



SNOHOMISH COUNTY PUD
2021 Water System Plan
Volume 16 of 16 -
Chapter 11 & 12 Appendices

December 2022

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Cost Estimating Methodology

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Appendix 11-1

Cost Estimating Methodology

A11-1.1 Introduction

This appendix summarizes the approach used in development of unit costs and project costs used in the Capital Improvement Plan (CIP) for the Snohomish County PUD (District) Water System Plan (WSP).

A11-1.2 Cost Estimating

The probable costs estimated for each improvement are based on average costs from the 2019 RSMeans Heavy Construction Cost Data (RSMeans), District input, construction costs for similar projects across the Northwest, and local contractor and supplier rates. All costs identified in this section reference U.S. dollars. The *Engineering News Record Construction Cost Index* basis is 11,628(20-City Average, January 2021).

Project cost estimates are prepared in accordance with the guidelines of AACE International. (AACE International Recommended Practice No. 56R-08 Cost Estimate Classification System - As Applied For The Building and General Construction Industries - TCM Framework: 7.3 - Cost Estimating and Budgeting Rev. December 31, 2011). The project cost estimates in this WSP are categorized Class 5, as defined by AACE International:

Class 5 estimates are generally prepared based on very limited information, and subsequently have wide accuracy ranges. As such, some companies and organizations have elected to determine that due to the inherent inaccuracies, such estimates cannot be classified in a conventional and systemic manner.

Class 5 estimates are prepared for any number of strategic business planning purposes, such as but not limited to market studies, assessment of initial viability, evaluation of alternate schemes, project screening, project location studies, evaluation of resource needs and budgeting, long-range capital planning, etc.

Typical accuracy ranges for Class 5 estimates are -20% to -30% on the low side, and +30% to +50% on the high side, depending on the construction complexity of the project, appropriate reference information and other risks (after inclusion of an appropriate contingency determination). Ranges could exceed those shown if there are unusual risks.

All project descriptions and cost estimates in this WSP represent planning-level accuracy and opinions of costs (+50 percent, -30 percent). During the design phase of each improvement project, project definition, scope, and specific information (e.g., pipe diameter and length) should

be verified. The final cost of individual projects will depend on actual labor and material costs, site conditions, competitive market conditions, regulatory requirements, project schedule and other factors. Because of these factors, project feasibility and risks must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

The project costs presented in this WSP include estimated construction costs and allowances for permitting, legal, administrative, and engineering fees. A contingency factor is also added to each cost to help account for any unanticipated components of the project costs. Construction costs are based on the preliminary concepts and layouts of the water system components developed during the system analysis.

Total estimated project costs were developed through a progression of steps and multiple methodologies. The steps included development of component unit costs, construction costs and, finally, project costs. The component unit cost includes the sum of materials, labor, and equipment of a project's basic features. The construction cost is the sum of component costs and mark-ups to determine the probable cost of construction (i.e., the contractor bid price). The project cost is the sum of construction costs with additional cost allowances for engineering, legal and administrative fees to determine the total project cost to the District.

The following costs are not included:

- Land or right-of-way acquisition
- Maintenance expenses
- Operation expenses

A11-1.3 Component Unit Costs

A11-1.3.1 Pipelines

The estimates for water system pipelines are based on the District's 3-year rolling average of capital pipeline projects. For all pipeline installations including new and replacement projects, the water pipeline costs per linear foot is based on ductile iron with non-restrained push on joints; fittings are assumed to have mechanical joints with a cover depth of 3 feet and includes:

- Excavation
- Waste of material associated with the trenching (which includes haul, load, and dump fees)
- Imported bedding and zone material
- Native backfill
- Pipe materials (including appurtenance such as fitting and services)
- Testing and disinfection
- Roadway surface restoration
- No dewatering
- No allowance for rock excavation

- Trench safety costs
- Washington State Sales Tax (8.9 percent)
- Engineering Contingency (5 percent)

See **Table A11-1-1** for estimated construction costs per linear foot of pipe.

Table A11-1-1

Water Pipeline Base Construction Costs per Linear Foot

Pipe Diameter (inch)	Cost (\$/linear foot)
4	\$254
6	\$261
8	\$262
10	\$283
12	\$304
14	\$331
16	\$353
18	\$367
20	\$419
24	\$489
30	\$538
36	\$606

Notes:

¹Cost per linear foot for pipe diameters larger than 8 inches were increased based on Murraysmith's regional planning pipe unit costs, which factor in RS Means and costs for similar projects to account for large diameter pipe requirements.

A11-1.3.1.1 Special Pipe Crossings

Special pipe crossings are required for crossing rivers, railroads and highways, or areas where traditional open cut construction is not possible. To approximate the cost of trenchless construction for crossings, bid tabs were reviewed and a factor of 5 is applied to the water pipeline cost per linear foot from **Table A11-1-1** for the crossing length.

A11-1.3.2 Facility

Facility costs will be customized for each CIP improvement in the Water System Plan, which is anticipated to be associated with pump station and treatment facilities. Facility unit costs for tank facilities have been defined.

A11-1.3.2.1 Tanks

Concrete ground-level tanks are estimated at \$2 per gallon for construction. This includes general earthwork, foundation prep, and tank mechanical piping and appurtenances.

Steel ground level tanks are estimated at \$1.50 per gallon for construction of 1-million-gallon tanks and smaller and \$1.00 per gallon for tanks 2 million and larger. This includes general earthwork, foundation, and tank mechanical piping and appurtenances.

The following assumptions apply to the costs developed for tanks:

- Site work limited to foundation preparation
- Basic foundation conditions apply (e.g., no micropiles)
- Tanks are constructed at-grade
- No floodplain accommodations considered
- No chemical treatment processes included
- No property acquisition costs applied
- No easement or right-of-way costs applied
- Sales tax not included (see **Section A11-1.5**)

A11-1.4 Construction Cost Allowances

The construction cost is the sum of project cost and adders, labor, equipment, mobilization, contractor's overhead and profit, and contingency for each project. Note that the construction cost allowances are already included in the pipeline unit costs.

A11-1.4.1 Erosion Control

Erosion control will be required for all projects. For planning purposes, the erosion control is estimated at 2 percent of the construction costs. Erosion control mark-up accounts for materials and practices to protect adjacent property, storm water systems, and surface water in accordance with regulatory requirements. The level of effort and cost for erosion control depends on the size and scope of a project, and the local conditions at the time of construction.

A11-1.4.2 Contractor Overhead and Profit

A 15 percent mark-up accounts for the contractor's indirect project costs and anticipated profit.

A11-1.4.3 Mobilization

A 10 percent mobilization mark-up accounts for the cost of the contractor's administrative and direct expenses to mobilize equipment, materials, and labor to the work site.

A11-1.4.4 Contingency

A 30 percent increase is added in each project's construction cost to account for a contingency factor to cover the uncertainties inherent to planning-level development. The contingency is provided to account for factors such as:

- Unanticipated utilities
- Relocation and connection to existing infrastructure
- Minor elements of work not addressed in component unit cost development
- Details of construction
- Changes in site conditions
- Variability in construction bid climate

The contingency excludes:

- Major scope changes such as end product specification, capacities, and location of project
- Extraordinary events such as strikes or natural disasters
- Management reserves
- Escalation and currency effects

A summary of construction mark-ups is provided in **Table A11-1-2**.

Table A11-1-2
Additional Construction Costs

Additional Cost Factor	Percent
Erosion Control	2%
Contractor Overhead and Profit	10%
Mobilization	10%
Contingency	30%

A11-1.5 Total Project Cost

The total project cost is the sum of construction cost with additional cost allowances for legal, tax, administrative, and engineering fees. **Table A11-1-3**, shown below, presents the cost allowances for each additional project cost. The engineering costs include design and surveying. Construction administration is the cost associated with managing the construction of the project.

Table A11-1-3
Summary of Additional Costs

Additional Cost Factor	Percent
Legal/Admin. Coordination	5%
Engineering Design	10%
Sales Tax	8.9%
Construction Engineering	10%

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Appendix 12-1

Snohomish PUD Financial Model

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Snohomish County PUD

Water Rate Study & COSA

Summary

Revenue Requirement	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenues										
Rate Revenues Under Existing Rates	\$ 13,780,960	\$ 12,394,453	\$ 12,622,079	\$ 12,980,012	\$ 13,393,788	\$ 13,576,503	\$ 13,761,829	\$ 13,926,349	\$ 14,092,154	\$ 14,259,225
Wholesale Rate Revenues	721,858	493,528	500,980	508,545	516,224	522,987	529,838	536,779	543,810	550,934
Non-Rate Revenues	872,482	1,422,462	1,448,953	1,547,117	1,632,701	1,702,709	1,724,981	1,774,678	1,800,057	1,831,352
Total Revenues	\$ 15,375,300	\$ 14,310,442	\$ 14,572,012	\$ 15,035,674	\$ 15,542,714	\$ 15,802,199	\$ 16,016,647	\$ 16,237,805	\$ 16,436,022	\$ 16,641,512
Expenses										
Cash Operating Expenses	\$ 10,623,275	\$ 11,448,077	\$ 11,109,056	\$ 11,019,961	\$ 12,012,993	\$ 12,366,306	\$ 12,782,608	\$ 13,444,071	\$ 13,837,174	\$ 14,615,700
Existing Debt Service	2,000,723	2,201,641	1,221,726	1,203,655	1,198,796	1,192,687	1,190,328	1,122,413	1,118,015	1,034,495
New Debt Service	-	-	712,735	1,356,667	2,175,302	2,175,302	2,993,937	2,993,937	3,232,100	3,232,100
Rate Funded System Reinvestment	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 12,623,997	\$ 13,649,718	\$ 13,043,517	\$ 13,580,284	\$ 15,387,091	\$ 15,734,295	\$ 16,966,873	\$ 17,560,422	\$ 18,187,290	\$ 18,882,295
Net Surplus (Deficiency)	\$ 2,751,302	\$ 660,724	\$ 1,528,495	\$ 1,455,390	\$ 155,623	\$ 67,904	\$ (950,226)	\$ (1,322,616)	\$ (1,751,268)	\$ (2,240,783)
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	(26,419)
Total Surplus (Deficiency)	\$ 2,751,302	\$ 660,724	\$ 1,528,495	\$ 1,455,390	\$ 155,623	\$ 67,904	\$ (950,226)	\$ (1,322,616)	\$ (1,751,268)	\$ (2,267,202)
% of Rate Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.90%	9.50%	12.43%	15.90%
Annual Rate Adjustment	0.00%	1.75%	2.15%	2.15%	2.15%	2.15%	2.25%	2.25%	2.25%	2.25%
Cumulative Annual Rate Adjustment	0.00%	1.75%	3.94%	6.17%	8.45%	10.79%	13.28%	15.83%	18.43%	21.10%
Rate Revenues After Rate Increase	\$ 13,780,960	\$ 12,557,130	\$ 13,119,089	\$ 13,781,175	\$ 14,526,231	\$ 15,040,969	\$ 15,589,327	\$ 16,130,647	\$ 16,689,958	\$ 17,267,803
Additional In-Lieu of Taxes from Rate Increase	\$ -	\$ 8,181	\$ 24,995	\$ 40,290	\$ 56,951	\$ 73,648	\$ 91,905	\$ 110,854	\$ 130,644	\$ 151,301
Net Cash Flow After Rate Increase	\$ 2,751,302	\$ 815,221	\$ 2,000,510	\$ 2,216,263	\$ 1,231,115	\$ 1,458,722	\$ 785,368	\$ 770,828	\$ 715,892	\$ 616,494
Coverage After Rate Increases	5.13	3.21	4.26	3.47	2.43	2.51	1.99	2.02	1.94	1.90
Sample Residential Monthly Bill (5/8" Meter, 7 CCF)	\$ 47.62	\$ 48.45	\$ 49.50	\$ 50.56	\$ 51.65	\$ 52.76	\$ 53.94	\$ 55.16	\$ 56.40	\$ 57.67
Monthly Average Increase (\$)	\$ -	\$ 0.83	\$ 1.04	\$ 1.06	\$ 1.09	\$ 1.11	\$ 1.19	\$ 1.21	\$ 1.24	\$ 1.27

