



Engineering & Public Works Department

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MEMORANDUM

DATE: DRAFT 05/04/2023
TO: City and Borough of Juneau Assembly and Manager
FROM: Utility Advisory Board
SUBJECT: Annual Report for the period May 2022 through April 2023

INTRODUCTION

This memorandum is the annual report of the CBJ Utilities Advisory Board (UAB) for the period May 2022 through April 2023. The UAB considers infrastructure, operations, and funding needs of the water and wastewater utilities; annual reports are meant to advise the Mayor, Manager, and Assembly on utility issues, in accordance with the enabling CBJ Resolution 2299 (February 2005)(Attachment A).

Financially and physically healthy water and wastewater utilities are necessary for a community to be resilient and to thrive. The infrastructures of CBJ water and wastewater utilities are aging, and increased capital investments will be required for timely maintenance and upgrades to maintain services that meet community and visitor needs. A brief history of user rates is included as Attachment B.

BOARD SELF EVALUATION

The UAB began the reporting period with a review of the enabling CBJ resolution and then considered the Board's effectiveness.

While the UAB depends upon staff for information and updates, the Board independently reports its observations and makes its own recommendations to the Assembly and CBJ Manager. Board membership is comprised of individuals with specific interests in water and wastewater related topics and issues; some members have served since inception of the UAB, and provide continuity in shifting fiscal and staffing environments.

During the Board's review of its contributions to Assembly action, members noted these accomplishments:

1. 5-Year Rate Plans: At the recommendation of the UAB, the Assembly adopted a 5-year rate plan strategy to fund maintenance and operational needs of the utilities. The UAB favors a 5-year plan over annual plans because small funding adjustments are too easily overlooked, thus requiring difficult periodic rate increases. The CBJ is in the second 5-year plan of this strategy.

2. Financing the Utilities with Sales Tax: The UAB advocated that a portion of the 2017 sales tax be allocated to utility infrastructure maintenance and improvements. The Assembly earmarked \$15.5 million of the 2017 1% sales tax to these needs.
3. Public Relations and CBJ Accounting: The UAB is a “sounding board” or “focus group” for public relations issues facing staff. For example, discussion topics have included:
 - a. Sharing fire hydrant maintenance costs otherwise borne solely by the Water Utility with the fire department. These costs are viewed as “fire protection” rather than “potable water” and thus are more appropriately absorbed by the fire department.
 - b. Requiring the airport to pay for water and wastewater services. The airport was unmetered, and wanted to remain so, despite the Airport being an enterprise operation.

Believing that the UAB is valuable to the Assembly, the Mayor, and the Manager, board members affirmed their commitment to keep the utilities financially whole and the infrastructure intact.

2022-2023 UAB ACTIVITY

During the reporting period, the UAB and staff shared information and discussed topics of mutual interest; the Board took formal action when appropriate.

FINANCIAL PLANNING: THE UTILITIES DASHBOARD AND A RATE SETTING TOOL

The Utilities Dashboard was created in 2014 to catalogue the Water and Wastewater Utility enterprise funds. This tool includes actual and projected revenue and expenses, and can calculate Future Annual Rate Increases and Operational Cost Inflation estimates based on data input. The UAB understands these funding constraints:

- Sales Tax: 1% Sales Tax will not be available to the utilities during the period FY25-FY29.
- Marine Passenger Fees: In 2020, the utilities were granted \$950k to upgrade the Outer Drive wastewater lift station that transmits waste from cruise ships toward the Juneau-Douglas Wastewater Treatment Plant. The UAB understands that future funding of utility work with these fees is uncertain.
- CIP Funding: Marine Passenger Fees and Sales Tax must be applied to CIP Spending.
- Regulatory Compliance and Deferred Maintenance: CIP spending needs are higher now than in past years due to regulatory requirements and deferred maintenance.
- Insufficient Water Rate Revenue: The UAB promoted an 8% increase/year for FY20-FY24, which the manager’s office lowered to a 4% per year ask of the Assembly. The Assembly adopted an increase of 4% for FY20 and a 2% increase every year for the following 4 years (FY21-FY25).
- Water Utility Cost Escalation: CBJ Engineering is projecting 7%-10% inflation for the 6-year CIP plan; operational cost inflation is expected about the same.
- Wastewater Infrastructure: Planning must consider Mendenhall Wastewater Treatment Plant improvements, as well as eventual replacement of the plant.

Working with the Finance Department, staff drafted an interactive rate setting tool; which includes adjustable elements which can be manipulated to show an updated Ending Fund Balance. While each scenario may have different inputs, the goal when using the tool is consistent: an Ending Fund Balance that would provide operating costs for a minimum of four months.

