



Budget – The Foundation of Rates



WELCOME!

This material is based upon work supported by the Washington State Department of Health (DOH)

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Rural Community Assistance Partnership

RCAP National Office
1701 K St. NW, Suite 700
Washington, D.C. 20006
www.rcap.org

Western RCAP
Rural Community Assistance
Corporation
www.rcac.org

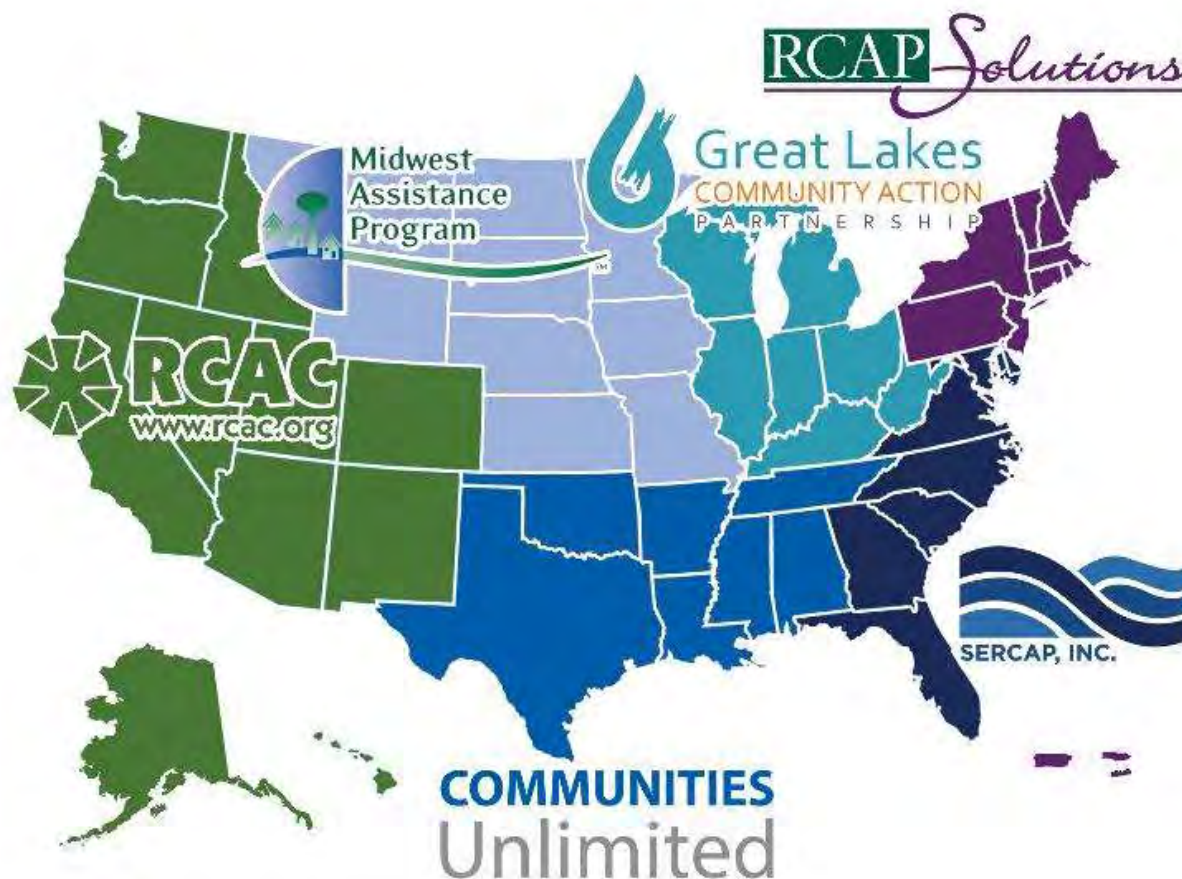
Midwestern RCAP
Midwest Assistance Program
www.map-inc.org

Southern RCAP
Communities Unlimited
www.communitiesu.org

Great Lakes RCAP
Great Lakes Community
Action Partnership
www.glcap.org

Southeastern RCAP
Southeast Rural Community
Assistance Project
www.sercap.org

Northeastern RCAP
RCAP Solutions
www.rcapsolutions.org



RCAC Programs

- ❖ Affordable housing
- ❖ Economic Development
- ❖ Loan Fund - water and wastewater infrastructure financing
- ❖ Classroom and online training
- ❖ On-site and remote technical assistance
- ❖ Income surveys and rate analysis

RCAC Is Hiring



Help make a difference in rural communities across the West. Apply today!

Our board and staff are committed to providing training, technical assistance, financial resources, and advocacy to help rural communities throughout the West achieve their goals and visions. We work in diverse and low-income communities to increase access to affordable housing and safe drinking water, promote economic opportunity and job creation, and provide financing for community and economic development projects.

<https://www.rcac.org/careers/>



Today's Objectives

- Define the “True Cost” of Delivering Drinking Water and Wastewater Services
- Identify the Components of a Strong Budget
- Understanding the Importance of Financial Forecasting

What is the “True Cost” Water & Wastewater Service



Determining Expenses: Operating Expenses

The cost of operating your utility on a daily basis

Examples:

- Water/wastewater treatment
- Personnel wages
- Equipment maintenance
- Administration fees

Operating Expenses:	
Bad Debt	-
Insurance	367
Miscellaneous Expense	350
Office Costs	754
Accounting & Legal	400
Training Costs	125
Auto Expenses	1,415
Chemicals	398
Materials & Supplies	712
Repairs & Maintenance	3,233
Depreciation	374
Utilities	1,325
Salaries & Benefits	3,997
Total Operating Expenses	13,450
Debt Service	
Reserve Funding	
Total Expenses	13,450

Determining Expenses: Non-Operating Expenses

Expenses not directly related to operating your utility on a daily basis.

