UTILITY ADVISORY BOARD AGENDA

June 13, 2024 at 5:15 PM

Water Utility Shop 2520 Barrett Ave./Zoom Webinar

https://juneau.zoom.us/j/83013202186 or 1-253-215-8782 Meeting ID: 830 1320 21860

A. CALL TO ORDER

B. LAND ACKNOWLEDGEMENT

We would like to acknowledge that the City and Borough of Juneau is on Tlingit land, and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. Gunalchéesh!

C. ROLL CALL

D. APPROVAL OF AGENDA

E. APPROVAL OF MINUTES

1. December 14, 2023 - Regular Meeting
2. March 14, 2024 - Regular Meeting

F. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

G. AGENDA TOPICS

3. Discuss 2024 UAB Annual Report Draft (2023 report attached for reference)
4. Board Update and Board Member Recruitment (Resolution 2299 Section 2)
5. Utility Update
6. Presentation: Cruise Ship Wastewater Disposal
7. Presentation: UAB Energy Conservation/Cost Cutting for CBJ Utilities

H. NEXT MEETING DATE

8. July 11, 2024 at 5:15 PM

I. SUPPLEMENTAL MATERIALS

9. 2023 Annual Water Quality Report

J. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.gov.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
UTILITIES DIVISION

ENGINEERING & PUBLIC WORKS
DEPARTMENT
Utilities Division
2009 Radcliffe Road, Juneau, AK 99801
p: 907.586.0393 | f: 907.789.1681

UTILITIES ADVISORY BOARD
MINUTES (DRAFT)

Thursday, December 14th | 17:15pm
2520 Barrett Ave. & Teleconference – Zoom

I. CALL TO ORDER
   a. *The meeting was called to order at 5:15pm by Board Chair Andrew Campbell*
   b. Members Present: Andrew Campbell (teleconference), Elizabeth Pederson (teleconference), Geoff Larson, Grant Ritter, Janet Schempf (teleconference), Stuart Cohen
   c. Staff Present: Alan Steffert (teleconference), Chad Gubala (teleconference), Denise Koch, Brian McGuire, Ty Yamaoka

II. APPROVAL OF AGENDA
   a. *December 14, 2023 agenda was unanimously approved by the Board*

III. APPROVAL OF MINUTES

IV. PUBLIC PATICIPATION & NON AGENDA ITEMS

V. INFORMATION ITEMS
   a. *FOG Mailer Update*
      i. *Brian gave a brief update on the FOG Mailer. He stated he wanted to make sure everyone received theirs. He stated we ordered about 10k for disbursement to CBJ homes.*
      ii. *Stuart wanted to talk further about FOG. Noted that he and Chad had talked about burning FOG for heat and the potential benefits of burning FOG. He touched on some logistics such as providing containers for industrial users.*
      iii. *Stuart wanted to ask if this is something the UAB and Utility staff wanted to explore and see if this was a viable possibility.*
      iv. *Brian spoke to our current process for collecting FOG at HHW.*
      v. *Chad touched on developing policy that are fair and equitable.*
      vi. *Stuart asked how much FOG is costing the utility currently.*
      vii. *Brian said that the WWC team has started tracking hour spent on FOG in Lucity.*
      viii. *Geoff asked for staff for a one pager with volumetrics and sources. He spoke to how it would be beneficial for the UAB to have this information to compare how big the issue is and if it would be worth to reclaim.*
      ix. *Grant asked if other cities have done FOG mitigation programs.*
   b. *Penstock Project Update*
      i. *Brian started with AELP came to the September 14 UAB meeting and gave a presentation on the Penstock Upgrade*
      ii. *Stuart asked if people complied.*
      iii. *Brians answered that they did and it allowed us to recover the loss in the reservoir.*
   c. *Rate Increase Discussion (cont.)*

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
UTILITIES DIVISION

ENGINEERING & PUBLIC WORKS
DEPARTMENT
Utilities Division
2009 Radcliffe Road, Juneau, AK 99801
p: 907.586.0393 | f: 907.789.1681

i. *Add Buffy's analysis to the January Meeting*

d. *Legislative Priorities: FOG/Grit Project*
   i. *Denise spoke to the process for Legislative Priorities and where we are on*
   ii. *The board agreed to schedule a UAB Meeting ahead of their Regularly Scheduled Meeting on Monday, December 18th at 5:15 PM via Zoom to talk about FOG/Grit*
   iii.

e. *EPA Lead Line Removal Rule*
   i. *Chad said 2024 will be a big year for potable water. There are multiple issues converging in the next year.*
   ii. *LSLI*
   iii. *Draft communications will be provided to the board in early 2024*
   iv. *There may need to be some policy discussion about what we do about mitigation in this area.*

f. *Utilities Updates*
   i.

