



## MEMORANDUM

TO: Mike Lewis, ADEC Municipal Grants and Loans Program  
Judith Cummins, ADEC Municipal Grants and Loans Program  
FROM: Bill Jarocki, Voltaic Solutions, LLC.  
DATE: May 20, 2013  
RE: Project Number 783501. Baranof Water Main Replacement; Hollywood Way Water Main Replacement; and, UV Treatment – Draft

### **City of Sitka ADWF Financial Capacity Review:**

#### **Background**

The Safe Drinking Water Act (SDWA), passed by Congress in 1974, is the main federal law that ensures the safety of America's public drinking water systems. Under SDWA, the Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, municipalities and water suppliers who implement those standards. The Act was amended in 1996 and those amendments (in part) established the State Drinking Water Revolving Funds as a supplemental source of capital for local water system improvements. This revolving fund approach mirrors the Clean Water State Revolving Funds, which had proven to be very successful in providing federal funds in the form of low-cost loans to wastewater treatment systems.

The State of Alaska, through the Department of Environmental Conservation (ADEC), administers the resources of the Alaska Drinking Water Fund (ADWF) to assist eligible recipients in improving drinking water systems. The ADEC conducts a financial capacity review of every applicant seeking ADWF financing. This review is designed to ascertain the ability of the applicant to repay the ADWF loan, to protect the taxpayer resources provided, and to ensure that other communities will be able to re-use these loan dollars – as they are repaid – for future projects.

#### **The City of Sitka ADWF Loan Request**

The City of Sitka is seeking \$685,000 in capital financing from the ADWF to make improvements to the water system by replacing water mains on Baranof Street and Hollywood Way. Both projects will replace aged 4" and 6" (respectively) ductile iron line with 8" HDPE line. This material should allow for a longer useful life, bringing those facilities up to higher municipal water system standards so that they may be adequately maintained in the future. Both projects will ensure that ADEC water/sewer pipe separation standards are met. These proposed projects were included in the final Alaska Drinking Water Fund Intended Use Plan for State Fiscal Year 2012. Each line replacement project received 126 points in the intended use plan scoring criteria with both receiving the highest public health criteria ranking of 50 points. A smaller additional project for ultraviolet treatment has been included to the loan request. The Baranof and Hollywood line replacement projects each received the highest sustainability score as well.

## **Demographic Characteristics and User Charge Affordability**

It is important for the ADEC to review the underlying demographic characteristics of communities receiving loans from the ADWF. If these characteristics are favorable at the outset of a debt issue, there is more reason to believe that the community will be in a good position to repay its obligation to the ADWF over the long-term. While the municipality has a strong likelihood that it will exist in perpetuity, it is entirely dependent upon its customers (in the case of an enterprise fund) to pay for the full cost of providing services – in this case drinking water service fees and charges.

The City of Sitka, population 8,835, is located in the southeastern region of Alaska and geographically is the largest incorporated city (which includes the accompanying Borough of Sitka) in the United States encompassing a total of 2,874 miles. This historic and scenic community is situated on Baranof Island, nestled between forested mountains and the Pacific Ocean. The City and Borough have operated under the Assembly-Administrator form of government since 1971. The governance of the Borough and City is an elected assembly of 6 persons and a mayor who makes policy and approves budgets. There is an administrator who oversees the day to day operations.

The City and Borough of Sitka is seeking the approval for a four separate projects: three water line projects and a sewer line project. It is important to take into account and understand the current financial responsibilities that this small community has when considering loan request. Sitka is responsible for the following services to its inhabitants: police and fire protection; ambulance services; public works which includes: street construction and maintenance; water, wastewater, solid waste and recycling services; harbor system moorage; recreational facility construction and maintenance; cultural events. In addition to these provisions, the City is financially responsible for the separate school district, the hospital and the convention visitor's bureau.<sup>1</sup> Our goal is to understand whether the City has the appropriate resources both in the present and future, to pay back the loan, if approved by ADEC.