Fund Balance	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUE FUND										
Beginning Balance	\$ 7,955,289	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906
plus: Net Cash Flow after Rate Increase	2,751,302	815,221	2,000,510	2,216,263	1,231,115	1,458,722	785,368	770,828	715,892	616,494
less: Transfer of Surplus to Capital Fund	(8,087,154)	(611,845)	(2,084,104)	(2,238,232)	(986,258)	(1,371,604)	(682,718)	(607,728)	(618,962)	(424,529)
Ending Balance	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906	\$ 3,603,871
O&M Target Balance	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906	\$ 3,603,871
Days	90	90	90	90	90	90	90	90	90	90
CAPITAL - General Facility Charge Reserve										
Beginning Balance	\$ 13,694,111	\$ 16,723,104	\$ 14,572,208	\$ 14,936,407	\$ 10,497,246	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 17,229,965
plus: General Facility Charge Revenue	3,069,520	1,580,106	1,603,965	1,628,185	1,652,771	1,455,512	1,474,579	1,493,896	1,513,466	1,533,293
less: General Facility Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-
less: Transfers to Rate Funding Reserve	-	(1,700,000)	1,708,500	-	-	-	-	-	-	-
plus: Interest Earnings	115,031	140,474	145,722	298,728	314,917	405,110	465,581	528,636	594,368	559,974
Total Funding Sources	\$ 16,878,661	\$ 16,743,683	\$ 18,030,395	\$ 16,863,320	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 20,396,083	\$ 19,323,232
less: Capital Expenditures	(155,557)	(2,171,476)	(3,093,988)	(6,366,074)	-	-	-	-	(3,166,118)	(3,557,182)
plus: Transfers from Rate Funding Reserve	-	-	-	-	-	-	-	-	-	-
Ending General Facility Charge Reserve Balance	\$ 16,723,104	\$ 14,572,208	\$ 14,936,407	\$ 10,497,246	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 17,229,965	\$ 15,766,050
Minimum Target Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CAPITAL - Rate Funding Reserve										
Beginning Balance	\$ -	\$ 4,171,251	\$ 566,134	\$ 7,292,594	\$ 541,480	\$ 4,339,508	\$ 85,066	\$ 4,909,682	\$ 4,454	\$ 1,125,996
plus: Rate Funded System Reinvestment	-	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	8,087,154	1,261,845	2,084,104	2,238,232	986,258	1,371,604	682,718	607,728	618,962	424,529
plus: Grants/ Donations/ CIAC	-	-	-	-	-	-	-	-	-	-
plus: Additional Proceeds (Costs)	1,597,977	4,554,728	494,443	501,909	509,488	516,162	522,924	529,774	536,714	543,745
plus: Revenue Bond Proceeds	-	-	16,240,000	-	10,140,000	-	10,140,000	-	2,950,000	-
plus: PWTF Loans	-	-	-	-	-	-	-	-	-	-
plus: Other Loan Proceeds	-	-	-	-	-	-	-	-	-	-
plus: Transfers from GFC Reserve	-	1,700,000	(1,708,500)	-	-	-	-	-	-	-
plus: Interest Earnings	-	8,343	2,831	72,926	8,122	108,488	2,127	122,742	111	28,150
Total Funding Sources	\$ 9,685,131	\$ 11,696,166	\$ 17,679,012	\$ 10,105,661	\$ 12,185,348	\$ 6,335,761	\$ 11,432,834	\$ 6,169,925	\$ 4,110,241	\$ 2,122,419
less: Capital Expenditures	(5,513,880)	(11,130,032)	(10,386,418)	(9,564,180)	(7,845,840)	(6,250,695)	(6,523,152)	(6,165,471)	(2,984,246)	(2,122,197)
less: Transfers to GFC Reserve for Capital	-	-	-	-	-	-	-	-	-	-
Ending Rate Funding Reserve Balance	\$ 4,171,251	\$ 566,134	\$ 7,292,594	\$ 541,480	\$ 4,339,508	\$ 85,066	\$ 4,909,682	\$ 4,454	\$ 1,125,996	\$ 221
Minimum Target Balance	\$ 1,680,547	\$ 1,813,562	\$ 1,948,366	\$ 2,107,669	\$ 2,186,127	\$ 2,248,634	\$ 2,313,866	\$ 2,375,520	\$ 2,437,024	\$ 2,493,818
COMBINED BEGINNING FUND BALANCE	\$ 21,649,400	\$ 23,513,793	\$ 17,961,155	\$ 24,968,220	\$ 13,755,977	\$ 19,766,550	\$ 17,459,849	\$ 24,327,274	\$ 21,607,679	\$ 21,767,867
COMBINED ENDING FUND BALANCE	\$ 23,513,793	\$ 17,961,155	\$ 24,968,220	\$ 13,755,977	\$ 19,766,550	\$ 17,459,849	\$ 24,327,274	\$ 21,607,679	\$ 21,767,867	\$ 19,370,142
Combined Days	233	108	330	108	222	93	230	90	120	90
Total Combined Ending Fund Balance Target	\$ 4,299,985	\$ 4,636,376	\$ 4,687,586	\$ 4,824,920	\$ 5,148,235	\$ 5,297,860	\$ 5,465,742	\$ 5,690,497	\$ 5,848,930	\$ 6,097,689



Snohomish County PUD
Water Rate Study & COSA
Assumptions

Economic & Financial Factors		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
General Cost Inflation		2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
Construction Cost Inflation		2.79%	2.79%	2.79%	2.79%	2.79%	2.79%	2.79%	2.79%	2.79%	2.79%
Labor Cost Inflation		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Step Union Increase		1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%
Benefit Cost Inflation		2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%
Labor Inflation plus Composite Growth		5.06%	4.56%	4.56%	4.56%	4.56%	4.35%	4.35%	4.35%	4.35%	4.35%
General Inflation plus Composite Growth		4.35%	3.84%	3.84%	3.84%	3.84%	3.64%	3.64%	3.64%	3.64%	3.64%
Weighted Customer Growth Rate		1.74%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Customer Growth	1.52%	2.00%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Demand Growth	1.00%	1.50%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Granite Falls Growth		2.00%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Arlington Growth		2.00%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Granite Falls Growth plus Assumed Rate Increase											
Arlington Growth plus Assumed Rate Increase											
Other Wholesale Growth (Snohomish and Goldbar)		2.00%	1.51%	1.51%	1.51%	1.51%	1.31%	1.31%	1.31%	1.31%	1.31%
Everett Purchased Water Inflation											
Fixed Charge Increase		15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Commodity Increase		0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Filtration Increase		7.80%	2.40%	3.50%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Total Commodity Charge Increase		4.26%	1.38%	2.01%	2.04%	2.41%	2.41%	2.41%	2.42%	2.42%	2.42%
No Escalation		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[Extra]		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment Interest		0.84%	0.84%	1.00%	2.00%	3.00%	3.25%	3.25%	3.25%	3.25%	3.25%
Investment Interest (LGIP)		0.20%	0.20%	0.50%	1.00%	1.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Excise Taxes		5.029%	5.029%	5.029%	5.029%	5.029%	5.029%	5.029%	5.029%	5.029%	5.029%
B&O Taxes		1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%
Non Productive Time to Overheads		16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
A&G Credit		11.00%	11.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%

Accounting Assumptions		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
FISCAL POLICY RESTRICTIONS											
Min. Op. Fund Balance Target (days of O&M expense)		90	90	90	90	90	90	90	90	90	90
Max. Op. Fund Balance (days of O&M expense)		90	90	90	90	90	90	90	90	90	90
Minimum Capital Fund Balance Target											
Select Minimum Capital Fund Balance Target	1										
1 - Defined as % of Plant		Estimated Assets									
Plant-in-Service in 2019		\$ 160,960,975	\$ 1,611,383	\$ 1,614,709	\$ 1,618,079	\$ 1,622,061	\$ 1,624,023	\$ 1,625,585	\$ 1,609,610	\$ 1,609,610	\$ 1,609,610
Minimum Capital Fund Balance - % of plant assets		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2 - Amount at Right ==>											
RATE FUNDED SYSTEM REINVESTMENT											
Select Reinvestment Funding Strategy	4	28.86% 32.99% 17.13% 16.26% 14.63% 12.24%									
Amount of Annual Cash Funding from Rates		\$ 2,751,302	\$ 815,221	\$ 2,000,510	\$ 2,216,263	\$ 1,231,115	\$ 1,458,722	\$ 785,368	\$ 770,828	\$ 715,892	\$ 616,494
1 - Equal to Annual Depreciation Expense		\$ 3,251,859	\$ 3,334,448	\$ 3,671,458	\$ 4,069,715	\$ 4,265,861	\$ 4,422,128	\$ 4,585,207	\$ 4,739,343	\$ 4,893,103	\$ 5,035,087
2 - Equal to Annual Depreciation Expense less Annual Debt Principal Payments		1,675,504	1,501,698	2,783,887	2,513,212	2,284,986	2,374,521	2,090,584	2,218,694	2,171,274	2,291,548
3- Equal to Amount at Right ==>		975,558	1,000,334	1,101,437	1,627,886	2,132,930	2,653,277	3,668,165	3,791,475	4,403,792	4,531,578
4 - Do Not Fund System Reinvestment		30.00%	30.00%	30.00%	40.00%	50.00%	60.00%	80.00%	80.00%	90.00%	90.00%