Examples:

- Cleaning service
- Landscaping
- Debt interest

Example Corporation Income Statement Year ended December 31, 2020	
Operating revenues	\$ xxxx
Operating expenses	xxx
Operating income	xxx
Nonoperating revenues, expenses, gains, losses	x
Income before income tax expense	xxx
Income tax expense	x
Net income	\$ xx

Determining Expenses: Fixed & Variable Expenses

Fixed Expenses

Costs incurred by the utility system before service provided.

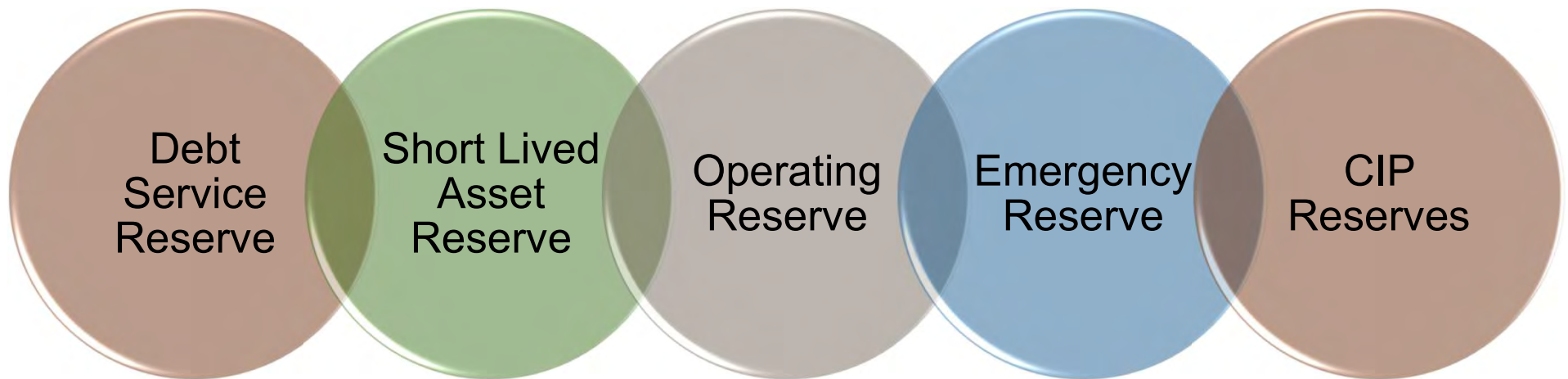
- Debt payments
- Rent / lease
- Personnel wages

Variable Expenses

Costs incurred in providing service to your customers.

- Portions of Utilities
- Portions of Maintenance
- Portions of Engineering fees

Determining Expenses: Reserves



Calculating the True Cost of Service

- Operating Expenses
 - Non-Operating Expenses
Fixed & Variable Expenses
 - Debt Service
 - Reserves
-



TRUE Cost-of-Service

Budget: The Foundation of Rates



Budget Development Step 1: Gather Your Team

- Budgeting is a team activity with a lot of components.
- Various people may have the best information about individual components.
- Think about who will be needed to provide realistic projections.



Budget Development Step 2: Review Policies



What are some policies that might be relevant when developing the annual budget?

Budget Development Step 3: Review Historic Documents

- Balance Sheet / State of Financial Position
- Income Statement / Profit & Loss / Statement of Activities
- Budget Comparison Report



Budget Development Step 4: Identify Debt Service

- Principal Payments on Notes Payable(s)
- Interest Payments on Notes Payable(s)
- Lines of Credit
- Bonds Payable



All payments to lenders for loans, mortgages, etc.

Budget Development Step 5: Identify Reserves Needed

Funder Required Reserves

- Debt Reserves
- Short Lived Asset Reserves

Board Designated Reserves

- Operating Reserves
- Emergency Reserves
- Asset Management
- CIP Reserves



Asset Management



Equipment starts to wear the day it is turned on

Asset Inventory : What do we own?

