City Administrator Report
June 2025

Dear Council,

Please find the monthly update on administrative activities and developments:

1. **Audit Preparation**
   Staff has been actively engaged in audit-related tasks. We're continuing to work closely with our financial team to ensure that all documentation is in order and the process remains on schedule.
2. **Youth Employee Placement**
   We welcomed new youth employees through the Ketchikan Indian Community summer program:
   - **Layla Bolton**, Deputy Junior Clerk
   - **Drake Handly**, Junior Public Works Assistant
   - **Maddix Blair-Isaacs**, Junior Water Operator
     These young workers are already making a positive contribution to city operations.
3. **Credit Card Sales Transition**
   We are updating our credit card sales transaction process to streamline payment systems and improve efficiency and reporting accuracy.
4. **Chief Ebbits Totem Pole Log Donation**
   In partnership with the Organized Village of Saxman, we have secured a **50-foot log** free of charge for the carving of the Chief Ebbits Totem Pole. This is a significant step forward for the cultural revitalization project.
5. **Anthracite Delivery Issue Finalized**
   The anthracite delivery dispute has been resolved. The matter is now finalized, and the city will be receiving a refund.
6. **Office Efficiency Upgrades**
   A **new paper folding machine** has been purchased and is now in use. This will significantly reduce staff trips to the post office and increase administrative efficiency.
7. **Salvation Army Property**
   We are currently awaiting a quote for the former Salvation Army building. Once received, a **special meeting** will be called to discuss placing a formal offer.
8. **Housing Development Update**
   The recent housing meeting was productive. Electrical service has been connected, and **two of the buildings are on track to be ready by June 28, 2025**.
9. **Water and Sewer Rate Study**
   We have obtained rate studies from other Southeast Alaska communities for your review. These will help inform our discussions when our **state representative** visits, and provide context for future infrastructure planning.

Thank you for your continued support.

Frank H Leland

CITY OF KOYUK
WATER AND WASTEWATER UTILITY
RATE STUDY

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State of Alaska
Division of Community and Regional Affairs
Rural Utility Business Advisor Program
March, 2015

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INTRODUCTION

The city council of the city of Koyuk requested the Rural Utility Business Advisor (RUBA) Program to conduct a water and wastewater rate study to maintain Koyuk Public Water System (KPWS) on a financially sound and stable basis over the next few years and into the future.

This study analyzed Koyuk Public Water System's annual operating revenue and expenditure requirements and developed a fair and equitable rate structure to meet expenses related to ongoing operations and maintenance and short term replacement costs. This study does not take in consideration capital improvement costs.

FINDINGS

This section presents the following findings of the water and wastewater analysis:

- The city council has not raised residential water and wastewater rates since 1994. The city council has not raised commercial water and wastewater rates since 2005. The council raised the water and wastewater rates for the local school but this study was not able to determine the date those rates went into effect.

- As a result, the current water and wastewater rate levels and the revenue generated are insufficient to meet the current cost of providing water and wastewater service and to meet the responsibility of setting aside funds to cover short-term repair and replacement expenses. Section 4.25.030 of the Koyuk Code of Ordinances requires the council to "study, make recommendations and implement policies on public utility matters such as, but not limited to, rate, fiscal matters, personnel staffing, labor and relations, expansion, or extension of services and public relations." Section 4.26.160 of the Koyuk Code of Ordinances requires that "the department provides water and wastewater services under a rate schedule designed to recover sufficient revenues from all customers to generally cover costs of service."

- The city council may make adjustments from time to time in water and wastewater rates and charges, but should not reduce the rates and charges in effect unless the net revenue from such reduced rates and charges will at all times be sufficient to meet the coverage requirements.

- The water and wastewater enterprise is faced with increases in its financial obligations due to inflation and an aged water and wastewater system that needs major repairs and replacements. Since 2005, the operating expenses of the utility have gone up by over 60% while repair, replacement and capital needs continue to mount.

- About 85% of residential customers pay their bills and about 93% of commercial customers do so. The local school pays its bills and the bills of its teachers on time.

RECOMMENDATIONS

The findings of this water and wastewater rate study indicated the city council should consider adoption of the following recommendations:

- Adopt a 35% across-the-board increase in user fees for all water and wastewater users so the Koyuk water and wastewater utility can break even. The council could also consider an annual rate increase over a three-year span. For example, a 17% increase in 2015, and a 9% increase in 2016 and 2017.

- After 2017, assuming the utility would have increased the rate by 35%, review water and wastewater rates on an annual basis and make adjustments as necessary. A 2% - 3% annual increase is recommended.

- Increase collections on annual bases by consistently following disconnection policies for customers who are late with payments, and use other measures presented in this rate study to increase collection rate.

- Read the school meter for the next year and make adjustment to water and wastewater rate based on the analyses of the annual meter reading.

- Approve an annual budget that includes funds allocate towards short-term critical parts and improvement projects. The utility may choose to invest the annual improvement allocations. A financial investment company should be hired to manage such funds.

BRIEF HISTORY OF RATE SETTING IN KOYUK

The City of Koyuk has had a piped water and sewer system since 1994. The first official rate study was conducted in 1994. Table 1 shows the user fee schedule and customer rate categories used to estimate monthly and annual revenues in 1994. These rates were in use until 2005 when a new rate study was conducted and the city council adopted a new user fee schedule (see Table 2). The monthly rate for the local school was increased once since 2005, but the date when the rate became effective is unknown.

TABLE 1 USER FEE SCHEDULE AND CUSTOMER CATEGORIES, 1994

Rate Category	Units	User Fees	Revenue
Residence water	64	$ 35.00	$ 26,880
Residence sewer	64	$ 35.00	$ 26,880
Commercial water	3	$ 70.00	$ 2,520
Commercial sewer	3	$ 70.00	$ 2,520
Showers 66 uses/home/yr	8	$ 1.00	$ 528
Washers 136 uses/home/yr	36	$ 2.00	$ 9,792
Dryers 90 uses/home/yr	36	$ 2.00	$ 6,480
School (water and sewer)	12	$3,000	$ 36,000
Watering point $ 0.75/30 gallon	1000	$ 0.75	$ 750
Total estimated monthly revenue		**$ 8,363**	
Total estimated annual revenue			**$ 112,350**

TABLE 2 USER FEE SCHEDULE AND CUSTOMER CATEGORIES, 2005

Rate Category	Units	User Fees	Revenue
Residence water	75	$ 35.00	$ 31,500
Residence sewer	75	$ 35.00	$ 31,500
Commercial water	8	$ 75.00	$ 7,200
Commercial sewer	8	$ 75.00	$ 7,200
School (water and sewer)	1	$3,000	$ 36,000
Total estimated annual revenue			**$ 117,400**

TABLE 3 USER FEE SCHEDULE AND CUSTOMER CATEGORIES, 2005-2015

Rate Category	Units	Monthly User Fees	Revenue
Residence water	72	$ 35.00	$ 30,240
Residence sewer	72	$ 35.00	$ 30,240
Commercial water	8	$ 75.00	$ 7,200
Commercial sewer	8	$ 75.00	$ 7,200
School (water and sewer)	1	$4,260	$ 51,120
Total estimated annual revenue			**$ 126,000**

The second rate study was conducted in 2005. There is no available city or utility records indicating the effective date of the rate increase.

REVENUES versus EXPENDITURES: 2005-2014

As shown in Table 4 and according to the 2005-2014 water and wastewater budgets, the utility has had a continually growing deficit problem. During these years, some of the budgets did not include all the expenditures associated with the operation, maintenance and management of the Koyuk water and wastewater system. For example, the 2007 and 2009 budgets show that the utility did not include the fuel expense in the budget and hence the utility had a surplus in those years. However, the surplus was only on paper since some expense items were not included in the budget.

Table 4 shows that the utility was not receiving sufficient revenues to cover the expenses associated with operating and maintaining the utility. In fact, the utility was doing poorly collecting its revenue. Residential collection rate was at around 85%.

However, since 2005 expenditures have gone up by as much as 60%. Chart 1 and 2 show a trendline going upward for expenditures and a flat trendline for revenues.

TABLE 4 BALANCE OF REVENUES AND EXPENDITURES: 2005-2014

Years	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenue	$83,802	$90,361	$117,032	$116,353	$109,686	$108,175	$104,371	$113,197	$111,613	$111,559
Expenditure	$101,274	$118,044	$111,892	$130,211	$88,637	$123,856	$113,376	$134,376	$150,257	$161,679
Balance	($17,472)	($27,683)	$5,140	($13,858)	$21,231	($15,681)	($9,005)	($21,167)	($38,644)	($50,120)

CHART 1 TRENDLINE: REVENUES VERSUS EXPENDITURES: 2005 - 2014

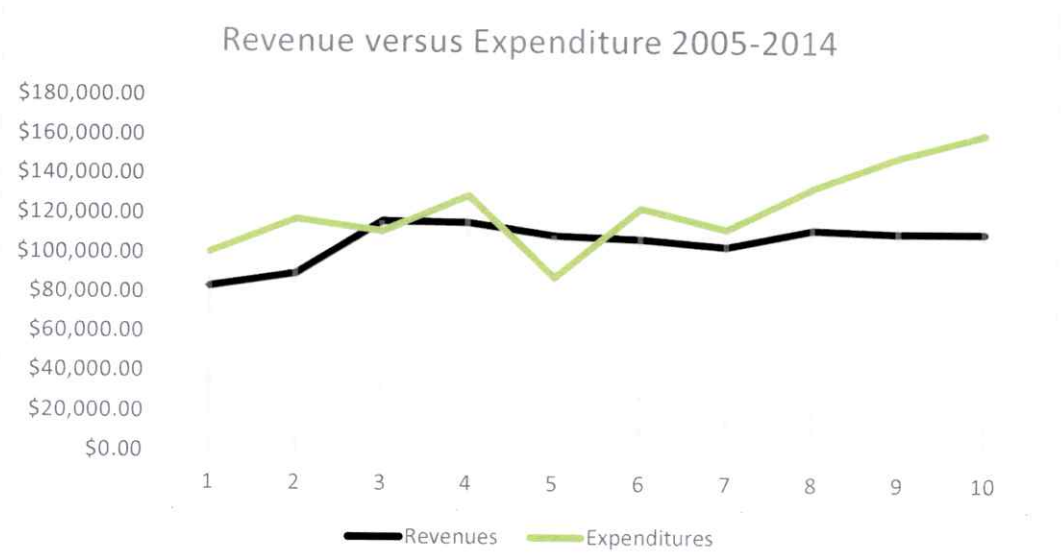
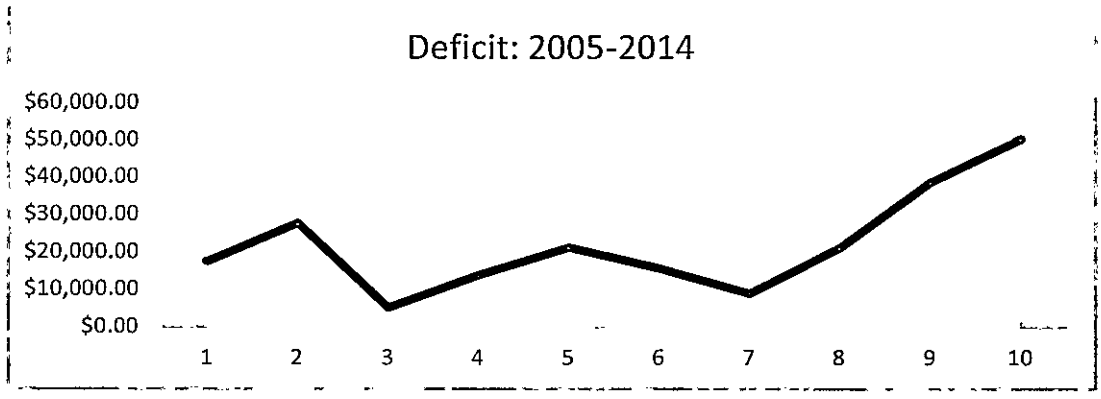


