Town of Cathlamet

Wastewater

Rate Study

Created for Cathlamet by Lori Blau, Jeremy Peirsol & Stevan Palmer

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U.S. Health & Human Services

Rural Community Assistance Corporation

PLEASE BE ADVISED THAT A MAJOR ERROR WAS FOUND IN THE USAGE DATA USED FOR THIS RATE STUDY; THEREFORE, THE RATES PROPOSED IN THIS DOCUMENT COULD NOT BE IMPLEMENTED.

RCAC
www.rcac.org

Summary of Preliminary Results Memo to Community

10/18/2021

Town of Cathlamet Sewer System Proposed Rate Alternatives

Introduction

The Town of Cathlamet is a small community in SW Washington with a sewer system serving 507 customers currently. The town currently uses an Equivalent Customer Unit (ECU) model for their sewer rates, and the town council was interested is changing to a volumetric based rate model, where customers are charged based on their drinking water consumption. Rural Community Assistance Corporation (RCAC) has been working with Cathlamet officials to develop a rate structure that will meet the maintenance and reserve needs of the community. Below are rate alternatives that have been prepared for Cathlamet.

Key Assumptions and Parameters of Note

- The town currently places $60/month from each account into a reserves account.
- It is difficult to compare current overall rates to new rates, so the base EDU rate for in-town and out of town customers is used as the current rate. This does not include additional charges in the current rate for additional ECUs.
- No additional customers were assumed in forecasting future revenue.
- The town has a current USDA-RD loan
- An asset inventory was created to forecast future capital replacement needs.

Alternative 1: Increasing Base Rate with Increasing Meter Size

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$70.00	$70.00	$70.00	$70.00
	0.75	$100.00	$100.00	$100.00	$100.00
	1	$135.00	$135.00	$135.00	$135.00
	1.5	$175.00	$175.00	$175.00	$175.00
	2	$200.00	$200.00	$200.00	$200.00
	3	$225.00	$225.00	$225.00	$225.00
	4	$275.00	$275.00	$275.00	$275.00
Usage Rate per 1 CF		0.02	0.02	0.02	0.02

In this rate alternative, Cathlamet would set a base rate dependent on water meter size, and a flat usage rate for all customers. As shown below, this alternative generates a positive annual cash flow, and meets recommended reserve contributions in the third year. This model gives a first-year affordability index of 2.77%. The affordability index, which is the annual average residential customer's utility rate divided by the Median Household Income (MHI) is often one of the factors lenders use in evaluating the affordability of utility rates and how much they would increase in response to loan payments.

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		1.00%	1.00%	1.00%	1.00%	
	Usage		1.00%	1.00%	1.00%	1.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$657,568	$668,955	$662,860	$674,306	$687,208	$3,350,896
TOTAL REVENUE		$650,326	$660,088	$670,003	$680,074	$690,305	$3,350,795
NET LOSS OR GAIN: (Short/Over to Reserves)		-$7,242	-$8,867	$7,143	$5,768	$3,097	-$101
NET CASH FLOW (Contribution to Reserves)		$71,246	$70,198	$68,989	$67,615	$63,782	$341,830
Affordability assuming MHI of $36000 for residential meters.		2.77%	2.80%	2.84%	2.87%	2.91%	

Alternative 2: Flat base rate regardless of meter size

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$75.00	$75.00	$75.00	$75.00
	0.75	$75.00	$75.00	$75.00	$75.00
	1	$75.00	$75.00	$75.00	$75.00
	1.5	$75.00	$75.00	$75.00	$75.00
	2	$75.00	$75.00	$75.00	$75.00
	3	$75.00	$75.00	$75.00	$75.00
	4	$75.00	$75.00	$75.00	$75.00
Usage Rate per 1 CF		0.025	0.025	0.025	0.025

Alternative 2 charges a flat rate, regardless of meter size, and a flat usage rate for all customers. As shown below, this model also achieves a positive cash flow and meets recommended reserve contributions in the third year. The affordability index on this model is slightly higher, with a first-year affordability index of 2.99%.

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$658,797	$670,184	$663,955	$675,401	$688,253	$3,356,591
TOTAL REVENUE		$649,969	$666,113	$682,648	$699,583	$716,929	$3,415,241
NET LOSS OR GAIN: (Short/Over to Reserves)		-$8,829	-$4,072	$18,693	$24,182	$28,675	$58,650
NET CASH FLOW (Contribution to Reserves)		$70,888	$76,223	$81,634	$87,124	$90,406	$406,275
Affordability assuming MHI of $36000 for residential meters.		2.99%	3.06%	3.13%	3.21%	3.28%	

Alternative 3: 70% of the model's theoretical rate

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$51.02	$51.02	$51.02	$51.02
	0.75	$76.53	$76.53	$76.53	$76.53
	1	$127.55	$127.55	$127.55	$127.55
	1.5	$255.10	$255.10	$255.10	$255.10
	2	$408.15	$408.15	$408.15	$408.15
	3	$816.31	$816.31	$816.31	$816.31
	4	$1,275.48	$1,275.48	$1,275.48	$1,275.48
Usage Rate per 1 CF		0.018	0.018	0.018	0.018

The rate model spreadsheet calculates a "theoretical rate" based on meter size and potential instantaneous demand. Alternative 3 used 70% of the theoretical rates for each meter size, and a flat usage rate. This model also met recommended reserve contributions in year three and produced a better affordability index due to larger meter sizes paying higher base rates. The first-year affordability index was 2.10%

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$657,568	$668,955	$662,860	$674,306	$687,208	$3,350,896
TOTAL REVENUE		$640,243	$655,964	$672,068	$688,564	$705,461	$3,362,301
NET LOSS OR GAIN: (Short/Over to Reserves)		-$17,325	-$12,990	$9,209	$14,258	$18,254	$11,405
NET CASH FLOW (Contribution to Reserves)		$61,163	$66,074	$71,055	$76,105	$78,939	$353,335
Affordability assuming MHI of $36000 for residential meters.		2.10%	2.15%	2.20%	2.25%	2.30%	

Alternative 4: Low base rate, higher usage rate

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$30.00	$30.00	$30.00	$30.00
	0.75	$30.00	$30.00	$30.00	$30.00
	1	$30.00	$30.00	$30.00	$30.00
	1.5	$30.00	$30.00	$30.00	$30.00
	2	$30.00	$30.00	$30.00	$30.00
	3	$30.00	$30.00	$30.00	$30.00
	4	$30.00	$30.00	$30.00	$30.00
Usage Rate per 1 CF		0.075	0.075	0.075	0.075

Alternative 4 used a low base rate for all customers, and a higher usage rate. This model emphasizes usage rather than meter size. In this model, the recommended reserve contributions are met in year two, and has a first-year affordability index of 2.58%. The affordability index on this model is lowest because it is calculated off the base rate, not the average monthly bill. Another point to note is that leaning too heavily on usage rates can make revenues fluctuate more year to year and make budgeting more difficult to forecast.

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$658,797	$670,184	$663,955	$675,401	$688,253	$3,356,591
TOTAL REVENUE		$657,593	$679,528	$702,083	$725,274	$749,117	$3,513,594
NET LOSS OR GAIN: (Short/Over to Reserves)		-$1,205	$9,344	$38,128	$49,872	$60,864	$157,003
NET CASH FLOW (Contribution to Reserves)		$78,513	$89,638	$101,069	$112,814	$122,594	$504,629
Affordability assuming MHI of $36000 for residential meters.		2.58%	2.66%	2.74%	2.83%	2.92%	

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Executive Summary

Town of Cathlamet Sewer System Proposed Rate Alternatives

Introduction

The Town of Cathlamet is a small community in Southwest Washington with a sewer system serving 507 customers currently. The town currently uses an Equivalent Customer Unit (ECU) model for their sewer rates, and the town council was interested is changing to a volumetric based rate model, where customers are charged based on their drinking water consumption. Rural Community Assistance Corporation (RCAC) has been working with Cathlamet officials to develop a rate structure that will meet the maintenance and reserve needs of the community. Below are rate alternatives that have been prepared for Cathlamet.

A preliminary discussion of four options presented to the council is discussed previously in the "Summary of Preliminary Results" section. The original alternatives included two models with increasing base rates with increasing meter size, and two models with a flat base rate for all meter sizes. The council did not want to move forward with the models based on increasing base rates with meter size, and instead requested a third flat base model between the other two flat base models. These flat base rate models are shown here as alternatives 1, 2, and 3. A comparison of estimated monthly rates under each alternative for twelve selective customers is shown in Appendix 6.4.

Key Assumptions and Parameters of Note

- The town currently places $60/month from each account into a reserves account.
- It is difficult to compare current overall rates to new rates, so the base EDU rate for in-town and out of town customers is used as the current rate. This does not include additional charges in the current rate for additional ECUs.
- No additional customers were assumed in forecasting future revenue.
- The town has a current USDA-RD loan.

An asset inventory was created to forecast future capital replacement needs.

1 Introduction

1.1 Introduction

1.1.1 RCAC

Founded in 1978, RCAC provides training, technical, and financial resources and advocacy so rural communities can achieve their goals. Since 1978, our dedicated staff and active board, coupled with our key values: leadership, collaboration, commitment, quality, and integrity, have helped effect positive change in rural communities across the West.

RCAC's work includes environmental infrastructure (water, wastewater, and solid waste facilities); affordable housing development; economic and leadership development; and community development finance. These services are available to communities with populations of fewer than 50,000, other nonprofit groups, Tribal organizations, farmworkers, colonias and other specific populations. Headquartered in West Sacramento, California, RCAC's employees serve rural communities in 13 western states and the Pacific islands.

1.1.2 Purpose of Financial Capacity Analysis

RCAC conducted this wastewater rate study on behalf of Cathlamet, Washington in order to determine an appropriate rate for members of the Cathlamet sewer system under a volumetric rate model.

