

POSSIBLE MOTION

I MOVE TO approve Ordinance 2012-16 on first reading

CITY AND BOROUGH OF SITKA

ORDINANCE NO. 2012-16

AN ORDINANCE OF THE CITY AND BOROUGH OF SITKA AMENDING THE SITKA GENERAL CODE AT CHAPTER 15.05 ENTITLED "WATER SYSTEM" AT SUBSECTION 15.05.620 ENTITLED "RATES AND FEES" TO ADJUST THE RATES FOR WATER SERVICE

1. CLASSIFICATION. This ordinance is of a permanent nature and is intended to be a part of the Sitka General Code of the City and Borough of Sitka, Alaska.

2. SEVERABILITY. If any provision of this ordinance or any application to any person or circumstance is held invalid, the remainder of this ordinance and application to any person and circumstances shall not be affected.

3. PURPOSE. The City and Borough of Sitka shall change the rates for water service, with the base rate going from \$23.71 to \$27.02 per month per unit and metered rates to increase by fourteen (14) percent for Fiscal Year 2013; and a subsequent rate increase of 14% in 2014 for both the base and metered rates. The additional funds are needed to cover the operating, debt service and infrastructure costs. The schedule follows the Water System Master Plan and the presentation by the FCS Group – Solutions Oriented Consulting and each year will be evaluated prior to the 14% rate increase in Fiscal Year 2014.

4. ENACTMENT. NOW, THEREFORE, BE IT ENACTED by the Assembly of the City and Borough of Sitka that the Sitka General Code Section is amended to read as follows (new language underlined; deleted language stricken):

Chapter 15.05
Water System

15.05.620 Rates and Fees

A. Unmetered Water. Base rate: \$27.02 ~~twenty three and seventy one~~ per unit.

B. Metered Water Service

Table with 3 columns: Meter Size, Allowance(GAL), Minimum Charge. Rows include meter sizes from 1 inch to 6 inches and above, with corresponding allowances and minimum charges.

All over allowance charged at the minimum charge plus eighty four ~~seventy four~~ cents per one thousand gallons. The over allowance charged at minimum charge plus thirty nine

52 ~~thirty-four~~ cents per one thousand will apply to major fish processing plants (Seafood
53 Producers Cooperative, Sitka Sound Seafoods, Inc., aka North Pacific_Seafoods, and
54 Stikine Holdings, LLC. aka Silver Bay Seafoods)

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56 * * *

57
58 15.05.625 Water rates – Sawmill Cove Industrial Park.

59
60 A. Water Service – Sawmill Cove Industrial Park

61 1. Unmetered Treated water, domestic use: Base Rate, twenty seven ~~twenty-three~~
62 dollars and ~~two seventy-one~~ cents per unit, per month.

63 2. Metered water: eighty four ~~seventy-four~~ dollars and forty seven ~~ten~~ cents per month
64 minimum.

65 a. Treated water; one dollar and sixty nine ~~forty-eight~~ cents per one thousand gallons.

66 b. Treated water: fish processing use: one dollar and twenty seven ~~eleven~~ cents per
67 one thousand gallons.

68 c. Raw water for heating: fifty nine ~~fifty-two~~ cents per one thousand gallons.

69 d. Raw water for industrial processing: eighty four ~~seventy-four~~ cents per one
70 thousand gallons.

71 e. Raw water for water bottling at Sawmill Cove Industrial Park: one dollar and forty
72 eight ~~thirty~~ cents per thousand gallons

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74 * * *

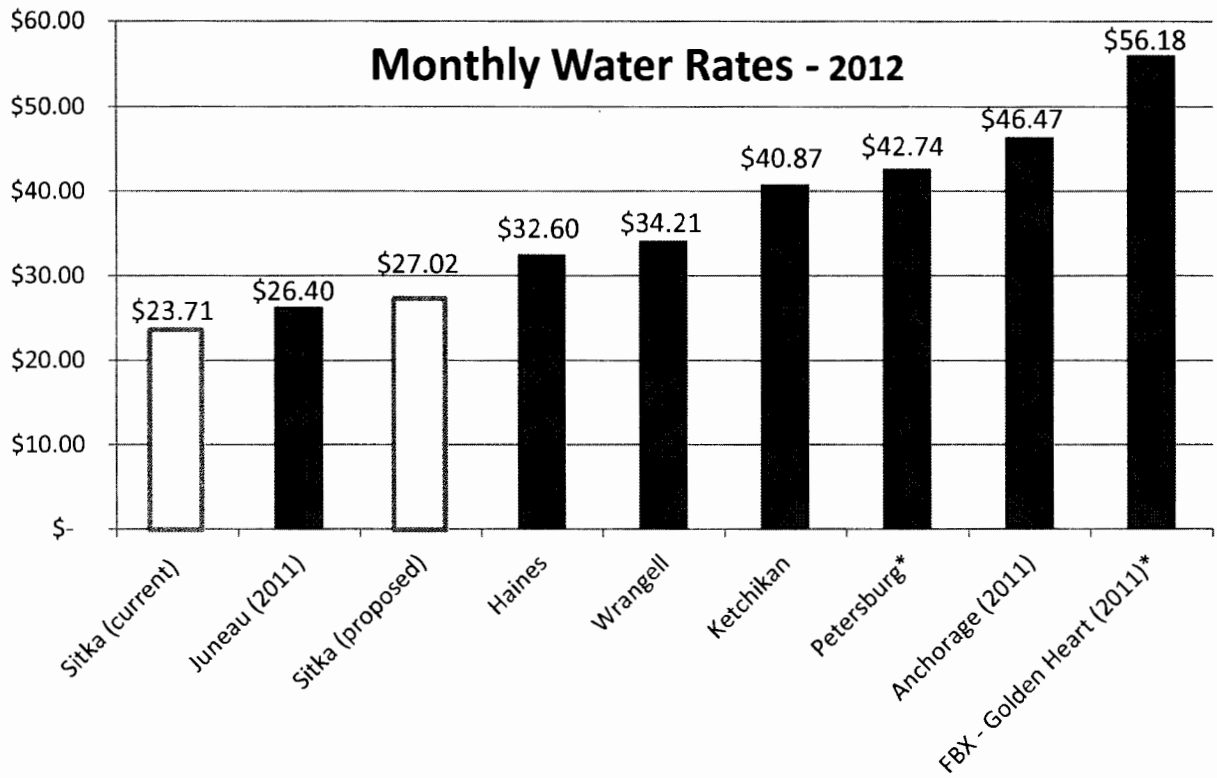
75
76 **5. EFFECTIVE DATE.** This ordinance shall become effective on the **first billing cycle after**
77 **July 1, 2012.**