Capital Financing Assumptions		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
General Facility Charge											
Current General Facility Charge	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645	\$ 3,645
Total Meter Customer Equivalents		28,709	29,142	29,582	30,029	30,482	30,882	31,286	31,696	32,111	32,532
Additional Units Per Year		563	433	440	447	453	399	405	410	415	421
General Facility Charge Revenues		\$ 3,069,520	\$ 1,580,106	\$ 1,603,965	\$ 1,628,185	\$ 1,652,771	\$ 1,455,512	\$ 1,474,579	\$ 1,493,896	\$ 1,513,466	\$ 1,533,293
FUNDING SOURCES											
Grants		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Proceeds (Costs)											
Distribution System Charge		\$ 281,606	\$ 487,088	\$ 494,443	\$ 501,909	\$ 509,488	\$ 516,162	\$ 522,924	\$ 529,774	\$ 536,714	\$ 543,745
DWSRF Loan Funds - Warm Beach		\$ 1,316,372	\$ 1,348,793	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DWSRF Loan Funds No.2 - Warm Beach		\$ -	\$ 2,718,847	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Payoff 2006 Bonds		-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-
Total Additional Proceeds		\$ 1,597,977	\$ 4,554,728	\$ 494,443	\$ 501,909	\$ 509,488	\$ 516,162	\$ 522,924	\$ 529,774	\$ 536,714	\$ 543,745
REVENUE BONDS											
Term (years)		20	20	20	20	20	20	20	20	20	20
Interest Only Payments		0	0	1	0	0	0	0	0	0	0
Interest Rate		3.25%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Revenue Bond Coverage Requirement	1.75										
Use Reserves to Pay for Last Payment	No										
PWTF LOANS											
Term		20	20	20	20	20	20	20	20	20	20
Interest Rate		2.55%	2.55%	2.55%	2.55%	2.55%	2.55%	2.55%	2.55%	2.55%	2.55%
OTHER LOANS											
Term (years)		20	20	20	20	20	20	20	20	20	20
Interest Rate		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issuance Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%



Snohomish County PUD Water Rate Study & COSA

Operating Revenue and Expenditure Forecast

		Projected	Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Revenues/Expenses		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Acct.#	Retail Sales										
	Metered Sales Wtr Single Family	\$ 12,918,764	\$ 11,276,105	\$ 11,446,375	\$ 11,619,215	\$ 11,794,665	\$ 11,949,175	\$ 12,105,709	\$ 12,264,294	\$ 12,424,956	\$ 12,587,723
	Metered Sales Wtr Commercial	867,862	757,618	769,058	780,671	792,459	802,840	813,358	824,013	834,807	845,743
	Metered Sales Wtr Warm Beach	-	360,729	366,176	371,705	377,318	382,261	387,269	392,342	397,482	402,689
	Meter Accuracy Revenue Benefit From AMI	-	-	40,470	208,420	429,346	442,226	455,493	445,700	434,909	423,070
	Opt Out Revenue Benefit From AMI	-	-	-	-	-	-	-	-	-	-
	Unbilled Revenue	(5,667)	-	-	-	-	-	-	-	-	-
	Total Water Sales	\$ 13,780,960	\$ 12,394,453	\$ 12,622,079	\$ 12,980,012	\$ 13,393,788	\$ 13,576,503	\$ 13,761,829	\$ 13,926,349	\$ 14,092,154	\$ 14,259,225
	Wholesale Revenue										
	Sales for Resale Granite Falls	\$ 372,288	\$ 274,051	\$ 278,189	\$ 282,390	\$ 286,654	\$ 290,409	\$ 294,213	\$ 298,067	\$ 301,972	\$ 305,928
	Sales for Resale Arlington	235,157	99,370	100,871	102,394	103,940	105,302	106,681	108,079	109,495	110,929
	Sales for Other (Snohomish and Goldbar)	114,413	120,107	121,920	123,761	125,630	127,276	128,943	130,632	132,344	134,077
	Total Wholesale Water Sales	\$ 721,858	\$ 493,528	\$ 500,980	\$ 508,545	\$ 516,224	\$ 522,987	\$ 529,838	\$ 536,779	\$ 543,810	\$ 550,934
	Non-rate Revenue										
	Surcharge Revenue	\$ -	\$ 174,304	\$ 176,936	\$ 179,608	\$ 182,320	\$ 184,708	\$ 187,128	\$ 189,579	\$ 192,063	\$ 194,579
	Surcharge Revenue - Warm Beach	-	281,596	285,848	290,164	294,546	298,404	302,313	306,273	310,286	314,350
	Lake Roesiger Septic Tank Pumping Revenue	14,356	14,569	14,789	15,013	15,239	15,439	15,641	15,846	16,054	16,264
	Property Rental	227,965	246,366	252,033	257,829	263,759	269,826	276,032	282,381	288,875	295,520
	Miscellaneous Receipts & Engineering Fees/Other	114,091	117,600	119,376	121,179	123,009	124,620	126,252	127,906	129,582	131,279
	New Service Connections	322,635	365,251	370,766	376,365	382,048	387,053	392,123	397,260	402,464	407,736
	Assessments for LUDS Principal	78,757	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
	Assessments for LUDS Interest	19,790	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000
	Investment Interest	94,888	46,775	53,205	130,960	195,781	246,659	249,490	279,432	284,733	295,623
	Total Non-rate Revenue	\$ 872,482	\$ 1,422,462	\$ 1,448,953	\$ 1,547,117	\$ 1,632,701	\$ 1,702,709	\$ 1,724,981	\$ 1,774,678	\$ 1,800,057	\$ 1,831,352
TOTAL REVENUES		\$ 15,375,300	\$ 14,310,442	\$ 14,572,012	\$ 15,035,674	\$ 15,542,714	\$ 15,802,199	\$ 16,016,647	\$ 16,237,805	\$ 16,436,022	\$ 16,641,512
Revenues/Expenses		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	State Taxes	\$ 731,842	\$ 712,156	\$ 695,912	\$ 714,824	\$ 736,559	\$ 742,748	\$ 752,860	\$ 761,937	\$ 771,091	\$ 780,320
601100	Total Labor										
	Water Resource Administration										
	AGM	\$ 202,398	\$ 212,196	\$ 218,562	\$ 225,119	\$ 231,872	\$ 238,828	\$ 245,993	\$ 253,373	\$ 260,974	\$ 268,804
	Water Business Manager	113,705	120,144	123,748	127,461	131,285	135,223	139,280	143,458	147,762	152,195
	Water Senior Liaison	102,198	107,163	110,378	113,689	117,100	120,613	124,231	127,958	131,797	135,751
	Water Services Liaison	90,362	96,102	98,985	101,955	105,013	108,000	111,000	114,000	117,000	120,000
	Water Utility Administrator	167,658	166,424	251,497	259,042	177,875	263,292	271,190	279,326	287,706	296,337
	Water Utility Associate	60,612	63,003	-	-	67,327	-	-	-	-	-
	Water Utility Specialist	35,000	-	-	56,160	-	-	-	-	-	-
	Water Operations and Administration										
	Water Superintendent	137,003	141,113	145,347	149,707	154,199	158,824	163,589	168,497	173,552	178,758
	Crew Coordinator	125,940	130,023	134,254	138,282	142,430	146,703	151,104	155,638	160,307	165,116
	Water Foreman	241,186	248,975	257,100	264,813	272,757	280,940	289,368	298,049	306,991	316,200
	Water Construction Inspector	120,593	124,487	128,550	132,406	136,379	140,470	144,684	149,025	153,495	158,100
	Water Electrician	-	112,552	116,210	119,696	123,287	126,986	130,796	134,719	138,761	142,924
	Water Distribution Specialist 6	535,923	442,631	457,029	588,425	606,077	1,248,520	1,285,975	1,324,554	1,364,291	1,405,220
	Water Distribution Specialist 5	100,743	-	214,790	221,234	-	-	-	-	-	-
	Water Distribution Specialist 4	-	196,982	101,691	-	-	-	-	-	-	-

Revenues/Expenses		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Distribution Specialist 3		270,087	557,730	479,931	593,195	610,990	-	-	-	-	118,051
Water Distribution Specialist 2		84,683	87,419	90,261	-	-	-	-	-	107,776	-
Water Distribution Specialist 1		-	-	-	-	-	-	-	98,024	-	-
Water Worker 4		-	-	-	-	81,220	-	86,166	-	-	-
Water Worker 3		-	57,550	66,264	68,252	-	-	-	-	-	-
Water Worker 2		-	-	-	-	63,042	64,933	-	-	-	73,083
Water Worker 1		-	-	-	-	-	-	-	-	-	-
Water Helper 2		51,298	52,961	54,687	56,327	-	59,758	123,101	126,794	130,598	67,258
Water Helper 1		-	-	-	-	-	-	-	-	-	-
Water Resource Engineering											
Sr. Mgr Water Resources O&M & Eng		-	-	-	-	-	-	-	-	-	-
Principal Engineer		439,710	452,901	466,488	480,483	494,898	509,745	525,037	540,788	557,012	573,722
Water Resources Eng Tech 1		68,686	70,746	72,868	75,055	77,306	79,625	82,014	84,475	87,009	89,619
Water Resources Eng Tech 2		-	-	-	-	-	-	-	-	-	-
Water Resources Eng Tech 3		93,510	96,315	99,204	102,180	105,246	108,403	111,655	115,005	118,455	122,009
GIS Analyst		-	-	-	-	-	-	-	-	-	-
Summer Hire		25,552	26,319	27,108	-	-	-	-	-	-	-
Less Non-Productive Time to Overheads		(479,904)	(483,236)	(590,055)	(619,757)	(591,729)	(603,978)	(635,031)	(655,566)	(676,323)	(698,671)
Less Estimated Charges to Capital		(576,372)	(1,088,983)	(1,015,551)	(1,255,332)	(607,849)	(769,404)	(798,566)	(649,968)	(717,185)	(458,144)
Plus Labor Cross Charges from Electric		761,850	784,706	808,247	832,494	857,469	883,193	909,689	936,979	965,089	994,041
Total Labor Subtotal		2,772,421	2,776,224	2,917,593	2,830,886	3,356,195	3,284,674	3,445,036	3,728,732	3,798,597	4,203,919
Meter Reading Expense (TruCheck)		153,735	211,000	242,633	223,976	230,696	237,616	244,745	252,087	259,650	267,439
Meter Reading Expense (TruCheck) Benefit From AMI		-	-	(24,263)	(111,988)	(230,696)	(237,616)	(244,745)	(252,087)	(259,650)	(267,439)
Meter Reading Expense (District)		141,039	220,284	227,994	497,887	511,330	525,136	539,315	553,877	568,831	584,190
Meter Reading Labor Benefit From AMI		-	-	(22,799)	(224,049)	(485,764)	(498,880)	(512,349)	(526,183)	(540,390)	(554,980)
Meter Reading Vehicle Expense (District)		-	128,487	132,341	136,312	140,401	144,613	148,952	153,420	158,023	162,763
Meter Reading Vehicle Benefit From AMI		-	-	(26,468)	(54,525)	(84,241)	(115,690)	(141,504)	(145,749)	(150,122)	(154,625)
Meter Reading Fuel Expense (District)		-	10,191	10,497	10,812	11,136	11,470	11,814	12,169	12,534	12,910
Meter Reading Fuel Benefit From AMI		-	-	(2,099)	(4,325)	(6,682)	(9,176)	(11,224)	(11,560)	(11,907)	(12,264)
Water Dept Efficiency CSR Labor Benefit		-	-	-	-	(142,811)	(146,667)	(150,627)	(154,694)	(158,871)	(163,160)
Addl IT Costs: MDMS Software Maint. & AMI HES Sa		-	69,904	86,541	95,175	97,108	100,021	103,022	106,112	109,296	112,575
Meter Reading System (FCS Handheld) Benefit		-	-	-	-	(30,570)	(32,098)	(33,703)	(35,388)	(37,158)	(39,016)
Customer Accounting Labor Benefit		-	-	-	-	(142,811)	(146,667)	(150,627)	(154,694)	(158,871)	(163,160)
O&M Costs (Additional) Re: Module Failure Rate w/ A		-	4,893	52,419	54,275	55,696	57,220	58,786	94,019	96,680	99,417
601200	Total Overtime										
	Operations Labor Overtime	147,417	120,000	123,600	127,308	131,127	135,061	139,113	143,286	147,585	152,012
605000	Total Travel and Education										
	605000 Travel and Education	7,359	22,400	22,915	23,442	23,981	24,533	25,097	25,674	26,265	26,869
	605101 Airfare expense	-	-	-	-	-	-	-	-	-	-
	605201 Hotel Expense	-	-	-	-	-	-	-	-	-	-
	605301 Per Diem Exp	-	-	-	-	-	-	-	-	-	-
	605401 Trans & Mileage	-	-	-	-	-	-	-	-	-	-
	605501 Oth Travel Exp	-	-	-	-	-	-	-	-	-	-
	605601 Reg/conf fees	-	-	-	-	-	-	-	-	-	-
	605701 Oth Training Ex	-	-	-	-	-	-	-	-	-	-
	Total Travel and Education Subtotal	7,359	22,400	22,915	23,442	23,981	24,533	25,097	25,674	26,265	26,869
615100	Total Insurance and Claims										
	615101 Property Ins	143,299	161,559	165,275	169,076	172,965	176,943	181,013	185,176	189,435	193,792
	615102 Liability Ins	-	-	-	-	-	-	-	-	-	-
	615201 Claim Settlements	10,198	50,000	51,150	52,326	53,530	54,761	56,021	57,309	58,627	59,976
	Total Insurance and Claims Subtotal	153,497	211,559	216,425	221,403	226,495	231,704	237,033	242,485	248,062	253,768
611300	Total Materials, Equip & Supplies										
	611301 Boot Allowance	-	-	-	-	-	-	-	-	-	-
	611504 Meters	-	-	-	-	-	-	-	-	-	-
	611701 Comp Hardware	-	-	-	-	-	-	-	-	-	-
	611702 Telecom Hdwr	-	-	-	-	-	-	-	-	-	-
	611705 Tools	-	-	-	-	-	-	-	-	-	-
	611706 Equipment - Special Order	21,947	-	-	-	-	-	-	-	-	-
	611901 Office furniture	-	-	-	-	-	-	-	-	-	-