### **Demographic Study**

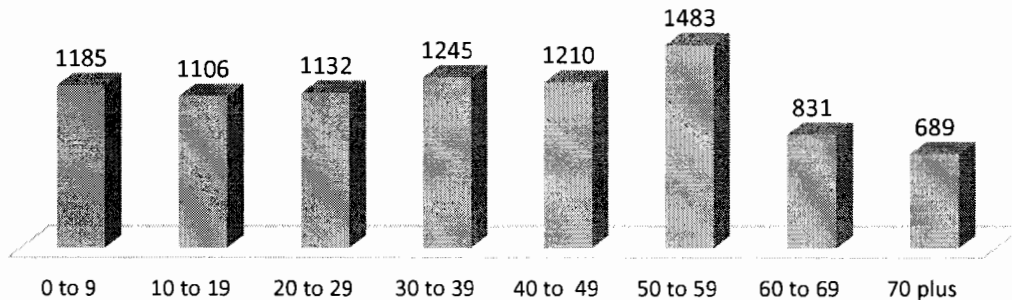
Community demographics are important indicators in determining the financial ability of group to pay back the sum of money borrowed from a lending institution. Heavy consideration should be made for a community's demographics *prior to* agreeing to a loan, particularly in light of a loan utilized from a pool of State taxpayer's dollars. Therefore, the goals of the local, regional and state leaders should be met if and only if a group is found to be credit worthy. A short 95 miles from the capital city of Juneau, the quaint city of Sitka, Alaska is located on the Western Coastal region of Alaska in the Pacific Ocean. Sitka's approximate 9,000 year round residents are comprised of a diverse employment base, including fisheries, tourism, healthcare and local government sector occupations.

**Employment and Poverty Factors.** The State of Alaska has experienced a steady decline in its unemployment rate over the last year<sup>ii</sup>. This trend is also occurring in Sitka, where the latest unemployment figure reveals a 6.8% unemployment rate<sup>iii</sup>. Sitka's major employers are the City itself, the School District, the local high school and two private employers, Hames Corporation and S.E.A.R.H.C, Inc., which employs over 10% of Sitka's populace. In addition, at 7% the poverty rate in Sitka is much less than the statewide level of 9.5%. This implies a relatively lower level of economic stress for the customer base as a whole.

**Population Factors.** The City and Borough of Sitka has been relatively stable in its total population over the last few years. No dramatic shifts of either an increase or a decrease in the population data could be detected based on the review of data available. However, there was a slight move upward then downward between the years of 2006 and 2008.<sup>iv</sup> The age distribution<sup>v</sup> indicates a consistent number of

employable men and women along with a younger generation that can continue on as residents of the community. This is important when considering the ability of Sitka to retire debt issues over time.

## Sitka Population



**Housing Units.** Sitka’s total housing units include the following: all housing units equal 4,102. Of these units, only 1.5% designated as homeowner units are vacant, while 7.8% of all rentals are vacant<sup>vi</sup>. These are good indicators that the local housing market is relatively stable.

The recent approval of Ordinance 2013-11 will amend Sitka General Code regarding the treatment of rental units – referred to as “owner accounts” in the utility billing system. The amended code simply clarifies that a rental unit will be charged for all services connected to the unit during the time the unit has an active owner account<sup>vii</sup>. Until this ordinance was approved, owners of rental property units were continuing to be charged and billed for electrical services but were not charged water, wastewater or solid waste services, even though these units were still connected to Sitka’s services while the unit was unoccupied by a renter. The billing is based on access and not on usage during this time between actual renters.

### **Current and Future User Charge Affordability**

The Median Household Income (MHI) in Sitka is a little less than \$70,000 per year. Existing user charges for drinking water are \$27.02 monthly for a typical household. This monthly fee equates to 0.46% of monthly MHI. Using a conservative benchmark for affordability of 1.5% of monthly MHI for any single utility service, the current typical household drinking water user charge is affordable (at less than one-third of the affordability benchmark).