78
79 **PASSED, APPROVED, AND ADOPTED** by the Assembly of the City and Borough of Sitka,
80 Alaska this 22nd day of May, 2012.

81
82
83 _____
Cheryl Westover, Mayor

84 ATTEST:

85
86 _____
87 Serena Wild
88 Deputy Assistant Clerk



* metered based on 50 gal/person/day; 4 persons / household

EXECUTIVE SUMMARY

SITKA WATER MASTER PLAN

Purpose of Plan

The City and Borough of Sitka water system has been supplying water to residents of Sitka from the Blue Lake water source for over 26 years and some sections of the distribution system piping have been in service for over 40 years. It is important to periodically review the condition and performance of a water system to ensure its equipment and processes are still satisfactorily meeting the changing demands of a community and complying with State and federal regulations that ensure safe drinking water is being supplied.

In that regard the study:

- Prepared an inventory of water treatment facilities, water storage reservoirs, transmission lines, distribution lines and pump stations based on available as-built drawings and project records. The inventory was used to update the CBS water system computer model and to evaluate the ability of water storage reservoirs and pipes to meet domestic and fire flow water demands;
- Reviewed current and pending State and Federal regulations that impact the water system, particularly the US Environmental Protection Agency Surface Water Treatment Rule;
- Reviewed the condition of the water system and made recommendations for capital improvements to upgrade the system as needed to ensure water service can be reliable provided and to comply with water treatment regulatory requirements. Planning level cost estimates were developed for these capital improvement projects;
- Conducted a review of the water system financial status and provided financial recommendations that will allow CBS to maintain the financial health and stability of the water utility while undertaking necessary capital improvements.

Recommendations and Conclusions

Area Wide Water System Demand

Area wide water system demand has remained relatively constant over the last 5 years and is anticipated to remain stable for the foreseeable future. This means, barring any significant new demands beyond those that already exist, an increase in water production

capacity is not required. The following table is a summary of the average day area wide water system demand for the last five years and illustrates the water demand that has been occurring.

AREA WIDE WATER DEMAND

2004 AVG DAY = 3.437 MGD
2005 AVG DAY = 3.492 MGD
2006 AVG DAY = 3.298 MGD
2007 AVG DAY = 3.370 MGD
2008 AVG DAY = 3.306 MGD

Additional Water Storage Recommended

Current and planned water storage for the CBS water system includes a total of 2.95 million gallons in the following three water storage reservoirs.

- Harbor Mountain Tank = 0.75 MG (million gallons)
- 1.2 MG Tank = 1.2 MG
- Future Whitcomb Heights Tank = 1.0 MG

The recommended water storage for municipalities is typically one day of average water consumption (approximately 3.5 MG for Sitka) plus the maximum fire flow demand, which for Sitka is 3,500 gpm for 3 hours (0.63 MG). On that basis the system should have about 4.1 million gallons of water storage available for emergencies. The current water system storage capacity (including the new Whitcomb Heights Tank) is about 1.15 million gallons less than the recommended volume (i.e. less than one day emergency storage plus fire flow). Consequently an additional water storage reservoir is recommended with a capacity of at least 1.15 million gallons.

Minimum Water System Pressures

The minimum water system pressure allowed by State regulation is 20 psi under peak flow conditions. Water system model results indicate that most of the distribution system can maintain water system pressures in excess of 20 psi even under peak flow conditions. However, low water system pressures (less than 20 psi) can occur at the higher elevations in the Jarvis Street and Lance Drive areas and at high points of Sawmill Creek Road under peak flow conditions. Constructing a water storage reservoir in association with the existing Hillside Pump Station would address low water pressure issues in the higher elevations of the Jarvis Street and Lance Drive area as well as provide needed emergency water storage to improve water system pressures during peak demands in the Sawmill Creek Road area.