Revenues/Expenses		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	611902 Office Supplies	373,883	383,475	392,295	401,318	410,548	419,991	429,650	439,532	449,642	459,983
	611903 Paper&prnt Sply	-	-	-	-	-	-	-	-	-	-
	611904 Software	-	-	-	-	-	-	-	-	-	-
	611905 Custodial Sply	-	-	-	-	-	-	-	-	-	-
	611906 Landscape Sply	-	-	-	-	-	-	-	-	-	-
	611907 Fuel	-	-	-	-	-	-	-	-	-	-
	611908 Chemicals	-	50,000	51,150	52,326	53,530	54,761	56,021	57,309	58,627	59,976
	611909 Auto Sply	-	-	-	-	-	-	-	-	-	-
	611910 Oth Oper Sply	-	-	-	-	-	-	-	-	-	-
	611506 Construction Materials	28,795	-	-	-	-	-	-	-	-	-
	699079 Vehicle Charges	-	-	-	-	-	-	-	-	-	-
	Total Materials, Equip & Supplies Subtotal	424,625	433,475	443,445	453,644	464,078	474,752	485,671	496,841	508,269	519,959
611100	Total Coded Stock										
	611102 Coded Stock Reg	116,890	109,599	112,120	114,699	117,337	120,035	122,796	125,620	128,510	131,465
614100	Total Public Works and Small Roster										
	614102 Public Works Roster	6,813	25,000	25,575	26,163	26,765	27,381	28,010	28,655	29,314	29,988
	614101 Small Works	-	5,000	5,115	5,233	5,353	5,476	5,602	5,731	5,863	5,998
	Total Public Works and Small Roster Subtotal	6,813	30,000	30,690	31,396	32,118	32,857	33,612	34,385	35,176	35,985
614000	Total Professional Services Contracts										
	614001 Legal Services	-	-	-	-	-	-	-	-	-	-
	614002 Audit services	-	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002
	614003 Arc/Eng Svs	-	-	-	-	-	-	-	-	-	-
	614007 Financial Svcs	-	-	-	-	-	-	-	-	-	-
	614010 Oth Consult Svc	271,604	243,000	250,290	257,799	265,533	273,499	281,704	290,155	298,859	307,825
	Total Professional Services Contracts Subtotal	271,604	258,000	265,740	273,712	281,924	290,381	299,093	308,065	317,307	326,827
614200	Total Other Contracts										
	802105 Contracts/Svcs/Insur	-	-	-	-	-	-	-	-	-	-
	614200 Other Contracted Services	986,117	1,484,859	1,519,011	1,553,948	1,589,689	1,626,252	1,663,655	1,701,920	1,741,064	1,781,108
	614201 Bank Services	-	-	-	-	-	-	-	-	-	-
	614202 Elec Proc Fees	8,700	-	-	-	-	-	-	-	-	-
	614203 Software Cloud	-	-	-	-	-	-	-	-	-	-
	614204 Software Maint	-	-	-	-	-	-	-	-	-	-
	614205 License Pmt Fee	-	-	-	-	-	-	-	-	-	-
	614206 Outsd Maint Svc	-	-	-	-	-	-	-	-	-	-
	614207 Adv,Print, exp	-	-	-	-	-	-	-	-	-	-
	614209 Research Svcs	-	-	-	-	-	-	-	-	-	-
	614210 Misc Oth Svs	-	-	-	-	-	-	-	-	-	-
	614214 Environmental Svcs	-	-	-	-	-	-	-	-	-	-
	614215 Soil Removal	-	-	-	-	-	-	-	-	-	-
	Total Other Contracts Subtotal	994,817	1,484,859	1,519,011	1,553,948	1,589,689	1,626,252	1,663,655	1,701,920	1,741,064	1,781,108
616100	Total Rents and Utilities										
	616101 Tool/Mach Rens	-	-	-	-	-	-	-	-	-	-
	802106 WO Stlmt Rents/Utilities	-	-	-	-	-	-	-	-	-	-
	616200 Utility Expense	312,361	366,578	375,009	383,635	392,458	401,485	410,719	420,165	429,829	439,715
	616201 Telephony	-	-	-	-	-	-	-	-	-	-
	616202 Cell Phones	-	-	-	-	-	-	-	-	-	-
	616205 Water/Power bl	-	-	-	-	-	-	-	-	-	-
	616206 WasteDisp Cost	-	-	-	-	-	-	-	-	-	-
	Total Rents and Utilities Subtotal	312,361	366,578	375,009	383,635	392,458	401,485	410,719	420,165	429,829	439,715
617000	Total Land, Property and Easements										
	617300 Easements	-	-	-	-	-	-	-	-	-	-
	617302 Permits	26,534	30,000	30,690	31,396	32,118	32,857	33,612	34,385	35,176	35,985
619300	Total Postage										
	619301 Postage	28,507	30,000	31,153	32,351	33,595	34,818	36,085	37,399	38,760	40,171
619200	Total Dues and Memberships										
	619201 Util Ind Mbship	-	-	-	-	-	-	-	-	-	-
	619202 Prof Soc Mbship	-	-	-	-	-	-	-	-	-	-

Revenues/Expenses		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	619204 Oth Membasp Fees	8,134	8,850	9,054	9,262	9,475	9,693	9,916	10,144	10,377	10,616
	Total Dues and Memberships Subtotal	8,134	8,850	9,054	9,262	9,475	9,693	9,916	10,144	10,377	10,616
698000	Total Purchased Water										
	Purchased Water (558101)	3,233,505	3,351,580	3,306,789	3,433,937	3,580,579	3,733,357	3,892,528	4,058,357	4,231,122	4,411,115
698000	Total Overheads										
	803001 Labor Benefit Overhead (Straight Time)	1,644,823	1,890,041	1,932,366	1,975,640	2,019,882	2,065,115	2,111,361	2,158,642	2,206,983	2,256,406
	803002 Labor Benefit Overhead (Overtime)	29,370	19,200	19,630	20,070	20,519	20,978	21,448	21,929	22,420	22,922
	802111 WO Sttlmt Overhead	-	-	-	-	-	-	-	-	-	-
	803003 Stores Overhead	17,534	16,440	16,808	17,185	17,569	17,963	18,365	18,776	19,197	19,627
	803005 A & G Credit	(672,948)	(1,198,989)	(1,489,560)	(1,712,520)	(820,560)	(636,000)	(645,720)	(593,760)	(576,240)	(517,680)
	Total Overheads Subtotal	1,018,779	726,692	479,244	300,374	1,237,410	1,468,056	1,505,454	1,605,587	1,672,359	1,781,274
	Refunds	(1,415)	-	-	-	-	-	-	-	-	-
	671101 Uncollectible Expense	74,810	131,347	75,939	77,086	78,250	79,275	80,313	81,366	82,431	83,511
	Realization Factor	100.00%	100.00%	97.11%	97.18%	97.14%	97.14%	97.15%	97.14%	97.14%	97.14%
Total Cash O&M Expenditures		\$ 10,623,275	\$ 11,448,077	\$ 11,109,056	\$ 11,019,961	\$ 12,012,993	\$ 12,366,306	\$ 12,782,608	\$ 13,444,071	\$ 13,837,174	\$ 14,615,700
Depreciation Expense		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Depreciation Expense in 2019											
	Depreciation Expense	\$ 3,251,859	\$ 3,334,448	\$ 3,671,458	\$ 4,069,715	\$ 4,265,861	\$ 4,422,128	\$ 4,585,207	\$ 4,739,343	\$ 4,893,103	\$ 5,035,087
		(1,576,355)	(1,832,750)	(887,571)	(1,556,503)	(1,980,874)	(2,047,607)	(2,494,622)	(2,520,649)	(2,721,829)	(2,743,539)
		\$ 1,675,504	\$ 1,501,698	\$ 2,783,887	\$ 2,513,212	\$ 2,284,986	\$ 2,374,521	\$ 2,090,584	\$ 2,218,694	\$ 2,171,274	\$ 2,291,548
TOTAL EXPENSES		\$ 13,875,134	\$ 14,782,525	\$ 14,780,515	\$ 15,089,676	\$ 16,278,853	\$ 16,788,434	\$ 17,367,814	\$ 18,183,415	\$ 18,730,277	\$ 19,650,787