Assets

- Buildings
- Tools
- Equipment
- Pipes
- Machinery
- Vehicles



Asset Inventory & Analysis

Component	Year Acquired	Purchase Cost	Current Age	Est. Life Remaining	Est. Current Replacement Cost	Est. Future Replacement Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserves Required
Booster Station Pumps	2010	10,000	10	10	\$13,439	\$14,859	\$ 14,859			\$ 1,482	\$ 1,338
Distribution Mains	2000	928,256	20	30	\$1,676,534	\$2,498,483	\$ 498,482.74	\$ 1,500,000	\$ 500,000	\$ 494	\$ 16,600
Distribution Mains	2005	240,000	15	35	\$373,912	\$645,981	\$ 95,981.13	\$ 200,000	\$ 350,000	\$ -	\$ 2,742
Distribution Mains	2007	93,000	13	37	\$136,574	\$250,318	\$ 50,317.69		\$ 200,000	\$ 4,941	\$ 1,226
Surface water inlet Structure	2000	25,500	20	30	\$46,056	\$68,635	\$ 68,635		\$ -	\$ 445	\$ 2,273
Subsurface water inlet Structure	1990	18,600	30	20	\$45,147	\$50,064	\$ 50,064		\$ (0)	\$ 647	\$ 2,471
Pump House and Wet Well	1988	138,000	32	18	\$355,361	\$371,439	\$ 71,439.15		\$ 300,000	\$ 1,186	\$ 3,903
Bridge pipeline 6" Ductile Iron Pipe	1997	20,000	23	57	\$39,472	\$97,509	\$ 22,508.78		\$ 75,000	\$ -	\$ 395
Bridge 10" Ductile Iron Pipe	2005	152,682	15	65	\$237,874	\$744,392	\$ 144,391.80		\$ 600,000	\$ -	\$ 2,221
Subsurface Water Infiltration Gallery	2002	312,650	18	2	\$532,266	\$533,658	\$ 33,658.06		\$ 500,000	\$ 692	\$ 16,483
Zone @ Tanks 88,000 Gallon	1988	84,000	32	8	\$216,307	\$189,185	\$ 189,185		\$ -	\$ 1,492	\$ 23,462
Zone @ Tanks 150,000 Gallon	2000	150,000	20	20	\$270,917	\$331,206	\$ 56,205.95		\$ 275,000	\$ 642	\$ 2,778
Zone @ Tanks 1 Million Gallon	2002	340,000	18	22	\$578,827	\$750,733	\$ 150,147		\$ 600,587	\$ 1,285	\$ 6,766
Water Meters	2015	20,000	5	10	\$23,185	\$26,917	\$ 26,917		\$ -	\$ 296	\$ 2,662
8' X 30' Pressure Filter	2000	150,000	20	5	\$270,917	\$266,377	\$ 16,376.70		\$ 250,000	\$ 180	\$ 3,239
8' X 30' Pressure Filter	2002	150,000	18	7	\$255,365	\$256,033	\$ 51,207		\$ 204,826	\$ 2,668	\$ 6,934
(2) 50 HP Pumps	2002	30,000	18	7	\$51,073	\$51,207	\$ 51,207		\$ -	\$ 2,447	\$ 6,966
Total		2,852,688			5,109,786	7,132,136	\$ 1,576,724	\$ 1,700,000	\$ 3,855,413	\$ 18,897	\$ 102,460

6 Year Budget - Reserves

	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6
Operating Reserve - Target Balance \$7,326 – Year 7						
Operating reserve beginning balance		\$0	\$0	\$1,221	\$2,442	\$3,663
Contribution to operating reserve			\$1,221	\$1,221	\$1,221	\$1,221
Operating reserve ending balance	\$0	\$0	\$1,221	\$2,442	\$3,663	\$4,884
Emergency Reserve - Target Balance \$50,000 – Year 13						
Emergency reserve beginning balance		\$0	\$0	\$0	\$5,000	\$10,000
Contribution to emergency reserve				\$5,000	\$5,000	\$5,000
Withdrawal from emergency reserve						
Emergency reserve ending balance	\$0	\$0	\$0	\$5,000	\$10,000	\$15,000
Short-lived Asset Reserve - Target Balance \$13,500 – Year 7						
Short-lived asset reserve beginning balance		\$0	\$0	\$2,700	\$5,400	\$8,100
Contribution to short-lived asset reserve			\$2,700	\$2,700	\$2,700	\$2,700
Withdrawal from short-lived asset reserve	\$0	\$0				
Short-lived asset reserve ending balance	\$0	\$0	\$2,700	\$5,400	\$8,100	\$10,800
Long-lived Asset Reserve – Target Balance \$90,000 – Year 13						
Long-lived asset reserve beginning balance		\$0	\$0	\$0	\$9,000	\$18,000
Contribution to long-lived asset reserve				\$9,000	\$9,000	\$9,000
Withdrawal from long-lived asset reserve	\$0	\$0	\$0	\$0	\$0	\$0
Long-lived asset reserve ending balance	\$0	\$0	\$0	\$9,000	\$18,000	\$27,000
Long-lived Asset Replacement Funding - Target Balance \$350,000 – Year 4						
Lost Creek Loan				\$175,000		
Lost Creek Grant				\$175,000		
Long-lived asset reserve						
Special capital improvement assessment						
Total funding for long-lived asset replacement	\$0	\$0	\$0	\$350,000	\$0	\$0
Ending Cash Balance for Current Year Does not include reserve account balances.	\$118,487	\$221,924	\$355,810	\$473,514	\$588,970	\$702,112