Water Treatment Regulatory Requirements

Probably the most significant impact for Sitka's water system in terms of required capital construction and increased operating costs, will be complying with regulations adopted by the U.S. Environmental Protection Agency that govern unfiltered surface water sources. All unfiltered surface water sources like Sitka's will need to provide additional treatment by October 1, 2014.

In 1989 the US Environmental Protection Agency adopted the Surface Water Treatment Rule (SWTR) to protect the public from waterborne diseases. The SWTR established standards for the removal or inactivation of *Giardia*, *Cryptosporidium* and viruses.

For CBS's unfiltered Blue Lake water source, inactivation of *Giardia* and viruses is currently being accomplished in accordance with the SWTR. This is done by keeping the disinfectant residual (chlorine) and contact times at concentrations and durations that are specified in the regulation. The contact times are met as water transits in the water transmission main from Sawmill Cove to Sitka. Water flow rates in the transmission main are carefully controlled to ensure sufficient contact time is achieved prior to the water reaching town.

In 2006 the US Environmental Protection Agency adopted the Long Term 2 Enhanced Surface Water Treatment Rule, which specifically addresses inactivation of *Cryptosporidium*. *Cryptosporidium* and the disease it causes, *cryptosporidiosis*, was brought to the public's attention by an outbreak in 1993 in Milwaukee, Wisconsin. Up to 300,000 residents became ill during the outbreak and as many as 60 died. Several lawsuits were filed against the City of Milwaukee as a result of the outbreak.

The Long Term 2 Enhanced Surface Water Treatment Rule requires that Sitka and other unfiltered surface water systems (i.e. Juneau, Ketchikan, Unalaska and Kodiak) comply with the treatment requirements for *Cryptosporidium* by October, 2014. *Cryptosporidium* is a parasitic protozoan that forms a protective cyst which makes it resistant to chlorine levels normally found in public water systems.

Three treatment processes have been found to be effective at inactivating *Cryptosporidium*, 1) UV Disinfection, 2) Ozone Disinfection, and 3) Chlorine Dioxide Disinfection. Each of these treatment processes were evaluated for Sitka along with two filtration options. The capital cost for each option and the annual operation, maintenance and labor were compared. The following table is a summary of this comparison:

Treatment Alternative	Capital Cost	Annual O&M and Labor Costs	25 Yr Life Cycle Cost
UV Disinfection	\$6,450,000	\$360,000	\$9,100,000
Ozone Disinfection	\$27,300,000	\$1,270,000	\$39,800,000
Chlorine Dioxide Disinfection	\$34,900,000	\$1,420,000	\$48,900,000
High-Rate Granular Filtration	\$24,100,000	\$1,090,000	\$34,700,000
Membrane Filtration	\$46,600,000	\$2,220,000	\$68,300,000

The recommended alternative for complying with the US Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule is UV Disinfection. The total estimated project costs to construct a UV Disinfection system for the Blue Lake water source including design, inspection, administration and contingencies is \$6,450,000. The State has historically been participating in these projects by providing construction grants of up to 70% of the project cost. Contacts made with the Alaska Department of Environmental Conservation's Construction Grant Program indicate that it is very likely such a grant would be available for Sitka.

Capital Improvement Projects

Despite extensive water system capital improvements over the last several years, there is continuing demand for water service in new areas such as the Whitcomb Heights area. There is also need for improvement, repair and replacement of aging existing water facilities to keep existing facilities functioning and to ensure the system can safely and reliably provide water to existing customers.

To accommodate demands for water service and to upgrade existing facilities it is essential Sitka develop a logical and feasible plan for addressing water system needs. In conjunction with CBS staff the water system was evaluated to consider the physical condition of existing facilities, the capacity of the system to meet water system demands and the need for flexibility to isolate areas of the water system for repairs. There are also portions of the existing system that need to be replaced or improved due to use of old outdated piping. An example is the old asbestos cement piping on Japonski Island in which line breaks are becoming more common.

In developing the list of capital improvement projects for Sitka, the Alaska Department of Environmental Conservation was contacted to determine the likelihood of receiving grants and loans for water system improvements from the State. While there is no guarantee as to the level at which the water system grant and loan program will be funded from year to year, estimates of the potential for receiving grants and loans based on historic funding levels were made when developing the capital improvement plan.

Executive Summary
Sitka Water Master Plan

The most significant capital improvement project in the near future is construction of the UV disinfection system for the Blue Lake water source. The project has been highlighted in the table below to indicate the time frame in which funding for the project needs to be available.