1.1.3 Board Responsibilities

All findings and conclusions of this rate study are RCAC's professional assessment and are not a directive for action to the community. Whereas RCAC strongly recommends its findings to the community, the town council must act in accordance with city code and applicable state laws to enact RCAC recommendations in whole or in part.

1.1.4 Guiding principles in a rate study

Sustainability

Rates should cover the costs to the system to allow it to provide wastewater services for the foreseeable future.

Fairness

Rates should be fair to all rate payers. The city should not charge more for collections than the cost to provide the service. However, the costs should include operations, repairs, interest, loan principal, and all other costs related to the collection, treatment, and land application of treated effluent now and in the foreseeable future.

Justifiability

Rates must be based on actual needs of the enterprise system. Revenue generated from wastewater rates should not be used for anything else but to pay for the costs of collecting, treating, and releasing the treated water within its service area, plus any administrative costs.

Therefore, the proposed rates are based on the best available information provided by the system.

Disclaimer

The findings, recommendations, and conclusions contained in this financial analysis are based on financial information provided to RCAC by Cathlamet. Although reasonable care was made to assure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein. Any action taken on the basis of such findings, recommendations, or conclusions is undertaken at the discretion of Cathlamet. In no event will RCAC or its partners, employees, or agents, be liable for any decision made or action taken in reliance on the information contained in this analysis.

2 System Basic Statistics

2.1 Community

2.1.1 Location & maps

2.1.2 System History

Cathlamet is a town in Wahkiakum County in Southwest Washington along the Columbia River. The wastewater is a collection system is pumped to the town's wastewater treatment system for treatment. A new treatment system was started up in 2013.

2.1.3 Legal Entity

Cathlamet was incorporated February 18, 1907. The town is governed by six elected officials, composed of the mayor and five council members

2.1.4 Governing body/staff

The town of Cathlamet operates under a strong mayor form of government with each of the five councilmembers serving staggered four-year terms. The structure of the Mayor-Council form of government is specified by the Revised Code of Washington (RCS) Title 35.27, "Towns".

2.2 System Description

2.2.1 Service area

The town sewer system serves residential, commercial and other facilities within the city limits. In 2006, the system was expanded to cover what is known as the "Boege Road Extension".

2.2.2 System history –

Cathlamet's wastewater treatment system was upgraded, and new facilities put online in 2013.

2.3 Customer Base description

2.3.1 Types of accounts including # of accounts of each type

There are 507 current accounts in the sewer system, 303 of which are considered "In-Town" residential, 76 "In-Town" Commercial, 119 "Out-of-Town" residential and 11 "Out-of-Town" Commercial.

2.4 Current water/wastewater rate structure

2.4.1 Identification of type(s) of rate structures the system uses

The town currently uses a Sewer Equivalent Customer Units (ECU) rate system as established in the Cathlamet Municipal Code (CMC) 13.80.120. There is a base rate for "In-Town" sewer users and a base rate for "Out-of-Town" sewer users. An additional charge is added to these base rates for users who are generally not single-family residences.

2.4.2 Rate schedule

Customer Type	No. of Customers	Base Rate 1 ECU (monthly)
In-Town (Residential)	303	$106.48
Out-of-Town (Residential)	119	$123.78
In-Town (Commercial)	76	106.48
Out-of-Town (Commercial)	11	$123.78
Total	509	

2.5 Future population projections

For the purposes of this rate study, 1% per year additional customers were considered.

Growth of Consumption over Base year	Year 1	Year 2	Year 3	Year 4	Year 5
Conservation Factor	0.0%	0.0%	0.0%	0.0%	0.0%
Community Growth Factor	1.0%	2.0%	3.0%	4.0%	5.0%
Total Consumption Adjustment	1.0%	2.0%	3.0%	4.0%	5.0%

With the inclusion of new customers, future wastewater discharge is expected to grow.

3 Current Financial condition and analysis

3.1 Current rate schedule/structure

3.1.1 Rate Description

The town currently uses a Sewer Equivalent Customer Units (ECU) rate system as established in the Cathlamet Municipal Code (CMC) 13.80.120. There is a base rate for "In-Town" sewer users and a base rate for "Out-of-Town" sewer users. An additional charge is added to these base rates for users who are generally not single-family residences.

3.1.1.1 Current customer classes, rate structure and rates

Customer Type	No. of Customers	Base Rate (monthly)
In-Town (Residential)	303	$106.48
Out-of-Town (Residential)	119	$123.78
In-Town (Commercial)	76	$106.48
Out-of-Town (Commercial)	11	$123.78

In an ECU model, customers are charged the 1 ECU (base) rate, plus an additional percentage of an ECU for various categories. For example, a single-family residence would pay the base ECU rate, and a multi-family residence would pay an additional 0.7 ECU for each additional dwelling unit. So, an in-town, single-family residence would pay $106.48 per month, and an in-town duplex would pay the following:

$$\$106.48 + (0.7 * \$106.48) = \$106.48 + \$74.54 = \$181.02/\text{month}.$$

3.1.2 Analysis of current rate structure

While various other ECU or EDU (Equivalent Dwelling Unit) rate structures may have different ECUs for different types of customers and categories, the current rate structure is similar to other ECU or EDU models. In all cases, a value for a monthly base rate is given for a typical single-family residence and a multiplication factor is given to other customer types based on either the customer class or industry for a commercial customer.

3.2 Current budget

3.2.1 Historical revenue and expenses

The three most recent years' budgets were provided by Cathlamet staff to predict future expenses. These are reflected in each alternative's budget

3.2.2 Recent noteworthy budget changes discussion

The town did not report any recent noteworthy budget changes.

3.2.3 Uncollectable accounts

Uncollected accounts are not considered a major concern at this time. In the rate model, a nominal 0.2% was used, which is the standard default value. Town officials have a consistent collection policy and has not reported any issues with customers' failure to pay.

3.3 Current dedicated reserves

3.3.1 Debt, Operating, and Emergency Reserves

Debt Reserve	$181,977	As per lending agreement(s)	
Operating Reserve	$290,724	Often in Checking Account	
Emergency Reserve	$30,000	Often in Savings Account	
Capital Reserve		Mostly in CDs or other investments	
Total	$502,701		

Cathlamet reported $502,701 in reserves. This money is kept in an account and is accessible to town officials. Though the amount is split between the two reserves in the rate model, the county maintains the money in one account currently.

3.3.1.1 Capital improvement Reserves

There are no long-term capital improvement reserves currently. The reserves that exist are kept more liquid and accessible. A goal of $63,441 annually was set for this community given the anticipated replacement of key infrastructure components in coming years.

3.3.1.2 It is recommended that any annual carryover be transferred into reserve funds.

3.3.1.3 All enterprise funds should be considered stand-alone departments, which are funded by fees collected by the utility. As such, each utility's funds should be accounted for separately and in separate accounts.

3.3.1.4 Analysis of current dedicated reserves

Current reserves are a result of a standard amount of $60 per customer being placed into a reserve account each month. The reserves are not segregated by purpose, rather they are kept in one account. RCAC recommends that the Town segregate the reserve accounts by purpose, rather than keeping them in one cash account.

3.4 Analysis of current financial condition

3.4.1 Revenue sufficiency associated with current rates

As mentioned earlier in this document, Cathlamet currently is able to meet its expenses with the current ECU rate model. However, excess revenue is not transferred into dedicated reserve funds, but is instead left in an operating fund account.

3.4.2 Late/Unpaid accounts impact

Late and unpaid accounts are expected to have minimal impact on rates. The uncollected receivable rate used in this study is 0.2% annually.

3.4.3 Rate equity and affordability criteria of current rates

The affordability index, which is the annual average residential customer's utility rate divided by the Median Household Income (MHI) is often one of the factors lenders use in evaluating the affordability of utility rates and how much they would increase in response to new loan payments. Under the current ECU rate model, In-Town residential affordability is calculated at

3.53%, which is considered high. Out-of-Town residential customers have an even higher affordability index of 4.1%

MHI= $36,000, Base charge = $106.48/month→ 3.55% affordability.

MHI= $36,000, Avg Cust Bill = $123.78/month→ 4.13% affordability

4 Future Financial condition and analysis

4.1 Suggested asset management plan/CIP/CRP etc.

4.1.1 Long term plan

The asset inventory collected for this rate study should serve as a basis for the capital improvement plan and should be updated as conditions change.