Snohomish County PUD

Water Rate Study & COSA

Existing Debt Input

Existing Debt Service - Revenue Bonds	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2006 REVENUE BOND - PAID OFF										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
2019 REVENUE BOND										
Annual Interest Payment	\$ 307,250	\$ 285,750	\$ 263,000	\$ 239,250	\$ 214,250	\$ 188,000	\$ 160,500	\$ 131,500	\$ 101,000	\$ 69,000
Annual Principal Payment	430,000	455,000	475,000	500,000	525,000	550,000	580,000	610,000	640,000	675,000
Total Annual Payment	\$ 737,250	\$ 740,750	\$ 738,000	\$ 739,250	\$ 739,250	\$ 738,000	\$ 740,500	\$ 741,500	\$ 741,000	\$ 744,000
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
2011 REVENUE BOND										
Annual Interest Payment	\$ 73,850	\$ 42,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	790,000	845,000	-	-	-	-	-	-	-	-
Total Annual Payment	\$ 863,850	\$ 887,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE BONDS										
Annual Interest Payment	\$ 381,100	\$ 328,000	\$ 263,000	\$ 239,250	\$ 214,250	\$ 188,000	\$ 160,500	\$ 131,500	\$ 101,000	\$ 69,000
Annual Principal Payment	1,220,000	1,300,000	475,000	500,000	525,000	550,000	580,000	610,000	640,000	675,000
Total Annual Payment	\$ 1,601,100	\$ 1,628,000	\$ 738,000	\$ 739,250	\$ 739,250	\$ 738,000	\$ 740,500	\$ 741,500	\$ 741,000	\$ 744,000
Use of Debt reserve for Debt Service	-	-	-	-	-	-	-	-	-	-
Annual Debt Reserve Target on Existing Revenue Bonds	1,628,000	1,628,000	744,000	744,000	744,000	744,000	744,000	744,000	744,000	744,000

Existing Debt Service - PWTF Loans	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PWTF LOAN 1 (Dubuque)										
Annual Interest Payment	\$ 17,439	\$ 16,193	\$ 14,948	\$ 13,702	\$ 12,456	\$ 11,211	\$ 9,965	\$ 8,719	\$ 7,474	\$ 6,228
Annual Principal Payment	124,563	124,563	124,563	124,563	124,563	124,563	124,563	124,563	124,563	124,563
Total Annual Payment	\$ 142,001	\$ 140,756	\$ 139,510	\$ 138,264	\$ 137,019	\$ 135,773	\$ 134,528	\$ 133,282	\$ 132,036	\$ 130,791
PWTF LOAN 2 (Hillcrest)										
Annual Interest Payment	\$ 11,154	\$ 9,915	\$ 8,675	\$ 7,436	\$ 6,197	\$ 4,957	\$ 3,718	\$ 2,479	\$ 1,239	\$ -
Annual Principal Payment	82,622	82,622	82,622	82,622	82,622	82,622	82,622	82,622	82,622	-
Total Annual Payment	\$ 93,776	\$ 92,537	\$ 91,298	\$ 90,058	\$ 88,819	\$ 87,580	\$ 86,340	\$ 85,101	\$ 83,862	\$ -
PWTF LOAN 3 (Joywood)										
Annual Interest Payment	\$ 838	\$ 419	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	16,766	16,766	-	-	-	-	-	-	-	-
Total Annual Payment	\$ 17,605	\$ 17,185	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 4 (Kayak)										
Annual Interest Payment	\$ 6,726	\$ 5,765	\$ 4,804	\$ 3,843	\$ 2,882	\$ 1,922	\$ 961	\$ -	\$ -	\$ -
Annual Principal Payment	64,055	64,055	64,055	64,055	64,055	64,055	64,055	-	-	-
Total Annual Payment	\$ 70,781	\$ 69,820	\$ 68,859	\$ 67,899	\$ 66,938	\$ 65,977	\$ 65,016	\$ -	\$ -	\$ -
PWTF LOAN 5 (Kla-Ha-Ya)										

Annual Interest Payment	\$ 1,212	\$ 606	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	<u>24,233</u>	<u>24,233</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Annual Payment	\$ 25,445	\$ 24,839	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF LOAN 6 (West Machias)											
Annual Interest Payment	\$ 344	\$ 172	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	<u>6,873</u>	<u>6,873</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Annual Payment	\$ 7,217	\$ 7,045	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PWTF LOANS											
Annual Interest Payment	\$ 37,712	\$ 33,070	\$ 28,427	\$ 24,981	\$ 21,535	\$ 18,090	\$ 14,644	\$ 11,198	\$ 8,713	\$ 6,228	
Annual Principal Payment	<u>319,112</u>	<u>319,112</u>	<u>271,240</u>	<u>271,240</u>	<u>271,240</u>	<u>271,240</u>	<u>271,240</u>	<u>207,185</u>	<u>207,185</u>	<u>124,563</u>	
Total Annual Payment	\$ 356,824	\$ 352,182	\$ 299,667	\$ 296,221	\$ 292,776	\$ 289,330	\$ 285,884	\$ 218,383	\$ 215,898	\$ 130,791	

Existing Debt Service - Other Loans	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OTHER LOANS 1&2 (DWSRF Loan @ 1%)										
Annual Interest Payment	\$ 5,555	\$ 7,821	\$ 42,728	\$ 26,853	\$ 25,440	\$ 24,026	\$ 22,613	\$ 21,200	\$ 19,786	\$ 18,373
Annual Principal Payment	<u>37,243</u>	<u>213,638</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>
Total Annual Payment	\$ 42,798	\$ 221,459	\$ 184,058	\$ 168,184	\$ 166,770	\$ 165,357	\$ 163,944	\$ 162,530	\$ 161,117	\$ 159,704
OTHER LOANS 2										
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OTHER LOANS										
Annual Interest Payment	\$ 5,555	\$ 7,821	\$ 42,728	\$ 26,853	\$ 25,440	\$ 24,026	\$ 22,613	\$ 21,200	\$ 19,786	\$ 18,373
Annual Principal Payment	<u>37,243</u>	<u>213,638</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>	<u>141,331</u>
Total Annual Payment	\$ 42,798	\$ 221,459	\$ 184,058	\$ 168,184	\$ 166,770	\$ 165,357	\$ 163,944	\$ 162,530	\$ 161,117	\$ 159,704

Total Existing Debt Service	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TOTAL WATER LOANS										
Total Annual Interest Payment	\$ 424,368	\$ 368,891	\$ 334,155	\$ 291,084	\$ 261,225	\$ 230,116	\$ 197,757	\$ 163,898	\$ 129,499	\$ 93,601
Total Principal Payment	<u>1,576,355</u>	<u>1,832,750</u>	<u>887,571</u>	<u>912,571</u>	<u>937,571</u>	<u>962,571</u>	<u>992,571</u>	<u>958,516</u>	<u>988,516</u>	<u>940,893</u>
Total Annual Payment	\$ 2,000,723	\$ 2,201,641	\$ 1,221,726	\$ 1,203,655	\$ 1,198,796	\$ 1,192,687	\$ 1,190,328	\$ 1,122,413	\$ 1,118,015	\$ 1,034,495



Snohomish County PUD Water Rate Study & COSA

Capital Improvement Program - Today's Dollars

Project Costs and O&M Impacts in Year:

Function	No	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Useful Life (Years)
Water Mains													
Distribution	1	Soperhill Road	-	-	821,000								40
Transmission	29	Lake Cassidy Transmission Main					-	-	-	-			40
Transmission		123rd Avenue NE									-	-	40
Transmission		Getchell Road (84th Street NE)										-	40
Transmission	2	91st Ave NE											40
Transmission		Sisco Heights Transmission Main											40
Transmission		Woods at McElroy Transmission Main											40
Transmission	30	Burn Road									783,000		40
Transmission	3	139th Ave NE	-	812,000	-		-						40
Transmission	4	44th St NE	-	1,015,000	-		-						40
Transmission	5	N Machias Road								-		1,581,000	40
Distribution	6	44th St SE											40
Transmission	7	60th St NE				-	-	-	-				40
Distribution		114th Dr NE											40
Distribution	25	123rd Ave SE		836,000	-								40
Distribution		117th Dr NE											40
Distribution	8	South Nyden Farms Road/2nd St SE / 123rd Ave SE Intersection	-	-		606,000							40
Transmission	9	99th Ave NE				-	-	-	-				40
Distribution	10	153rd Ave SE									-	-	40
Transmission		Dutch Hill #1 Tap - Crew Job											40
Transmission	11	147th Ave SE										-	40
Transmission	12	Bunk Foss Road	-	-									40
Transmission	13	109th Ave SE	-	-									40
Transmission	31	West Engebretson Road (Includes Mainline PRV)											40
Distribution		117th Dr SE											40
Distribution		Vernon Road - West											40
Transmission		Vernon Road Gully											40
Distribution		129th Dr SE (2016 Carryover for Overlay)											40
Distribution		12th St SE											40
Distribution	15	Blue Spruce - 177th Ave/178th Dr NE Loop										-	40
Distribution		91st Ave SE											40
Distribution	16	101st Ave NE / 28th St NE	-	-	-	582,000							40
Distribution	43	32nd St SE / SR 9 Crossing	58,721	185,279									40
Distribution	17	18th St SE			-	-	53,000			-			40
Distribution	18	37th St SE			-	-	351,000						40
Distribution		26th St NE											40
Distribution		116th Ave NE											40
Distribution		87th Ave NE											40
Distribution	19	150th St NE			459,000	-	-						40
Distribution		Frontier Circle Main Replacement											40
Distribution		101st Ave NE											40
Distribution	52	Warm Beach - Soundview Dr Main Replacement	1,188,113										40
Distribution	53	Warm Beach - Marine Dr Main Replacement	1,642,498										40
Distribution		Warm Beach - Clarence Ave Main Replacement	180,214	1,388,000									40
Distribution		Warm Beach - Kayak Intertie	76,903	1,053,097									40
Distribution		Warm Beach - Misc Improvements (i.e. 10 Hydrants)	-	94,000									40
Distribution		Downtown Lake Stevens Festival St Main Extension	91,929										40
Distribution		Forced Right of Way Relocations / Replacements	17,267	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	40
Distribution		Main Replacement Program	-	-	-	-	4,213,000	4,213,000	4,208,000		1,000,000	1,000,000	40
Pump Stations													
Pumping		East Hewitt Improvements (3500 gpm total capacity req)	-	-	-	-	-				1,535,000		40
Pumping		Getchell Pump Station (2000 gpm capacity req)											40
Pumping		Hillcrest PS Improvements											40
Pumping		Walker Hill PS Improvements (add 1000 gpm capacity)		-	-	307,000							40
Pumping		Machias Pump Station Pump #4	-	-							154,000		40
Pumping		Machias Pump Station Pump #5					-	-					40
Pumping		Warm Beach Well 4 Replacement											40
Pumping		Well pump, motor and wire spare parts	48,637	235,363									40
Reservoirs													