**Sitka Water System
Capital Improvement Projects**

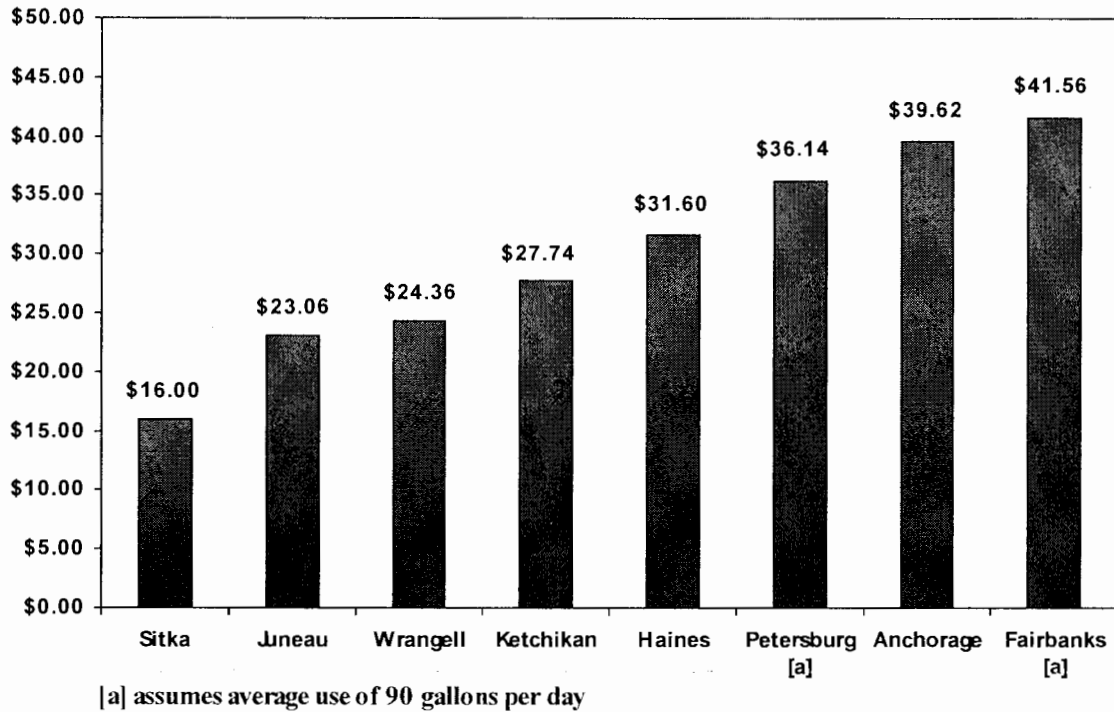
Project	Total Estimated Project Cost	State Grant	State Loan	Sitka Water Fund	Projected Project Period
Abandon old HPR Main Connect Services to 16"	\$307,500			FUNDED	-
Mills Street Water	\$214,050			\$214,050	2009
Areawide Water Meters (Four)	\$360,000			\$360,000	2009/2016
Misc. Water Improvements for SMCR Paving Phase III	\$150,000			\$150,000	2010
Misc. Water Improvements for HPR Paving	\$300,000			\$300,000	2012
Replace Old Hydrants (est. 200 @ 9/yr.)	\$1,500,000			\$1,500,000	continuous
Blue Lake WTP UV Disinfection	\$6,450,000	\$4,515,000	\$1,935,000		2012 - 2014
Eagle Way Water	\$274,500	\$274,500			2012
Blue Lake WTP Sawmill Cr Intake	\$705,000	\$282,000	\$282,000	\$141,000	2012
Repaint 1.2 MG Tank	\$524,700		\$524,700		2015
SMC Road Water Replacement	\$849,330		\$849,330		2016
Jeff Davis Street Water Upgrade	\$877,200		\$877,200		2017
Japonski Island Water Loop	\$715,200	\$572,160		\$143,040	2017
Lincoln Street Water Upgrade	\$1,032,450		\$1,032,450		2018
Erler Street Water Upgrade	\$398,250			\$398,250	2018
Granite Cr Road Water	\$165,000			\$165,000	2018
Japonski Bridge Water Upgrade	\$2,850,000	\$2,280,000		\$570,000	2019
Connect Hillside PS to Lance Dr and Haley Ave Tank	\$1,207,500	\$845,250	\$362,250		2019
Haley Ave 2.0 MG Tank	\$5,182,500	\$3,627,750	\$1,554,750		2020
Lake Street Water Upgrade	\$443,820		\$443,820		2020
Wortman Loop PS Improvements	\$322,500		\$322,500		2020
Connect Benchlands Upper Zone to Wortman Loop	\$799,500		\$799,500		2020
Connect Indian River Rd to Jarvis St.	\$843,900		\$843,900		2022
Harris Is. Water Replacement	\$148,875	\$74,438		\$74,438	2024
Replace Air Vac Valves (est. 12)	\$180,000			\$180,000	2025
Relocate Airport Road Water	\$1,456,800		\$1,456,800		2025
Kashevaroff Street Water	\$243,900			\$243,900	2027
Connect Benchlands to Harbor Mt. Tank	\$2,404,500		\$2,404,500		2029
Lake Street to Pherson St and Verstovia Ave. Water	\$1,168,500		\$1,168,500		2029
Stargavin Water	\$970,950	\$873,855		\$97,095	2030
Connect Granite Cr Rd to Harbor Mt. Rd	\$867,000		\$867,000		2030
Blue Lake WTP New Supply Line	\$3,450,000	\$2,415,000	\$1,035,000		-
Benchlands Kramer Ave. Water Trunk	\$3,499,500	\$3,499,500			-
TOTAL	\$40,862,925	\$19,259,453	\$16,759,200	\$4,536,773	

Water System Financial Program

The water system financial program developed for this study is based on the understanding that the water utility operates as a self-supporting enterprise fund and, as such, receives revenue for payment of services on a user fee basis as opposed to property taxes or other non-utility revenue sources. For this study, utility rates are established to recover the full cost of capital expenditures, operating & maintenance expenses, debt service and related coverage requirements, and provide for an adequate level of reserves.

Particular attention was paid to generating the financial resources needed to construct and operate the new treatment facilities required to comply with the current Federal regulations concerning inactivation of *Cryptosporidium*. User fees have not increased since July, 2002 and currently are significantly lower than other communities in Alaska.