Budget Development Step 6: Create Expense Budget

Town of Anywhere, WA	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	Previous 4 yr. Average	2024
Operating Expense						
Salary/Wage	\$ 27,542.23	\$ 27,642.09	\$ 28,257.05	\$ 28,542.32	\$ 27,995.92	\$ 30,000.00
Overtime	\$ 1,065.86	\$ 945.73	\$ 1,116.44	\$ 1,098.56	\$ 1,056.65	\$ 1,200.00
Personnel Benefits	\$ -	\$ -	\$ 1,349.69	\$ 1,367.75	\$ 679.36	\$ 1,450.00
Operating Supplies	\$ 9,249.03	\$ 9,366.36	\$ 9,378.27	\$ 9,738.23	\$ 9,432.97	\$ 9,500.00
Lab Supplies	\$ 254.53	\$ 299.20	\$ 366.57	\$ 940.73	\$ 465.26	\$ 1,000.00
Equip Maint Supplies	\$ 7,546.65	\$ 5,286.84	\$ 8,827.86	\$ 5,726.76	\$ 6,847.03	\$ 10,000.00
Water Quality Oper Supplies	\$ 11,365.70	\$ 5,964.92	\$ 5,416.78	\$ 12,990.53	\$ 8,934.48	\$ 13,000.00
Cl2 System Supplies	\$ 792.00	\$ 1,308.32	\$ 1,942.87	\$ 2,732.47	\$ 1,693.92	\$ 2,500.00
Fuel Consumed	\$ 3,142.57	\$ 3,298.09	\$ 3,861.69	\$ 3,756.09	\$ 3,514.61	\$ 4,000.00
Small Tools & Equipment	\$ 2,674.34	\$ 2,709.90	\$ 9,901.39	\$ 3,245.78	\$ 4,632.85	\$ 3,000.00
Professional Services	\$ 876.00	\$ 422.00	\$ 15,718.20	\$ 18,766.78	\$ 8,945.75	\$ 20,000.00
Instrument Services	\$ 1,289.99	\$ 1,226.10	\$ 1,333.06	\$ 1,277.98	\$ 1,281.78	\$ 1,300.00
Combined Debt Service	\$ 631,291.43	\$ 630,224.31	\$ 629,156.13	\$ 628,089.14	\$ 629,690.25	\$ 627,022.11
Communications	\$ 3,022.11	\$ 3,101.49	\$ 3,985.89	\$ 3,508.02	\$ 3,404.38	\$ 3,500.00
Travel/Meals	\$ 2,941.09	\$ 2,765.56	\$ 1,859.53	\$ 1,587.14	\$ 2,288.33	\$ 2,000.00
Insurance	\$ 38,991.09	\$ 40,679.87	\$ 41,000.00	\$ 50,593.07	\$ 42,816.01	\$ 50,000.00
Utilities	\$ 8,709.00	\$ 8,678.99	\$ 8,871.08	\$ 9,498.08	\$ 8,939.29	\$ 10,500.00
Repair & Maintenance	\$ 2,287.01	\$ 2,687.33	\$ 2,743.10	\$ 2,336.87	\$ 2,513.58	\$ 2,500.00
Miscellaneous (Dues, Fees etc)	\$ 5,489.00	\$ 5,025.66	\$ 5,047.33	\$ 5,027.96	\$ 5,147.49	\$ 5,000.00
DOH Fees and Permits	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 5,500.00
Snow removal and building upkeep.	\$ -	\$ -	\$ 8,615.35	\$ -	\$ 2,153.84	\$ 6,000.00
State Excise Tax	\$ 1,942.88	\$ 1,760.09	\$ 2,034.99	\$ 1,989.77	\$ 1,931.93	\$ 1,800.00
	\$ 764,772.51	\$ 757,692.85	\$ 795,083.27	\$ 797,114.03	\$ 778,666	\$ 810,772

Fixed & Variable Costs

Expenses	Budgeted Amount	% of Fixed	Fixed Amount	Variable Amount
Engineering -Gernal	\$ 50,000.00	75%	\$ 37,500.00	\$ 12,500.00
Equipment Maintenance	\$ 20,600.00	65%	\$ 13,390.00	\$ 7,210.00
Fuel	\$ 6,180.00	90%	\$ 5,562.00	\$ 618.00
Insurance	\$ 6,000.00	100%	\$ 6,000.00	\$ -
Permits	\$ 3,296.00	100%	\$ 3,296.00	\$ -
Pump & System Maintenance	\$ 16,500.00	50%	\$ 8,250.00	\$ 8,250.00
Training/Travle Expenses	\$ 1,030.00	100%	\$ 1,030.00	\$ -
SRF Loan	\$ 30,000.00	100%	\$ 30,000.00	\$ -
Electricity	\$ 27,050.00	50%	\$ 13,525.00	\$ 13,525.00
Employee Wages	\$ 125,263.00	100%	\$ 125,263.00	\$ -
Employee Overtime	\$ 15,020.00	20%	\$ 3,004.00	\$ 12,016.00

Inflation



U.S. BUREAU OF LABOR STATISTICS

CPI Inflation Calculator

\$	<input type="text" value="200.00"/>
in	<div>January</div> <div>2022</div>
has the same buying power as	
	<div>\$217.46</div>
in	<div>July</div> <div>2023</div>
<div>Calculate</div>	

Budget Development Step 8: Adding Assumptions

2022 Budget Assumptions				
	2023 Budget Projections	Budget Assumptions		
Salary/Wage	\$ 190,600.00	5% increase assumed for all current employees for retention		
Accounting	\$ 4,250.00	\$200 increase per contract renewal		
Office Supplies	\$ 6,124.00	Assumes \$4,000 new software purchase for billing		
Operating Supplies	\$ 9,500.00	4% assumed inflationary increase over 2022 actuals		
Lab Supplies	\$ 1,000.00	4% assumed inflationary increase over 2022 actuals		
Equip Maint Supplies	\$ 10,000.00	4% assumed inflationary increase over 2022 actuals		
Fuel Consumed	\$ 4,000.00	5% assumed inflationary increase over 2022 actuals		
Small Tools & Equipment	\$ 3,000.00	4% assumed inflationary increase over 2022 actuals		
Training / Travel	\$ 2,000.00	Assumes 2022 cost will not increase		