CHART 2 TRENDLINE: GROWING DEFICITS 2005 - 2014



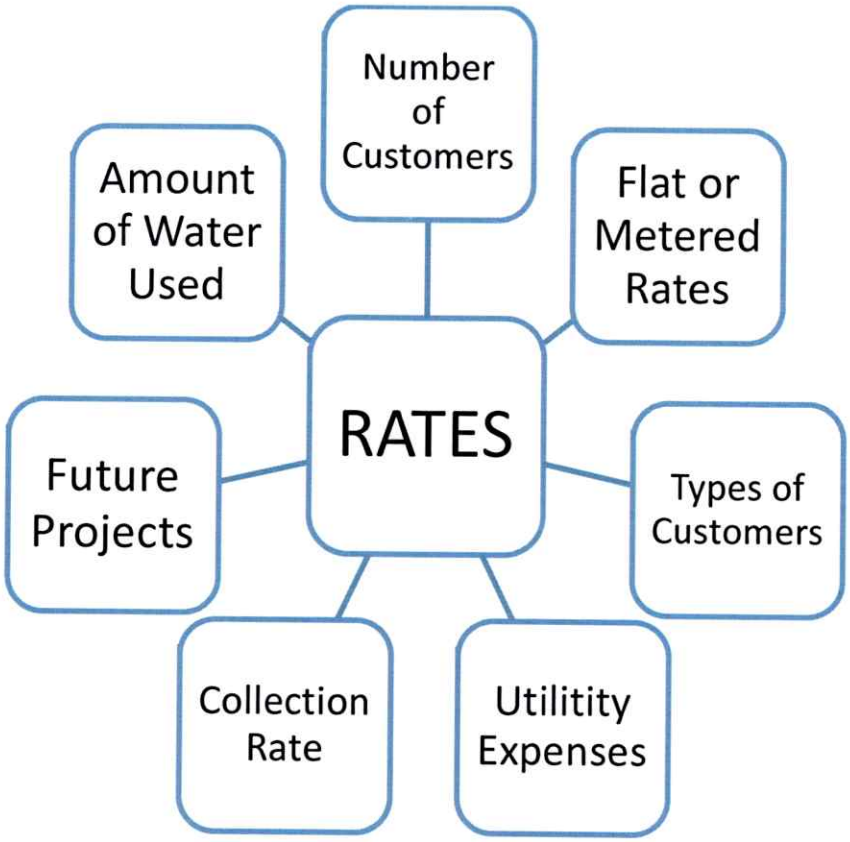
The deficit problem has exacerbated in the last three year. For example, the deficit has spiked between 2011 and 2013. As Table 4 shows, in 2011 the utility spend approximately $113,376. However, in the next year, the utility spent $21,000 more, $134,376 respectively. In 2013 and 2014, the expenditures went up even more, $150,257 and $161,679 correspondingly. However, the revenues continued to stay flat.

If the city council does not take action, the deficit is likely to increase even more due to a number of factors, including but not limited to, unexpected expenses related to the aging utility infrastructure, lack of management oversight, low collection rates and other factors.

WATER AND WASTEWATER RATE STRUCTURE DEVELOPMENT

Many factors affect the rates that a water and wastewater utility should charge. The graphic below shows some of the most common and detrimental factors. The review of the current rates sought answers to the following questions:

1. What does it cost to operate and maintain the system? Or what are the expenses of the utility?
2. What types of customers does the utility serve?
3. What other sources of money can the city use to cover operating costs? And/or should a utility use other sources of money, such as grants, loans, borrowing from other city departments?
4. How many customers are in each group?
5. How much water is used by different customers?
6. Will flat rates be necessary?
7. How many customers pay their bills? In other words, what is the collection rate by customer categories?
8. What are the future plans for the system, expansion or renovations?



The proposed Koyuk water and wastewater rates are developed such that they meet three major objectives:

- Rates must derive sufficient revenue to support operating and non-operating expenses;
- This revenue must be equitability allocated to the various customers classes commensurate with their use of, and the demand placed on, the water and wastewater system;
- Rates should be easy to implement by utility staff and easy to explain to customers.

RESULTS OF THE RATE STUDY

The history of revenues versus expenditures between 2005 and 2014 indicated that while the revenue flow had not changed by much during this period, the expenditures had increased every year generating in some years annual deficits of 30% or more. Such deficits are simply not sustainable.

The water and wastewater utility cannot be operated, maintained, and repaired while running deficits of 30% or more; such as in the fiscal year 2013 with revenues at $111,559 and expenditures at $ 161,679 leaving the utility with a deficit of approximately $50,000 at the end of the year. As shown in Table 4, the utility deficit will remain if the current rates are not increased.

TABLE 5 USER FEE SCHEDULE AND CUSTOMER CATEGORIES, 2015

	Number Customers	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue at 100% Collection Rate	Collection Rate: 85% Residential and 93% Commercial
Residential	64	$70	$4,480	$53,760	$46,772
Commercial	8	$150	$1,200	$14,400	$13,392
School/Teachers	9	$4260	$4,260	$51,120	$51,120
Total	**81**		**$9,940**	**$119,280**	**$111,284**

The 2015 water and wastewater rates have to be increased in order for the utility system to be able to at least break even in the near future. Although a minimum of a 35% rate increase is necessary for the utility to break even, the city council may consider a gradual rate increase over the next three years. For example, in 2015 the council could increase the rates by 17% with subsequent 9% increases in 2016 and 2017. RUBA staff also recommends a 2% - 3% annual increase thereafter.

Tables 6, 7, 8 present a rate structure based on a 17%, 25% and 35% across-the-board rate increase. The "collection rate: 85% residential and 93% commercial" column shows the actual revenues received from customers over the years. Typically, the school and its teachers' pay all their water and wastewater bills. However, about 15% of residential customers don't pay at all or make late payments on their bills. About 7% of the commercial customers are also late paying their bills. The council should consider the historical collection rate when examining the rates.

TABLE 6 ACROSS-THE-BOARD RATE INCREASE OF 17%

	Number Customer	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue/100% Collection Rate	Collection Rate: 85% Residential and 93% Commercial
Residential	64	$81.90	$5,241	$62,892	$54,723
Commercial	8	$175.5	$1,404	$16,848	$15,401
School/Teachers	9	$4,984	$4,984	$59,808	$51,120
Total	**81**		**$11,665**	**$139,548**	**$129,932**

TABLE 7 ACROSS-THE-BOARD RATE INCREASE OF 25%

	Number Customer	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue/100% Collection Rate	Collection Rate: 85% Residential and 93% Commercial
Residential	64	$87.5	$5,600	$67,200	$58,464
Commercial	8	$187.5	$1,500	$18,000	$16,740
School/Teachers	9	$5,325	$5,325	$63,900	$63,900
Total	**81**		**$12,425**	**$149,100**	**$139,104**

TABLE 8 ACROSS-THE-BOARD RATE INCREASE OF 35%

	Number Customer	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue/100% Collection Rate	Collection Rate: 85% Residential and 93% Commercial
Residential	64	$94.5	$6,048	$72,576	$63,142
Commercial	8	$202.5	$1,620	$19,440	$18,080
School/Teachers	9	$5,751	$5,751	$69,012	$69,012
Total	**81**		**$13,419**	**$161,028**	**$150,234**

The three options of rate increases are based on the analysis of the fiscal year 2014 budget.

ITEMIZATION OF EXPENSES BY CATEGORIES

The information in Table 8 is a generalized budget itemization. Typically, more specific expense items are listed in the Koyuk water and wastewater budge. However, all those specific expense items in the water and wastewater budget are part of the expense categories listed in the table.

In Table 8, an example of itemization of expenses by percentage is provided. For example, it is recommended that the personnel expenses are no more than 45%. Another example is the fuel and electricity expense, 18% and 15% respectively. These expense items, which together with the personnel expense add up to approximately 75% of the total expenses, are crucial to the operation and maintenance of the utility.

TABLE 9 ITEMIZATION OF EXPENSES BY CATEGORIES

Itemization of Expenses by Categories	Percentage of Budget Expenses by Categories
Personnel **(operators, utility clerk, wages, payroll, workmans compensation)**	42% - Forty two percent of expenses
Training **(operators, clerk others)**	1% - One percent of expenses
Office **(printer, paper, ink supplies, postage)**	6% - Six percent of expenses
Chemicals/Testing	10 % - Ten percent of expenses
Fuel	18 % - Eighteen percent of expenses
Electricity	15% - Fifteen percent of expenses
Short term savings for repair and replacement of parts and equipment	8% - Eight percent of expenses
Total	100%

Over the years, the Koyuk water and wastewater utility has spent as much as 60% of the budget on personnel expenses. Such a large percentage of personnel related expenses are not sustainable over a long period of time. Over 45% of personnel related expenses are not recommended.

In the future, the fuel and electricity expense are going to change depending on the cost of fuel. However, it is recommended that rates be increased when the cost of fuel goes up to make sure that the utility does not go above 18% and 15% historical fuel and electricity expense.

WATER AND WASTEWATER RATES IN 2ND CLASS CITIES OF THE BERING STRAITS REGION – DATA COLLECTED IN 2012

To aid the council and the utility staff in the rate setting decision-making process, this study is providing a list of combined water and wastewater rates charged by water and wastewater utilities in the Bering Straits region. All second class cities listed in Table 9 operate and maintain piped systems. No washeteria rates are included in the table.

For example, in 2012, the water and wastewater utility in White Mountain charged $105 a month for residential services, $105 for commercial services and $3,916 was the monthly charge to the local school.

TABLE 10 COMBINED MONTHLY WATER AND WASTEWATER RATE COMPARISON FOR 2ND CLASS CITIES IN THE BERING STRAITS REGION – DATA FROM 2012

Community	Brevig Mission	Elim	Gambell	Golovin	Koyuk	St. Michael	Savoonga	Shaktoolik	White Mountain
Residential	$100	$75	$106	$150	$71	$140	$85	$60	$105
Commercial	$180	$75	$185	$200	$150	$425	$260	$70	$105
School	$4,416	$3,450	$6,233	$6,293	$3,700	$7,500	$5,300	$70	$3,916
# Residential Customers	66	71	108	43	74	67	127	56	53
# Commercial Customers	3		5	3	8	3	6	10	13
Total Annual Revenue	**$138,672**	**$105,300**	**$223,992**	**$160,116**	**$122,203**	**$217,881**	**$211,860**	**49,560**	**$130,160**
% of Revenue from Residential	57.11%	60.68%	59.41%	48.34%	51.88%	51.66%	61.14%	81.36%	51.31%
% of Revenue from Commercial	4.67%	0.00%	5.25%	4.5%	11.78%	7.03%	8.84%	16.95%	12.58%
% of Revenue from School	38.21%	39.32%	35.35%	47.16%	36.33%	41.31%	30.02%	1.69%	36.11%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 9 also shows the percentage of revenues by customer type. For example, in White Mountain, 51.31% of the water and wastewater revenue came from residential customers, 12.58% from commercial customers and the school brought in 36.11% of the revenue.

