,645	100.0%	$2,645
1982	82 Chev Pickup	4,855	6,196	100.0%	6,196
1995	Equipment	1,288	1,644	100.0%	1,644
1996	Equipment	197	251	100.0%	251
1996	Pickups	25,068	31,994	100.0%	31,994
1997	BO Equipment	1,013	1,292	100.0%	1,292
2002	1999 Jeep	4,410	5,628	100.0%	5,628
2002	1975 Ford Dump Truck	1,510	1,927	100.0%	1,927
2002	1983 System Groot	4,522	5,771	100.0%	5,771
2004	Chevy Van 77	1,747	2,229	100.0%	2,229
2005	Vactron	192	244	100.0%	244
2005	1993 Ford Ambulance	4,510	5,756	100.0%	5,756
2007	Equipment	1,010	1,289	100.0%	1,289
2008	Flatbed Truck	4,010	4,215	100.0%	4,215
2009	Chev Truck Dump Box	1,325	1,393	100.0%	1,393
2009	2005 F 250	14,825	15,581	100.0%	15,581
2009	Utility Trailer	1,875	1,971	100.0%	1,971
2010	2001 Ford Van	2,000	2,081	100.0%	2,081
2010	Crane Truck	1,500	1,561	100.0%	1,561
2010	Truck Tractor M920	900	937	100.0%	937
2011	Forklift	400	412	100.0%	412
2011	Hovervraft	1,555	1,602	100.0%	1,602
2012	Hovercraft Boat Trailer	473	482	100.0%	482
2012	Ford F 250	6,250	6,376	100.0%	6,376
2012	Truck Service Body	3,818	3,895	100.0%	3,895
2013	2000 Ford F450	3,250	3,283	100.0%	3,283
	Total Transp Equipment	$94,573	$110,654		$110,654

Snoqualmie Pass Utility District
Exhibit B-4
Sewer System Development Charge - 2014
System Development Charge for General Plant

Year	Equipment List	Original Cost	2014 Cost [1]	Percent SDC Eligible	SDC Eligible
	LAND & LAND RIGHTS				
1988	Land & Land Rights	$20,231	$25,820	100.0%	$25,820
1989	Land & Land Rights	7	9	100.0%	9
1993	Land & Land Rights	452	576	100.0%	576
1993	Land & Land Rights	3,669	4,682	100.0%	4,682
1996	Land & Land Rights	74	94	100.0%	94
1997	Land & Land Rights	1,643	2,096	100.0%	2,096
1998	Land & Land Rights	16	20	100.0%	20
1999	Land & Land Rights	2,820	3,598	100.0%	3,598
2001	Engineering Comp Plan	9,356	11,941	100.0%	11,941
2002	Comp Plan	2,740	3,497	100.0%	3,497
2004	Alpental Com Plan	8,882	11,335	100.0%	11,335
2005	RHZ Engineering Alpental	7,401	9,445	100.0%	9,445
2007	RHZ Engineering	1,930	2,463	100.0%	2,463
2007	RHZ Engineering	51	64	100.0%	64
2007	RHZ Engineering	149	190	100.0%	190
2007	RHZ Engineering	177	226	100.0%	226
2008	Water Plan Update	13,091	13,758	100.0%	13,758
2009	Engineering Water System	28,602	30,060	100.0%	30,060
2010	Engineering Water System	12,739	13,256	100.0%	13,256
2011	Brown & Caldwell Engineering	13,056	13,452	100.0%	13,452
2012	Engineering	9,236	9,421	100.0%	9,421
2013	Brown & Caldwell Engineering	4,237	4,279	100.0%	4,279
	Total Land	$140,553	$160,285		$160,285
	HYAK MAINT SHOP				
2012	Hyak Maint Shop	$4,360	$4,448	100.0%	$4,448
2013	Shop Building	95,950	96,909	100.0%	96,909
2013	Shop Electric	210	212	100.0%	212
	Total Hyak Maint Shop	$100,519	$101,568		$101,568
Total Existing General Plant		**$657,276**	**$764,486**		**$764,486**
ERUs at 2035					1,978
Existing General Plant System Development Charge per ERU					**$387**
Future General Plant					
	Sewer Comp Facilities Plan	$200,000	$200,000	45.0%	$90,000
Total Future General Plant		**$200,000**	**$200,000**		**$90,000**
New ERUs 2014 to 2035					721
Future General Plant System Development Charge per ERU					**$125**
Total General Plant System Development Charge per ERU					**$511**