The following chart shows Sitka's water utility rates compared to other Alaska communities.



The following table presents the proposed rate forecast through 2015. This rate strategy was designed to smooth in the necessary rate increases over time, while integrating best management practices, funding the capital program, and meeting the annual operational needs of the water utility.

Rate Forecast	2009	2010	2011	2012	2013	2014	2015
Monthly Base Rate per Unit [1]	\$16.00	\$18.24	\$20.79	\$23.70	\$27.02	\$30.81	\$35.12
Monthly Dollar Impact	\$0.00	\$2.24	\$2.55	\$2.91	\$3.32	\$3.78	\$4.31

[1] Based rate applies per dwelling unit for residential; varies for commercial customers based on unit equivalents

Following implementation of the proposed rate strategy for the study period, CBS staff expects future year rate increases to correspond with annual inflationary levels. It is recommended that CBS regularly review all underlying assumptions and update the rate analysis as necessary to meet financial obligations of the water utility.

Chapter 8

Water System Financial Program

Working with Carson Dorn Engineers and CBS, FCS GROUP provided the Water System Financial Program in support of the City and Borough of Sitka's (CBS) Water System Master Plan. This memorandum documents the objectives, assumptions, findings, and recommendations for the Financial Program. The technical spreadsheet analysis is provided as an Appendix. Major elements of the analysis are listed below:

- ❖ Fiscal Policy Framework
- ❖ Capital Financing Strategy
- ❖ Revenue Needs Assessment (fiscal year 2009 – 2015)
- ❖ Rate Forecast (fiscal year 2009 – 2015)

Fiscal Policy Framework

Integration of fiscal policies into the financial planning process is considered a best management practice, necessary for maintaining the financial health and stability of the water utility. A brief summary of the key policies incorporated into the Financial Program is provided below:

Self Supporting Enterprise Fund

Rates were developed for this study based on the understanding that the water utility operates as a self-supporting enterprise fund and, as such, receive revenues for payment of services on a user fee basis as opposed to property taxes or other non-utility revenue sources. For this study, utility rates are established to recover the full cost of capital expenditures, operating & maintenance expenses, debt service and related coverage requirements, and provide for an adequate level of reserves.

The CBS maintains a single Water Fund in which operating and capital-related cash deposits and withdrawals are made. For purposes of this financial analysis, we have separated the Water Fund into an Operating Account and a Capital Account to identify appropriate sources and uses for each account.

Working Capital

The purpose of maintaining a working capital balance is to provide sufficient cash flow to meet daily operating expenses despite short-term variability in revenues, primarily caused by billing and expense payment cycles and seasonality in demand-based revenue streams. This study incorporates a minimum balance in the operating account equal to 30 to 45 days of annual operating & maintenance (O&M) expense sustained from rate revenue. This target

level is consistent with industry practice for utilities with primarily flat rate systems since revenues are relatively stable year around. Metered rate structures warrant a higher target, typically ranging from 60 to 90 days of O&M.

The target balance should be evaluated as of June 30 of each fiscal year, with the balance expected to vary during the course of a year. In any year where the cash balance exceeds the target, we recommend transferring the excess to the capital account to help pay for capital projects.

The rate management strategy presented in this study demonstrates that this target is met in each year of the study period – averaging just over \$100,000 per year.

Capital Contingency

A capital contingency is similar to a working capital balance, but is used for capital purposes. It provides a cash balance for funding emergency repairs (other than catastrophic events), unanticipated capital expenditures, and/or capital project cost overruns. This balance is established and maintained with interest earnings, system reinvestment funding from rates and excess working capital balances.

Consistent with industry practice, this study incorporates a target balance of 1% of water system fixed assets, ranging from about \$100,000 to \$270,000 a year.

System Reinvestment Funding

System reinvestment funding from rates provides for: (1) ongoing system integrity through reinvestment in the system – replacing physical assets with cash assets; (2) rate stability through regular accumulation of cash toward funding future replacement costs; and (3) charging customers commensurate with their consumption of system facilities.

Each year, water system assets lose value, and as they lose value they are moving toward eventual replacement. That accumulating loss in value and future liability is measured for financial purposes as annual depreciation expense, which is based on the original cost of the asset over its anticipated useful life. While this expense reflects the consumption of the existing asset at its original investment, the replacement of that asset will likely cost much more, factoring in inflation and construction conditions. Therefore, the added annual replacement liability is even greater than the recorded annual depreciation.

The City's historical practice has been to fund capital needs through a combination of grants, loans, and "pay-as-you-go" funding from rates. While this approach meets annual capital funding needs, it would likely result in significant "spikes" in rates to fund inevitable peaks in infrastructure needs as water system assets age. This study introduces a system reinvestment funding policy to annually fund from rates an amount equal to annual depreciation expense. To mitigate near-term rate impacts, this policy was phased in over the study period. Current depreciation expense is \$367,000. Applying the phase-in factor over the study period, funding will range from about \$200,000 to just under \$650,000 by the end of the study period. Funds will accumulate in years where system reinvestment funding deposits exceed capital replacement needs and will be drawn down as needed to minimize debt financing of replacement projects.

It is important to note that as state grant and low-cost loans are becoming more and more competitive, eligibility criterion are expanding to include review of best management practices such as system reinvestment funding policies.