Chart 3 shows Koyuk's residential rate as comparted to the residential rates charged by the other water and wastewater utilities in the Bering Straits region. As shown, Koyuk's residential water and wastewater rate is the second lowest rate in the region, after Shaktoolik's rate.

CHART 3 **BAR CHART COMPARING COMBINED RESIDENTIAL WATER AND WASTEWATER USER FEES IN 2ND CLASS CITIES IN THE BERING STRAITS REGION – DATA FROM 2012**

Golovin's residential rate is more than double what residential customers pay in Koyuk for the water and wastewater service. White Mountain's residential rate is 43% higher than Koyuk's rate.

No community is the same. However, considering the geographical location and proximity, population, climate conditions and the complexity of the water and wastewater system, the Koyuk water and wastewater system is similar enough to the systems presented in the chart above. As shown in Chart 3, Koyuk's rates were the second lowest in the region.

POLICIES CONSIDERATIONS FOR RATE SETTING

This rate study shows that the water and wastewater rates should be raised and the type of rate increase that will be necessary. At the same time, it should be kept in mind that a single rate increase won't ensure that your system will prosper over the long-term.

The utility staff and utility board/city council will also need to track utility's financial status closely (preferably on monthly bases) after the rate increase has gone into effect. The city council and utility staff should monitor monthly revenues to make sure the increase is generating the amount projected in the rate analysis.

The council and utility staff should plan for rate adjustments in the future. Rates must be kept current with increasing costs of providing water. It's much easier to provide for planned and small rate adjustments (2%-3% per year) than it is to batter customers with a 35% rate hike when a crises hits.

CUSTOMER EDUCATION

Customer education is a good policy for the city council and utility staff to consider and use. Getting customers to fully understand and appreciate what it takes to operate and maintain a water system is critical. Although the council and utility staff may have the advantage of knowing that the rate structure is based on accurate figures, facts and fairness, customers may not have that kind of knowledge. It is imperative that customers understand what the council and utility staff know.

The one question that's asked first by customers is "Why do we need a rate increase?" It is much more likely customers will be supportive if they know specifically what the money will be used for. The council and utility staff now have this information in hand, and can readily answer the question. In fact, the utility staff can easily make posters, charts and graphs from the information in the charts used in this study. It is a good idea to make it simple and visual for people.

The utility staff's approach to educate customers should include at least these three points:

1. The proposed increase will ensure the utility can comply with regulations to protect the health and welfare of the community.

2. The rate structure is as equitable as possible – in other words, each class of customers is paying its fair share of the costs.

3. The rate increase is needed to cover the full cost of producing, treating, storing, and distributing water as well as operating the wastewater facilities.

The first point is that customers who understand the importance of safe water and safe treatment and discharge of wastewater to their individual health, the health of their families, and the economic future of their community are willing to pay for it.

Safe drinking water and safe treatment and discharge of wastewater have both a personal and community impact. Water treatment techniques have almost eliminated diseases such as cholera and typhoid, and will protect customer from new, and equally deadly.

The second point stress how the proposed rate structure is as fair (equitable) as possible – with each class of customers paying its fair share. No rate structure is going to be 100% fair to all customers, because communities have different priorities. The utility staff should make sure the customers understand the principle followed in setting the rate structure.

The third point to consider is that customers will be willing to support a rate increase if they know the facts and understand how much it costs to produce and distribute safe water and treat and discharge wastewater. The council and utility staff need to explain that the utility must be self-supporting and that revenue from the sale of water and revenue from the collection and disposal of wastewater must cover the full cost of operating, maintaining and managing the utility. In order to pay for itself, the water and wastewater system must rely on user fees. The city council and utility staff are responsible for keeping the public informed about the financial condition of the system and what it costs to provide safe, dependable water and wastewater system.

Customer education should be an ongoing part of the utility operation. The system belongs to your customers. As a city council and utility staff, you work for them. One of the best times for educating customers is while you are developing the annual budget. Let the public know when you are working on budgets. Post special notices inviting them to attend budget meetings. Let them know you have got nothing to hide. The more your customer know about what it takes to provide the safe drinking water they take for granted, the more likely they will be to support a rate increase.

CONCLUSION

In conclusion, the council and utility staff must make sure the utility is being well managed. The following measures have to be in place for your utility to operate for years to come:

- Minimizing water loss caused by leaks;
- Billing all customers in a timely way;
- Collecting past due accounts;
- Earning the highest possible interest on all bank accounts;
- Updating fees and charges;
- Purchasing in bulk;
- Following consistent internal financial controls to eliminate errors and fraud.

In addition, consider the following rate increase strategies:

1. **Small increases are better than large increases.**

2. **Scheduled small increases are even better.** Don't wait until your system is in deep financial trouble or the pump goes out to start thinking about a rate increase.

3. **Scheduled increases that don't happen are best of all!** Consider other options to balance utility budgets. For example, consider reducing personnel hours as a result of improved employee performance due to attending regular training. Another example is to fight personnel turnover, which results in more spending.

Once the council and utility staff get in the habit of reviewing rates every year, they may find that some years it won't be necessary to raise them at all. Let your customer know when you don't have to raise rates!

Finally, as the city council and utility staff begin thinking about a rate increase, it is important to remember that you as a member of the council were elected to take responsibility for providing your community with an uninterrupted supply of safe drinking water and continuing safe collection and discharge of wastewater. No customer is going to thank you for keeping rates low if the water becomes unsafe to drink or the system keeps breaking down and there is no money for repairs. You were elected to make the tough decisions. When a rate increase is necessary, don't' be afraid to do the right thing. Customers are willing to pay a fair price for water they can depend on!

APPENDEXIES

TABLE 1 AFTER 17% INCREASE IN 2015 ACROSS-THE-BOARD INCREASE OF 9% - 2016

	Number Customers	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue/100% Collection Rate	Revenue Based on Actual Collection Rate
Residential	64	$89	$5,713	$68,559	$58,275
Commercial	8	$191	$1,530	$18,364	$17,078
School/Teachers	9	$5,432	$5,432	$65,190	$65,190
Total	**81**		**$12,675**	**$152,113**	**$140,543**

TABLE 2 AFTER 2015 AND 2016 INCREASE ACROSS-THE-BOARD INCREASE OF 9% - 2017

	Number Customers	Monthly Rates	Monthly Revenue at 100% Collection Rate	Annual Revenue/100% Collection Rate	Revenue Based on Actual Collection Rate
Residential	64	$97	$6,225	$74,703	$63,497
Commercial	8	$208	$1,665	$19,986	$18,587
School/Teachers	9	$5,920	$5,920	$71,050	$71,050
Total	**81**		**$13,810**	**$165,739**	**$153,134**

Water Utility Rate Study

City of Hydaburg – August 2011

The following estimated figures were obtained by Rural Utility Business Advisor (RUBA) Program staff of the Division of Community and Regional Affairs in consultation with the City of Hydaburg's water utility operator and city administrator during a site visit July 19th – 20th. The figures relate solely to the city's water utility and do not consider the full cost of other sanitation services, such as sewer treatment and garbage collection.

Annual Water Utility Operating Expenses (Estimated for FY12)

Expense:	Notes:	Annual Cost (in dollars):
Chemicals and Testing		15,000
Contractual Labor		6,000
Dues and Subscriptions		850
Electricity		5,760
Internet		1,200
Office Supplies	*Share of city supplies used by water utility*	150
Parts and Supplies		27,000
Payroll Benefits	*Including lead and assistant operator*	10,000
Payroll Wages	*Including lead and assistant operator*	63,000
Payroll Taxes (Employer's Contribution)	*Including lead and assistant operator*	6,300
Postage		340
Propane		4,000
Remote Maintenance iPhone	*For operators to monitor system remotely*	1,200
Rentals		800
Repairs and Maintenance		3,000
Telephone		2,000
Travel	*Including airfare, lodging, per diem, and fees*	7,000
Vehicle Gas		4,000
Worker's Compensation Insurance	*Proportional share for water operators*	3,300
	Total of Annual Operating Expenses (OE):	**$160,900**

Collection Rate, Usage, and Other Figures

Topic (Abbreviation):	Notes:	Figure:
Monthly Water Production Average (MP)	*Number of estimated gallons produced by the treatment plant each month, based on a 70,000 gallon/day average, according to Doug Mathena*	2,135,000 gallons
Utility Bill Collection Rate (CR)	*Based on Spring 2011 numbers provided by the city's contracted auditor, Tammy Stromberg - Does not include back payments by utility customers, which could inflate the collection rate*	95%
Number of Regular Utility Customers (N)	*Charged at a monthly, unmetered flat rate*	124
Number of Large Volume Users (LV)	*The local school, charged at a separate monthly flat rate*	1
Typical Monthly Residential Usage (RU)	*While Hydaburg has no meters to know for sure, this is the amount of water a typical residential household uses each month in Southeast Alaska*	6,000 gallons
Typical Monthly School Usage	*The school is currently not metered and usage rates will fluctuate widely during the year*	Unknown

Sample Break-Even Scenarios

In order for Hydaburg's water utility to be financially sustainable in the short-term, it will need to meet at least the cost of operations. To do this, there are a number of 'break-even' scenarios that the city could consider. Those scenarios are explained below using the information from the previous two tables and basic calculations demonstrated in each scenario.

Scenario 1: Unsubsidized flat rate with the school paying the same rate as residential customers

$(OE \div CR) \div 12 \div (N + LV) = \$112.92$ per month, per customer

In this scenario, the annual cost of water production is shared evenly between all customers (including the school), irrespective of usage. It includes no subsidy from the city.

Scenario 2: Unsubsidized flat rate based on 6,000 gallons/month residential usage

$(OE \div CR) \div 12 \times (N \times RU \div MP) \div N = \$39.67$ per month, per residential customer
$(OE \div CR) \div 12 \times (1 - N \times RU \div MP) = \$9,195.61$ per month for the school

In this scenario, we assume each residential customer uses 6,000 gallons of water each month and charge them for a respective proportion of the total monthly production costs. The school is left with paying the balance. It includes no subsidy from the city.

Scenario 3: Flat rate with the school paying the same rate as residential customers, with a 50% subsidy

(OE ÷ CR) ÷ 12 ÷ (N + LV) ÷ 2 = $56.46 per month, per customer
(OE ÷ CR) ÷ 2 = $84,684.22 city subsidy per year

In this scenario, 50% of the annual cost of water production is shared evenly between all customers (including the school), irrespective of usage. The other 50% is paid for with a city subsidy to the water utility.