Budget Development Step 9: Project Out Five Years



5 Year Projection

Town of Anywhere, WA	2017	2018	2019	2020	Previous 4 yr. Average	2021	Annual Inflation Factor	2022	2023	2024	2025	2026
Operating Expense												
Salary/Wage	\$ 27,542.23	\$ 27,642.09	\$ 28,257.05	\$ 28,542.32	\$ 27,995.92	\$ 30,000.00	1.00%	\$ 30,300	\$ 30,603	\$ 30,909	\$ 31,218	\$ 31,530
Overtime	\$ 1,065.86	\$ 945.73	\$ 1,116.44	\$ 1,098.56	\$ 1,056.65	\$ 1,200.00	1.00%	\$ 1,212	\$ 1,224	\$ 1,236	\$ 1,249	\$ 1,261
Personnel Benefits	\$ -	\$ -	\$ 1,349.69	\$ 1,367.75	\$ 679.36	\$ 1,450.00	2.00%	\$ 1,479	\$ 1,509	\$ 1,539	\$ 1,570	\$ 1,601
Operating Supplies	\$ 9,249.03	\$ 9,366.36	\$ 9,378.27	\$ 9,738.23	\$ 9,432.97	\$ 9,500.00	0.00%	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,500
Lab Supplies	\$ 254.53	\$ 299.20	\$ 366.57	\$ 940.73	\$ 465.26	\$ 1,000.00	0.00%	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Equip Maint Supplies	\$ 7,546.65	\$ 5,286.84	\$ 8,827.86	\$ 5,726.76	\$ 6,847.03	\$ 10,000.00	0.00%	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Water Quality Oper Supplies	\$ 11,365.70	\$ 5,964.92	\$ 5,416.78	\$ 12,990.53	\$ 8,934.48	\$ 13,000.00	0.00%	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
Cl2 System Supplies	\$ 792.00	\$ 1,308.32	\$ 1,942.87	\$ 2,732.47	\$ 1,693.92	\$ 2,500.00	1.00%	\$ 2,525	\$ 2,550	\$ 2,576	\$ 2,602	\$ 2,628
Fuel Consumed	\$ 3,142.57	\$ 3,298.09	\$ 3,861.69	\$ 3,756.09	\$ 3,514.61	\$ 4,000.00	0.00%	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Small Tools & Equipment	\$ 2,674.34	\$ 2,709.90	\$ 9,901.39	\$ 3,245.78	\$ 4,632.85	\$ 3,000.00	0.00%	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Professional Services	\$ 876.00	\$ 422.00	\$ 15,718.20	\$ 18,766.78	\$ 8,945.75	\$ 20,000.00	1.00%	\$ 20,200	\$ 20,402	\$ 20,606	\$ 20,812	\$ 21,020
Instrument Services	\$ 1,289.99	\$ 1,226.10	\$ 1,333.06	\$ 1,277.98	\$ 1,281.78	\$ 1,300.00	0.00%	\$ 1,300	\$ 1,300	\$ 1,300	\$ 1,300	\$ 1,300
Combined Debt Service	\$ 631,291.43	\$ 630,224.31	\$ 629,156.13	\$ 628,089.14	\$ 629,690.25	\$ 627,022.11	-1.00%	\$ 620,752	\$ 614,544	\$ 608,399	\$ 602,315	\$ 596,292
Communications	\$ 3,022.11	\$ 3,101.49	\$ 3,985.89	\$ 3,508.02	\$ 3,404.38	\$ 3,500.00	0.00%	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Travel/Meals	\$ 2,941.09	\$ 2,765.56	\$ 1,859.53	\$ 1,587.14	\$ 2,288.33	\$ 2,000.00	0.00%	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
Insurance	\$ 38,991.09	\$ 40,679.87	\$ 41,000.00	\$ 50,593.07	\$ 42,816.01	\$ 50,000.00	1.00%	\$ 50,500	\$ 51,005	\$ 51,515	\$ 52,030	\$ 52,551
Utilities	\$ 8,709.00	\$ 8,678.99	\$ 8,871.08	\$ 9,498.08	\$ 8,939.29	\$ 10,500.00	1.00%	\$ 10,605	\$ 10,711	\$ 10,818	\$ 10,926	\$ 11,036
Repair & Maintenance	\$ 2,287.01	\$ 2,687.33	\$ 2,743.10	\$ 2,336.87	\$ 2,513.58	\$ 2,500.00	0.00%	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Miscellaneous (Dues, Fees etc)	\$ 5,489.00	\$ 5,025.66	\$ 5,047.33	\$ 5,027.96	\$ 5,147.49	\$ 5,000.00	0.00%	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
DOH Fees and Permits	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 4,300.00	\$ 5,500.00	0.00%	\$ 4,500	\$ 5,500	\$ 4,500	\$ 4,500	\$ 4,500
Snow removal and building upkeep.	\$ -	\$ -	\$ 8,615.35	\$ -	\$ 2,153.84	\$ 6,000.00	0.00%	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
State Excise Tax	\$ 1,942.88	\$ 1,760.09	\$ 2,034.99	\$ 1,989.77	\$ 1,931.93	\$ 1,800.00	0.00%	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800
	\$ 764,772.51	\$ 757,692.85	\$ 795,083.27	\$ 797,114.03	\$ 778,666	\$ 810,772		\$ 792,373	\$ 787,348	\$ 782,398	\$ 777,521	\$ 772,718