Debt Management

Debt management policies are intended to: (1) provide an appropriate balance of debt and equity financing of capital needs; (2) maintain credit worthiness for future debt issuance; and (3) promote equity between existing and future ratepayers. As noted above, a combination of sources (grant, loan, and cash) has been used to fund capital. The priority of funding will of course continue to secure as much grant funding as possible, followed by the combination of low cost loans and cash financing. Standard loan/bond underwriter preference for municipalities is to maintain a debt-to-equity ratio of no greater than 50% debt / 50% equity (cash). To assist the CBS in maintaining this ratio, we recommend debt-financing no more than 75% of the capital program over a six-year rolling period.

Attainment of recommended debt management policies are discussed in more detail in the next section.

Capital Financing Strategy

The CBS has identified \$40.9 million (current day dollars) in water capital improvement and replacement projects planned for construction 2009 through 2030. Incorporating assumed annual inflation of 6% per year, this equates to \$80 million in total capital funding needs. Capital spending levels vary from year to year, with an average annual spending of roughly \$3.6 million. The capital funding plan assumes a mix of funding from cash balances, annual system reinvestment funding from rates, and state grants and loans. State loans assume an interest rate of 1.5% and a 20-year repayment term.

Exhibit 1 summarizes the six-year capital financing plan (FY 2009-14).

Exhibit 1: Six-Year Capital Financing Plan

Capital Funding	2009	2010	2011	2012	2013	2014	2015
Total Capital Projects	\$ 589,732	\$ 1,511,223	\$ 4,008,647	\$ 3,838,861	\$ 3,146,953	\$ 2,968,428	\$ 841,014
Grants	-	895,965	3,932,038	2,128,346	2,246,578	2,014,029	-
State Loan Proceeds	-	383,985	-	1,104,072	814,298	863,155	744,297
Direct Rate-Funding	-	-	-	60,223	-	-	-
Use of Capital Fund Balance	589,732	231,273	76,609	546,220	86,078	91,243	96,717
Total Funding Sources	\$ 589,732	\$ 1,511,223	\$ 4,008,647	\$ 3,838,861	\$ 3,146,953	\$ 2,968,428	\$ 841,014

Of the \$80 million in planned capital costs, about \$16.9 million, or 20%, is scheduled to occur during the study period. About \$11.2 million (66%) is expected to be funded with grants, another \$3.9 million (23%) funded from loans, with the remaining \$1.8 (11%) funded from cash, primarily generated through system reinvestment funding. Based on this financing plan, the capital program will remain within the suggested debt management policy of funding no more than 75% of the program with debt.

Exhibit 2 summarizes the total capital financing plan (FY 2009-30).

Exhibit 2: Total Capital Financing Plan

Capital Funding	Total 2009 - 30
Total Capital Projects	\$ 80,018,234
Grants and Developer Donations	37,358,559
State Loan Proceeds	34,160,364
Rates / Cash Balance	8,499,312
Total Funding Sources	\$ 80,018,234

About \$37.3 million (47%) is expected to be funded with grants, another \$34.2 million (43%) funded from loans, with the remaining \$8.5 million (11%) funded from cash. As reflected in the table, the percentage of funding from grants is expected to decrease over time. To minimize debt issuance, it will become more and more critical to fund system reinvestment through rates.

Revenue Needs Assessment

The revenue needs assessment determines the amount of annual revenue needed to be generated by user rates and forms the basis for a long-range financial plan and multi-year rate management strategy for the water utility. The analysis incorporates fiscal policies and forecasts of operating revenues and expenditures, debt service, and any other identified revenues or expenses related to utility operations to determine the sufficiency of the current level of rates. The following assumptions were used in this analysis:

- ❖ Revenue under existing rates is assumed to remain flat over the study period, currently at about \$910,000; no growth in the customer base.
- ❖ The FY 2009 beginning cash balance of about \$955,000 was provided by CBS staff and assigned to the operating account and capital account in accordance with fiscal policy recommendations. Interest earnings on available cash balances are assumed at 4% per year.
- ❖ Miscellaneous revenues and operating and maintenance (O&M) expenditures are based on the FY 2009 operating budget, escalated by 3.5% annual inflation. Miscellaneous revenues average about \$60,000 a year. O&M expenses range from \$769,000 to \$1.1 million by the end of the study period.
- ❖ Debt service on existing state loans total just over \$100,000 a year.
- ❖ Future years' debt service incorporates impacts of the proposed capital financing plan. State loans are assumed to fund capital needs in excess of grant and cash funding. Incremental debt service of about \$25,000 begins in 2011 increasing to over \$200,000 in new debt service by the end of the study period.
- ❖ System reinvestment funding is phased in over the study period beginning in 2010 at about \$228,000, climbing to about \$650,000 by the end of study period.