Quantity	Asset	Year Acquired	Unit Cost (Historic, Current or Future)	Cost Type (H, C, F)	% Belonging to Water	Estimated Historic Cost (Water only)	Normal Estimated Life	Current Age	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserve Required
	Replacement of Existing Capital Assets																
1	OPERATIONS BUILDING	2013	750,000	H	100%	$750,000	50	8	885,660	42	43	3,132,059	5%	25%	70%	14,826	2,929
1	OXIDATION DITCH/HEADWORKS	2013	1,450,000	H	100%	$1,450,000	50	8	1,712,277	42	43	6,055,315	5%	25%	70%	28,667	5,662
1	SECONDARY CLARIFIER#1	2013	300,000	H	100%	$300,000	50	8	354,264	42	43	1,252,824	5%	25%	70%	5,931	1,171
1	SECONDARY CLARIFIER#2	2013	300,000	H	100%	$300,000	50	8	354,264	42	43	1,252,824	5%	25%	70%	5,931	1,171
1	AEROBIC DIGESTERS	2013	400,000	H	100%	$400,000	50	8	472,352	42	43	1,670,432	5%	25%	70%	7,908	1,562
1	DRYING BED	2013	160,000	H	100%	$160,000	20	8	188,941	12	14	283,418	15%	50%	35%	9,490	2,261
1	SLUDGE TRANSFER PUMP	2013	15,000	H	100%	$15,000	20	8	17,713	12	14	26,570	25%	0%	75%	1,483	353
1	PLANT DRAIN PUMP STATION	2013	40,000	H	100%	$40,000	20	8	47,235	12	14	70,855	25%	0%	75%	3,954	942
1	EFFLUENT MANHOLE	2013	20,000	H	100%	$20,000	20	8	23,618	12	14	35,427	25%	0%	75%	1,977	471
1	PROCESS PIPING	2013	348,500	H	100%	$348,500	20	8	411,537	12	14	617,320	5%	25%	70%	6,890	1,642
1	FORD F-150 (GOLD)	2008	18,000	H	50%	$9,000	20	13	11,792	7	2	15,942	100%	0%	0%	3,948	5,977
1	EXCAVATOR - KABOTA	2020	31,830	H	50%	$15,915	25	1	16,249	24	14	32,523	25%	0%	75%	1,360	466
1	TILT TRAILER	2020	6,150	H	50%	$3,075	15	1	3,140	14	14	4,721	100%	0%	0%	1,051	Not Cap.
1	EXCAVATOR ATTACHMENTS	2020	4,850	H	50%	$2,425	15	1	2,476	14	14	3,723	100%	0%	0%	829	Not Cap.
1	CHEVY 3500 WHITE DUALLY	1997	30,000	H	50%	$15,000	20	24	24,701	-4	5	26,570	25%	0%	75%	2,066	902
1	TRACTOR BACKHOE 580K	1992	15,000	H	50%	$7,500	25	29	13,703	-4	5	15,327	100%	0%	0%	4,588	2,117
1	FLATBED/CRANE - SILVER	2006	24,590	H	50%	$12,295	25	15	16,792	10	5	25,125	25%	0%	75%	1,406	963
1	WWTP LAB/OFFICE	1999	47,600	H	50%	$23,800	50	22	37,596	28	28	99,391	25%	0%	75%	3,147	717
1	OPEN FRONT EQUIPMENT SHELTER	1999	49,500	H	50%	$24,750	30	22	39,097	8	8	58,349	25%	0%	75%	3,273	1,383
1	PLANT LIFT STATION	2014	15,000	H	100%	$15,000	50	7	17,349	43	43	62,641	25%	0%	75%	1,452	294
1	TRACTOR COYOTE	2018	25,000	H	50%	$12,500	3	3	13,304	0	5	13,619	100%	0%	0%	4,455	1,806
1	TRAILER DUMP	2021	5,000	H	50%	$2,500	5	0	2,500	5	1	2,884	100%	0%	0%	837	Not Cap.
1	Influent Lift Station (Town Hall)	2013	25,000	C	100%	$21,096	50	8	25,000	42	42	83,059	25%	0%	75%	2,093	396
					100%								0%	0%	100%	0	0
740	SEWER PIPE, 6" PVC	1990	46	C	100%	$17,753	50	31	34,277	19	19	59,005	25%	0%	75%	2,869	591
7414	SEWER PIPE, 8" PVC	1990	54	C	100%	$207,353	50	31	400,356	19	19	689,189	5%	25%	70%	6,703	1,381
12389	SEWER PIPE, 8" CSP	1990	33	C	100%	$212,451	50	31	410,200	19	19	706,135	5%	25%	70%	6,868	1,415
175	SEWER PIPE 8" STL	1990	101	C	100%	$9,109	50	31	17,588	19	19	30,276	25%	0%	75%	1,472	303
2582	SEWER PIPE, 8" SP	1990	33	C	100%	$44,277	50	31	85,490	19	19	147,166	15%	50%	35%	4,294	884
1313	SEWER PIPE, 10" CSP	1990	33	C	100%	$22,516	50	31	43,473	19	19	74,837	25%	0%	75%	3,639	750
699	SEWER PIPE, 10" CL	1990	33	C	100%	$11,987	50	31	23,144	19	19	39,841	25%	0%	75%	1,937	399
89	SEWER PIPE, 10: DI	1990	101	C	100%	$4,633	50	31	8,945	19	19	15,397	100%	0%	0%	2,995	617
160	SEWER PIPE, 10 SP	1990	33	C	100%	$2,744	50	31	5,298	19	19	9,120	100%	0%	0%	1,774	365
105	SEWER PIPE, 12: STL	1990	230	C	100%	$12,508	50	31	24,150	19	19	41,573	25%	0%	75%	2,022	416
541	SEWER PIPE, 12: AC	1990	50	C	100%	$13,909	50	31	26,855	19	19	46,230	25%	0%	75%	2,248	463
150	SEWER PIPE, 16" STL	1990	230	C	100%	$17,868	50	31	34,500	19	19	59,390	25%	0%	75%	2,888	596
1	P.S. 1 (TUGBOAT ALLEY) 3 HP SUBMER. PUMP #1	2014	10,000	C	100%	$8,619	20	7	10,000	13	13	14,501	100%	0%	0%	3,348	825
1	P.S. 1 (TUGBOAT ALLEY) 3 HP SUBMER. PUMP #2	2014	10,000	C	100%	$8,619	20	7	10,000	13	13	14,501	100%	0%	0%	3,348	825
1	P.S.2 (ERICKSON PK) _ HP SUBMER PUMP #1	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.2 (ERICKSON PK) _ HP SUBMER PUMP #2	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.3 (JACOBSEN RD) - HP SUBMER PUMP #1	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.3 (JACOBSEN RD) - HP SUBMER PUMP #2	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.4 (MESSINGER RD) 10 HP PUMP #1	2020	35,000	C	100%	$34,285	20	1	35,000	19	19	60,250	25%	0%	75%	2,930	603
1	P.S.4 (MESSINGER RD) 10 HP PUMP #2	2005	35,000	C	100%	$24,922	20	16	35,000	4	4	39,240	25%	0%	75%	2,930	1,702
1	P.S.5 (ANGLE RD) - HP PUMP	2006	10,000	C	100%	$7,273	20	15	10,000	5	14	14,922	100%	0%	0%	3,348	792
1	PLANT LIFT STATION SUBMERS. PUMP 1 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	PLANT LIFT STATION SUBMERS. PUMP 2 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	PLANT LIFT STATION SUBMERS. PUMP 3 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	UV DISINFECTION SYSTEM (2 BULB)	2013	50,000	C	100%	$42,192	15	8	50,000	7	7	61,077	25%	0%	75%	4,186	1,551
1	SCADA SYSTEM	2013	20,000	C	100%	$16,877	15	8	20,000	7	7	24,431	25%	0%	75%	1,674	620
70	Manholes	1982	3,000	C	100%	$91,779	50	39	210,000	11	11	287,600	15%	50%	35%	10,548	2,866
35	Manholes	2000	3,000	C	100%	$67,240	50	21	105,000	29	29	240,567	15%	50%	35%	5,274	978
35	Manholes	2006	3,000	C	100%	$76,371	50	15	105,000	35	35	285,580	15%	50%	35%	5,274	972
	Subtotal Replacement of Existing Capital Assets					$5,084,607			6,615,834			18,101,555	8%	25%	67%	228,598	63,441

4.1.2 Short term plan

A SCADA system upgrade costing approximately $15,000 is planned and would be paid for with cash reserves.

4.2 Suggested reserve funding

Existing Reserves	Amount			
Debt Reserve	$181,977	As per lending agreement(s)		
Operating Reserve	$290,724	Often in Checking Account		
Emergency Reserve	$30,000	Often in Savings Account		
Capital Reserve		Mostly in CDs or other investments		
Total	$502,701			

Reserve Targets	Amount	Make Up Period	First Year Reserve Addition	Excess funds to be transfer to CIP
Debt Reserve	$206,322	See F20:F25	$12,173	$0
Operating Reserve	$62,126		$0	$228,598
Emergency Reserve	$75,000	10	$4,500	$0
Available for Capital Reserve	$228,598			

4.2.1 Debt reserve

A debt reserve of $206,322 is required by Cathlamet's USDA – RD loan. Currently, Cathlamet has accumulated $181,977 of this debt reserve, and should have the required reserves within two years.

4.2.2 Operating reserve

The operating reserve is typically defined as at least 2 months' worth of bills for a system. It is recommended that systems maintain the suggested amount, often in checking account, to provide for fluctuations in revenue. Cathlamet has a sufficient operating reserve.

4.2.3 Emergency reserve

An emergency reserve is typically defined as the cost of replacing the most expensive piece of critical equipment. This money is usually kept in a more accessible account like a rainy-day fund. For Cathlamet, the target was set at 75,000 and the system currently has $30,000 in an Emergency Reserve. A 10-year period to make up the remaining $45,000 was set in the rate model.

4.2.4 Capital improvement reserve

The capital improvement reserve is allocated for long-term, planned projects. Since these reserves are usually tied up in longer-term investments such as bonds or CDs, any system should meet its operational and emergency target reserves to meet more immediate needs. However, the system should feel comfortable that immediate needs have been met before putting any capital reserve monies in longer-term investments.

4.2.4.1 Capitalization threshold

The capitalization threshold is a dollar value that was set for Cathlamet at $5000. The significance of this number is that this is the limit to what the system will assume that an asset can be replaced using the allocated operations and maintenance budget without having to draw upon reserves.

4.2.4.2 What if nothing happens?

If the capital reserve is not maintained, there will be nothing for Cathlamet to draw upon when the emergency reserve has been used up. Any major upgrades would likely have to be financed by taking out additional loans from government lenders.

4.3 Projected 5-year budget

4.3.1 Table showing O&M expenses, reserves, debt, etc. with a total dollar amount or revenue requirement, based on Alternative 1. The projected budgets for Alternatives 2 and 3 are located in the appendices.