Scenario 4: Flat rate based on 6,000 gallons/month residential usage, with a 50% city subsidy

(OE ÷ CR) ÷ 2 x (N x RU ÷ MP) ÷ N ÷ 12 = $19.84 per month, per residential customer
(OE ÷ CR) ÷ 2 x (1 – N x RU ÷ MP) ÷ 12 = $4,597.81 per month for the school
(OE ÷ CR) ÷ 2 = $84,684.22 city subsidy per year

In this scenario, we assume each residential customer uses 6,000 gallons of water each month and that 50% of total costs will be paid for with a city subsidy to the water utility. The remaining 50% of costs are split between the residential customers paying a respective portion based on 6,000 gallon usage and the school picking up the balance.

Summary of Findings and Recommendations

There are countless more rate scenarios that the City of Hydaburg could choose from to meet the full cost its annual water utility operating expenses. In the end, it will be up to the community to decide which scenario best meets its priorities and customers' ability to pay.

In any scenario, however, operating expenses must be fully covered in order for the utility to be financially sustainable and for the city to continue to be able to offer sanitation services into the future. The city might opt to have utility customers pay for all costs associated with water production. Or, the city might opt to subsidize those expenses, thus reducing the monthly burden on customers. If the city chooses the latter option, RUBA staff recommends that such subsidy be clearly identified as an inter-fund transfer from the city's general fund to a separate, utility enterprise fund. Many communities find this useful because it shows utility customers that their reduced monthly rates are justifiable and that the city isn't looking to make a profit off monthly payments. It also clearly shows how much money is already going to subsidize the utility that can't be spent elsewhere.

Hydaburg's draft FY12 budget does not appear to consider all of the costs associated with water production in the community. A realistic water utility budget would include the wages, taxes, and benefits being paid to both treatment operators. It would also consider the monthly technology fees needed to operate the various components of the remote maintenance and monitoring system.

The estimated annual expenses identified in this study are solely for day-to-day operations. A meaningful monthly utility rate would also include repair and replacement costs. The city's remote maintenance worker (RMW) or ANTHC engineers can help to compile a list of critical spare parts. This list would itemize the plant's critical and expensive items, their cost, and their anticipated life-span. RUBA staff recommends a monthly utility rate include contributions to a 'repair and replacement fund' in order to replace any critical spare parts in the future and prevent any disruption in sanitation services.

Finally, some communities have installed sampling water meters on select customer lines. These meters allow the utility to make more informed decisions about the average usage per customer. Even if the City of Hydaburg prefers a monthly uniform flat rate, it could consider installing a sampling meter at the school and at a few homes and business just to see how much, on average, is used by each customer type. Monthly rates could then be set for the whole community based on the findings.

CITY OF CRAIG WATER RATE STUDY:

PROJECTING FUTURE REVENUE AND EXPENDITURES OF THE WATER UTILITY

March 2018

Prepared by Iura Leahu, RUBA/LGS Staff
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Division of Community and Regional Affairs
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SUMMARY

The City of Craig requested Juneau RUBA staff to conduct a water rate study. The Water Utility provided RUBA staff with a data set containing monthly and annual records on the total number of serviced water units by customer class, total number of water used by customer class, total revenue by customer class, and total water used by public facilities going back to 2005. Using the multiyear data set, this rate study developed a multiyear financial plan projecting the revenues and expenses of the Water Utility from 2018 to 2022.

In 2017, the City Council adopted new water rates which went into effect on July 1, 2017. This rate study analyzed the utility's annual revenue and expenditure requirements considering the new rates and the projected two percent (2%) rate increases in 2018 and 2019. The study also analyzed the projected operation and maintenance (O&M) expenses, debt services, and capital costs. The study developed and projected new rates to balance water utility revenues and expenditures from 2018 to 2022.

FINDINGS

The following are the findings of the water rate study:

- In 2017, the council adopted new rates and projected two percent (2%) increases in the next two years, 2018 and 2019 respectively.

- The projected 2018 and 2019 two percent (2%) across-the-board rate increases will not cover all the cost of providing water services during those years or beyond. A cumulative deficit will continue to accumulate unless water rates are adjusted to meet annual revenue requirements. This rate study proposes a 3% rate increase in 2020 and 2021, and a 4% rate increase in 2022. **See Table 1**

Table 1. Projected Revenue, Expenditures, and Deficits: 2018-2022

Description	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
	Rate 2%	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
TOTAL REVENUE	$361,743	$418,220	$434,914	$450,284	$470,815
TOTAL EXPENSE	$432,868	$441,606	$450,830	$460,514	$470,748
NET INCOME WITH CITY ACCOUNTS	**(-$71,125)**	**(-$23,386)**	**(-$15,916)**	**(-$10,230)**	**$67**
NET INCOME NO CITY ACCOUNTS	**(-$71,125)**	**(-$67,519)**	**(-$64,361)**	**(-$49,902)**	**(-$52,971)**

Source: City and utility data set containing monthly and annual records on customer classes, water usage, revenues from 2005 to present. City and water utility budgets and audits from FY2016, FY2017 and FY 2018.

- There are approximately 15 city water accounts, primarily public use facilities, like the swimming pool, school, harbors and others, that do not pay for water. Having these accounts pay for water will help reduce the deficit and keep the water rates of the rest of the customers from significant increases.

- Although, the City has paid for capital improvement needs in the past years, the costs have had a negative impact on the annual budgets of the Utility. The capital costs in this rate study are included in annual expenditures of the Utility. **See Table 13 and Table 14, Page 15.**

- The Water Utility is faced with increases in its financial responsibilities due to an aging water system that needs repairs and replacements, inflation and higher costs of producing water.

- No stand-alone reserve funds exist to meet short-term cash flow requirements and to minimize the risk associated with meeting financial obligations, like water utility loans, and continue operational needs under adverse conditions.

- The Water Utility has been faced with deficits for many years and if rates remain unchanged and costs increasing, those deficits will continue to swell.

- The Water Utility uses a rate structure which is based on base/fixed and metered/variable rates. This structure is widely used across the United States and it has been recognized and recommended by the water utility industry. However, a new look at the equity of the base and metered rates in the Craig Water Utility may be due. Reducing the base rates to recover administrative and meter costs only may lead to a more equitable distribution of cost by water usage. However, metered rates will have to be proportionally increased to recover the costs of providing water services to customers.

RECOMMENDATIONS

The City Council should consider the adoption of the following recommendations:

- **Future water rate increases necessary.** Adopt the proposed water rate structure and levels as presented in this study. **Table 2** and **Table 4** show the proposed rates increases in 2018-2022. **Table 3** and **Table 5** show the average monthly bill per household with 1 person, 3 persons, and 6 persons during the projected time frame.[1] The proposed rate increases are projected to reduce the deficit between 2018 and 2022 and meet O&M

[1] According to the US Environmental Protection Agency, the average water consumption per month per person in the US is about 3,100 gallons. This rate study uses this average to calculate the average household water consumption and the respective average water bill of a household with 1 person, 3 persons, and 6 persons in the City of Craig.

and short-term capital and debt requirements by 2022. **A new rate study is recommended after 2022.**

Table 2. Current and Proposed Base and Metered Rates – City Limits: 2018-2022

Description	Current FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
		Rate 2%	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Base rate	$15.80	$16.12	$16.44	$16.93	$17.44	$18.14
Metered rate	$3.60	$3.67	$3.75	$3.86	$3.97	$4.13

Source: Ordinance No. 699, Schedule "C" and proposed RUBA staff rates thereafter.

Table 3. Average Combined Water Bill – City Limits: 2018-2022 – This study uses EPA accepted 101.5 average usage of water per day in gallons; 3,045 gallons per month.

Description	Current FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 person household ave. bill		*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Monthly base rate	$15.80	$16.12	$16.44	$16.93	$17.44	$18.14
Monthly average metered rate	$10.96	$11,27	$11.42	$11.75	$12.09	$12.58
Total monthly combined bill	$26.76	$27.38	$27.86	$28.69	$29.53	$30.71
Annual combined ave. bill	**$321**	**$329**	**$334**	**$344**	**$354**	**$369**
3 person household ave. bill						
Monthly bill	$48.69	$49.65	$50.70	$52.19	$53.17	$55.87
Annual bill	$584	$595	$608	$626	$644	$671
6 persons household ave. bill						
Monthly bill	$81.57	$83.17	$84.95	$87.45	$89.97	$93.60
Annual bill	$979	$998	$1,019	$1,049	$1,078	$1,123

Source: Ordinance No. 699, Schedule "C" for FY18 and FY19 and proposed rates thereafter.

Table 4. Current and Proposed Base and Metered Rates – Outside City Limits: 2018-2022

Description	Current FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
		Rate 2%	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Base rate	$40.00	$40.80	$41.62	$42.86	$44.15	$45.92
Metered rate	$9.05	$9.23	$9.42	$9.70	$9.99	$10.39

Source: Ordinance No. 699, Schedule "C" for FY18 and FY19 and proposed rates thereafter.

Table 5. **Average Combined Water Bill – Outside City Limits: 2018-2022** – This study uses EPA accepted 101.5 average usage of water per day in gallons; 3,045 gallons per month.

Description	Current FY 2017	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
1 person household ave. bill		*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Monthly base rate	$40.00	$40.80	$41.62	$42.86	$44.15	$45.92
Monthly average metered rate	$27.56	$28.11	$28.68	$29.54	$30.42	$31.64
Total monthly combined bill	$67.56	$68.91	$70.30	$72.40	$74.57	$77.55
Annual combined ave. bill	**$811**	**$827**	**$844**	**$869**	**$895**	**$931**
3 person household ave. bill						
Monthly bill	$122.64	$125.08	$127.63	$131.43	$135.37	$140.79
Annual bill	**$1,472**	**$1,501**	**$1,532**	**$1,577**	**$1,624**	**$1,689**
6 persons household ave. bill						
Monthly bill	$205.34	$209.43	$213.72	$220.08	$226.67	$235.75
Annual bill	**$2,464**	**$2,531**	**$2,565**	**$2,641**	**$2,720**	**$2,829**

Source: Ordinance No. 699, Schedule "C" for FY18 and FY19 and proposed rates thereafter.

- **Stand-alone water utility enterprise fund necessary.** The city's water enterprise fund should be separate from the city's general fund and any other department operating on an enterprise basis and have sufficient revenues to ensure proper operation and maintenance of the Utility.

- **Debt service.** The Water Utility has secured two loans from the State of Alaska, Department of Environmental Conservation to pay for water main and water line improvements. Long-term debt, either bonds or loans, allows the utility to spread the cost of the capital and repair and replacement expenses over the repayment period, typically 20-30-year period, therefore, spreading costs to **both existing and future customers** who will benefit from the improvements. However, long-term debts require that the Utility achieve favorable financial ratios. **See Table 6 and Chart 1**

Table 6. **Projected Debt Service Ratio: 2018-2022**

Note: To calculate the debt service ratio, net operating income (from **Table 8**) is divided by total debt service.