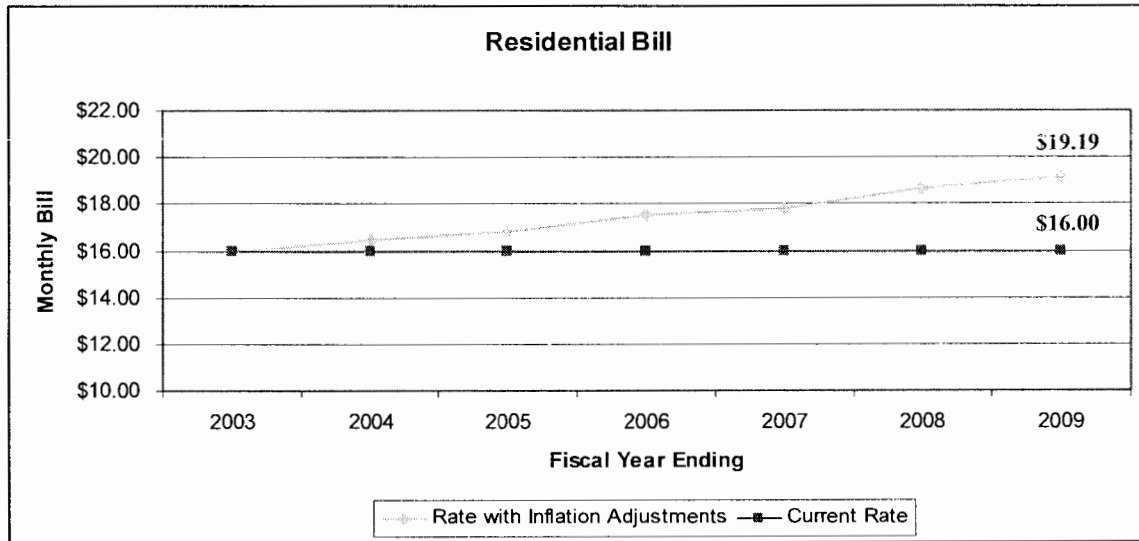
As shown in Exhibit 3, current revenues are insufficient to meet forecasted water utility financial obligations over the study period.

Exhibit 3: Revenue Needs Assessment

Revenue Requirements	2009	2010	2011	2012	2013	2014	2015
Revenues							
Rate Revenues Under Existing Rates	\$ 910,619	\$ 910,619	\$ 910,619	\$ 910,619	\$ 910,619	\$ 910,619	\$ 910,619
Non-Rate Revenues	57,307	60,601	61,204	63,285	64,417	66,927	70,162
Total Revenues	\$ 967,926	\$ 971,220	\$ 971,823	\$ 973,904	\$ 975,036	\$ 977,546	\$ 980,781
Expenses							
Annual Cash Expenditures	\$ 768,810	\$ 795,718	\$ 823,568	\$ 852,393	\$ 882,227	\$ 913,105	\$ 1,115,064
Existing Debt Service	163,410	108,915	108,039	107,162	106,285	105,409	104,532
New Debt Service	-	-	24,671	24,671	95,320	147,350	201,692
Rate Funded System Reinvestment	-	227,277	286,313	391,354	509,372	628,908	640,000
Rate Funded CIP	-	-	-	60,223	-	-	-
Total Expenses	\$ 932,220	\$ 1,131,910	\$ 1,242,592	\$ 1,435,803	\$ 1,593,205	\$ 1,794,772	\$ 2,061,288
Annual Surplus/(Deficiency)	\$ -	\$ (160,690)	\$ (270,769)	\$ (461,900)	\$ (618,168)	\$ (817,227)	\$ (1,080,507)

It is important to note that CBS water rates have not kept pace with inflation, with the last increase implemented July 1, 2002. Exhibit 4 compares the monthly residential water bill under current rates (\$16.00) versus where it should be (\$19.19) just to account for annual inflation since the last increase¹.

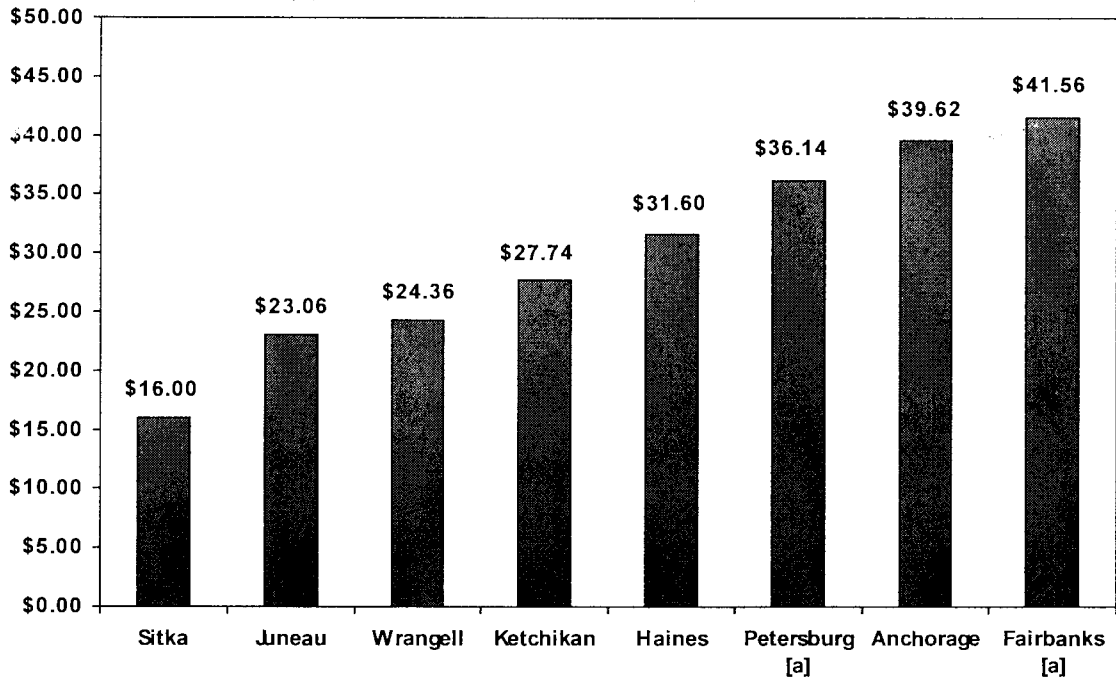
Exhibit 4: Typical Bill Inflation Comparison