EXPENSES AND SOURCES OF FUNDS	2019	2020	2021	% Belonging to Water	2022	2023	2024	2025	2026
OPERATIONS & MAINTENANCE EXPENSES									
Sewer Audit Costs	0	0	2,341	100%	2,409	2,478	2,550	2,624	2,700
Sewer Advertising		150	136	100%	140	144	148	152	156
Sewer Legal Fees	300	0	0	100%	0	0	0	0	0
Advertising	40	0	0	100%	0	0	0	0	0
Sewer/Reclaimed Water Utilities -Operating	2,250	0	0	100%	0	0	0	0	0
Sewer Excise Tax	0	20,921	12,407	100%	12,767	13,137	13,518	13,910	14,314
Sewer Utility Tax Due	0	43,854	41,292	100%	42,489	43,721	44,989	46,294	47,637
Sewer Insurance	27,412	28,069	25,566	100%	26,308	27,070	27,855	28,663	29,495
B&O Tax Due To General Fund	45,687	0	0	100%	0	0	0	0	0
Excise Tax	10,238	0	0	100%	0	0	0	0	0
Sewer Vehical Fuel	1,854	1,255	0	100%	0	0	0	0	0
Sewer Salaries & Wages	90,504	95,978	119,113	100%	122,567	126,122	129,779	133,543	137,416
Sewer Personnel Benefits	40,368	39,813	44,674	100%	45,969	47,302	48,674	50,086	51,538
Sewer Fuel	0	0	4,815	100%	4,954	5,098	5,246	5,398	5,554
Sewer Uniform Allowance	0	0	407	100%	419	431	444	457	470
Sewer Tools & Minor Equip.	0	0	9,016	100%	9,278	9,547	9,824	10,109	10,402
Sewer Supplies	20,594	20,336	24,835	100%	25,555	26,296	27,059	27,844	28,651
Sewer Tools & Minor Equip.	23	550	0	100%	0	0	0	0	0
Sewer Education	536	64	0	100%	0	0	0	0	0
				100%	0	0	0	0	0
Sewer Engineer Services	0	0	0	100%	0	0	0	0	0
Sewer Training/Travel	470	301	8	100%	8	8	9	9	9
Sewer Professioanl Services	6,640	10,416	0	100%	0	0	0	0	0
Sewer Operating Rentals & Leases	0	346	13,166	100%	13,547	13,940	14,344	14,760	15,189
Sewer Operating Permits	0	3,945	864	100%	889	915	941	968	996
Sewer Information Tech.	0	0	5,791	100%	5,959	6,132	6,310	6,493	6,681
Sewer Communications	0	0	13,672	100%	14,068	14,476	14,896	15,328	15,772
Sewer Repairs & Maint.	1,505	11,073	10,203	100%	10,499	10,804	11,117	11,440	11,771
Sewer Utilities	0	0	33,064	100%	34,023	35,010	36,025	37,070	38,145
Sewer IT Software	1,279	1,356	0	100%	0	0	0	0	0
Sewer Utilities	30,393	27,165	0	100%	0	0	0	0	0
Sewer Information Tech.	1,453	5,180	0	100%	0	0	0	0	0
Sewer Communications	8,613	8,782	0	100%	0	0	0	0	0
Sewer Misc.	1,147	3,924	884	100%	909	936	963	991	1,019
Sewer Other Services& Charges (Prior Adj.)	0	-6,780	0	100%	0	0	0	0	0
Sewer Capital - Professional Svcs	500	0	0	100%	0	0	0	0	0
Sewer Buildings & Structures	0	0	0	100%	0	0	0	0	0
Total Refurbishing and Rebuilding Cost					0	0	0	0	0
Sewer Professional Services	6,640	10,416	6,934						
Sewer Capital Outlay	0	0	4,150						
Sewer Machinery & Equipment	0	0	2,311						
Total Operation and Maintenance Expenses:	298,449	327,116	375,648		372,758	383,568	394,691	406,138	417,916
GENERAL & ADMINISTRATIVE EXPENSES	2019	2020	2020	%	2022	2023	2024	2025	2026
Operating Reserve Funding					0	0	0	0	0
Emergency Reserve Funding					4,500	4,500	4,500	4,500	4,500
Debt Reserve Funding					12,173	12,173	0	0	0
Replacement of Existing Capital Assets					63,441	64,017	58,837	58,837	57,626
Replacement of Funded Project Assets					0	0	0	0	0
Reserves for Additional Capital Assets					0	0	0	0	0
Debt Service					206,322	206,322	206,322	206,322	208,607
Total General and Administrative Expenses:	0	0	0		286,435	287,012	269,659	269,659	270,733
TOTAL EXPENSES	298,449	327,116	375,648		659,193	670,580	664,351	675,797	688,649

SOURCE OF FUNDS / REVENUES RECEIVED										
	Sales Revenue (Base + Usage)	251,837	281,273	297,321		610,560	625,853	641,513	657,550	673,972
	New connections	10,000	5,000	5,000	100%	5,145	5,294	5,448	5,606	5,768
	Interest income				100%	0	0	0	0	0
	Uncollectable Receivables					-1,221	-1,252	-1,283	-1,315	-1,348
	Reconnect/Admin				100%	0	0	0	0	0
	Fees Late/NSF	4,007	4,674	699	100%	719	740	762	784	806
	Bulk Sales				100%	0	0	0	0	0
	Sewer Utility Tax	38,702	40,881	41,926	100%	43,142	44,393	45,681	47,005	48,368
					100%	0	0	0	0	0
	Sewer Service Additional Units	43,459	49,055	52,880	0%	0	0	0	0	0
	Sewer Testing	6,500		12,740	100%	13,109	13,490	13,881	14,283	14,698
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Sewer Misc. Revenues		369	1,028	100%	1,058	1,089	1,120	1,153	1,186
	Investment Interest	454	1,227	1,418	100%	1,459	1,501	1,545	1,590	1,636
	Sewer Investment Interest				100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Transfers from outside this enterprise		3,923							
	Reserve Surcharges to Customers	366,480	366,480	366,480						
TOTAL REVENUE		721,439	752,882	779,492		673,971	691,108	708,666	726,655	745,086
	NET LOSS OR GAIN:	422,989	425,766	403,844		14,778	20,528	44,315	50,858	56,437
	NET CASH FLOW (Contribution to Reserves)	422,989	425,766	403,844		94,891	101,218	107,653	114,196	118,563

4.4 Suggested rates

4.4.1 Proposed customer classes

In the current rate structure, Cathlamet reported four customer classes and an Equivalent Customer Unit (ECU) table for customers other than single family residences. This means that customers are charged usage rates according to an ECU table in the Town ordinances, and the base ECU rate is different for In-Town vs. Out-of-Town customers.

Name of Class	Rate Structure	Schedule
In town RES	Flat	A
Out of Town RES	Flat	B
In town COMM	Flat	C
Out of Town COMM	Flat	D

4.4.2 Proposed rate structure

In the proposed rate structure, rates are based on a flat monthly rate for all customers, and a usage rate based upon the average water consumption between November and March each year. The rates are the same for both in-town and out-of-town customers.

The recommended base rate should be considered the first step, with an annual increase in base and usage rates of 2% for each of the subsequent 4 years.

4.4.3 Proposed rates

4.4.3.1 Alternative 1: Mid-range base

Connection Size	Recommended Year 1 Base Rate	Recommended Year 1 Usage rate (per CF)
All Connection Sizes and Classes	$50.00/month	$0.060/CF

Monthly Base Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Recommended Rate	$50.00	$51.00	$52.02	$53.06	$54.12
Usage Rate/CF	$0.060	$0.061	$0.062	$0.064	$0.065

4.4.3.2 Alternative 2: High-range base with lower usage rate

Connection Size	Recommended Year 1 Base Rate	Recommended Year 1 Usage rate (per CF)
All Connection Sizes and Classes	$75.00/month	$0.025/CF

Monthly Base Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Recommended Rate	$75.00	$76.50	$78.03	$79.59	$81.18
Usage Rate/CF	$0.025	$0.026	$0.026	$0.027	$0.027

4.4.3.3 Alternative 3: Low-range base with higher usage rate

Connection Size	Recommended Year 1 Base Rate	Recommended Year 1 Usage rate (per CF)
All Connection Sizes and Classes	$30.00/month	$0.075/CF

Monthly Base Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Recommended Rate	$30.00	$30.60	$31.21	$31.84	$32.47
Usage Rate/CF	$0.075	$0.077	$0.078	$0.080	$0.081

4.5 Impact of suggested rates on 5-year budget

Alternative 1 Budget (Mid-range base)

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$659,193	$670,580	$664,351	$675,797	$688,649	$3,358,570
TOTAL REVENUE		$673,971	$691,108	$708,666	$726,655	$745,086	$3,545,487
NET LOSS OR GAIN: (Short/Over to Reserves)		$14,778	$20,528	$44,315	$50,858	$56,437	$186,918
NET CASH FLOW (Contribution to Reserves)		$94,891	$101,218	$107,653	$114,196	$118,563	$536,522
Affordability assuming MHI of $36000 for residential meters.		2.84%	2.91%	2.98%	3.05%	3.12%	

Alternative 2 Budget (High-range base)

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$658,797	$670,184	$663,955	$675,401	$688,253	$3,356,591
TOTAL REVENUE		$649,969	$666,113	$682,648	$699,583	$716,929	$3,415,241
NET LOSS OR GAIN: (Short/Over to Reserves)		-$8,829	-$4,072	$18,693	$24,182	$28,675	$58,650
NET CASH FLOW (Contribution to Reserves)		$70,888	$76,223	$81,634	$87,124	$90,406	$406,275
Affordability assuming MHI of $36000 for residential meters.		2.99%	3.06%	3.13%	3.21%	3.28%	

Alternative 3 Budget (Low-range base)

Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base		2.00%	2.00%	2.00%	2.00%	
	Usage		2.00%	2.00%	2.00%	2.00%	
Results of the new rates		**2022**	**2023**	**2024**	**2025**	**2026**	**5 Years**
TOTAL EXPENSES		$658,797	$670,184	$663,955	$675,401	$688,253	$3,356,591
TOTAL REVENUE		$657,593	$679,528	$702,083	$725,274	$749,117	$3,513,594
NET LOSS OR GAIN: (Short/Over to Reserves)		-$1,205	$9,344	$38,128	$49,872	$60,864	$157,003
NET CASH FLOW (Contribution to Reserves)		$78,513	$89,638	$101,069	$112,814	$122,594	$504,629
Affordability assuming MHI of $36000 for residential meters.		2.58%	2.66%	2.74%	2.83%	2.92%	

The above tables show that all three alternatives fully fund the recommended reserves by year three. In alternative 1, the recommended reserves are fully funded in the first year. Alternative 2 shows reserves are fully funded in year three, because in the first two years, the town would still be funding the required debt reserve. Alternative 3 shows the reserves are fully funded in year two. It should be noted that all three alternatives have a positive cash flow (revenue > expenditures).