5 Year Projection

Town of Anywhere, WA	2019	2020	2021	2022	Previous 4 yr. Average	2023	Annual Inflation Factor	2024	2025	2026	2027	2028
Operating Expense												
Salary/Wage	\$ 153,700.00	\$ 155,800.00	\$ 158,200.00	\$ 160,300.00	\$ 157,000.00	\$ 166,712.00	4.00%	\$ 173,380	\$ 180,316	\$ 187,528	\$ 195,029	\$ 202,831
Personnel Benefits	\$ 49,200.00	\$ 51,300.00	\$ 53,100.00	\$ 67,200.00	\$ 55,200.00	\$ 69,888.00	4.00%	\$ 72,684	\$ 75,591	\$ 78,614	\$ 81,759	\$ 85,029
Insurance	\$ 32,400.00	\$ 39,000.00	\$ 40,500.00	\$ 42,300.00	\$ 38,550.00	\$ 43,992.00	4.00%	\$ 45,752	\$ 47,582	\$ 49,485	\$ 51,464	\$ 53,523
Utilities	\$ 53,400.00	\$ 55,500.00	\$ 57,900.00	\$ 60,000.00	\$ 56,700.00	\$ 62,400.00	4.00%	\$ 64,896	\$ 67,492	\$ 70,192	\$ 72,999	\$ 75,919
Chemicals	\$ 37,800.00	\$ 34,800.00	\$ 36,300.00	\$ 60,600.00	\$ 42,375.00	\$ 63,024.00	4.00%	\$ 65,545	\$ 68,167	\$ 70,893	\$ 73,729	\$ 76,678
Repair & Maintenance	\$ 42,900.00	\$ 44,700.00	\$ 40,000.00	\$ 48,300.00	\$ 43,975.00	\$ 50,232.00	4.00%	\$ 52,241	\$ 54,331	\$ 56,504	\$ 58,764	\$ 61,115
Small Tools & Equipment	\$ 10,100.00	\$ 12,500.00	\$ 8,000.00	\$ 13,100.00	\$ 10,925.00	\$ 13,624.00	4.00%	\$ 14,169	\$ 14,736	\$ 15,325	\$ 15,938	\$ 16,576
Fuel Consumed	\$ 3,151.00	\$ 3,350.00	\$ 3,800.00	\$ 4,000.00	\$ 3,575.25	\$ 4,160.00	4.00%	\$ 4,326	\$ 4,499	\$ 4,679	\$ 4,867	\$ 5,061
Professional Services	\$ 16,450.00	\$ 17,205.00	\$ 18,905.00	\$ 19,602.00	\$ 18,040.50	\$ 20,386.08	4.00%	\$ 21,202	\$ 22,050	\$ 22,932	\$ 23,849	\$ 24,803
Communications	\$ 6,150.00	\$ 6,258.00	\$ 6,987.00	\$ 7,542.00	\$ 6,734.25	\$ 7,843.68	4.00%	\$ 8,157	\$ 8,484	\$ 8,823	\$ 9,176	\$ 9,543
Travel/Meals	\$ 980.00	\$ 402.00	\$ 450.00	\$ 1,125.00	\$ 739.25	\$ 1,170.00	4.00%	\$ 1,217	\$ 1,265	\$ 1,316	\$ 1,369	\$ 1,423
Professional Training	\$ 1,128.00	\$ 1,250.00	\$ 1,400.00	\$ 1,425.00	\$ 1,300.75	\$ 1,482.00	4.00%	\$ 1,541	\$ 1,603	\$ 1,667	\$ 1,734	\$ 1,803
Miscellaneous (Dues, Fees etc)	\$ 2,263.00	\$ 2,514.00	\$ 2,780.00	\$ 3,215.00	\$ 2,693.00	\$ 3,343.60	4.00%	\$ 3,477	\$ 3,616	\$ 3,761	\$ 3,912	\$ 4,068
Fees and Permits	\$ 2,866.40	\$ 3,259.00	\$ 3,668.00	\$ 3,987.00	\$ 3,445.10	\$ 4,146.48	4.00%	\$ 4,312	\$ 4,485	\$ 4,664	\$ 4,851	\$ 5,045
Excise Taxes	\$ 14,081.00	\$ 14,874.00	\$ 14,986.00	\$ 15,478.00	\$ 14,854.75	\$ 16,097.12	4.00%	\$ 16,741	\$ 17,411	\$ 18,107	\$ 18,831	\$ 19,585
Combined Debt Service Reserve	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	0.00%	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Short-Lived Asset Reserve	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	0.00%	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Operating Reserve	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	0.00%	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
Emergency Reserve	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	0.00%	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
CIP Reserve	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	0.00%	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
	\$ 441,269.40	\$ 457,412.00	\$ 461,676.00	\$ 522,874.00	\$ 470,808	\$ 543,201		\$ 564,341	\$ 586,327	\$ 609,192	\$ 632,971	\$ 657,702

Budget Development Step 10: Calculate Revenue



Revenue

Factors Affecting Revenues

- Number of customers served
- Customer's water-use trends
- Rate changes
- Nonrecurring sales
- Weather
- Conservation
- Use restrictions
- Price elasticity
- Wholesale contractual terms

Factors Affecting Revenue Requirements

- Number of customers served
- Customer's water use trends
- Nonrecurring sales
- Weather Conservation
- Use restrictions
- Inflation
- Interest rates
- Wholesale contractual terms
- Capital finance needs
- Changes in tax laws
- Other changes in operating and economic conditions

Revenue – Operating Revenue

Income generated from providing service.

- Water base rates
- Water usage rates
- Late fees

**Example Corporation
Income Statement
Year ended December 31, 20xx**

Operating revenues	\$ xxxx
Operating expenses	xxx
Operating income	xxx
Nonoperating revenues, expenses, gains, losses	x
Income before income tax expense	xxx
Income tax expense	x
Net income	\$ xx

See notes to the financial statements.

Revenue – Non- Operating Revenue

Income generated indirectly from providing service.

- Interest income
- Cell tower rental income
- Grants & loans

Example Corporation Income Statement Year ended December 31, 20xx

Operating revenues	\$ xxxx
Operating expenses	xxx
Operating income	xxx
Nonoperating revenues, expenses, gains, losses	x
Income before income tax expense	xxx
Income tax expense	x
Net income	\$ xx

See notes to the financial statements.

Budget Time Bomb

RCAC recommends:

- **Only count on Operating Revenues** to cover operating expenses
- **Ignore** Non-Operating Revenues



Deposits & Connection Fees

Deposits

- Collected to ensure that if a customer does not pay their bill, the system has money in reserve to cover expenses.
- Deposits should be set aside in an account so that the money can be refunded to customers if they discontinue service.

Connection Fees

- Fees that are charged to a customer or group of customers to help the system cover the costs of capital improvements that have already been paid for or are being paid for, or to cover the costs for additional connections.
- These fees are not refundable.