Function	No	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Useful Life (Years)
Storage		North LS Tank (500 Zone - 3.9MG)						-	-	-	-		40
Storage		Burn Road 726 Reservoir (2.7 MG)	-	-	284,000	5,396,000							40
Storage		Kayak Reservoir (0.3 MG)	688	43,000	2,106,000		-	-					40
Storage		Walker Hill Reservoir #1 Improvements and Re-coat	1,184,576										40
Storage		Bosworth Reservoir Re-coat		-	732,000								40
Storage		Iron Moutnain Reservoir Re-coat				-	1,300,000						40
Storage		Warm Beach Reservoir Re-coat					-	-	452,000				40
Storage		Hillcrest Reservoir #2 Re-Coat											40
Storage		Walker Hill Reservoir #2 Re-coat											40
Storage		Hillcrest Reservoir #1 Re-Coat											40
		General											40
Meters & Services		Misc Meter Replacement (2021-2040)	19,638	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	40
General		Vehicles & Equipment (WTR92)	-	552,000	864,000	396,000	576,000	468,000	252,000	132,000	96,000	84,000	40
General		Power Operated Equipment (WTR96)	6,000	30,000	30,000	48,000	-	-	-	138,000	18,000	6,000	40
General		New Capitalized Office Furniture and Equipment (WTR 91)	-			-	30,000					30,000	40
General		Misc. Tools and Equipment (WTR 98)	-		12,000	-	12,000			-		12,000	40
Meters & Services		New Services - (2021-2040)	299,260	275,000	279,000	284,000	289,000	294,000	299,000	305,000	310,000	315,000	40
General		Water SCADA System Upgrade	-	461,000	461,000	461,000	461,000						40
Meters & Services		Warm Beach	-	435,000									40
General		Warm Beach Water Treatment and SCADA Upgrades	550,586	1,394,000									40
Meters & Services		AMI / AMR improvement	16,982	2,822,000	3,829,000	5,780,000							40
Meters & Services		Meter Box Replacement Project (AMI related)	-	-	-	-							40
General		Lake Stevens Treatment Corrosion Control Optimization	47,271	456,000									40
General		Lake Stevens Regional Decant Facility				246,000	2,210,000						40
General		Design & Crew Inspection for Donated Plant											40
Transmission		Water Mains GFC											40
Distribution		Water Mains RF											40
General		General RF											40
													40
Storage		Reservoir Siesmic Evaluation per RRA Recommendations		-									40
Distribution	26	Sunnyside Blvd				-	688,000		-				40
Pumping		Granite Falls BPS Retrofit											40
Transmission	27	Dubuque Rd 760 Zone Transmission					-	-					40
Transmission	28	Dubuque Rd 525 Zone Transmission							-				40
Distribution	23	142nd Dr SE					703,000	-	-				40
Distribution	24	103rd Ave SE & 40th PI SE		-	1,218,000				-				40
Distribution	21	139th Ave SE								-			40
Distribution	22	72nd PI SE									741,000		40
Transmission	14	SR 204 Crossing at 4th St SE									-	1,121,000	40
Distribution	20	87th Ave SE											40
General		Facility upgrades to improve security per RRA rec.		-	-			160,000					40
Distribution	32	57th PI SE	-	338,000									40
Distribution	34	38th PI SE / 101st Ave SE		-	674,000								40
Distribution	33	18th St SE / 19th PI SE		-	479,000								40
Transmission	35	Storm Lake Transmission Main - 211th Ave SE Main Ext.											40
General	36	Water Plotter	11,723										40
Storage	37	Warm Beach Martha Lake Reservoir	74,659										40
	38												40
	39												40
	105	Capital Adjustment	-	-	-	-	-	-	-	-	-	-	40
Total Capital Projects			\$ 5,515,665	\$ 12,589,739	\$ 12,413,000	\$ 14,271,000	\$ 6,838,000	\$ 5,300,000	\$ 5,381,000	\$ 4,948,000	\$ 4,802,000	\$ 4,314,000	



Snohomish County PUD
Water Rate Study & COSA
Capital Improvement Program - Escalated Dollars

Project Costs and O&M Impacts in Year:

Function	No	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Mains												
Distribution	1	Soperhill Road	\$ -	\$ -	\$ 891,599	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission	29	Lake Cassidy Transmission Main	-	-	-	-	-	-	-	-	-	-
Transmission		123rd Avenue NE	-	-	-	-	-	-	-	-	-	-
Transmission		Getchell Road (84th Street NE)	-	-	-	-	-	-	-	-	-	-
Transmission	2	91st Ave NE	-	-	-	-	-	-	-	-	-	-
Transmission		Sisco Heights Transmission Main	-	-	-	-	-	-	-	-	-	-
Transmission		Woods at McElroy Transmission Main	-	-	-	-	-	-	-	-	-	-
Transmission	30	Burn Road	-	-	-	-	-	-	-	-	1,002,860	-
Transmission	3	139th Ave NE	-	857,907	-	-	-	-	-	-	-	-
Transmission	4	44th St NE	-	1,072,384	-	-	-	-	-	-	-	-
Transmission	5	N Machias Road	-	-	-	-	-	-	-	-	-	2,081,386
Distribution	6	44th St SE	-	-	-	-	-	-	-	-	-	-
Transmission	7	60th St NE	-	-	-	-	-	-	-	-	-	-
Distribution		114th Dr NE	-	-	-	-	-	-	-	-	-	-
Distribution		123rd Ave SE	-	883,264	-	-	-	-	-	-	-	-
Distribution		117th Dr NE	-	-	-	-	-	-	-	-	-	-
Distribution	8	South Nyden Farms Road/2nd St SE / 123rd Ave SE Intersection	-	-	-	676,458	-	-	-	-	-	-
Transmission	9	99th Ave NE	-	-	-	-	-	-	-	-	-	-
Distribution	10	153rd Ave SE	-	-	-	-	-	-	-	-	-	-
Transmission		Dutch Hill #1 Tap - Crew Job	-	-	-	-	-	-	-	-	-	-
Transmission	11	147th Ave SE	-	-	-	-	-	-	-	-	-	-
Transmission	12	Bunk Foss Road	-	-	-	-	-	-	-	-	-	-
Transmission	13	109th Ave SE	-	-	-	-	-	-	-	-	-	-
Transmission	31	West Engebretson Road (Includes Mainline PRV)	-	-	-	-	-	-	-	-	-	-
Distribution		117th Dr. SE	-	-	-	-	-	-	-	-	-	-
Distribution		Vernon Road - West	-	-	-	-	-	-	-	-	-	-
Transmission		Vernon Road Gully	-	-	-	-	-	-	-	-	-	-
Distribution		129th Dr SE (2016 Carryover for Overlay)	-	-	-	-	-	-	-	-	-	-
Distribution		12th St SE	-	-	-	-	-	-	-	-	-	-
Distribution	15	Blue Spruce - 177th Ave/178th Dr NE Loop	-	-	-	-	-	-	-	-	-	-
Distribution		91st Ave SE	-	-	-	-	-	-	-	-	-	-
Distribution	16	101st Ave NE / 28th St NE	-	-	-	649,668	-	-	-	-	-	-
Distribution	43	32nd St SE / SR 9 Crossing	60,358	195,754	-	-	-	-	-	-	-	-
Distribution	17	18th St SE	-	-	-	-	60,812	-	-	-	-	-
Distribution	18	37th St SE	-	-	-	-	402,733	-	-	-	-	-
Distribution		26th ST NE	-	-	-	-	-	-	-	-	-	-
Distribution		116th Ave NE	-	-	-	-	-	-	-	-	-	-
Distribution		87th Ave NE	-	-	-	-	-	-	-	-	-	-
Distribution	19	150th St NE	-	-	498,470	-	-	-	-	-	-	-
Distribution		Frontier Circle Main Replacement	-	-	-	-	-	-	-	-	-	-
Distribution		101st Ave NE	-	-	-	-	-	-	-	-	-	-
Distribution	52	Warm Beach - Soundview Dr Main Replacement	1,221,236	-	-	-	-	-	-	-	-	-
Distribution	53	Warm Beach - Marine Dr Main Replacement	1,688,290	-	-	-	-	-	-	-	-	-
Distribution		Warm Beach - Clarence Ave Main Replacement	185,238	1,466,471	-	-	-	-	-	-	-	-
Distribution		Warm Beach - Kayak Intertie	79,047	1,112,634	-	-	-	-	-	-	-	-
Distribution		Warm Beach - Misc Improvements (i.e. 10 Hydrants)	-	99,314	-	-	-	-	-	-	-	-
Distribution		Downtown Lake Stevens Festival St Main Extension	94,492	-	-	-	-	-	-	-	-	-
Distribution		Forced Right of Way Relocations / Replacements	17,748	105,654	108,599	111,627	114,739	117,938	121,226	124,605	128,079	131,650
Distribution		Main Replacement Program	-	-	-	-	-	4,968,713	5,107,237	5,243,392	1,280,792	1,316,500
Pump Stations												
Pumping		East Hewitt Improvements (3500 gpm total capacity req)	-	-	-	-	-	-	-	-	1,966,016	-
Pumping		Getchell Pump Station (2000 gpm capacity req)	-	-	-	-	-	-	-	-	-	-
Pumping		Hillcrest PS Improvements	-	-	-	-	-	-	-	-	-	-
Pumping		Walker Hill PS Improvements (add 1000 gpm capacity)	-	-	-	342,694	-	-	-	-	-	-
Pumping		Machias Pump Station Pump #4	-	-	-	-	-	-	-	-	197,242	-
Pumping		Machias Pump Station Pump #5	-	-	-	-	-	-	-	-	-	-
Pumping		Warm Beach Well 4 Replacement	-	-	-	-	-	-	-	-	-	-
Pumping		Well pump, motor and wire spare parts	49,993	248,669	-	-	-	-	-	-	-	-
Reservoirs												