4.6 Impact of suggested rates on Customer bills

4.6.1 Rate affordability analysis

Rate Scenario	2022	2023	2024	2025	2026
Alternative 1 (Mid-range base)	2.84%	2.91%	2.98%	3.05%	3.12%
Alternative 2 (High-range base)	2.99%	3.06%	3.13%	3.21%	3.28%
Alternative 3 (Low-range base)	2.58%	2.69%	2.74%	2.83%	2.92%

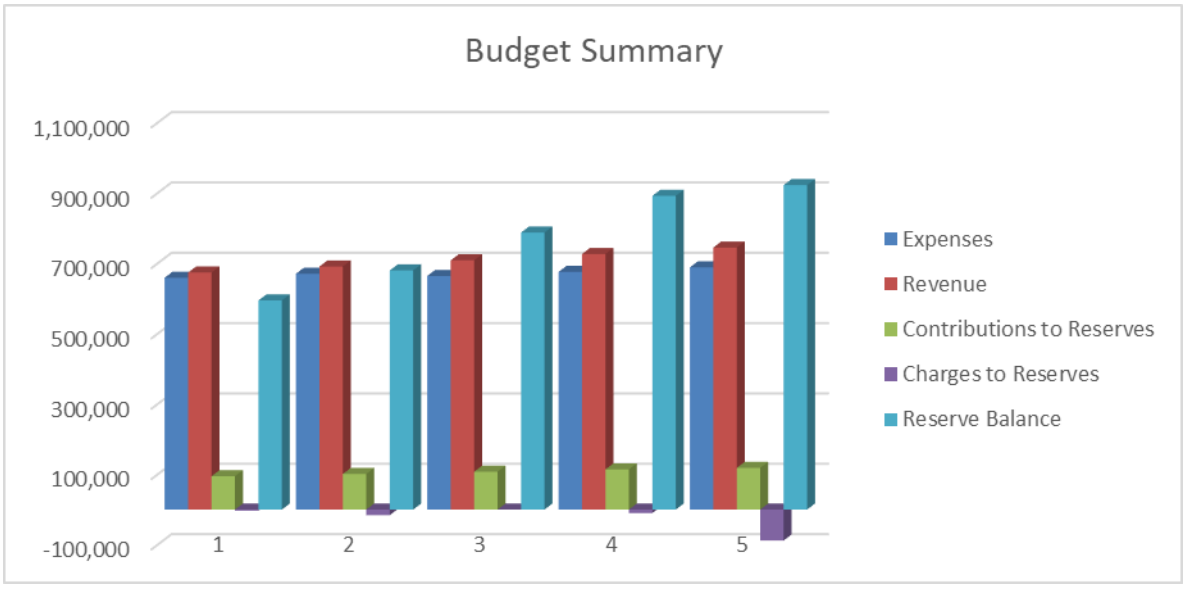
All three alternatives show an improved affordability index over current rates (3.55% for single ECU In-Town residents, 4.13% for single ECU Out-of-Town residents).

4.7 Impact of suggested rates on project financing

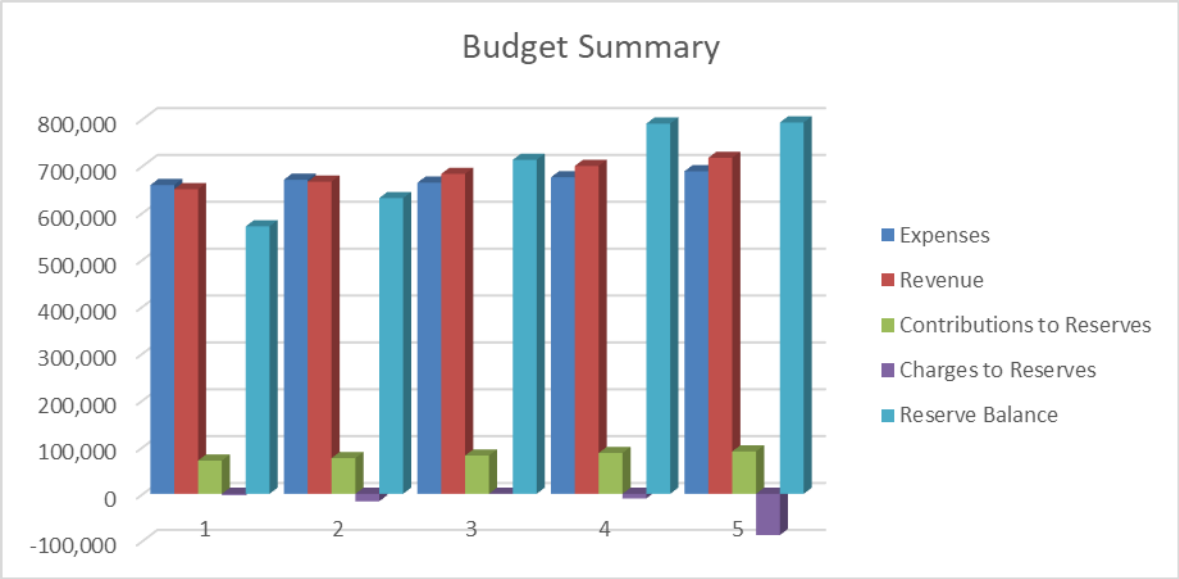
4.7.1 Different project funding options/scenarios

No capital projects are currently being considered for Cathlamet, and a planned SCADA upgrade would be paid for from current cash reserves. The following tables anticipates rate increases, hence increasing reserves. The purple shows expected drawdowns that would occur whether rates were raised or not.

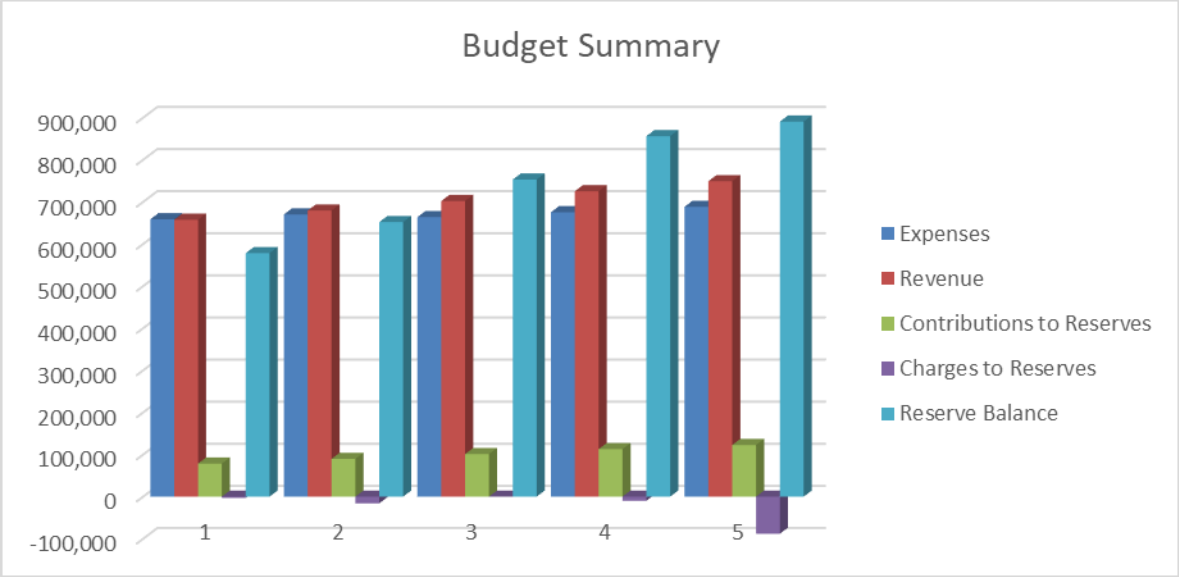
Alternative 1: Mid-range base



Alternative 2: High-range base



Alternative 3: Low-range Base



5 Recommendations

5.1 Summary of rates, reserve funding, other recommendations

5.1.1 Recommendations for improving financial position

Cathlamet is currently in a good financial position, meeting all expenses and contributing to a reserve account.

5.1.2 Rates

The three final alternative rate structures provide, based on the council's input, are all flat base rates and flat usage rates, regardless of meter size or residential/commercial customers. The differences between alternatives is how much of the monthly rate paid by customers is a flat rate, versus the amount paid based on winter water consumption. Regardless of the rate model chosen, the council should plan on increasing base and usage rates every year by 2% to keep up with inflationary pressures.

5.1.3 Reserve Funding

The rate model targets an annual reserve contribution just over $63,400 in year 1. These reserves should be split out into separate accounts, such as debt reserves, operating reserves, emergency reserves and capital improvement reserves. The town currently has two years remaining to set aside the funder required debt reserve and can fully fund an operating reserve with existing cash reserves. Additionally, an emergency reserve can be established with $30,000 of the current cash reserves, with an additional $4,500 to be added to this reserve fund each year for the next ten years. The remaining cash and reserve contributions should be funneled to a capital reserve fund, that is invested in longer term financial products.