CBJ SOURCE CONTROL INITIATIVE

The UAB remains concerned about fats, oils, and greases (FOG) and inflow and infiltration (I&I) entering the wastewater collection system and passing through the treatment plants. Not only do these components compromise the wastewater collection system and the treatment plants, but they also can create noncompliance with regulatory permits. Staff updated the UAB on an existing Compliance Order by Consent (COBC), the objective of which is to stop the periodic noncompliance in CBJ's wastewater effluent discharge. While one of the COBC requirements is that the CBJ establish an industrial wastewater source control program, the UAB notes that sources of FOG are community wide, and include residential housing.

LEGISLATIVE FUNDING PRIORITIES

CBJ has a process for nomination and prioritization of large, visionary projects to a "wish list" that would be funded by State or Federal money. Staff presented three project concepts to the UAB for consideration and action. The UAB unanimously selected two projects for presentation to the Assembly: one project to install filter equipment at the Mendenhall Wastewater Treatment Plant to reduce the amount of FOG and grit entering the treatment stream, and a second project to install micro-screens at the same plant to remove fine suspended solids that contribute to biological oxygen demand (BOD).

OTHER ITEMS OF INTEREST TO BOARD MEMBERS

Cybersecurity: Staff and the UAB were aware that at least three potable water facilities in the Pacific Northwest were targets of ransomware attacks that disabled Programmable Logic Controllers (PLCs) for Supervisory Control and Data Acquisition (SCADA) systems that are very similar those used by CBJ. Staff advised the UAB that a number of cybersecurity vulnerabilities were identified and resolved, thus mitigating at least the immediate risk.

MV Tagish: Staff reported on the sinking of the *MV Tagish* that occurred near the wastewater force-main connecting the Outer Drive lift station and the Juneau Douglas Treatment Plant. This pipe transports 500,000 to one million gallons of untreated wastewater per day, and if the integrity of the pipe were to fail, some discharge to Gastineau Channel would occur. Recognizing a significant risk to the CBJ, contingency planning was executed and an underwater survey was accomplished. Fortunately, the force main was not damaged during the recovery of the *Tagish*. CBJ now has the ability to better monitor the force-main and to implement a contingency plan if ever necessary.

Outreach and Education: Due to their positions in the community, individual board members have opportunities to make presentations or attend events hosted by others. For example, Mr. Larson gave a brief overview of a presentation he made to a Governor's conference about using spent grain to replace fossil fuel. Mr. Larson posits that Juneau could be a test case using bio solids to supplement fossil fuel to heat the bio solids dryer. In another example, Ms. Schempf participates in events at the United Nations, especially those concerning rural and isolated communities.

ANTICIPATED WORK FOR 2023-2024

The health of CBJ water and wastewater utilities is critically important to residents, businesses, and government entities. The UAB notes the infrastructure of both utilities is aging and requires increased capital and maintenance improvements to maintain current levels of service. Consequently, the UAB expects to undertake the following during the coming year:

- Continue to evaluate the mission of the utilities and the philosophy of utility administration, with the view that adequate services must be provided to all who require them while protecting the financial stability of the utilities themselves.
- Identify and evaluate funding sources, operational, and maintenance expenses, and CIPs.
- Evaluate the effects of past and future utility user rate increases in the context of variable local, state and federal funding.
- Receive updates on CBJ initiatives and projects, including a comprehensive map of CBJ potable water systems; a strategy to disseminate information to water and wastewater utility users and the general public; and initiatives, such as the Source Control Program, that will contribute to the future health of the wastewater utility. The UAB will provide information and recommendations as appropriate.
- Consider environmental disruptions and identify potential risks and appropriate responses. The UAB is interested in long term planning to ensure the water and wastewater utilities are truly sustainable. Changing weather, diminished snow packs, and sea level rise may seem like distant threats, but the risks should be identified and understood as best as possible, so that contingencies will be in place to ensure CBJ always provides an adequate supply of safe drinking water and water for industry, firefighting, and other uses.

BOARD MEMBERSHIP AND TERMS

Six CBJ residents served on the UAB for the May 2022-April 2023 reporting period. In conformance to the enabling resolution, board members have varying expertise and viewpoints sufficient to ensure wide ranging and active discourse.

Andrew Campbell	PE Registered engineer; General Contractor
Elizabeth Pederson	Accountant
Geoffrey Larson	Commercial Customer
Stuart Cohen	Residential Customer
Grant Ritter	Residential Customer
Janet Hall Schempf	General Public

Andrew Campbell served as Chair and Geoffrey Larson as Vice Chair. One board seat was vacant throughout the reporting period. Three members will complete their terms May 31, 2023.

BOARD MEETINGS

The UAB held nine regularly scheduled meetings and no special meetings during the reporting period. The table below presents information about meeting dates and member attendance. In addition to these regular meetings, individual board members attended one meeting of the Human Resources Committee and one meeting of the Public Works Committee.