Notes:
[1] Interest based on 5 Years of interest at 5% to 2007 and 1% from 2008 to now.
[2] 50% of total general plant is sewer related.

Snoqualmie Pass Utility District
Exhibit B-5
Sewer System Development Charge - 2014
Debt Service Credit

Year	Total Outstanding Existing Principle [1]	ERUs	Debt/ ERU	Debt/ERU ($2014)
2014	$0	1,282	$0	$0
2015	0	1,308	0	0
2016	0	1,334	0	0
2017	0	1,361	0	0
2018	0	1,388	0	0
2019	0	1,416	0	0
2020	0	1,444	0	0
2021	0	1,473	0	0
2022	0	1,503	0	0
2023	0	1,533	0	0
2024	0	1,563	0	0
2025	0	1,594	0	0
2026	0	1,978	0	0
Total Debt Service Credit	**($ per ERU)**			**$0**

Notes:
[1] No existing debt.

Snoqualmie Pass Utility District
Exhibit B-6
Sewer System Development Charge - 2014
Summary

Current Fee	**$3,870**
Difference of Calculated and Existing SDC	**$1,590**

Wastewater SDC Calculation Results

Treatment	$4,167
Collection	777
General Plant	511
Debt Service Credit	0
Total	$5,455

Net Allowable Wastewater SDC	**$5,460**

Sample SDC Using ERU Weighting

Type of Sewer Use	ERU Weighting Factor [1]	System Development Charge
Single Family	1.00	$5,460
Multi-family	0.80	4,368
Mobile Home space in park	1.67	9,118
Schools (100)	.03 per student capacity	16,380
Hotels/Motels (80)	.25 per room	109,200
Hospitals - general (50)	1 per bed	273,000
Convalescent Hospitals (50)	.5 per bed	136,500
Residential Boarding Homes (5)	.025 per unit	6,825
Laundry facilities (150 sq. ft.)	0.3 per 100 sq. ft.	2,457
Food Preparation/Serving (150)	0.15 per 100 sq. ft.	1,229
Commercial [1]	charge per fixture	varies

Notes:
[1] ERU determinations based on industry standards.

Snoqualmie Pass Utility District
Exhibit B-7
Sewer System Development Charge - 2014
Capital Improvement Plan

	Capital Outlays [1]	CIP YR	2014	2015	2016	2017	2018	2019-2026	Total	Existing	Growth
General	Sewer Comp Facilities Plan	2014	$0	$0	$100,000	$100,000	$0	$0	$200,000	55.0%	45.0%
Collection	I/I Maintenance	2014	38,000	38,000	38,000	38,000	38,000	38,000	228,000	55.0%	45.0%
Treatment	Sewer Plant Improvements [2]	2014	0	0	0	200,000	200,000	1,600,000	2,000,000	55.0%	45.0%
Treatment [3]	Land Acquisition 50/50 water sewer	2014	43,500	0	0	0	0	0	43,500	55.0%	45.0%
	Total Capital Outlays		$81,500	$38,000	$138,000	$338,000	$238,000	$1,638,000	$2,471,500		

Notes:
[1] Capital outlays are in 2014 dollars.
[2] Growth percentage estimated by SPUD General Manager.
[3] Land acquisition of $87,000 split 50/50 for water and sewer.