5.1.3.1 What happens of no action is taken

If no action is taken, it is likely that the town would be able to fund its activities, but the proposed rate structures are more affordable for its residents.

5.2 Implementation of rate adjustments

5.2.1 Board decision required

Any rate recommendations are based on the data provided and in consultation with local staff and the council. No recommendation will become policy without formal action by the system's governing board. Any adjustments to the recommendation can change forecasts and affect future rate projections.

5.2.2 General implementation advice

If one of the rate scenarios is ultimately adopted by the town council, it must be noted that future rate projections are based upon a full year of rate implementation. If the council adopts a new rate increase effective in the middle of the fiscal year, any revenue forecasts must be altered proportionally. Adoption of the five-year rate plan is strongly encouraged with an annual review of rates during the annual budgeting process. This sets an expectation for rate payers and allows for them to plan accordingly for future increases.

5.2.3 Future years' rate setting

If the council adopts one of the rate alternatives, it is suggested that each year the clerk calculate the average monthly water use for each customer between November and March to use for the usage rate calculation in the subsequent year.

6 Appendix

6.1 Financial spreadsheet of historical, current, and future budgets (multi-year budget) for alternatives 2 and 3.

Alternative 2: High-range base rate

EXPENSES AND SOURCES OF FUNDS	2019	2020	2021	% Belonging to Water	2022	2023	2024	2025	2026
OPERATIONS & MAINTENANCE EXPENSES									
Sewer Audit Costs	0	0	2,341	100%	2,409	2,478	2,550	2,624	2,700
Sewer Advertising		150	136	100%	140	144	148	152	156
Sewer Legal Fees	300	0	0	100%	0	0	0	0	0
Advertising	40	0	0	100%	0	0	0	0	0
Sewer/Reclaimed Water Utilities -Operating	2,250	0	0	100%	0	0	0	0	0
Sewer Excise Tax	0	20,921	12,407	100%	12,767	13,137	13,518	13,910	14,314
Sewer Utility Tax Due	0	43,854	41,292	100%	42,489	43,721	44,989	46,294	47,637
Sewer Insurance	27,412	28,069	25,566	100%	26,308	27,070	27,855	28,663	29,495
B&O Tax Due To General Fund	45,687	0	0	100%	0	0	0	0	0
Excise Tax	10,238	0	0	100%	0	0	0	0	0
Sewer Vehical Fuel	1,854	1,255	0	100%	0	0	0	0	0
Sewer Salaries & Wages	90,504	95,978	119,113	100%	122,567	126,122	129,779	133,543	137,416
Sewer Personnel Benefits	40,368	39,813	44,674	100%	45,969	47,302	48,674	50,086	51,538
Sewer Fuel	0	0	4,815	100%	4,954	5,098	5,246	5,398	5,554
Sewer Uniform Allowance	0	0	407	100%	419	431	444	457	470
Sewer Tools & Minor Equip.	0	0	9,016	100%	9,278	9,547	9,824	10,109	10,402
Sewer Supplies	20,594	20,336	24,835	100%	25,555	26,296	27,059	27,844	28,651
Sewer Tools & Minor Equip.	23	550	0	100%	0	0	0	0	0
Sewer Education	536	64	0	100%	0	0	0	0	0
				100%	0	0	0	0	0
Sewer Engineer Services	0	0	0	100%	0	0	0	0	0
Sewer Training/Travel	470	301	8	100%	8	8	9	9	9
Sewer Professioanl Services	6,640	10,416	0	100%	0	0	0	0	0
Sewer Operating Rentals & Leases	0	346	13,166	100%	13,547	13,940	14,344	14,760	15,189
Sewer Operating Permits	0	3,945	864	100%	889	915	941	968	996
Sewer Information Tech.	0	0	5,791	100%	5,959	6,132	6,310	6,493	6,681
Sewer Communications	0	0	13,672	100%	14,068	14,476	14,896	15,328	15,772
Sewer Repairs & Maint.	1,505	11,073	10,203	100%	10,499	10,804	11,117	11,440	11,771
Sewer Utilities	0	0	33,064	100%	34,023	35,010	36,025	37,070	38,145
Sewer IT Software	1,279	1,356	0	100%	0	0	0	0	0
Sewer Utilities	30,393	27,165	0	100%	0	0	0	0	0
Sewer Information Tech.	1,453	5,180	0	100%	0	0	0	0	0
Sewer Communications	8,613	8,782	0	100%	0	0	0	0	0
Sewer Misc.	1,147	3,924	884	100%	909	936	963	991	1,019
Sewer Other Services& Charges (Prior Adj.)	0	-6,780	0	100%	0	0	0	0	0
Sewer Capital - Professional Svcs	500	0	0	100%	0	0	0	0	0
Sewer Buildings & Structures	0	0	0	100%	0	0	0	0	0
Total Refurbishing and Rebuilding Cost					0	0	0	0	0
Sewer Professional Services	6,640	10,416	6,934						
Sewer Capital Outlay	0	0	4,150						
Sewer Machinery & Equipment	0	0	2,311						
Total Operation and Maintenance Expenses:	298,449	327,116	375,648		372,758	383,568	394,691	406,138	417,916
GENERAL & ADMINISTRATIVE EXPENSES	2019	2020	2020	%	2022	2023	2024	2025	2026
Operating Reserve Funding					0	0	0	0	0
Emergency Reserve Funding					4,500	4,500	4,500	4,500	4,500
Debt Reserve Funding					12,173	12,173	0	0	0
Replacement of Existing Capital Assets					63,045	63,622	58,442	58,442	57,231
Replacement of Funded Project Assets					0	0	0	0	0
Reserves for Additional Capital Assets					0	0	0	0	0
Debt Service					206,322	206,322	206,322	206,322	208,607
Total General and Administrative Expenses:	0	0	0		286,039	286,616	269,264	269,264	270,338
TOTAL EXPENSES	298,449	327,116	375,648		658,797	670,184	663,955	675,401	688,253

SOURCE OF FUNDS / REVENUES RECEIVED										
	Sales Revenue (Base + Usage)	251,837	281,273	297,321		586,509	600,807	615,443	630,424	645,758
	New connections	10,000	5,000	5,000	100%	5,145	5,294	5,448	5,606	5,768
	Interest income				100%	0	0	0	0	0
	Uncollectable Receivables					-1,173	-1,202	-1,231	-1,261	-1,292
	Reconnect/Admin				100%	0	0	0	0	0
	Fees Late/NSF	4,007	4,674	699	100%	719	740	762	784	806
	Bulk Sales				100%	0	0	0	0	0
	Sewer Utility Tax	38,702	40,881	41,926	100%	43,142	44,393	45,681	47,005	48,368
					100%	0	0	0	0	0
	Sewer Service Additional Units	43,459	49,055	52,880	0%	0	0	0	0	0
	Sewer Testing	6,500		12,740	100%	13,109	13,490	13,881	14,283	14,698
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Sewer Misc. Revenues		369	1,028	100%	1,058	1,089	1,120	1,153	1,186
	Investment Interest	454	1,227	1,418	100%	1,459	1,501	1,545	1,590	1,636
	Sewer Investment Interest				100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Transfers from outside this enterprise		3,923							
	Reserve Surcharges to Customers	366,480	366,480	366,480						
TOTAL REVENUE		721,439	752,882	779,492		649,969	666,113	682,648	699,583	716,929
	NET LOSS OR GAIN:	422,989	425,766	403,844		-8,829	-4,072	18,693	24,182	28,675
	NET CASH FLOW (Contribution to Reserves)	422,989	425,766	403,844		70,888	76,223	81,634	87,124	90,406
Affordability assuming MHI of $36000 for residential meters.						2.99%	3.06%	3.13%	3.21%	3.28%