Description	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
	Rate 2%	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Net Operating Income	(-$34,407)	$13,314	$20,784	$26,470	$36,767
Total Debt Service	$25,200	$25,200	$25,200	$25,200	$25,200
Debt Service Ratio	**(-1.37)**	**0.53**	**0.82**	**1.05**	**1.46**

Source: City and Utility data set comprising multiyear records: 2012-2017. City and water utility budgets and audits from FY2016, FY2017 and FY 2018.

- **Debt service coverage ratio.** The ratio must be higher than 1.0. The typical requirement for debt service coverage is in the range of 1.10 to 1.30 times annual or maximum debt service. Only if the 15 city accounts pay for water services will the water utility be able to maintain a favorable debt service ratio. With ratios below the range of 1.10 to 1.30, the water utility's ability to secure bonds or long-term loans is limited. **See Table 6 and Chart 1**

Chart 1. Debt Service Ratio

How was ratio calculated?

$$\frac{\textit{Net Operating Income}}{\textit{(Operating Revenues – Operating Expenses)}}$$

$$\frac{\textit{(Principal + Interest Payments)}}{\textbf{Debt}}$$

$$\frac{\textit{(\$361,743 - \$396,150) = (-\$34,407)}}{\textit{\$25,200}}$$

RATIO = (-1.37)

Data from **Table 8**: FY 2018 P operating revenues minus operating expenses equals net operating income. Then the net operating income is divided by total debt which results in the ratio.

- **Capital costs.** The capital cost of the Water Utility includes the capitalized equipment purchases, renewals and replacements, and any portion of capital construction projects of the Utility that are finance from annual utility revenues. This study establishes a capital improvement plan including a list of items the utility plans to purchase in the next five years and beyond. **See Table 14, Page 14**

- **Reserves.** The Utility should consider establishing reserves. Maintenance of reserves is an annual financial planning tool. Having reserves will help the Utility meet its financial obligations and will also provide a framework for the City Council to determine when reserves balances are sufficient or inadequate and when and what actions need to be taken. Commonly used by water utilities are the following reserve funds:

  - **Operating Reserve** fund refers to the industry standard of having a 45-90-day O&M reserve to deal with cash-flow changes;
  - **Capital Reserve** fund refers to a repair and replacement reserve that is used to replace system's critical parts that are worn out or obsolete;
  - **Contingency Reserve** fund covers unanticipated emergencies or failure of critical system parts due to natural disasters;
  - **Debt Reserve** fund is legally required when a water utility desires to issue bonds and, in some cases, when a water utility seeks long-term loans.

INTRODUCTION

The Craig Water Utility provides clean water to a mixed group of water consumers. To continue to provide sufficient clean water to its consumers in the years to come, the Water Utility should consider setting a multiyear financial plan to deal with inflation and its pressure on cost of doing business, rising costs of equipment, materials and other capital costs, and current debt service obligations, as well as future necessary debt obligations.

The Utility has been facing financial challenges for some time now. The City Council increased rates effective July 1, 2017 and subsequently increasing them again by 2% in 2018 and 2019 respectively. This study develops a rate structure and rate levels that will help address these challenges and potentially eliminating the water utility deficit and set aside funds to establish sufficient reserves by 2022.

BACKGROUND

The City of Craig owns, manages, and operates the Water Utility. Currently, the Utility provides services to approximately 277 residential units, 74 nonresidential units, 7 unmetered units and 2 trailer parks, all located within the city limits. It also provides water services to units outside the city limits. There are approximately 88 residential units and 5 nonresidential units located in the area outside the city limits known as St. Nicolas.

Approximately 18 governmental units receive water services, primarily public use facilities, like the swimming pool, school, harbors and others, but none of these units pay for water.

The City Water Utility performs all activities related to water supply, storage, production and distribution, as well as all administrative activities related to billing, accounting, collection, meter readings, meter maintenance, repair and replacement and capital costs related to meters.

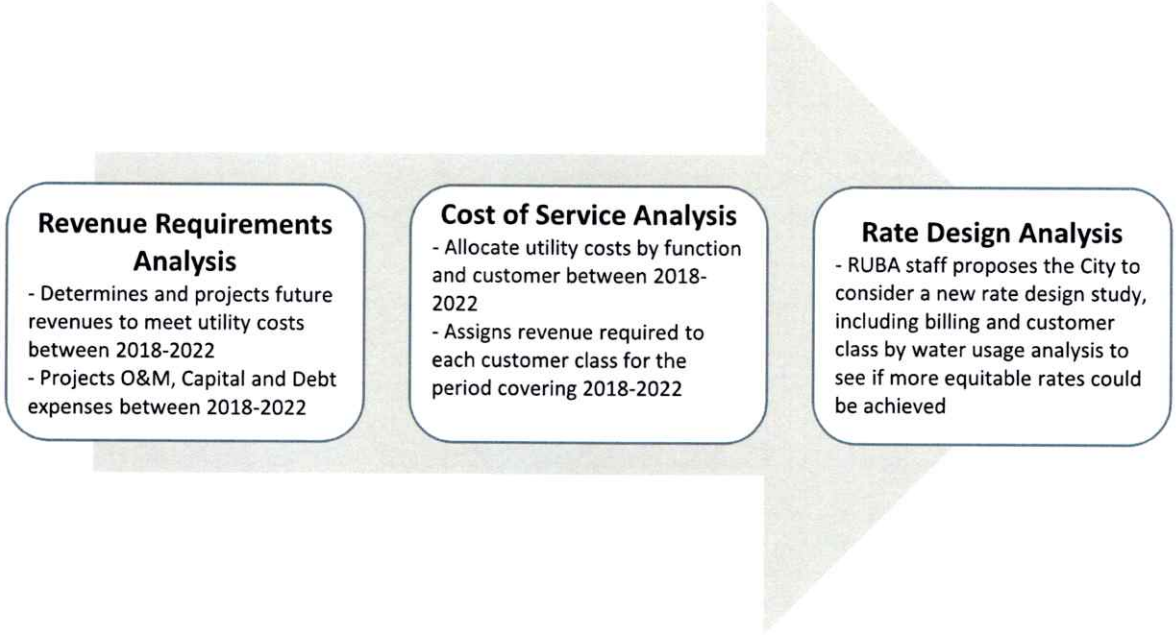
DESCRIPTION OF THE RATE SETTING PROCESS

This rate study utilizes only one of the three interrelated analysis recommended by the American Water Works Association (AWWA) for small water utilities. The three-interrelated analysis are the revenue requirement, cost of service, and rate design analysis. This study focuses mostly on the first analysis, the revenue requirement analysis and provides observations and recommendations on the cost of service and the rate design. The process used in this study is endorsed by AWWA, the leading water utility rate-making organization in the country. **See** *Developing Rate for Small Systems*, AWWA Manual M54, First Edition.

As shown in **Chart 2**, the study examines, first, the water utility revenue requirements, next, the water utility cost of service, and last, the water utility rate design.

The revenue requirement analysis reviews all sources of funds, determines the overall variance between revenues and expenses and considers necessary adjustment by comparing the sources of funds to the required revenue and balancing the revenue against the expenses of the Utility. The cost of service analysis looks at the various water customer classes.

Chart 2. Rate Study Process



The final step is the analysis of the current and future water rates based on the results of the revenue requirement and cost of services analysis.

The Water Utility was financially evaluated on a stand-alone basis. By viewing the Water Utility on a stand-alone basis, the study assumes allocation of no subsidies to the Utility.

FUTURE ANNUAL WATER UTILITY REVENUE REQUIREMENTS

As shown in **Chart 2**, the first step in the revenue requirement analysis is to calculate future revenues and expenses, determine variance between revenues and expenses, and consider necessary water rates adjustments to balance revenues and expense and build healthy reserves.

STUDY ASSUMPTIONS

The revenue requirement analysis involves the following:

- forecast of future revenues and expenses;
- projection of future growth, inflation etc.;

- projection of required revenue increases.

This study considered the following data and assumptions:

- FY16, FY17, FY18 water utility budgets, and FY2016 and FY2017 city audits;
- FY 2005-2017 – city-maintained data set containing the following multiyear records:
  - total number of water service units by customer class within city limits and outside city limits;
  - metered monthly water consumption by customer class;
  - total monthly and annual revenues by customer class.
- The annual customer growth rate for the Water Utility is assumed to be 0.5 percent (0.5%) due to the ongoing economic and consequently housing slowdown and a slower population growth rate in Alaska. Due to higher than typical growth in customer units in 2017 and to determine a more reliable growth in customer accounts, this study uses the average number of units calculated using the data between 2012 and 2017. The study, thereafter, applies a 0.5 percent annual increase in customer units by class. **See Table 7**

Table 7 **Projected Growth by Customer Classes: 2018-2022**

Description	Projected FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022
Customer Classes – City Limits	*Growth rate 0.5%*	*Growth rate 0.5%*	Growth rate 0.5%	Growth rate 0.5%	Growth rate 0.5%
Residential Units	259	260	261	262	263
Nonresidential	67	67	67	68	69
Unmetered	7	7	7	7	7
Trailer Park	2	2	2	2	2
Total Units	**335**	**336**	**337**	**339**	**341**
Customer Classes – Outside City Limits					
Residential Units	*81*	*82*	*82*	*83*	*83*
Nonresidential	*4*	*4*	*4*	*5*	*5*
Total Units	**85**	**86**	**86**	**88**	**88**
Total Units - City and Outside City Limits	**420**	**422**	**423**	**427**	**429**

Source: City and utility data set containing monthly and annual records on customer classes, water usage, revenues from 2005 to present.

- **Table 8** shows a summary financial plan which includes projected revenues from all accounts with a 2% across-the-board rate increase in 2018 and 2019, a 3% across-the-board rate increase in 2020 and 2021, and a 4% across-the-board rate increase in 2022.

Beginning FY 2019, this rate study proposes charging 15 city accounts and applying the same across-the-board rate increases between 2020 and 2022.

Table 8. Summary Financial Plan and Debt Ratio: 2018-2022

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
REVENUE	*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Base and metered rate revenue	$359,230	$371,599	$383,928	$399,851	$417,301
Miscellaneous revenue	$2,513	$2,526	$2,541	$2,552	$2,565
City accounts revenue		$44,113	$48,436	$49,902	$52,971
Total revenue	**$361,743**	**$418,220**	**$434,914**	**$450,284**	**$470,815**
EXPENDITURES					
Total O&M expenses	**$396,150**	**$404,906**	**$414,130**	**$423,814**	**$434,048**
Net operating income	**(-$34,407)**	**$13,314**	**$20,784**	**$26,470**	**$36,767**
Debt Service	$25,200	$25,200	$25,200	$25,200	$25,200
Rate Financed Capital Costs	$11,500	$11,500	$11,500	$11,500	$11,500
Total Debt and Capital Costs	**$36,700**	**$36,700**	**$36,700**	**$36,700**	**$36,700**
TOTAL EXPENDITURES	**$432,150**	**$440,906**	**$450,130**	**$459,814**	**$470,048**
ENDING CASH BALANCE AFTER RESERVES	**(-$71,107)**	**(-$23,386)**	**(-$15,916)**	**(-$10,230)**	**$67**
DEBT SERVICE COVERAGE	**-1.37**	**0.53**	**0.82**	**1.05**	**1.46**

Source: City and utility data set containing monthly and annual records on customer classes, water usage, revenues from 2005 to present; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

- In projecting future operating expenses, period 2018-2022, this study assumes the following:
  - Personnel cost, contractual services, travel/training/dues, and insurance: 1 percent (1%) annual increase;
  - Employee benefits: 3 percent (3%) annual increase;
  - Chemicals/Materials/Supplies: 7.6 percent (7.6%) annual increase;
  - Utilities (electricity, gas, diesel etc.): 5 percent (5%) increase by power company in 2018 and 0.5 percent (0.5%) thereafter;
  - Repairs and maintenance: 2.6 percent (2.6%) annual increase;
  - Insurance: 1 percent (1%) annual increase. **See Table 13, Page 14**

- The Utility has no reserve funds to help stabilize the rates. Absence of such funds seriously limits the ability of the Utility to respond to emergencies and ongoing needs for capital funds to repair or replace critical system components.