The ADWF loan of \$685,000 will require an annual debt payment of approximately \$40,000 per year. In this analysis for the purpose of determining future affordability of user charges we have calculated the impact to the monthly bill for a typical household would be minimal. The loan repayment represents only 3% of the 2012 total customer charges. Assuming that the loan repayment would increase customer charges evenly across the board, a three percent increase in monthly typical household user fees would be about 81 cents. This calculation does not include an increase in the user fee attributed to funding replacement/depreciation (including the replacement/depreciation of new assets). This will be noted below.

Sitka’s typical residential user fee for drinking water could theoretically increase to \$88 before the threshold for affordability is exceeded. The new loan for system improvements should not be burdensome to consumers. The city has also raised user charges periodically (four increases over the

past ten years). This has provided appropriate pricing signals to customers – a rate conditioning index of 0.40 – that creates the expectation among customers that user charges are likely to increase and that households should budget accordingly. In the 2011 financial capacity review it was reported that the approximate monthly cost for water was \$20.80. The City has increased the typical household fee for drinking water by 30%. In summary then, current and future user charge affordability is not a negative consideration for this loan proposal.

### **Financial Capacity**

The assessment of financial capacity for the requested ADWF loan of \$685,000 for the purpose of making improvements to the drinking water facilities normally requires an examination of the City's water system enterprise fund. Because the fund is expected to perform independently in a business-like manner, this financial capacity examination would be limited to this enterprise fund. The City's Comprehensive Annual Financial Report (CAFR) for 2012 presents the water system enterprise fund in this manner. However, the CAFRs for 2011 and 2010 present the water system within a combined water and electric utilities enterprise fund. Our financial capacity analysis takes this into consideration.

The examination makes use of the ADEC FACE analysis model and covers the following areas:

- Current financial condition and current affordability (*covered in part, above*);
- Financial trends and future affordability (*also covered in part, above*);
- Financial management;
- Project overview (*covered above*); and,
- Economic factors (*covered above*).

Current Financial Condition (FY2012). The metrics for the current financial condition of the water fund include standard financial ratios using information derived from the 2012 CAFR. This appears to be the first comprehensive presentation of the water enterprise fund independent of the electrical utility. Of the key indicators discussed below, the Total Sales to Net Fixed Assets Ratio, the Revenues and Expenses (variance) factor, and the Operating Ratio were problematic. These three indicators are weak because expenses have outpaced revenues. It should be noted that the operating ratio has been a consistent problem identified in previous financial capacity reviews.

1. **Working Capital and Current Ratio.** Working capital and the Current Ratio are measures of liquidity and both consider current assets against current liabilities. Sitka's current assets in the water enterprise fund exceed current liabilities by \$741,321. The current ratio is 14.31 which is seven times greater than the minimum benchmark used in our analyses (2.0). Sitka has an acceptable level of liquidity.
2. **Receivables to Sales Ratio and Average Collection Period.** The receivables to sales ratio is a measure of the fund's ability to collect payment from customers for services received. This ratio should indicate that receivables do not exceed one month's sales. At .09 the water fund's receivables to sales ratio just meets the benchmark. The average collection period of 32 days is technically a shade higher than the benchmark. However, with user rates being raised four times in the last ten years these indicators are very good.
3. **Debt to Worth Ratio.** The debt to worth ratio is a measure of leverage. From a creditor's point of view it is preferable to issue new debt to an entity that currently carries a limited amount of debt relative to net worth. The water fund's debt to worth ratio (.32) is much lower than the benchmark level of 0.5. In the case of Sitka's water enterprise fund, the debt to worth ratio has improved (since the previous financial capacity review). Acquisition of capital is not

problematic, and the current and future affordability of user charges presents less risk to the ADEC regarding repayment of the proposed ADWF loan.