Alternative 3: Low-range base rate

EXPENSES AND SOURCES OF FUNDS	2019	2020	2021	% Belonging to Water	2022	2023	2024	2025	2026
OPERATIONS & MAINTENANCE EXPENSES									
Sewer Audit Costs	0	0	2,341	100%	2,409	2,478	2,550	2,624	2,700
Sewer Advertising		150	136	100%	140	144	148	152	156
Sewer Legal Fees	300	0	0	100%	0	0	0	0	0
Advertising	40	0	0	100%	0	0	0	0	0
Sewer/Reclaimed Water Utilities -Operating	2,250	0	0	100%	0	0	0	0	0
Sewer Excise Tax	0	20,921	12,407	100%	12,767	13,137	13,518	13,910	14,314
Sewer Utility Tax Due	0	43,854	41,292	100%	42,489	43,721	44,989	46,294	47,637
Sewer Insurance	27,412	28,069	25,566	100%	26,308	27,070	27,855	28,663	29,495
B&O Tax Due To General Fund	45,687	0	0	100%	0	0	0	0	0
Excise Tax	10,238	0	0	100%	0	0	0	0	0
Sewer Vehical Fuel	1,854	1,255	0	100%	0	0	0	0	0
Sewer Salaries & Wages	90,504	95,978	119,113	100%	122,567	126,122	129,779	133,543	137,416
Sewer Personnel Benefits	40,368	39,813	44,674	100%	45,969	47,302	48,674	50,086	51,538
Sewer Fuel	0	0	4,815	100%	4,954	5,098	5,246	5,398	5,554
Sewer Uniform Allowance	0	0	407	100%	419	431	444	457	470
Sewer Tools & Minor Equip.	0	0	9,016	100%	9,278	9,547	9,824	10,109	10,402
Sewer Supplies	20,594	20,336	24,835	100%	25,555	26,296	27,059	27,844	28,651
Sewer Tools & Minor Equip.	23	550	0	100%	0	0	0	0	0
Sewer Education	536	64	0	100%	0	0	0	0	0
				100%	0	0	0	0	0
Sewer Engineer Services	0	0	0	100%	0	0	0	0	0
Sewer Training/Travel	470	301	8	100%	8	8	9	9	9
Sewer Professioanl Services	6,640	10,416	0	100%	0	0	0	0	0
Sewer Operating Rentals & Leases	0	346	13,166	100%	13,547	13,940	14,344	14,760	15,189
Sewer Operating Permits	0	3,945	864	100%	889	915	941	968	996
Sewer Information Tech.	0	0	5,791	100%	5,959	6,132	6,310	6,493	6,681
Sewer Communications	0	0	13,672	100%	14,068	14,476	14,896	15,328	15,772
Sewer Repairs & Maint.	1,505	11,073	10,203	100%	10,499	10,804	11,117	11,440	11,771
Sewer Utilities	0	0	33,064	100%	34,023	35,010	36,025	37,070	38,145
Sewer IT Software	1,279	1,356	0	100%	0	0	0	0	0
Sewer Utilities	30,393	27,165	0	100%	0	0	0	0	0
Sewer Information Tech.	1,453	5,180	0	100%	0	0	0	0	0
Sewer Communications	8,613	8,782	0	100%	0	0	0	0	0
Sewer Misc.	1,147	3,924	884	100%	909	936	963	991	1,019
Sewer Other Services& Charges (Prior Adj.)	0	-6,780	0	100%	0	0	0	0	0
Sewer Capital - Professional Svcs	500	0	0	100%	0	0	0	0	0
Sewer Buildings & Structures	0	0	0	100%	0	0	0	0	0
Total Refurbishing and Rebuilding Cost					0	0	0	0	0
Sewer Professional Services	6,640	10,416	6,934						
Sewer Capital Outlay	0	0	4,150						
Sewer Machinery & Equipment	0	0	2,311						
Total Operation and Maintenance Expenses:	298,449	327,116	375,648		372,758	383,568	394,691	406,138	417,916
GENERAL & ADMINISTRATIVE EXPENSES	2019	2020	2020	%	2022	2023	2024	2025	2026
Operating Reserve Funding					0	0	0	0	0
Emergency Reserve Funding					4,500	4,500	4,500	4,500	4,500
Debt Reserve Funding					12,173	12,173	0	0	0
Replacement of Existing Capital Assets					63,045	63,622	58,442	58,442	57,231
Replacement of Funded Project Assets					0	0	0	0	0
Reserves for Additional Capital Assets					0	0	0	0	0
Debt Service					206,322	206,322	206,322	206,322	208,607

	Total General and Administrative Expenses:	0	0	0		286,039	286,616	269,264	269,264	270,338
TOTAL EXPENSES		298,449	327,116	375,648		658,797	670,184	663,955	675,401	688,253
SOURCE OF FUNDS / REVENUES RECEIVED										
	Sales Revenue (Base + Usage)	251,837	281,273	297,321		594,148	614,250	634,917	656,166	678,010
	New connections	10,000	5,000	5,000	100%	5,145	5,294	5,448	5,606	5,768
	Interest income				100%	0	0	0	0	0
	Uncollectable Receivables					-1,188	-1,228	-1,270	-1,312	-1,356
	Reconnect/Admin				100%	0	0	0	0	0
	Fees Late/NSF	4,007	4,674	699	100%	719	740	762	784	806
	Bulk Sales				100%	0	0	0	0	0
	Sewer Utility Tax	38,702	40,881	41,926	100%	43,142	44,393	45,681	47,005	48,368
					100%	0	0	0	0	0
	Sewer Service Additional Units	43,459	49,055	52,880	0%	0	0	0	0	0
	Sewer Testing	6,500		12,740	100%	13,109	13,490	13,881	14,283	14,698
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Sewer Misc. Revenues		369	1,028	100%	1,058	1,089	1,120	1,153	1,186
	Investment Interest	454	1,227	1,418	100%	1,459	1,501	1,545	1,590	1,636
	Sewer Investment Interest				100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
					100%	0	0	0	0	0
	Transfers from outside this enterprise		3,923							
	Reserve Surcharges to Customers	366,480	366,480	366,480						
TOTAL REVENUE		721,439	752,882	779,492		657,593	679,528	702,083	725,274	749,117
	NET LOSS OR GAIN:	422,989	425,766	403,844		-1,205	9,344	38,128	49,872	60,864
	NET CASH FLOW (Contribution to Reserves)	422,989	425,766	403,844		78,513	89,638	101,069	112,814	122,594

6.2 Capital Replacement Plan (All Scenarios)

Quantity	Asset	Year Acquired	Unit Cost (Historic, Current or Future)	Cost Type (H, C, F)	% Belonging to Water	Estimated Historic Cost (Water only)	Normal Estimated Life	Current Age	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserve Required
	Replacement of Existing Capital Assets																
1	OPERATIONS BUILDING	2013	750,000	H	100%	$750,000	50	8	885,660	42	43	3,132,059	5%	25%	70%	14,828	2,929
1	OXIDATION DITCH/HEADWORKS	2013	1,450,000	H	100%	$1,450,000	50	8	1,712,277	42	43	6,055,315	5%	25%	70%	28,667	5,662
1	SECONDARY CLARIFIER #1	2013	300,000	H	100%	$300,000	50	8	354,264	42	43	1,252,824	5%	25%	70%	5,931	1,171
1	SECONDARY CLARIFIER #2	2013	300,000	H	100%	$300,000	50	8	354,264	42	43	1,252,824	5%	25%	70%	5,931	1,171
1	AEROBIC DIGESTERS	2013	400,000	H	100%	$400,000	50	8	472,352	42	43	1,670,432	5%	25%	70%	7,908	1,562
1	DRYING BED	2013	160,000	H	100%	$160,000	20	8	188,941	12	14	283,418	15%	50%	35%	9,490	2,261
1	SLUDGE TRANSFER PUMP	2013	15,000	H	100%	$15,000	20	8	17,713	12	14	26,570	25%	0%	75%	1,483	353
1	PLANT DRAIN PUMP STATION	2013	40,000	H	100%	$40,000	20	8	47,235	12	14	70,855	25%	0%	75%	3,954	942
1	EFFLUENT MANHOLE	2013	20,000	H	100%	$20,000	20	8	23,618	12	14	35,427	25%	0%	75%	1,977	471
1	PROCESS PIPING	2013	348,500	H	100%	$348,500	20	8	411,537	12	14	617,320	5%	25%	70%	6,890	1,642
1	FORD F-150 (GOLD)	2008	18,000	H	50%	$9,000	20	13	11,792	7	2	15,942	100%	0%	0%	3,948	5,977
1	EXCAVATOR - KABOTA	2020	31,830	H	50%	$15,915	25	1	16,249	24	14	32,523	25%	0%	75%	1,360	465
1	TILT TRAILER	2020	6,150	H	50%	$3,075	15	1	3,140	14	14	4,721	100%	0%	0%	1,051	Not Cap.
1	EXCAVATOR ATTACHMENTS	2020	4,850	H	50%	$2,425	15	1	2,476	14	14	3,723	100%	0%	0%	829	Not Cap.
1	CHEVY 3500 WHITE DUALLY	1997	30,000	H	50%	$15,000	20	24	24,701	-4	5	26,570	25%	0%	75%	2,068	902
1	TRACTOR BACKHOE 580K	1992	15,000	H	50%	$7,500	25	29	13,703	-4	5	15,327	100%	0%	0%	4,588	2,117
1	FLATBED/CRANE - SILVER	2006	24,590	H	50%	$12,295	25	15	16,792	10	5	25,125	25%	0%	75%	1,406	963
1	WWTP LAB/OFFICE	1999	47,600	H	50%	$23,800	50	22	37,596	28	28	99,391	25%	0%	75%	3,147	717
1	OPEN FRONT EQUIPMENT SHELTER	1999	49,500	H	50%	$24,750	30	22	39,097	8	8	58,349	25%	0%	75%	3,273	1,383
1	PLANT LIFT STATION	2014	15,000	H	100%	$15,000	50	7	17,349	43	43	62,641	25%	0%	75%	1,452	294
1	TRACTOR COYOTE	2018	25,000	H	50%	$12,500	3	3	13,304	0	5	13,619	100%	0%	0%	4,455	1,806
1	TRAILER DUMP	2021	5,000	H	50%	$2,500	5	0	2,500	5	1	2,884	100%	0%	0%	837	Not Cap.
1	Influent Lift Station (Town Hall)	2013	25,000	C	100%	$21,096	50	8	25,000	42	42	83,059	25%	0%	75%	2,093	396
					100%								0%	0%	100%	0	0
740	SEWER PIPE, 6" PVC	1990	46	C	100%	$17,753	50	31	34,277	19	19	59,005	25%	0%	75%	2,869	591
7414	SEWER PIPE, 8" PVC	1990	54	C	100%	$207,353	50	31	400,356	19	19	689,189	5%	25%	70%	6,703	1,381
12389	SEWER PIPE, 8" CSP	1990	33	C	100%	$212,451	50	31	410,200	19	19	706,135	5%	25%	70%	6,868	1,415
175	SEWER PIPE 8" STL	1990	101	C	100%	$9,109	50	31	17,588	19	19	30,276	25%	0%	75%	1,472	303
2582	SEWER PIPE, 8" SP	1990	33	C	100%	$44,277	50	31	85,490	19	19	147,166	15%	50%	35%	4,294	884
1313	SEWER PIPE, 10" CSP	1990	33	C	100%	$22,516	50	31	43,473	19	19	74,837	25%	0%	75%	3,639	750
699	SEWER PIPE, 10" CL	1990	33	C	100%	$11,987	50	31	23,144	19	19	39,841	25%	0%	75%	1,937	399
89	SEWER PIPE, 10: DI	1990	101	C	100%	$4,633	50	31	8,945	19	19	15,397	100%	0%	0%	2,995	617
160	SEWER PIPE, 10 SP	1990	33	C	100%	$2,744	50	31	5,298	19	19	9,120	100%	0%	0%	1,774	365
105	SEWER PIPE, 12: STL	1990	230	C	100%	$12,508	50	31	24,150	19	19	41,573	25%	0%	75%	2,022	416
541	SEWER PIPE, 12: AC	1990	50	C	100%	$13,909	50	31	26,855	19	19	46,230	25%	0%	75%	2,248	463
150	SEWER PIPE, 16" STL	1990	230	C	100%	$17,868	50	31	34,500	19	19	59,390	25%	0%	75%	2,888	595
1	P.S. 1 (TUGBOAT ALLEY) 3 HP SUBMER. PUMP #1	2014	10,000	C	100%	$8,619	20	7	10,000	13	13	14,501	100%	0%	0%	3,348	825
1	P.S. 1 (TUGBOAT ALLEY) 3 HP SUBMER. PUMP #2	2014	10,000	C	100%	$8,619	20	7	10,000	13	13	14,501	100%	0%	0%	3,348	825
1	P.S.2 (ERICKSON PK) _ HP SUBMER PUMP #1	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.2 (ERICKSON PK) _ HP SUBMER PUMP #2	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.3 (JACOBSEN RD) - HP SUBMER PUMP #1	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.3 (JACOBSEN RD) - HP SUBMER PUMP #2	2006	10,000	C	100%	$7,273	20	15	10,000	5	5	11,537	100%	0%	0%	3,348	1,615
1	P.S.4 (MESSINGER RD) 10 HP PUMP #1	2020	35,000	C	100%	$34,265	20	1	35,000	19	19	60,250	25%	0%	75%	2,930	603
1	P.S.4 (MESSINGER RD) 10 HP PUMP #2	2005	35,000	C	100%	$24,922	20	16	35,000	4	4	39,240	25%	0%	75%	2,930	1,702
1	P.S.5 (ANGLE RD) - HP PUMP	2006	10,000	C	100%	$7,273	20	15	10,000	5	14	14,922	100%	0%	0%	3,348	792
1	PLANT LIFT STATION SUBMERS. PUMP 1 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	PLANT LIFT STATION SUBMERS. PUMP 2 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	PLANT LIFT STATION SUBMERS. PUMP 3 92 HP	2013	60,000	C	100%	$50,631	20	8	60,000	12	12	84,554	25%	0%	75%	5,023	1,295
1	UV DISINFECTION SYSTEM (2 BULB)	2013	50,000	C	100%	$42,192	15	8	50,000	7	7	61,077	25%	0%	75%	4,186	1,551
1	SCADA SYSTEM	2013	20,000	C	100%	$16,877	15	8	20,000	7	7	24,431	25%	0%	75%	1,674	620
70	Manholes	1982	3,000	C	100%	$91,779	50	39	210,000	11	11	287,600	15%	50%	35%	10,548	2,866
35	Manholes	2000	3,000	C	100%	$67,240	50	21	105,000	29	29	240,567	15%	50%	35%	5,274	978
35	Manholes	2006	3,000	C	100%	$76,371	50	15	105,000	35	35	285,580	15%	50%	35%	5,274	972
	Subtotal Replacement of Existing Capital Assets					$5,084,607			6,615,834			18,101,555	8%	25%	67%	228,598	63,441