The Utility is operated on an enterprise basis. The expenses and revenues are accounted for separately from the city's general and other funds. However, the Utility has relied on council approved subsidies to deal with the deficits for many years.

To make sure proper operation and maintenance of the Utility continues in the future, the Utility should receive sufficient revenues and establish stand-along water reserve funds. The water enterprise fund should be separate from the city's general fund and any other department operating on an enterprise basis.

CURRENT AND FUTURE REVENUE REQUIREMENTS

The costs of maintenance and operation, personnel and employee benefits costs, future capital expenses and debt service costs, all determine the annual revenue requirements. As shown in **Table 2, 3, 4, and 5** to recover these expenses, the Craig Water Utility charges base and metered water rates and some water related fees.

Currently, the Utility has no reserves. The City Council approves transfers from the general and enterprise funds to subsidize the Water Utility when necessary.

The City prepares an annual budget for the Water Utility that itemizes all the expenses.

Tables 9, 10, 11, and 12 present multi-year revenue requirements for the Water Utility 2018-2022. In those tables, it is assumed that a 2% across-the-board increase in both base and metered rates will take place in 2018 and 2019 as per city council Ordinance No. 699, a proposed 3% across-the-board rate increase in 2020 and 2021, and a proposed 4% across-the-board rate increase in 2022.

The Water Utility uses several sources of revenues to comply with the revenue requirements set annually in the utility budget.

Most of the customers, 94% in fact, use metered water services. A small number of customers have no water meters.

The Utility also makes money by selling water meters, charging reconnection and turn-off fees, interest income, and other revenues.

The revenue requirement analysis was based on annual financial data collected from utility budgets, audits and multiyear records maintained by the Utility and the City.

On the following pages, **Tables 9, 10, 11, 12, 13, 14, and 15** present multiyear projected revenue requirements for the Water Utility. These tables include annual revenues projected to be raised using current rates and the additional revenue required to meet projected utility

expenditures using rate increases 2018-2022. **Table 15** presents a summary of financial plan for the Utility.

Table 9. Projected Revenue – City Limits: 2018-2022

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
Base Rate Revenue – City Limits	*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Residential	$50,101	$51,293	$53,025	$54,831	$57,249
Trailer Park	$46,071	$46,993	$48,403	$49,855	$51,650
Nonresidential	$12,960	$13,218	$13,612	$14,231	$15,020
Unmetered	$4,129	$4,213	$4,339	$4,469	$4,648
Total Base Revenue	**$113,261**	**$115,717**	**$119,379**	**$123,386**	**$128,567**
Metered Rate Revenue - City Limits					
Residential water used in gallons	27,190,041	27,325,991	27,464,711	27,604,156	27,744,330
Nonresidential water used in gallons	20,155,041	20,255,816	20,358,645	20,462,011	20,565,917
Total Water Used	**47,345,082**	**47,581,807**	**47,823,356**	**48,066,167**	**48,310,247**
Total Metered Rate Revenue	**$173,756**	**$178,431**	**$184,598**	**$190,823**	**$199,521**
Combined Revenue – City Limits	**$284,017**	**$294,148**	**$303,977**	**$314,209**	**$328,088**

Source: Utility and City multiyear data set covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Table 10. Projected Revenue – Outside City Limits: 2018-2022

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
Base Rate Revenue – Outside City Limits	*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Residential	$39,658	$40,950	$42,178	$43,974	$45,733
Nonresidential	$1,958	$1,998	$2,057	$2,649	$2,755
Total Base Revenue	**$41,616**	**$42,948**	**$44,235**	**$46,623**	**$48,488**
Metered Rate Revenue - City Limits					
Residential water use	3,459,510	3,476,911	3,494,608	3,512,398	3,530,282
Nonresidential water use	180,446	183,946	187,499	191,105	194,765
Total Water Use	3,639,956	3,660,857	3,682,107	3,703,503	3,725,047
Total Metered Rate Revenue	**$33,597**	**$34,485**	**$35,716**	**$36,998**	**$38,703**
Combined Revenue – Outside Limits	**$75,213**	**$77,433**	**$79,951**	**$83,621**	**$87,191**
All Revenue – City and Outside City Limits	**$359,230**	**$371,581**	**$383,928**	**$397,830**	**$415,279**

Source: Utility and City multiyear data set covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Table 11. **Projected Miscellaneous and Added City Accounts Revenue: 2018-2022**

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
Miscellaneous Revenue	*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Meter sales	$1,005	$1,010	$1,016	$1,020	$1,025
Turnoff notice fee	$1,005	$1,010	$1,016	$1,020	$1,025
Reconnection fee	$503	$506	$509	$512	$515
Total Miscellaneous Revenue	**$2,513**	**$2,526**	**$2,541**	**$2,552**	**$2,565**
City Accounts Revenue					
No. of accounts	15	15	15	15	15
City accounts water usage	6,453,437	6,517,971	6,583,150	6,648,981	6,715,470
City Accounts Base Rate Revenue		**$2,921**	**$3,009**	**$3,099**	**$3,223**
City Accounts Metered Rate Revenue		**$41,212**	**$45,436**	**$46,803**	**$49,748**
Combined Revenue – Base and Metered Rate		**$44,133**	**$48,445**	**$49,902**	**$52,971**

Source: Utility and City multiyear data set covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Table 12. **Projected Total Water Utility Revenue: 2018-2022**

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
	Rate 2%	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
City Limits	$284,017	$294,148	$303,977	$314,209	$328,088
Outside City Limits	$75,213	$77,433	$79,951	$83,621	$87,191
Miscellaneous	$2,513	$2,526	$2,541	$2,552	$2,565
City Accounts		$44,133	$48,445	$49,902	$52,971
All Revenue	**$363,762**	**$418,240**	**$434,914**	**$450,284**	**$470,815**

Source: Utility and City multiyear data set covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Table 13. **Projected Expenditures: 2018-2022**

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
Expenditure					
Personnel	$174,627	$176,373	$178,137	$179,918	$181,718
Employee benefits	$100,083	$103,086	$106,178	$109,363	$112,718
Contractual Services	$6,060	$6,121	$6,182	$6,244	$6,306
Travel/Training/Due	$1,202	$1,214	$1,226	$1,238	$1,251
Chemicals/Supplies	$36,745	$39,538	$42,542	$45,776	$49,255
Power/Utilities	$64,155	$64,476	$64,798	$65,122	$65,448
Insurance	$6,388	$6,452	$6,517	$6,582	$6,648
R&R Short term	$6,780	$7,526	$8,430	$9,441	$10,574
Recording & Permits	$110	$120	$120	$130	$130
Capital improvement	$11,500	$11,500	$11,500	$11,500	$11,500
Debt retirement	$25,200	$25,200	$25,200	$25,200	$25,200
Total Expenditures	**$432,850**	**$441,606**	**$450,830**	**$460,514**	**$470,748**

Source: City's set of multiyear data covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Table 14. **Summary of Capital Improvement Costs: 2018-2022 and Beyond**

Name of Part & Equipment	No. of Parts & Equipment	Total Cost	Years	Annual Costs	Monthly Costs
SCADA System and Support Company	1	$35,000	20	$1,750	$146
Water Main Valve Exerciser, Trailer, and Debris Tank	1	$35,000	20	$1,750	$146
Soda Ash LMI Pumps	2	$5,000	20	$250	$21
Polymer LMI Pumps	8	$20,000	20	$1,000	$84
Backwash Pump	2	$20,000	20	$1,000	$84
Soda Ash Feed System	1	$48,000	20	$2,400	$200
Generator-Backup	1	$37,000	20	$1,850	$154
High Service Pump	1	$15,000	20	$750	$62
Miscellaneous Lab Equipment	1	$2,500	20	$250	$21
Chlorine Analyzer CL 17	1	$3,000	20	$150	$12
Turbidimeter 1720E	2	$5,000	20	$250	$21
Total	**21**	**$225,500**	**20**	**$11,500**	**$951**

Source: Management and Staff of the Department of Public Works and Water Utility.

Table 15 **Summary Financial Plan and Debt Ratio: 2018-2022**

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
REVENUE	*Rate 2%*	*Rate 2%*	Rate 3%	Rate 3%	Rate 4%
Base and metered rate revenue	$359,230	$371,599	$383,928	$399,851	$417,301
Miscellaneous revenue	$2,513	$2,526	$2,541	$2,552	$2,565
City accounts revenue		$44,113	$48,436	$49,902	$52,971
Total revenue	**$361,743**	**$418,220**	**$434,914**	**$450,284**	**$470,815**
EXPENDITURES					
Total O&M expenses	**$396,150**	**$404,906**	**$414,130**	**$423,814**	**$434,048**
Net operating income	**(-$34,407)**	**$13,314**	**$20,784**	**$26,470**	**$36,767**
Debt Service	$25,200	$25,200	$25,200	$25,200	$25,200
Rate Financed Capital Costs	$11,500	$11,500	$11,500	$11,500	$11,500
Total Debt and Capital Costs	**$36,700**	**$36,700**	**$36,700**	**$36,700**	**$36,700**
TOTAL EXPENDITURES	**$432,150**	**$440,906**	**$450,130**	**$459,814**	**$470,048**
ENDING CASH BALANCE AFTER RESERVES	**(-$71,107)**	**(-$23,386)**	**(-$15,916)**	**(-$10,230)**	**$67**
DEBT SERVICE COVERAGE	**-1.37**	**0.53**	**0.82**	**1.05**	**1.46**

Source: City's set of multiyear data covering 2012-2017; FY16, 17, 18 budgets and FY15, FY16 and FY17 city audits.

Data included in the analysis and tables used in this rate study were gathered from the City's annual operating budgets, audited financial statements, and multiyear records kept by the City on water related activities.

The evaluation of future water fund revenue requirements used these data.

RUBA STAFF COMMENTS AND RECOMMENDATIONS ON WATER UTILITY COST OF SERVICES ANALYSIS

Juneau RUBA staff did not conduct a cost of services analysis due to inconsistencies in the data set provided by the City regarding metered water consumption by customer classes. Due to the existing water customer classes, the Water Utility may consider a new water study specifically addressing the cost of serving each customer class. **Chart 3** lists the three steps of the cost of service procedure and percent of water consumers by customer class.

Currently, the Utility has the following customer classes:

- commercial multifamily (B);
- commercial single (A);
- commercial (C);
- multifamily (M);
- single family (S);
- public (N);
- fish processing (FP).