4. **Total Sales to Net Fixed Assets Ratio.** Sales revenues (user fees) should support the majority of the revenue budget needed, which includes funding for replacement of worn out capital assets over time. The water fund had almost \$21M in net fixed assets in FY2012. If one were to assume that assets would be depreciated over 20 years, then the depreciation expense would be about \$1.05M annually – essentially 5% of the net fixed assets. The water fund had total operating revenues from charges of \$1.336M. Knowing that depreciation expense was actually \$747,309 in FY2012, it is fair to say that revenues from sales of service do not completely support operating expenses including the amount need to replace assets over time. Note that a depreciation schedule of 20 years for long-life water system assets may be liberal. Nevertheless, when viewed with the next two financial indicators, this ratio of 6.42% confirms that total operating expenses are underfunded.
5. **Revenues and Expenses (variance) and Fund Net Assets.** The variance between revenues and expenses is equally measured by these two indicators. In FY2012, expenses exceeded revenues by \$309,044 in the water fund. This negative variance included the deduction for depreciation expense, and is a negative indicator of financial capacity. In contrast, fund net assets increased slightly by \$175,270 (a positive indicator). This is probably due to a contribution of capital of \$504,598. The 2011 financial capacity review noted how this accounting entry – while accurate – can mask the performance of the fund<sup>viii</sup>. What is more important here is the fact that expenses have exceeded revenues. This is reflected in the discussion of the operating ratio.
6. **Operating Ratio.** While fund net assets measures the overall position of the water fund over the course of the year, it is important to isolate and examine the ability of the utility to meet operating expenses (including depreciation expenses) with operating revenues. This is a measure of efficiency. In 2012, the water system operating expenses exceeded the operating revenues considerably. The fund’s operating ratio of 0.79 was well below the acceptable benchmark level of 1.0. Operating revenues must be higher than operating expenses for sustainability of the fund.

Historic Financial Condition – Trend Analysis. In this financial capacity analysis we attempted to use the same metrics for the current financial condition of the water fund over time to determine if trend-line information indicates any problems. A three-year historical time series is useful in detecting important movement of ratios against both benchmarks and past performance. Unfortunately, in the fiscal years for 2010 and 2011 the water system and electrical utility were combined into a single enterprise fund. When considering the FY2012 financial performance this is an “apples to oranges” comparison. Had the FY2012 information for the water enterprise fund not been available, then the default analysis strategy would have been to use the historical data from the water/electricity utility fund only. The City of Sitka should be commended for separating the water and electrical utilities in the financial report in 2012. Please note that this recommendation has been given previous in financial capacity reviews.

We did artificially combined the water and electric utility financial reports for fiscal year 2012 to create a third year data point for each trend line (FY2010-2011 were provided in CAFRs). Unfortunately, the contrast of the combined fund information to the water fund information that we do have for FY 12 is significant. Thus, at best the actual comparison of the combined fund information is of limited utility. The following table shows the three year performance of combined fund followed by the FY 12 performance of the water fund:

| Financial Ratios and Indicators Comparison Report<br>Combined Water/Electrical Utilities Fund and FY2012 Water Fund |              |              |              |             |
|---|--------------|--------------|--------------|-------------|
|   | Combined     | Combined     | Combined     | Water       |
| Ratio/Indicator   | FY2010       | FY2011       | FY2012       | FY2011      |
| Working Capital   | \$8,430,395  | \$32,328,917 | \$31,155,443 | \$741,321   |
| Current Ratio   | 10.10        | 31.57        | 29.52        | 14.31       |
| Receivables to Sales  | 0.08         | 0.09         | 0.09         | 0.09        |
| Avg. Collection Period  | 28           | 31           | 32           | 32          |
| Debt to Worth Ratio   | 0.63         | 0.83         | 0.76         | 0.32        |
| Total Sales to Net Fixed Assets   | 0.13         | 0.13         | 0.12         | 0.06        |
| Rev./Expenses (Variance)  | \$856,291    | \$1,353,774  | (\$62,574)   | (\$309,044) |
| Fund Net Assets   | \$67,854,309 | \$76,512,439 | \$82,050,698 | \$175,270   |
| Operating Ratio   | 1.27         | 1.28         | 1.12         | 0.79        |

As the table shows, there is a real disconnect between the combined water/electrical utility fund information and the Water Enterprise Fund information. Now that the City has clearly isolated the water system financial information in the water enterprise fund, future CAFR's, if following this practice, will provide accurate comparison information in the future (see recommendations below).