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6.3 Fixed Versus Variable Charges (All Scenarios)

	5-Year Average	% Fixed	$ Fixed	$ Variable
OPERATIONS & MAINTENANCE EXPENSES				
Sewer Audit Costs	2,552	100%	2,552	0
Sewer Advertising	148	75%	111	37
Sewer Legal Fees	0	100%	0	0
Advertising	0	100%	0	0
Sewer/Reclaimed Water Utilities -Operating Pe	0	100%	0	0
Sewer Excise Tax	13,529	100%	13,529	0
Sewer Utility Tax Due	45,026	100%	45,026	0
Sewer Insurance	27,878	100%	27,878	0
B&O Tax Due To General Fund	0	100%	0	0
Excise Tax	0	100%	0	0
Sewer Vehical Fuel	0	100%	0	0
Sewer Salaries & Wages	129,885	90%	116,897	12,989
Sewer Personnel Benefits	48,714	90%	43,843	4,871
Sewer Fuel	5,250	80%	4,200	1,050
Sewer Uniform Allowance	444	90%	400	44
Sewer Tools & Minor Equip.	9,832	100%	9,832	0
Sewer Supplies	27,081	90%	24,373	2,708
Sewer Tools & Minor Equip.	0	100%	0	0
Sewer Education	0	100%	0	0
0	0	75%	0	0
Sewer Engineer Services	0	100%	0	0
Sewer Training/Travel	9	100%	9	0
Sewer Professioanl Services	0	100%	0	0
Sewer Operating Rentals & Leases	14,356	90%	12,921	1,436
Sewer Operating Permits	942	100%	942	0
Sewer Information Tech.	6,315	100%	6,315	0
Sewer Communications	14,908	80%	11,926	2,982
Sewer Repairs & Maint.	11,126	90%	10,014	1,113
Sewer Utilities	36,054	75%	27,041	9,014
Sewer IT Software	0	100%	0	0
Sewer Utilities	0	100%	0	0
Sewer Information Tech.	0	100%	0	0
Sewer Communications	0	100%	0	0
Sewer Misc.	964	100%	964	0
Sewer Other Services& Charges (Prior Adj.)	0	100%	0	0
Sewer Capital - Professional Svcs	0	100%	0	0
Sewer Buildings & Structures	0	100%	0	0
Total Operation and Maintenance Expenses:	395,014		358,771	36,243

GENERAL & ADMINISTRATIVE EXPENSES					
	Operating Reserve Funding	0	100%	0	0
	Emergency Reserve Funding	4,500	50%	2,250	2,250
	Debt Reserve Funding	4,869	100%	4,869	0
	Replacement of Existing Capital Assets	60,552	70%	42,386	18,166
	Replacement of Funded Project Assets	0	100%	0	0
	Reserves for Additional Capital Assets	0	100%	0	0
	Debt Service	206,779	100%	206,779	0
Total General and Administrative Expenses:		276,700		256,284	20,416
Total All Expenses		671,714		615,055	56,658
	Fixed-Variable as % of all Expenses			92%	8%

6.4 Estimated monthly rates for selected customers

Final Alternative 1: Mid-range base rate

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$50.00	$50.00	$50.00	$50.00
	0.75	$50.00	$50.00	$50.00	$50.00
	1	$50.00	$50.00	$50.00	$50.00
	1.5	$50.00	$50.00	$50.00	$50.00
	2	$50.00	$50.00	$50.00	$50.00
	3	$50.00	$50.00	$50.00	$50.00
	4	$50.00	$50.00	$50.00	$50.00
Usage Rate per 1 CF		$0.06	$0.06	$0.06	$0.06

2% per year increase in base and usage rates

Class	Ave Water Usage cf	Current	Proposed Yr. 1
1	**351**	$112.87	$71.06
1	**1,231**	$112.87	$123.86
1	**2,189**	$112.87	$181.34
2	**373**	$131.21	$72.38
2	**1,279**	$131.21	$126.74
2	**2,005**	$131.21	$170.30
3	**157**	$225.74	$59.42
3	**2,864**	$564.34	$221.84
3	**5,164**	$270.89	$359.84
4	**397**	$262.41	$73.82
4	**903**	$131.21	$104.18
4	**1,287**	$131.21	$127.22

Final Alternative 2: High-range base rate

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$75.00	$75.00	$75.00	$75.00
	0.75	$75.00	$75.00	$75.00	$75.00
	1	$75.00	$75.00	$75.00	$75.00
	1.5	$75.00	$75.00	$75.00	$75.00
	2	$75.00	$75.00	$75.00	$75.00
	3	$75.00	$75.00	$75.00	$75.00
	4	$75.00	$75.00	$75.00	$75.00
Usage Rate per 1 CF		0.025	0.025	0.025	0.025

2% per year increase in base and usage rates

Class	Ave Water Usage cf	Current	Proposed Yr. 1
1	**351**	$112.87	$83.96
1	**1,231**	$112.87	$106.41
1	**2,189**	$112.87	$130.83
2	**373**	$131.21	$84.52
2	**1,279**	$131.21	$107.63
2	**2,005**	$131.21	$126.15
3	**157**	$225.74	$79.00
3	**2,864**	$564.34	$148.03
3	**5,164**	$270.89	$206.69
4	**397**	$262.41	$85.13
4	**903**	$131.21	$98.03
4	**1,287**	$131.21	$107.83

Final Alternative 3: Low-range base rate

Uniform Block	Meter Size	In Town Residential	Out of Town Residential	In Town Commerical	Out of Town Commercial
Base	0.625	$30.00	$30.00	$30.00	$30.00
	0.75	$30.00	$30.00	$30.00	$30.00
	1	$30.00	$30.00	$30.00	$30.00
	1.5	$30.00	$30.00	$30.00	$30.00
	2	$30.00	$30.00	$30.00	$30.00
	3	$30.00	$30.00	$30.00	$30.00
	4	$30.00	$30.00	$30.00	$30.00
Usage Rate per 1 CF		0.075	0.075	0.075	0.075

Class	Ave Water Usage cf	Current	Proposed Yr. 1
1	**351**	$112.87	$56.87
1	**1,231**	$112.87	$124.22
1	**2,189**	$112.87	$197.49
2	**373**	$131.21	$58.57
2	**1,279**	$131.21	$127.90
2	**2,005**	$131.21	$183.44
3	**157**	$225.74	$42.01
3	**2,864**	$564.34	$249.10
3	**5,164**	$270.89	$425.08
4	**397**	$262.41	$60.39
4	**903**	$131.21	$99.09
4	**1,287**	$131.21	$128.49

6.5 Methodology