Chart 3 **Three Steps of Cost of Service Procedure**

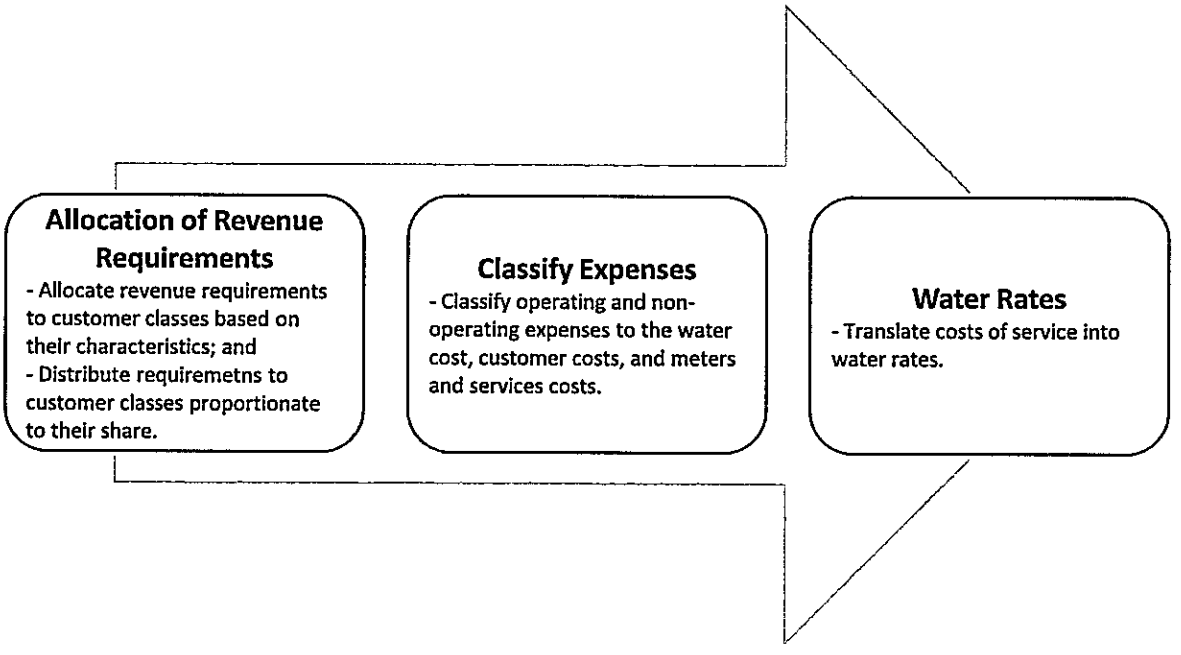
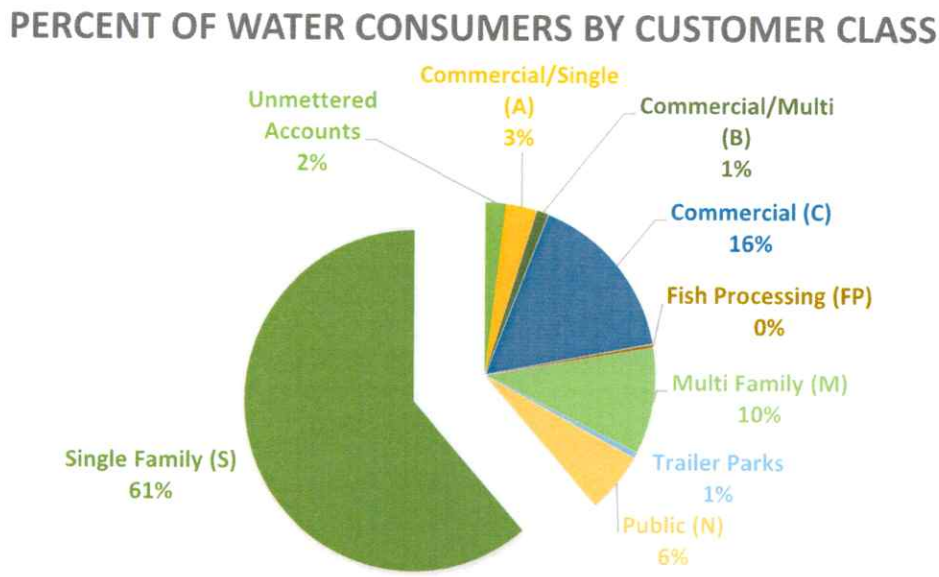


Chart 4 **Percent of Water Consumers By Customer Class**



Cost of Service Procedure

Step 1 - allocate revenue requirements to customer classes based on their characteristics and distribute to customer classes proportionate to their share.
Step 2 - classify operating and non-operating expenses to the water cost, customer costs, and meters and services costs.
Step 3 - translate costs of service into water rates.

Note that according to AWWA, small water utilities, like the Craig Water Utility, commonly use a simple set of rates because of resource and data limitations or because the customer base is predominantly of a single class.

AWWA also says that a small utility may consider a more complex set of rates when it has customers with distinctive water usage characteristics, or when customers reside outside its city boundaries.

CLASSIFICATION OF EXPENSES TO COST CATEGORIES

Table 15 **Expenditures by Function: 2012-2017**

Description	Projected FY 18	Projected FY 19	Projected FY 20	Projected FY 21	Projected FY 22
Expenditure					
Personnel	$174,627	$176,373	$178,137	$179,918	$181,718
Employee benefits	$100,083	$103,086	$106,178	$109,363	$112,718
Contractual Services	$6,060	$6,121	$6,182	$6,244	$6,306
Travel/Training/Due	$1,202	$1,214	$1,226	$1,238	$1,251
Chemicals/Supplies	$36,745	$39,538	$42,542	$45,776	$49,255
Power/Utilities	$64,155	$64,476	$64,798	$65,122	$65,448
Insurance	$6,388	$6,452	$6,517	$6,582	$6,648
R&R Short term	$6,780	$7,526	$8,430	$9,441	$10,574
Recording & Permits	$110	$120	$120	$130	$130
Capital improvement	$11,500	$11,500	$11,500	$11,500	$11,500
Debt retirement	$25,200	$25,200	$25,200	$25,200	$25,200
Total Expenditures	**$432,868**	**$441,625**	**$450,850**	**$460,535**	**$470,770**

Table 16 **Percent of Cost of Water Services by Expenses Category: 2012-2017**

Description	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Average 2012-2017	FY 2018
Expenditure								
Personnel	41%	42%	36%	34%	37%	36%	37%	39%
Employee benefits	21%	19%	23%	31%	27%	19%	24%	24%
Contractual Services	4%	5%	1%	2%	3%	2%	3%	1%
Travel/Training/Due	1%	1%	1%	0%	0%	0%	1%	0.27%
Chemicals/Supplies	12%	11%	18%	13%	14%	12%	13%	10%
Power/Utilities	17%	16%	14%	14%	13%	19%	15%	14%
Insurance	2%	1%	1%	1%	1%	2%	2%	1%
R&R Short Term	$2%	2%	2%	2%	2%	2%	2%	2%
Recording & Permits	1%	1%	1%	1%	1%	1%	1%	0.03%
Capital Improvement	0%	0%	0%	0%	0%	0%	0%	2%
Debt Retirement	0%	2%	3%	2%	2%	7%	3%	5%
Total Expenditures	100%	100%	100%	100%	100%	100%	100%	100%

RUBA STAFF COMMENTS AND RECOMMENDATIONS WATER UTILITY RATE DESIGN ANALYSIS

In designing a water utility rate structure, the objective could be one or more of the following:

- simplicity;
- cost recovery;
- revenue stability;
- ease of administration;
- affordability;
- resource efficiency;
- fairness; and/or
- legal constrains.

The City Council may consider a new evaluation of the existing rate structure. Due to inconstancies in water usage data by customer class and other issues related to the data set, this rate study makes only two observations about the existing rate structure for the council to consider. **Note that it is not unusual for small utilities like the Craig Water Utility to have higher fixed rates as a means of enhancing revenue stability.**

Observation 1. The Water Utility may reconsider the base/faxed rate to metered/variable ratio. In doing so, the utility should examine those costs typically associated with base/fixed rates. The following questions should be considered:

- Is the base/fixed rate related to meter reading, billing, accounting, collection expenses only?
- Are the funds from the base/fixed rate being used for other than administrative costs?

Table 17 **Average Water Usage by Customer Class City Limits: 2012-2017**

Description	Number of Customers	Average Gallons Year 2012-2017	% of Water Used by Customer
Customer Class			
Unmetered	7		
Metered			
Fish Processing (FP)	1	5,854,000	12.39%
Commercial Multi (B)	4	420,757	0.89%
Commercial Single (A)	11	654,967	1.39%
Public (N)	21	1,107,281	2.34%
Multi Family (M)	37	11,897,188	25.19%
Commercial (C)	59	13,125,043	27.79%
Single Family (S)	225	9,177,651	19.43%
Trailer Parks	2	5,000,000	10.58%

Total City Limits	**367**	**47,236,887**	**100%**

Table 17 and **Table 18** show the total number of customer by customer class and the average water usage in gallons per year 2012-2017. As shown in **Table 15** and **Table 16**, ninety two percent (92%) of the water is being used by customers within the city limits, and eight percent (8%) by customer residing outside the city limits.

Table 18 **Average Water Usage by Customer Class Outside City Limits: 2012-2017**

Description	Number of Customers	Average Gallons Year 2012-2017	% of Water Used by Customer
Customer Class			
Metered			
Commercial (C, A)	5	170,900	4.06%
Multi Family (M)	7	617,940	14.66%
Commercial Single (A)	81	3,425,299	81.28%
Total Outside City Limits	**93**	**4,214,139**	**100%**
Total City Limits			**92%**
Outside City Limits	**460**	**51,451,026**	**8%**

Observation 2. The Water Utility may also reconsider the metered/variable rate based on a more accurate water usage data by customer class. The Utility may consider having the metered/variable rate pay for all water related expenses and the base/fixed rate for all administrative costs. Each customer class should pay for the costs of water based on the load each customer class places on the Craig Water Utility.

The data set maintained by the City and the Utility on the water usage by customer class should be revised to make sure the total gallons of water used are correctly applied to the appropriate customer class.

CONCLUSION

The proposed water rate structure and schedule is based on the Utility's projected revenue requirements from FY 2018 through FY 2022. The proposed rates are designed to bring in additional revenue and to make sure that revenue adequacy is established. In addition to the rates being modestly increased throughout the period covered by this study, 15 new city accounts are proposed to be billed to ease the impact of rates increases on the rest of the water consumers.

However, as mentioned earlier in this rate study, the City Council, together with the utility staff, could reconsider the current rate design structure. A new study could specifically investigate how revenue requirements could be better allocated to each customer class based on the financial burden each customer class places on the Utility.

This rate study also recommends that the City Council adopt the proposed rate increases to ensure that the Water Utility has a healthy reserve and healthy and stable annual cash flow stream to prevent further city council subsidies, to set the Utility on a financially independent course, and to have funds to pay for ongoing debt services.