**Operating Ratio.** It was useful to isolate and examine the ability of the water utility to meet operating expenses (including depreciation expenses) with operating revenues for fiscal year 2012. During this year, the water system operating expenses exceeded the operating revenues considerably. The fund's operating ratio of 0.79, with depreciation expense added, was well below the acceptable benchmark level of 1.0. Using historical information taken from the published budgets and the FY2012 CAFR, the operating ratio performance prior to FY2012 was mixed with the best performance in FY2008 at 1.17. It is important to note that for the period shown the operating ratio does not include depreciation/replacement expense.

| City of Sitka Water Utility Operating Ratio Performance (Actuals) |             |             |             |             |
|---|-------------|-------------|-------------|-------------|
| source document   | Budget      | Budget      | Budget      | CAFR        |
|   | FY2008      | FY2009      | FY2010      | FY2012      |
| Operating Ratio   | 1.17        | 0.95        | 0.96        | 1.34        |
| Op. Revenue   | \$1,037,298 | \$950,809   | \$1,066,529 | \$1,335,980 |
| Op. Expenses*   | \$887,812   | \$1,006,034 | \$1,112,435 | \$994,975   |

\*Without depreciation

**Financial Management Criteria.** Financial management is another measure of financial capacity. Although there is not an absolute and direct correlation of financial management indicators and the credit-worthiness of ADWF loan applicants, these indicators are important benchmarks of financial capacity. The following commonly used criteria are applied to create a more complete picture of the utility's overall capacity to maintain facilities over the long-run and cover the full cost of providing drinking water services, including ADWF loan repayment.

1. **Cash Reserve Budget.** A cash reserve budget equivalent to one and one-half times the monthly operating expenses helps the utility meet short-term cash flow challenges. The Sitka water

enterprise fund does not yet have an established cash reserve budget. In fact, given the operating ratio of less than 1.0 there is a question of how quickly cash could be raised to meet a short term budget shortfall. The water utility benefits from the ability to receive inter-fund transfers from the general purpose government funds.

2. **Rate Setting.** It is a good practice for any drinking water system to review its rates and user charges on a regular basis. From discussions with the water utility personnel and documentation, the Sitka water utility reviews its user fees regularly and has a schedule for raising rates over time. For example, the City has implemented four rate increases in the last ten years.
3. **Planning Documents.** Planning documents demonstrate that the drinking water utility is proactive in guiding the system through the internal and external events it is expected to face. Such events represent risks to the sufficiency of revenues. Sitka produces at least three planning-related documents which include guidance for the water fund: the annual budget, the capital improvements plan, and the capital budget.
4. **Audited Financial Statements.** An independent audit provides expert testimony to the internal controls, integrity of the financial statements (reviewed herein), and adherence to generally accepted accounting standards. Comprehensive Annual Financial Reports and the FY2012 Single Audit have been produced by Mikunda, Cottrell and Company of Anchorage, Alaska. The recent disaggregation of the water/electrical utility fund, as recommended in previous financial capacity reviews, represents a strong step toward improved financial management of the Sitka Drinking Water System.

### **Conclusion and Recommendations**

The City and Borough of Sitka's request of \$685,000 from the ADWF for drinking water system capital improvements will require only a modest increase in typical household user charges. Current user fees are well within the benchmark for affordability, so any increases in typical household drinking water costs should not be problematic. The City of Sitka's demographic profile and current economic condition are very good. In fact, the economic conditions are statistically better than they were when the last financial capacity review was performed in 2011. This bodes well for the community's ability to repay the proposed ADWF loans.