Budget Development Step 10: Create Budget Revenue

Line No.		Year 1	Year 2	Year 3	Year 4	Year 5
	REVENUE					
	Operating Revenues					
1	Service revenue—water sales*	\$813,000	\$826,000	\$839,000	\$852,000	\$864,000
2	Miscellaneous fees	2,000	2,000	2,000	2,000	2,000
3	Total operating revenues	815,000	828,000	841,000	854,000	866,000

Projected Revenues & Expenses

Line No.	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE					
Operating Revenues					
1 Service revenue—water sales*	\$813,000	\$826,000	\$839,000	\$852,000	\$864,000
2 Miscellaneous fees	2,000	2,000	2,000	2,000	2,000
3 Total operating revenues	815,000	828,000	841,000	854,000	866,000
Nonoperating revenues					
4 Tap/connection fees	10,000	10,000	10,000	10,000	10,000
5 Interest income	10,000	10,000	10,000	10,000	10,000
6 Other revenue	5,000	5,000	5,000	5,000	5,000
7 Total nonoperating revenues	25,000	25,000	25,000	25,000	25,000
8 Total revenue	840,000	853,000	866,000	879,000	891,000
EXPENDITURES					
9 Total O&M Expenses	459,000	473,000	537,000	555,000	570,000
10 Subtotal: Net operating income	381,000	380,000	329,000	324,000	321,000
Debt Service					
11 Debt service—existing	150,000	150,000	150,000	150,000	150,000
12 Debt service—new	0	0	9,000	87,000	101,000
13 Total debt service	150,000	150,000	159,000	237,000	251,000
14 Rate financed capital costs	175,000	180,000	177,000	172,000	177,000
15 NET INCOME (LOSS) FROM OPERATIONS	56,000	50,000	(7,000)	(85,000)	(107,000)
16 Plus: Beginning cash balance	200,000	256,000	306,000	299,000	214,000
17 Ending cash balance before reserves	256,000	306,000	299,000	214,000	107,000
RESERVES					
18 O&M reserve	115,000	118,000	134,000	139,000	143,000
19 Capital reserve	456,000	456,000	456,000	456,000	456,000
20 Total reserves	571,000	574,000	590,000	595,000	599,000
21 ENDING CASH BALANCE AFTER RESERVES	(\$315,000)	(\$268,000)	(\$291,000)	(\$381,000)	(\$492,000)
22 CUMULATIVE REVENUE AND RESERVE DEFICIENCY (line 21 divided by line 9)	-39%	-32%	-35%	-45%	-57%
23 DEBT SERVICE COVERAGE (line 10 divided by line 13)	2.54	2.53	2.07	1.37	1.28

Ending Balance
Before
Reserves

Ending Balance
After Reserves



AWWA Rates for Small Water Systems

Purpose of a 5 Year Budget

- A plan
- Data driven decisions
- Creates community awareness
- Necessary revenue requirements will be clearly shown

Budget Comparison

Z Water Company Budget Comparison Report For the Period Ended 12/31/20XX						
	Current Month 12/31/20XX	Year-to-Date 7/01 - 12/31/XY	Annual Budget	YTD % of Budget	Remaining Balance	
Operating Revenue						
Water Base Rates	\$ 6,000.00	\$ 36,000.00	\$ 72,000.00	50%	\$ 36,000.00	
Water Usage Rates	\$ 3,750.00	\$ 22,500.00	\$ 45,000.00	50%	\$ 22,500.00	
Total Operating Revenues	\$ 9,750.00	\$ 58,500.00	\$ 117,000.00		\$ 58,500.00	
Operating Expenses						
Bad Debt	-	\$ 1,412.00	\$ 1,412.00	100%	-	
Insurance	\$ 367.00	\$ 2,200.00	\$ 4,350.00	51%	\$ 2,150.00	
Misc. Expenses	\$ 350.00	\$ 350.00	\$ 1,000.00	35%	\$ 650.00	
Office Costs	\$ 754.00	\$ 4,000.00	\$ 8,200.00	49%	\$ 4,200.00	
Accounting & Legal	\$ 400.00	\$ 600.00	\$ 5,000.00	12%	\$ 4,400.00	
Training Costs	\$ 125.00	\$ 700.00	\$ 3,000.00	23%	\$ 2,300.00	
Auto Expenses	\$ 1,415.00	\$ 6,341.00	\$ 4,600.00	138%	\$ (1,741.00)	
Chemicals	\$ 398.00	\$ 2,000.00	\$ 4,300.00	47%	\$ 2,300.00	
Materials & Supplies	\$ 712.00	\$ 2,500.00	\$ 7,500.00	33%	\$ 5,000.00	
Repairs & Maintenance	\$ 3,233.00	\$ 5,500.00	\$ 5,700.00	96%	\$ 200.00	
Depreciation	\$ 374.00	\$ 2,237.00	\$ 4,475.00	50%	\$ 2,237.00	
Utilities	\$ 1,325.00	\$ 10,500.00	\$ 14,000.00	75%	\$ 3,500.00	
Salaries & Benefits	\$ 3,997.00	\$ 23,982.00	\$ 47,000.00	51%	\$ 23,018.00	
Total Operating Expenses	\$ 13,450.00	\$ 62,322.00	\$ 110,537.00	56%	\$ 48,214.00	
Debt Service		\$ 5,225.00	\$ 5,225.00	100%	-	
Reserve Funding			\$ 1,000.00	0%	\$ 1,000.00	
Total Expenses	\$ 13,450.00	\$ 67,547.00	\$ 116,762.00		\$ 49,214.00	
Non-Operating Income (Expense)						
Interest Income	\$ 15.00	\$ 195.00	\$ 500.00	39%	\$ 305.00	
Hook-Up Fees	\$ 125.00	\$ 500.00	\$ 350.00	143%	\$ (150.00)	
Rent - Cellphone Tower	-	-	-		-	
Total Non-Operating Income	\$ 140.00	\$ 695.00	\$ 850.00		\$ 155.00	
Total Net Income	\$ (3,420.00)	\$ (7,657.00)	\$ 1,938.00		\$ 9,896.00	



Balancing the Budget

Increase Revenues or Reduce Expenses

Balancing the Budget in the Short Term

- Customer Billing
- Accounts Receivable
- Paying Bills
- Put Money to Work

Balancing the Budget in the Long-Term

- Leak Detection
- Meters
- Fee Review
- Bulk Purchasing
- Energy Audit
- Consolidation

Examine Current Rate Structure

Did revenue exceed expenses in each of the last three years?