RATE STUDY FOR CITY OF KASAAN

SEWAGE WASTE COLLECTION AND DISPOSAL SERVICE

State of Alaska
Department of Commerce, Community, and Economic Development
Division of Community and Regional Affairs
Rural Utility Business Advisor Program (RUBA)

RURAL UTILITY BUSINESS ADVISOR

Authored by: Iura S Leahu
Rural Utility Business Advisor
Local Government Specialist III

1. INTRODUCTION

This rate study was prepared for the City of Kasaan, Alaska to identify the costs of operating and maintaining their sewage waste system, and to provide a basis for user's fees to cover these operation and maintenance costs.

The computed costs are based on providing the residents and businesses of Kasaan with a sewage waste collection and disposal service. Any changes to the current system design or major increases in service use could affect the operations and maintenance costs and subsequently the user charges. The operating budget and user fees should be reviewed at that time.

2. ESTIMATED REVENUE

Based on the proposed fee schedule and the current sewer connections, the estimated revenue per fiscal year is shown in table 1. Proposed rates are revenue neutral and not intended to generate additional revenue for the utility.

TABLE 1 ESTIMATED REVENUES

Customer Category	Customer #	Rates (monthly)	100% Collection Rate Total Monthly Revenue	Annual Total Revenue
Residential	20	$25.00	$500.00	$6,000.00
Commercial	10	$70.00	$700.00	$8,400.00
Public Buildings	2	$150.00	$300.00	$3,600.00
Seniors	3	$5.00	$15.00	$180.00
General Account Subsidy			$320.00	$3,844.00
Total	**35**		**$1,835.00**	**$22,024.00**

3. ESTIMATED EXPENSES

The estimated annual expenses are based on the tasks performed by the utility operator as described in the Primary Treated Domestic Wastewater from Coastal Communities with a Secondary Treatment Waiver. [1] The expenses also include the utility clerk wages.

Table 2 below shows the estimated annual expenses related to tasks performed by the utility operator and clerk.

Operator/Clerk Tasks	Frequency	Duration/Hour	Cost/Month	Cost/Year

[1] State of Alaska Department of Environmental Conservation; Primary Treated Domestic Wastewater From Coastal Communities with a Secondary Treatment Waiver; General Permit NO. 2003-DB0096. Attached to this rate study.

Outfall total flow	1/week	1 hour	$96.00	$1,152.00
Outfall visual inspection	1/month	2 hours	$48.00	$576.00
Tanks solids measurement	2/year	70 hours	$140.00	$1,680.00
Sludge disposal – individual tanks	1/year *	10 hours	$20.00	$240.00
Fill out septic sludge disposal report	2/year	20 hours	$40.00	$480.00
Testing – sampling	1/Quarter	6 hours	$12.00	$144.00
Billing/Treasurer	1/month	11 hours	$288.00	$3,456.00
Total Cost		**120 hours**	**$644.00**	**$7,728.00**

Table 3 below shows the estimated annual expenses for the system.

TABLE 3 ESTIMATED COST OF LABOR/UTILITIES/MONITORING/BILLING

Cost Category	Cost/Month	Cost/Year
Operator wages	$356.00	$4,272.00
Treasurer wages	$288.00	$3,456.00
Workers comp 10.00% of total wages	$65.00	$780.00
Payroll tax 10% of total wages	$65.00	$780.00
Testing	$92.00	$1,104.00
Vehicle	$50.00	$600.00
R &R savings	$50.00	$600.00
Tyler Rental – Contract	$871.00	$10,452.00
Total Cost	**$1,837.00**	**$22,044.00**

4. PROJECTED SEWER BUDGET: 2025-2027

Based on the estimated revenues and expenses shown in this rate study, table 4 below shows the projected budgets for the 2025-2027 years. These projected revenues and expenses will likely increase or decrease in the years ahead. The city council, with the assistance of the utility operator and treasurer shall review the projected budgets and make changes as needed.

TABLE 4 PROJECTED SEWER BUDGET: 2025-2027

REVENUES	2025	2026 [2]	2027
User's fees	$18,180.00	$18,544.00	$18,915.00
Hook-up fees – new service $1,200 plus part/labor $300	$0.00	$0.00	$0.00

[2] This rate study proposes a 2% annual increase for 2026 and 2027 budget years.

Penalty & interest – late fee of $15 per month per delinquent customer	$0.00	$0.00	$0.00
Miscellaneous fees	$0.00	$0.00	$0.00
General account subsidy	$3,864.00	$3,920.00	$3,998.00
TOTAL REVENUES	**$22,044.00**	**$22,464.00**	**$22,913.00**
EXPENSES	**2025**	**2026**	**2027**
Operator wages	$4,272.00	$4,272.00	$4.272.00
Clerk wages	$3,456.00	$3,628.00	$3,809.00
Workers' comp	$780.00	$780.00	$780.00
Payroll tax	$780.00	$780.00	$780.00
Contractual Services: Tyler Rental	$10,452.00	$10,452.00	$10,452.00
Testing	$1,104.00	$1,104.00	$1,104.00
Vehicle	$600.00	$600.00	$600.00
R&R account	$600.00	$600.00	$600.00
TOTAL EXPENSES	**$22,044.00**	**$22,216.00**	**$22,397.00**
NET BALANCE	**$0.00**	**$248.00**	**$516.00**

5. PROPOSED SEWER RATE SETTING - OBJECTIVES

The four separate categories divide customers into residential, commercial, public facilities, and seniors. Because the current system is relatively simple and because there is little information on existing septic tanks, pipe sizes and other equipment, this rate study proposes fixed rates by categories.

The council may consider different rates for each category and use the proposed rates below as a starting point to adjust them as the council see it needed.

The council may also consider investigating other rate structures. For example, rates could be categorized based on single family and multi-family residencies, and/or commercial, industrial and public facilities.

TABLE 5 PROPOSED SEWER RATE SCHEDULE

Customer Category	Customer #	Rates (monthly)	100% Collection Rate Total Monthly Revenue	Annual Total Revenue
Residential	20	$25.00	$500.00	$6,000.00
Commercial	10	$70.00	$700.00	$8,400.00
Public Facilities	2	$150.00	$300.00	$3,600.00
Seniors	3	$5.00	$15.00	$180.00
General Account Subsidy			$320.00	$3,844.00
Total	**35**		**$1,835.00**	**$22,024.00**

This rate study talks about two rate setting objectives. Objective 1 is that sewer rates must generate sufficient revenue to meet the utility's service and financial obligations, and Objective 2 is that the rate structure is fair and equitable for the public. Beyond the two mentioned objectives, other rate-setting objectives may include:

- Sewer rates should encourage efficient use of resources;
- Sewer rates should strike a balance between the fours categories of customers proposed in this rates study with consideration of
    - Revenue stability
    - Affordability for basic usage
    - Customer bill impacts of new rate structure

6. PRINCE OF WALES AND OTHER SOUTHEAST SEWER AND WATER RATES

The proposed rate structure is in line with other rates charged by other sewer utilities in the Southeast and Prince of Wales Island communities. The proposed Kasaan rates are slightly higher than other sewer utility rates on the Price of Wales Island. However, each system is unique and what one utility charges may not be sufficient to another utility.

TABLE 5 DEC COMMUNITY INDEX 2023 RATES – SOUTHEAST BEST PRACTICES COMMUNITIES ONLY – RESIDENTIAL RATES ONLY [3]

Community	Community Current Service Level	Community Water System	Community Sewer System	Community Sewer Treatment Disposal	Combined Water & Sewer Rate	Water Only Rate	Sewer Only Rate
Thorne Bay	Piped	Pressure	Gravity	WWTP/OF	**$148.62**	$69.25	$79.37
Hoonah	Piped	Pressure	Gravity	WWTP/OF	**$136.99**		
Saxman	Piped	Pressure	Gravity	ST/OF	**$126.00**	$65.00	$61.00
Kasaan	Piped	Pressure	Gravity	ST/OF	**$125.00**	$100.00	$25.00
Klawock	Piped	Pressure	Gravity	WWTP/OF	**$89.00**		
Yakutat	Piped	Pressure	Gravity	WWTP/OF	**$82.00**		
Kake	Piped	Pressure	Gravity	ST/OF	**$76.00**	$48.00	$27.00
Metlakatla	Piped	Pressure	Gravity	Lagoon	**$70.00**		
Coffman Cove	Piped	Pressure	Gravity	ST/OF	**$65.00**	$50.00	$15.00
Hydaburg	Piped	Pressure	Gravity	ST/OF	**$60.00**		
Klukwan	Piped	Pressure	Gravity	Lagoon	**$60.00**		
Pelican	Piped	Pressure	Gravity	ST/OF	**$50.00**	$32.50	$17.50
Angoon	Piped	Pressure	Gravity	ST/OF	**$40.00**	$24.00	$16.00

[3] Data source: RUBA/DEC Community Index 2023 Rates; DCRA collected user rates for 126 communities for DEC's Affordability Index. This table shows only the Best Practices communities in the Southeast and their rates. These rates include only residential user fees. Other users like public schools, medical facilities, apartment buildings, and other larger businesses are not included in theses rates.

7. CONCLUSIONS

By comparing the estimated revenues (Table 1) with the estimated operating expenses (Table 3), the projected budgets (Table 4) for 2025-2027 show a surplus of $0.00. The budgets are balanced and realistic.

The general account subsidy is proposed because the water utility service provided by the city has been subsidized by the city council annually at a rate of over 50% (FY23 $57,344 subsidy) for many years now.

Because this is a new service, the estimated expenses may be reduced in the future if the first year of service shows that the operation and maintenance costs of the sewer service are less than estimated in this rate study.

The city may also consider negotiating more favorable charges for the services provided by the Tyler Rental as part of a long-term contract.

8. RECOMMENDATIONS

Establish Sewer Service – Transition Period

This rate study recommends that the new sewer service be established as soon as possible but not later than the new fiscal year 2025 starting July 1, 2024. Time to set up and train the utility employees will allow for a gradual but planned transition to a new service provided by the city. Both the treasurer and the water operator will need to complete required training for the utility and the city to stay in compliance with the state law and regulations as well as the local laws.

Revisit Projected Annual Revenues, Expenses and Rate Structure

The projected expenses provided in this rate study shall be revisited at the end of fiscal year 2026. The projected revenues shall fully cover the operating and maintenance expenses of the sewer service and shall be adjusted to assure the sewer annual sewer budgets are balanced and realistic.

Adopt Sewer Ordinances and Local Rules

The city council shall adopt ordinances establishing the new sewer system, requirements for onsite sewer system pumping, sludge removal and disposal. The ordinances may also provide definitions as to what is considered a readily accessible property by a sludge

pumping vehicle and those that are not readily accessible and consider different rates accordingly.

The council shall also adopt ordinances addressing structures with onsite sewer systems (septic tanks) that are not part of current city sewer system and work with property owners to assure sewer is regularly pumped and sludge removed and lawfully disposed of. Owners of onsite sewer systems that are not part of the city sewer system shall provide the city with a statement describing their maintenance schedule including method and frequency for pumping their onsite sewer systems.

Adopt sewer fees, rates and charges, fine schedule

The council shall also adopt an ordinance providing for the adoption of sewer fees, rates, charges and fine schedule.

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