Function	No	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Storage		North LS Tank (500 Zone - 3.9MG)	-	-	-	-	-	-	-	-	-	-
Storage		Burn Road 726 Reservoir (2.7 MG)	-	-	308,421	6,023,380	-	-	-	-	-	-
Storage		Kayak Reservoir (0.3 MG)	708	45,431	2,287,097	-	-	-	-	-	-	-
Storage		Walker Hill Reservoir #1 Improvements and Re-coat	1,217,601	-	-	-	-	-	-	-	-	-
Storage		Bosworth Reservoir Re-coat	-	-	794,945	-	-	-	-	-	-	-
Storage		Iron Mounthain Reservoir Re-coat	-	-	-	-	1,491,605	-	-	-	-	-
Storage		Warm Beach Reservoir Re-coat	-	-	-	-	-	-	547,940	-	-	-
Storage		Hillcrest Reservoir #2 Re-Coat	-	-	-	-	-	-	-	-	-	-
Storage		Walker Hill Reservoir #2 Re-coat	-	-	-	-	-	-	-	-	-	-
Storage		Hillcrest Reservoir #1 Re-Coat	-	-	-	-	-	-	-	-	-	-
		General	-	-	-	-	-	-	-	-	-	-
Meters & Services		Misc Meter Replacement (2021-2040)	20,186	68,675	70,589	72,557	74,580	76,659	78,797	80,993	83,251	85,572
General		Vehicles & Equipment (WTR92)	-	583,208	938,296	442,042	660,896	551,948	305,489	164,479	122,956	110,586
General		Power Operated Equipment (WTR96)	6,167	31,696	32,580	53,581	-	-	-	171,955	23,054	7,899
General		New Capitalized Office Furniture and Equipment (WTR 91)	-	-	-	-	34,422	-	-	-	-	39,495
General		Misc. Tools and Equipment (WTR 98)	-	-	13,032	-	13,769	-	-	-	-	15,798
Meters & Services		New Services - (2021-2040)	307,603	290,547	302,991	317,020	331,595	346,737	362,465	380,046	397,046	414,697
General		Water SCADA System Upgrade	-	487,063	500,642	514,599	528,946	-	-	-	-	-
Meters & Services		Warm Beach	-	459,593	-	-	-	-	-	-	-	-
General		Warm Beach Water Treatment and SCADA Upgrades	565,936	1,472,811	-	-	-	-	-	-	-	-
Meters & Services		AMI / AMR Improvement	17,456	2,981,544	4,158,260	6,452,026	-	-	-	-	-	-
Meters & Services		Meter Box Replacement Project (AMI related)	-	-	-	-	-	-	-	-	-	-
General		Lake Stevens Treatment Corrosion Control Optimization	48,589	481,780	-	-	-	-	-	-	-	-
General		Lake Stevens Regional Decant Facility	-	-	-	274,602	2,535,728	-	-	-	-	-
General		Design & Crew Inspection for Donated Plant	-	-	-	-	-	-	-	-	-	-
Transmission		Water Mains GFC	-	-	-	-	-	-	-	-	-	-
Distribution		Water Mains RF	-	-	-	-	-	-	-	-	-	-
General		General RF	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-
Storage		Reservoir Siesmic Evaluation per RRA Recommendations	-	-	-	-	-	-	-	-	-	-
Distribution	26	Sunnyside Blvd	-	-	-	-	789,403	-	-	-	-	-
Pumping		Granite Falls BPS Retrofit	-	-	-	-	-	-	-	-	-	-
Transmission	27	Dubuque Rd 760 Zone Transmission	-	-	-	-	-	-	-	-	-	-
Transmission	28	Dubuque Rd 525 Zone Transmission	-	-	-	-	-	-	-	-	-	-
Distribution	23	142nd Dr SE	-	-	-	-	806,614	-	-	-	-	-
Distribution	24	103rd Ave SE & 40th PI SE	-	-	1,322,737	-	-	-	-	-	-	-
Distribution	21	139th Ave SE	-	-	-	-	-	-	-	-	949,067	-
Distribution	22	72nd PI SE	-	-	-	-	-	-	-	-	-	1,475,796
Transmission	14	SR 204 Crossing at 4th St SE	-	-	-	-	-	-	-	-	-	-
Distribution	20	87th Ave SE	-	-	-	-	-	-	-	-	-	-
General		Facility upgrades to improve security per RRA rec.	-	-	-	-	188,700	-	-	-	-	-
Distribution	32	57th PI SE	-	357,109	-	-	-	-	-	-	-	-
Distribution	34	38th PI SE / 101st Ave SE	-	-	731,958	-	-	-	-	-	-	-
Distribution	33	18th St SE / 19th PI SE	-	-	520,190	-	-	-	-	-	-	-
Transmission	35	Storm Lake Transmission Main - 211th Ave SE Main Ext.	-	-	-	-	-	-	-	-	-	-
General	36	Water Plotter	12,050	-	-	-	-	-	-	-	-	-
Storage	37	Warm Beach Martha Lake Reservoir	76,740	-	-	-	-	-	-	-	-	-
	38		-	-	-	-	-	-	-	-	-	-
	39		-	-	-	-	-	-	-	-	-	-
	105	Capital Adjustment	-	-	-	-	-	-	-	-	-	-
Total Capital Projects			\$ 5,669,437	\$ 13,301,508	\$ 13,480,406	\$ 15,930,254	\$ 7,845,840	\$ 6,250,695	\$ 6,523,152	\$ 6,165,471	\$ 6,150,364	\$ 5,679,379



Snohomish County PUD

Water Rate Study & COSA

Revenue Requirements Analysis

Proposed

Test 1: Cash Flow Sufficiency Test											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
EXPENSES											
Cash Operating Expenses	\$ 10,623,275	\$ 11,448,077	\$ 11,109,056	\$ 11,019,961	\$ 12,012,993	\$ 12,366,306	\$ 12,782,608	\$ 13,444,071	\$ 13,837,174	\$ 14,615,700	
Existing Debt Service	2,000,723	2,201,641	1,221,726	1,203,655	1,198,796	1,192,687	1,190,328	1,122,413	1,118,015	1,034,495	
New Debt Service	-	-	712,735	1,356,667	2,175,302	2,175,302	2,993,937	2,993,937	3,232,100	3,232,100	
Rate Funded System Reinvestment	-	-	-	-	-	-	-	-	-	-	
Total Expenses	\$ 12,623,997	\$ 13,649,718	\$ 13,043,517	\$ 13,580,284	\$ 15,387,091	\$ 15,734,295	\$ 16,966,873	\$ 17,560,422	\$ 18,187,290	\$ 18,882,295	
REVENUES											
Rate Revenue	\$ 13,780,960	\$ 12,394,453	\$ 12,622,079	\$ 12,980,012	\$ 13,393,788	\$ 13,576,503	\$ 13,761,829	\$ 13,926,349	\$ 14,092,154	\$ 14,259,225	
Wholesale Rate Revenue	721,858	493,528	500,980	508,545	516,224	522,987	529,838	536,779	543,810	550,934	
Other Non Rate Revenue	777,594	1,375,687	1,395,748	1,416,158	1,436,921	1,456,050	1,475,490	1,495,246	1,515,324	1,535,729	
General Facility Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-	
Operating Fund & Debt Reserve Fund Interest Earnings	94,888	46,775	53,205	130,960	195,781	246,659	249,490	279,432	284,733	295,623	
Use of Rate Stabilization Reserve	-	-	-	-	-	-	-	-	-	-	
Total Revenue	\$ 15,375,300	\$ 14,310,442	\$ 14,572,012	\$ 15,035,674	\$ 15,542,714	\$ 15,802,199	\$ 16,016,647	\$ 16,237,805	\$ 16,436,022	\$ 16,641,512	
NET CASH FLOW (DEFICIENCY)	\$ 2,751,302	\$ 660,724	\$ 1,528,495	\$ 1,455,390	\$ 155,623	\$ 67,904	\$ (950,226)	\$ (1,322,616)	\$ (1,751,268)	\$ (2,240,783)	
% of Rate Revenue	-19.96%	-5.33%	-12.11%	-11.21%	-1.16%	-0.50%	6.90%	9.50%	12.43%	15.71%	

Test 2: Coverage Sufficiency Test											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
EXPENSES											
Cash Operating Expenses (Less any Capital Outlays)	\$ 10,623,275	\$ 11,448,077	\$ 11,109,056	\$ 11,019,961	\$ 12,012,993	\$ 12,366,306	\$ 12,782,608	\$ 13,444,071	\$ 13,837,174	\$ 14,615,700	
Revenue Bond Debt Service	1,601,100	1,628,000	1,450,735	2,095,917	2,914,552	2,913,302	3,734,437	3,735,437	3,973,100	3,976,100	
Revenue Bond Coverage Requirement at 1.75	1,200,825	1,221,000	1,088,052	1,571,938	2,185,914	2,184,977	2,800,828	2,801,578	2,979,825	2,982,075	
Total Expenses	\$ 13,425,200	\$ 14,297,077	\$ 13,647,843	\$ 14,687,816	\$ 17,113,459	\$ 17,464,585	\$ 19,317,873	\$ 19,981,086	\$ 20,790,100	\$ 21,573,875	
ALLOWABLE REVENUES											
Rate Revenue	\$ 13,780,960	\$ 12,394,453	\$ 12,622,079	\$ 12,980,012	\$ 13,393,788	\$ 13,576,503	\$ 13,761,829	\$ 13,926,349	\$ 14,092,154	\$ 14,259,225	
Wholesale Rate Revenue	721,858	493,528	500,980	508,545	516,224	522,987	529,838	536,779	543,810	550,934	
Other Revenue	777,594	1,375,687	1,395,748	1,416,158	1,436,921	1,456,050	1,475,490	1,495,246	1,515,324	1,535,729	
General Facility Charge Revenue	3,069,520	1,580,106	1,603,965	1,628,185	1,652,771	1,455,512	1,474,579	1,493,896	1,513,466	1,533,293	
Distribution System Charge Revenue	281,606	487,088	494,443	501,909	509,488	516,162	522,924	529,774	536,714	543,745	
Interest Earnings - All Funds	209,919	195,592	201,757	502,614	518,820	760,257	717,198	930,810	879,212	883,747	
Total Revenue	\$ 18,841,455	\$ 16,526,452	\$ 16,818,973	\$ 17,537,422	\$ 18,028,012	\$ 18,287,471	\$ 18,481,857	\$ 18,912,853	\$ 19,080,681	\$ 19,306,673	
Coverage Realized (Existing Rates)	5.13	3.12	3.94	3.11	2.06	2.03	1.53	1.46	1.32	1.18	
COVERAGE SURPLUS (DEFICIENCY)	\$ 5,416,256	\$ 2,229,375	\$ 3,171,130	\$ 2,849,606	\$ 914,552	\$ 822,886	\$ (836,016)	\$ (1,068,233)	\$ (1,709,419)	\$ (2,267,202)	