For informational purposes only, Exhibit 5 presents a comparison of current water rates (as of January 2009) with a sampling of neighboring jurisdictions.

¹ Anchorage Consumer Price Index, FY 2002/03 – FY 2008/09; average inflation rate of 3% per year.

Exhibit 5: Comparison of Residential Water Bills



[a] assumes average use of 90 gallons per day

Rate Forecast

Exhibit 6 presents the proposed rate forecast for the study period. This rate strategy was designed to smooth in the necessary rate increases over time, while integrating best management practices, funding the capital program, and meeting the annual operational needs of the water utility.

Exhibit 6: Rate Forecast

Rate Forecast	2009	2010	2011	2012	2013	2014	2015
Monthly Base Rate per Unit [1]	\$16.00	\$18.24	\$20.79	\$23.70	\$27.02	\$30.81	\$35.12
Monthly Dollar Impact	\$0.00	\$2.24	\$2.55	\$2.91	\$3.32	\$3.78	\$4.31

[1] Based rate applies per dwelling unit for residential; varies for commercial customers based on unit equivalents

Following implementation of the proposed rate strategy for the study period, staff expects future year rate increases to correspond with annual inflationary levels. FCS GROUP recommends regular review of all underlying assumptions and an update of the rate analysis as necessary to meet financial obligations of the water utility.

City and Borough of Sitka
Water Fund
Pro Forma Financial Plan, FY2012 - FY2015
Assuming 14% Rate Increase in 2013, 2014, and 2015 and 4% Expense Increase

	<u>FY2012 EST</u>	<u>FY2013 EST</u>	<u>FY2014 EST</u>	<u>FY2015 EST</u>
Operating Revenues	1,398,000	1,594,000	1,817,000	2,071,000
Costs of Sales	<u>941,000</u>	<u>979,000</u>	<u>1,018,000</u>	<u>1,059,000</u>
Earnings Before Interest and Depreciation	457,000	615,000	799,000	1,012,000
Interest expense	(77,000)	(81,000)	(75,000)	(97,000)
Depreciation	(701,000)	(701,000)	(713,500)	(1,174,500)
Other Income (Expense)	42,000	2,042,000 ¹	3,252,000 ²	42,000
UV Facility Grant Income	-	1,950,000 ³	4,680,000 ³	363,000
Net Income	<u>(279,000)</u>	<u>3,825,000</u>	<u>7,942,500</u>	<u>145,500</u>
	<u>6/30/2012</u>	<u>6/30/2013</u>	<u>6/30/2014</u>	<u>6/30/2015</u>
Current Assets	1,535,000	1,311,000	1,539,000	1,694,000
Property, Plant & Equipment	20,419,000	22,093,000	24,729,500	23,938,000
UV Facility	<u>-</u>	<u>2,500,000</u>	<u>8,500,000</u>	<u>8,683,000</u>
Total assets	<u>21,954,000</u>	<u>25,904,000</u>	<u>34,768,500</u>	<u>34,315,000</u>
Current Liabilities	101,000	101,000	101,000	101,000
Notes Payable	5,424,000	4,999,000	4,601,000 ⁴	3,993,000
UV Facility Note Payable	-	550,000 ³	1,870,000 ³	1,879,000
Fund Equity	<u>16,429,000</u>	<u>20,254,000</u>	<u>28,196,500</u>	<u>28,342,000</u>
Total Liabilities and Fund Equity	<u>21,954,000</u>	<u>25,904,000</u>	<u>34,768,500</u>	<u>34,315,000</u>
Basic Rate	\$ 23.71	\$ 27.03	\$ 30.81	\$ 35.13

City and Borough of Sitka
Water Fund
14% Rate Increase in FY2013
Management Analysis and Discussion

- 1** Over the next 3 fiscal years (FY2013 - FY2015), the Water Fund is expecting to spend \$14,489,000 in capital outlays per the capital improvements program. Even after anticipated grants and outside funding of \$11,799,000, the capital improvements will require \$2,113,000. Assuming the entire amount can be borrowed from the State of Alaska at terms of 1.5% interest and 20 years payback, the additional annual debt service for \$2,113,000 of additional debt would be approximately \$123,100.
- 2** In FY2012, the Water Fund is projected to have cash flow from operations of \$157,000. This amount is clearly insufficient to cover the additional projected annual debt service of when considering the effects of inflation.
- 3** If rate increases detailed in the Water master Plan are not implemented as planned in FY2013, 2014 and 2015, the Water Fund will be unable to make all of its needed capital improvements. This would place the utility out of compliance with Federal and State of Alaska regulations.
- 4** Management strongly recommends approval of the recommended 14% rate increase for FY2013.