All scheduled debt payments made?

Reserve accounts fully funded?

Emergency and preventative maintenance costs covered?

Compliance with state drinking water standards and regulations?

Rate increased in the last three years?

Rates Should

- ☐ Cover all the costs associated with delivering water
- ☐ Fair & equitable
- ☐ Be used to support water utility only
- ☐ Transparent
- ☐ Easily understood
- ☐ Based on sound financial information
- ☐ Easy to administer

Base Rates and Flow Rates



Determining Base Rate

\$ 7,246.33	Divided by	200	=	\$ 36.23
Average Monthly Fixed Costs		Average # of Customers		Fixed Costs Per Customer

Determining Flow / Usage Rate

\$ 6,258 0	Divided by	2 1,000	=	\$ 6.30
Variable Costs		Average Total Water Usage (GALLONS)		Variable Cost Per 1,000 Gallons

Equitability



If your proposed rate structure spreads the cost of utility service equitably, then the percentage of revenue and percentage of usage will be approximately equal.

Inflationary Impact of Delaying Rate Adjustment

Assume \$1.00 Base rate with an annual 3% Compounded Increase								
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Accumulated Dollars Collected
Implementing Rate Increase Immediately - 19% Increase From Year 1 to Year 7								
Rate	\$ 1.00	\$ 1.03	\$ 1.06	\$ 1.09	\$ 1.13	\$ 1.16	\$ 1.19	\$ 7.66
Waiting 4 Years to Increase Rates - 26% From Year 1 to Year 7								
Rate	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.19	\$ 1.22	\$ 1.26	\$ 7.66
Waiting 5 Years to Increase Rates - 35% From Year 1 to Year 7								
Rate	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.31	\$ 1.35	\$ 7.66
Waiting 6 Years to Increase Rates - 66% From Year 1 to Year 7								
Rate	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.66	\$ 7.66

Water & Wastewater Rate Life Expectancy

Current rate structure should be reviewed annually.



The Bottom Line

Annual revenues must cover your total:

- ✓ Operating & Non- Operating expenses
- ✓ Debt payments
- ✓ Taxes
- ✓ Fees
- ✓ Funding reserve accounts

ANY
QUESTIONS
?

We Appreciate You!

*Thank
you*



WA Dept. of Health



<https://www.doh.wa.gov/communityandenvironment/drinkingwater>



Empowering local governments

<https://mrsc.org/Home.aspx>

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Pat McCarthy

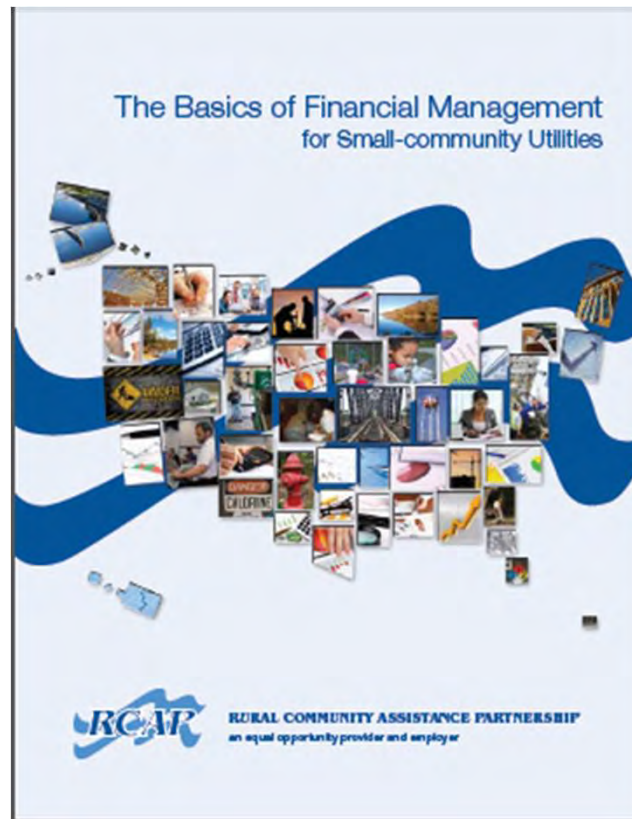
<https://sao.wa.gov/>



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<https://www.awwa.org/Resources-Tools/Resource-Topics/Affordability#9773397-related-resources>



<https://www.rcap.org/managerial-financial/basics-of-financial-management-guidebook/>

Formulate Great Rates

The Guide to Conducting a Rate Study
for a Small System



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https://rcap.org/wp-content/uploads/2021/11/RCAP_RatesGuide-2021-FIN-LO-1.pdf



<https://wacities.org/news/2022/08/23/the-top-10-things-we-learned-at-awc-s-2022-budget-workshop>

- Asset Management
- Fundamentals of Finances
- Cost-of-Service Analysis
- GIS Mapping
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RCAC's programs and services deliver solutions to complex community needs. Our local presence allows us to develop partnerships with communities to identify needs, set goals, and select the best options to meet those goals. RCAC and our partners provide the tools to create change and growth, but the communities chart their own course. Collaboration, plus community effort will equal community change. How can we help you?

<https://www.rcac.org/programs-services/>

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