Maximum Revenue Deficiency		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sufficiency Test Driving the Deficiency		None	None	None	None	None	None	Cash	Cash	Cash	Coverage
Maximum Revenue Deficiency (Surplus)		\$ (2,751,302)	\$ (660,724)	\$ (1,528,495)	\$ (1,455,390)	\$ (155,623)	\$ (67,904)	\$ 950,226	\$ 1,322,616	\$ 1,751,268	\$ 2,267,202
plus: Additional (Reduction) Excise Tax		(145,690)	(34,987)	(80,938)	(77,067)	(8,241)	(3,596)	50,317	70,037	92,735	120,055
less: Net Revenue From Prior Rate Adjustments		-	-	(220,886)	(511,104)	(826,703)	(1,147,892)	(1,484,457)	(1,849,346)	(2,230,543)	(2,628,602)
Net Revenue Deficiency (Surplus)		\$ (2,896,992)	\$ (695,712)	\$ (1,830,320)	\$ (2,043,562)	\$ (990,566)	\$ (1,219,391)	\$ (483,914)	\$ (456,693)	\$ (386,540)	\$ (241,344)
Required Adjustment (Full Year)		-21.02%	-5.61%	-14.25%	-15.15%	-6.97%	-8.28%	-3.17%	-2.89%	-2.37%	-1.43%
Rate Increases		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rate Revenue with no Increase		\$ 13,780,960	\$ 12,394,453	\$ 12,622,079	\$ 12,980,012	\$ 13,393,788	\$ 13,576,503	\$ 13,761,829	\$ 13,926,349	\$ 14,092,154	\$ 14,259,225
Revenues from Prior Rate Increases		-	-	220,886	511,104	826,703	1,147,892	1,484,457	1,849,346	2,230,543	2,628,602
Rate Revenue Before Rate Increase (Incl. previous increases)		13,780,960	12,394,453	12,842,965	13,491,116	14,220,491	14,724,395	15,246,286	15,775,694	16,322,697	16,887,827
Required Annual Rate Increase (Full Year)		-21.02%	-5.61%	-14.25%	-15.15%	-6.97%	-8.28%	-3.17%	-2.89%	-2.37%	-1.43%
Number of Months New Rates Will Be In Effect		12	9	12	12	12	12	12	12	12	12
Info: Percentage Increase to Generate Required Revenue		-21.02%	-7.48%	-14.25%	-15.15%	-6.97%	-8.28%	-3.17%	-2.89%	-2.37%	-1.43%
Policy Induced Rate Increases		0.00%	1.75%	2.15%	2.15%	2.15%	2.15%	2.25%	2.25%	2.25%	2.25%
ANNUAL RATE INCREASE		0.00%	1.75%	2.15%	2.15%	2.15%	2.15%	2.25%	2.25%	2.25%	2.25%
CUMULATIVE RATE INCREASE		0.00%	1.75%	3.94%	6.17%	8.45%	10.79%	13.28%	15.83%	18.43%	21.10%
Impacts of Rate Increases		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rate Revenues After Rate Increase		\$ 13,780,960	\$ 12,557,130	\$ 13,119,089	\$ 13,781,175	\$ 14,526,231	\$ 15,040,969	\$ 15,589,327	\$ 16,130,647	\$ 16,689,958	\$ 17,267,803
Full Year Rate Revenues After Rate Increase		13,780,960	12,611,356	13,119,089	13,781,175	14,526,231	15,040,969	15,589,327	16,130,647	16,689,958	17,267,803
Partial Year Adjustment		-	54,226	-	-	-	-	-	-	-	-
Additional (Reduction of) Taxes Due to Rate Increases		-	8,181	24,995	40,290	56,951	73,648	91,905	110,854	130,644	151,301
Net Cash Flow After Rate Increase		\$ 2,751,302	\$ 815,221	\$ 2,000,510	\$ 2,216,263	\$ 1,231,115	\$ 1,458,722	\$ 785,368	\$ 770,828	\$ 715,892	\$ 616,494
Coverage After Rate Increase		5.13	3.21	4.26	3.47	2.43	2.51	1.99	2.02	1.94	1.90
Coverage After Rate Increase (Total Debt)		4.11	2.38	3.20	2.84	2.10	2.17	1.78	1.84	1.77	1.77
New Dept Assumptions		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue Bond Proceeds		\$ -	\$ -	\$ 16,240,000		\$ 10,140,000		\$ 10,140,000		\$ 2,950,000	
PWTF Loans		-	-	-	-	-	-	-	-	-	-
Other Loan Proceeds		-	-	-	-	-	-	-	-	-	-
Fund Balance Impacts		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ending Fund Balance - Revenue Fund		\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906	\$ 3,603,871
Minimum Target - Revenue Fund		2,619,438	2,822,814	2,739,219	2,717,251	2,962,108	3,049,226	3,151,876	3,314,976	3,411,906	3,603,871
Ending Fund Balance - General Facility Charge Reserve Fund		\$ 16,723,104	\$ 14,572,208	\$ 14,936,407	\$ 10,497,246	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 17,229,965	\$ 15,766,050
Minimum Target - General Facility Charge Reserve Fund		-	-	-	-	-	-	-	-	-	-
Ending Fund Balance - Capital Fund - Rate Funding Reserve		\$ 4,171,251	\$ 566,134	\$ 7,292,594	\$ 541,480	\$ 4,339,508	\$ 85,066	\$ 4,909,682	\$ 4,454	\$ 1,125,996	\$ 221
Minimum Target - Capital Fund - Rate Funding Reserve		1,680,547	1,813,562	1,948,366	2,107,669	2,186,127	2,248,634	2,313,866	2,375,520	2,437,024	2,493,818
Annual CIP (Inflated)		\$ 5,669,437	\$ 13,301,508	\$ 13,480,406	\$ 15,930,254	\$ 7,845,840	\$ 6,250,695	\$ 6,523,152	\$ 6,165,471	\$ 6,150,364	\$ 5,679,379
General Facility Reserve CIP		155,557	2,171,476	3,093,988	6,366,074	-	-	-	-	3,166,118	3,557,182
Rate Funded CIP		5,513,880	11,130,032	10,386,418	9,564,180	7,845,840	6,250,695	6,523,152	6,165,471	2,984,246	2,122,197



Snohomish County PUD Water Rate Study & COSA

Fund Activity

Funds	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUE FUND										
Beginning Balance	\$ 7,955,289	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906
plus: Net Cash Flow after Rate Increase	2,751,302	815,221	2,000,510	2,216,263	1,231,115	1,458,722	785,368	770,828	715,892	616,494
less: Transfer of Surplus to Capital Fund (If No Manual Entry)	(8,087,154)	(611,845)	(2,084,104)	(2,238,232)	(986,258)	(1,371,604)	(682,718)	(607,728)	(618,962)	(424,529)
Ending Balance	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906	\$ 3,603,871
Maximum Funds to be Kept as Operating Reserves	\$ 2,619,438	\$ 2,822,814	\$ 2,739,219	\$ 2,717,251	\$ 2,962,108	\$ 3,049,226	\$ 3,151,876	\$ 3,314,976	\$ 3,411,906	\$ 3,603,871
Info: No of Days of Cash Operating Expenses	90	90	90	90	90	90	90	90	90	90
Info: No of Days of Cash Operating Expenses Target	90	90	90	90	90	90	90	90	90	90
Difference over or (under) target funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manual Entry for Transfer to Capital Fund										
CAPITAL - General Facility Charge Reserve										
Beginning Balance	\$ 13,694,111	\$ 16,723,104	\$ 14,572,208	\$ 14,936,407	\$ 10,497,246	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 17,229,965
plus: General Facility Charge Revenue	3,069,520	1,580,106	1,603,965	1,628,185	1,652,771	1,455,512	1,474,579	1,493,896	1,513,466	1,533,293
less: General Facility Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-
less: Transfers to Rate Funding Reserve	-	(1,700,000)	1,708,500	-	-	-	-	-	-	-
plus: Interest Earnings	115,031	140,474	145,722	298,728	314,917	405,110	465,581	528,636	594,368	559,974
Total Funding Sources	\$ 16,878,661	\$ 16,743,683	\$ 18,030,395	\$ 16,863,320	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 20,396,083	\$ 19,323,232
less: Capital Expenditures	(155,557)	(2,171,476)	(3,093,988)	(6,366,074)	-	-	-	-	(3,166,118)	(3,557,182)
plus: Transfers from Rate Funding Reserve	-	-	-	-	-	-	-	-	-	-
Ending General Facility Charge Reserve Balance	\$ 16,723,104	\$ 14,572,208	\$ 14,936,407	\$ 10,497,246	\$ 12,464,935	\$ 14,325,557	\$ 16,265,717	\$ 18,288,249	\$ 17,229,965	\$ 15,766,050
Minimum Target Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CAPITAL - Rate Funding Reserve										
Beginning Balance	\$ -	\$ 4,171,251	\$ 566,134	\$ 7,292,594	\$ 541,480	\$ 4,339,508	\$ 85,066	\$ 4,909,682	\$ 4,454	\$ 1,125,996
plus: Rate Funded System Reinvestment	-	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	8,087,154	1,261,845	2,084,104	2,238,232	986,258	1,371,604	682,718	607,728	618,962	424,529
plus: Grants/ Donations/ CIAC	-	-	-	-	-	-	-	-	-	-
plus: Additional Proceeds (Costs)	1,597,977	4,554,728	494,443	501,909	509,488	516,162	522,924	529,774	536,714	543,745
plus: Revenue Bond Proceeds	-	-	16,240,000	-	10,140,000	-	10,140,000	-	2,950,000	-
plus: PWTF Loans	-	-	-	-	-	-	-	-	-	-
plus: Other Loan Proceeds	-	-	-	-	-	-	-	-	-	-
plus: Transfers from GFC Reserve	-	1,700,000	(1,708,500)	-	-	-	-	-	-	-
plus: Interest Earnings	-	8,343	2,831	72,926	8,122	108,488	2,127	122,742	111	28,150
Total Funding Sources	\$ 9,685,131	\$ 11,696,166	\$ 17,679,012	\$ 10,105,661	\$ 12,185,348	\$ 6,335,761	\$ 11,432,834	\$ 6,169,925	\$ 4,110,241	\$ 2,122,419
less: Capital Expenditures	(5,513,880)	(11,130,032)	(10,386,418)	(9,564,180)	(7,845,840)	(6,250,695)	(6,523,152)	(6,165,471)	(2,984,246)	(2,122,197)
less: Transfers to GFC Reserve for Capital	-	-	-	-	-	-	-	-	-	-
Ending Rate Funding Reserve Balance	\$ 4,171,251	\$ 566,134	\$ 7,292,594	\$ 541,480	\$ 4,339,508	\$ 85,066	\$ 4,909,682	\$ 4,454	\$ 1,125,996	\$ 221
Minimum Target Balance	\$ 1,680,547	\$ 1,813,562	\$ 1,948,366	\$ 2,107,669	\$ 2,186,127	\$ 2,248,634	\$ 2,313,866	\$ 2,375,520	\$ 2,437,024	\$ 2,493,818
COMBINED BEGINNING FUND BALANCE	\$ 21,649,400	\$ 23,513,793	\$ 17,961,155	\$ 24,968,220	\$ 13,755,977	\$ 19,766,550	\$ 17,459,849	\$ 24,327,274	\$ 21,607,679	\$ 21,767,867
COMBINED ENDING FUND BALANCE	\$ 23,513,793	\$ 17,961,155	\$ 24,968,220	\$ 13,755,977	\$ 19,766,550	\$ 17,459,849	\$ 24,327,274	\$ 21,607,679	\$ 21,767,867	\$ 19,370,142
Info: No of Days of Cash Operating Expenses	233	108	330	108	222	93	230	90	120	90



Snohomish County PUD Water Rate Study & COSA

Fund Activity

Funds	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
DEBT RESERVE										
Beginning Balance	\$ 417,638	\$ 417,638	\$ 417,638	\$ 1,728,745	\$ 1,728,745	\$ 2,547,380	\$ 2,547,380	\$ 3,366,016	\$ 3,366,016	\$ 3,604,179
plus: Reserve Funding from New Debt	-	-	1,311,108	-	818,635	-	818,635	-	238,163	-
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ 417,638	\$ 417,638	\$ 1,728,745	\$ 1,728,745	\$ 2,547,380	\$ 2,547,380	\$ 3,366,016	\$ 3,366,016	\$ 3,604,179	\$ 3,604,179
<i>Minimum Target Balance</i>	\$ 1,628,000	\$ 1,628,000	\$ 1,456,735	\$ 2,100,667	\$ 2,919,302	\$ 2,919,302	\$ 3,737,937	\$ 3,737,937	\$ 3,976,100	\$ 3,976,100
RATE STABILIZATION RESERVE										
Beginning Balance	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
plus: Reserve Funding	-	-	-	-	-	-	-	-	-	-
less: Use of Reserves	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
<i>Minimum Target Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WARM BEACH FUND										
Beginning Balance	\$ 936,463	\$ 1,131,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246
plus: Reserve Funding	-	-	-	-	-	-	-	-	-	-
less: Use of Funds	-	(650,000)	-	-	-	-	-	-	-	-
Ending Balance	\$ 936,463	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246	\$ 481,246
<i>Minimum Target Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LAKE ROESIGER SEPTIC										
Beginning Balance	\$ 117,202	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776
plus: Reserve Funding	-	-	-	-	-	-	-	-	-	-
less: Use of Reserves	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ 117,202	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776	\$ 98,776
<i>Minimum Target Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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