The water fund's current financial condition is good, with only a few weaknesses to make note of, as explained in the "Current Financial Condition" section (above). Those weaknesses are relative to the water system's revenue requirement and should diminish or be eliminated as user charges are increased as proposed. It is important for the City to include capital replace and/or depreciation expense in the annual budget in order to raise awareness of this liability that will fall on future generations if not adequately addressed. Therefore, a restructuring of the water fund budget is recommended in order to purposefully and proactively raise revenues to meet total operating expenses. ADEC recognizes depreciation as an operating expense and expects that with the inclusion of depreciation expense, the operating ratio will need to be greater than 1.0 each subsequent year.

At this time, given the limited utility of the historical fund information for the combined water/electrical utility, examining key financial capacity indicators on a trend line basis is not possible. However, given the FY 12 report, it appears that the City is now in an excellent position to develop trend line information for future analysis. To that extent, it is recommended that the ADEC undertake a follow-up review of the water fund as trend line data becomes available. Additionally, the ADEC should reserve the right to suggest loan agreement amendments for improving financial capacity as that data suggests further action to reduce loan repayment risk.

The City of Sitka's water fund financial management indicators are strong, and the City's habit of reviewing its revenue requirements from user charges on a regular basis is commendable.

Based on the overall assessment of financial capacity, Voltaic Solutions recommends the acceptance of the City of Sitka's request for \$685,000 in revolving loan funds from the Alaska Drinking Water Fund. Because this is a relatively small loan amount, there is little risk of non-payment. In fashioning a loan agreement with the City, the ADEC should implement the following conditions:

1. Debt Service Reserve Fund. It is common that a debt service reserve fund be established to hold one full year of debt service payments. As has become a standard recommendation of ADWF and ACWF loans over the past two years, the reserve fund could help to ensure that the ADEC ADWF loan be repaid if a short-term financial challenge occur. Should an increase in user fees (in excess of the scheduled fee increases) be necessary to fully fund this loan reserve fund, the City should amend its next scheduled fee increase to meet this additional cost.
2. Annual CAFR Review. Although the financial capacity indicators for the City of Sitka's water fund are reasonably good, an annual review of the City's CAFR is strongly recommended in order to assist ADEC detect changes in indicators such as the Revenues and Expenses (variance) and the Operating Ratio that might indicate short-term weaknesses. It is additionally recommended that the ADEC conduct consecutive financial capacity follow-up reviews for the next two years to create and track trend-line information on key ratios and indicators. The ADEC should consider reserving the right to impose additional loan agreement conditions if warranted.

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<sup>i</sup> 2011, Comprehensive Annual Financial Report for the city and Borough of Sitka, <http://www.cityofsitka.com/government/departments/finance/FY11CAFR.htm>

<sup>ii</sup> State of Alaska Bureau of Labor Statistics 2012-Feb 2013  
<http://beta.bls.gov/dataViewer/view/timeseries/LASST02000003>

<sup>iii</sup> City and Borough of Sitka Unemployment Figures <http://www.bls.gov/lau/laucntycur14.txt>

<sup>iv</sup> CAFR Report 2012. Demographic Section of "Basic Financial Statements FY 2012".  
<http://www.cityofsitka.com/government/departments/finance/index.html> May 7, 2013.

<sup>v</sup> State of Alaska Community of Regional Affairs  
<http://commerce.alaska.gov/cra/DCRAExternal/Community/Details/61300339-a614-43fb-a30f-41604e5e0c1c>

<sup>vi</sup> Alaska Local and Regional Information-Sitka Housing Units  
<http://live.laborstats.alaska.gov/alari/details.cfm?yr=2011&dst=01&dst=03&dst=04&dst=06&dst=08&dst=12&dst=09&dst=11&dst=07&r=5&b=22&p=292>

<sup>vii</sup> Ordinance 2012-11 Frequently Asked Questions  
<http://www.cityofsitka.com/documents/OwnerAccountsFAQ.pdf>

<sup>viii</sup> Page 8, City and Borough of Sitka Capital Projects Funding Financial Review February 16, 2011, Environmental Finance Center, Boise State University