Legend: P = Present A = Absent	Jun	Jul	Sep	Nov	Dec	Jan	Feb	Mar	Apr	Totals		Term
	6/9/22	7/14/22	9/8/22	11/10/22	12/8/22	1/12/23	2/9/23	3/9/23	4/13/23	Attended	Absent	Ends
Campbell, Andrew	P	P	P	P	A	P	P	P	A	7	2	5/31/2024
Cohen, Stuart	P	P	P	P	P	P	P	P	P	9	0	5/31/2023
Schempf, Janet	P	P	P	P	P	P	P	P	P	9	0	5/31/2023
Larson, Geoff	P	P	P	P	P	P	P	P	P	9	0	5/31/2024
Pederson, Elizabeth	P	P	A	A	P	P	A	P	P	6	3	5/31/2025
Ritter, Grant	A	P	A	A	P	P	P	P	P	6	3	5/31/2023
Number of Attendees	5	6	4	4	5	6	5	6	5			

FURTHER INFORMATION ABOUT THE UTILITIES ADVISORY BOARD

Engineering and Public Works staff for the UAB include:

- Katie Koester – Engineering & Public Works Director
- Denise Koch – Deputy Director of Engineering & Public Works
- Brian McGuire – Utilities Superintendent
- Chad Gubala – Utilities Plant & Treatment Manager
- Alan Steffert – Engineer II – Utilities
- Joshua Midgett – Public Works Utilities Administrative Coordinator
- Ty Yamaoka - Public Works Utilities Administrative Assistant
- Breckan Hendricks – Engineering & Public Works Administrative Officer I

Utilities Advisory Board website: <https://beta.juneau.org/engineering-public-works/utilities-division/utility-advisory-board>

ATTACHMENT A

UAB PURPOSE

CBJ Resolution 2299 identifies the UAB's primary responsibilities concerning the status of water and wastewater utility topics:

- (a) Review and make recommendations to the Assembly and Manager on all matters pertaining to the operation of the water system and the wastewater system, to the end that the consuming public is provided with the best possible service consistent with good utility management and cost containment;
- (b) Review annual budgets and funding plans and make recommendations for the efficient and economical operation of the water system and the wastewater system including bond issues, staffing, fiscal matters, and public relations;
- (c) Make recommendations on long-range planning for system expansion replacement, and priorities to meet future needs of the water and wastewater systems;
- (d) Make recommendations on water and wastewater utility rates to ensure that the rates are equitable and sufficient to pay for operation, maintenance, debt reduction, system replacement, and utility reserves necessary to ensure sustainable public utilities;
- (e) Make recommendations on measures to increase the efficiency and cost effectiveness of the water and wastewater utility operations; and
- (f) Perform such other duties and functions related to the utilities as the Assembly or Manager may request

ATTACHMENT B

BACKGROUND/ RATE HISTORY

In 2017, the CBJ Assembly proposed a ballot measure for a 1% sales tax that ultimately passed with 77 percent of votes in favor of renewal. The Assembly proposed this ballot measure to “focus on addressing the deferred maintenance needs of the public utilities and facilities” and specifically identified \$15.5 million of need for water and wastewater infrastructure, maintenance, and improvement. In 2019, the Assembly passed ordinance Serial No. 2019-31 and 2019-44 which raised both the water and wastewater utility rates over the course of five years:

4% Effective 1/1/2020
2% Effective 7/1/2021
2% Effective 7/1/2022
2% Effective 7/1/2023
2% Effective 7/1/2024

The rate increases are supported by the findings of a rate study completed in December, 2013 by FCS. Rates had not been increased since 2011, and FCS proposed three different five-year rate plans to address the system reinvestment, which was in arrears. The three proposed options to address the lack of system reinvestment were labeled “Low” (which would fund system reinvestment 35%), “Middle” (would fund 68%), and “Top” (would fully fund system reinvestment 100%). The assembly chose the “Middle” five-year option for funding 68% of system reinvestment. While this option would not fully fund system reinvestment, it does improve the level of maintenance and replacement costs that had been historically deferred. One reason the Assembly chose this option was that other funding sources were anticipated, including the State of Alaska, which had a history of granting municipalities money for water and wastewater needs. Subsequently, the Assembly passed Ordinance 2014 36(b)(am) which increased water 6.5% and wastewater 8% for each of the next five years.

An older rate study (completed in 2003) recommended an immediate rate increase of 19% for water and 39% for wastewater, and further recommended additional specific rate increases over the next 10 years. Customer rates for the two utilities did not increase during the years 1991 to 2003 (thirteen years), which led to precarious financial positions for both utilities. Infrastructure maintenance was deprioritized, and the utilities did not have the ability to perform necessary repairs and upgrades. In Ordinance 2003-43 on October 2003, the Assembly approved the 19% and 39% increases, and due to “rate shock” to customers, the Mayor empaneled a seven-member Ad Hoc Utility Advisory Board (UAB) in February 2004. This group was tasked with advising the Mayor and Assembly on Water and Wastewater utility issues, including rates, and with making recommendations regarding the advisability of a permanent Advisory Board.