VI. ADJOURNMENT
   a. *The meeting adjourned at 6:22pm*
   b. Next meeting:
   UAB Meeting | January 11, 2024 | 17:15 | In Person & Teleconference

UTILITY ADVISORY BOARD MINUTES - DRAFT

March 14, 2024 at 5:15 PM

Water Utility Shop 2520 Barrett Ave./Zoom Webinar

https://juneau.zoom.us/j/83013202186 or 1-253-215-8782 Meeting ID: 830 1320 2186

A. CALL TO ORDER

The meeting was called to order at 5:27pm by Chair Campbell.

B. LAND ACKNOWLEDGEMENT

We would like to acknowledge that the City and Borough of Juneau is on Tlingit land, and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. Gunalchéesh!

C. ROLL CALL

Members Present: Mr. Ritter, Mr. Larson, Mr. Cohen (Zoom), Chair Campbell (Zoom), Janet Hall-Schempf (Zoom)

CBJ Staff: Brian McGuire, Utilities Superintendent; Denise Koch, EPW Director; Amanda Hatch, Administrative Assistant; Breckan Hendricks, Admin Officer; Chad Gubala, Utilities Product & Treatment Manager (Zoom)

D. APPROVAL OF AGENDA

Chair Campbell moved to add the agenda Letter of Support for Federal Funding for MWWTP FOG Compliance to be the last agenda item.

E. APPROVAL OF MINUTES

1. May 11, 2023, Draft UAB Meeting Minutes - No changes. Minutes Approved.

F. AGENDA TOPICS

2. Letter of Support for Electric Boiler at the Mendenhall Wastewater Treatment Plant (MWWTP)

Mr. McGuire explained that CBJ is seeking a grant for an electronic boiler. The existing boilers are nearing the end of their lives. This grant coincides with CBJ's goal to lower our greenhouse gas emissions. In addition, this grant would help fund the boiler, which is already on the Capital Improvement Plan (CIP). Mr. McGuire recommended that the UAB provide a letter of support.

Chair Campbell said that he'd be happy to work with Mr. McGuire to draft a letter of support.

Mr. Cohen inquired if CBJ investigated heat pumps as an alternative. Mr. McGuire responded that CBJ had a consultant that made recommendations, but that he did not have that information readily available to confirm.

Mr. Cohen suggested that the language could be changed to Electric Boiler or Heat Pump.

Ms. Koch shared that this is a Climate Pollution Reduction Grant, it's a National competitive grant from the federal government, not a formula grant. She explained the administration of the federal grant goes to the DEC Division of Air Quality, which contracts with the Alaska Municipal League, which will help administer the grant. Multiple entities can and will likely apply in Alaska for this grant.

Mr. Ritter shared an excerpt from DEC: " It says by mitigating the potential for long-term fuel cost increases, this project holds the promise of curbing a necessity for future rate hikes for water utility."

Under the section of 'what the community will benefit from,' Mr. Ritter recommended the group read this document.

Ms. Koch shared that in addition to Jim Renfield's report, CBJ has also re-engaged Jim Renfield, Devon Kibby, and other people with expertise in the technical details to be competitive.

Mr. Cohen brought the group back to his original question. He shared that there are industrial-size electric heat pumps and inquired if the verbiage could be adjusted to cover heat pumps.

Ms. Koch explained that the grant application is due April 1st and that CBJ is far down the path of an electric boiler since they have engaged with energy and electrical experts. She explained that it is UAB's discretion whether they want to submit a letter of support for an electric boiler.

Mr. Larson expressed that Chair Larson may have the expertise and skills to adjust the language if appropriate.

Mr. Cohen shared confidence in the consultant's recommendations but inquired if they had considered heat pumps. Ms. Koch responded that the previous study on fuel boiler replacements recommended electric boilers, but they were cost-prohibitive. She could not recall specifically if the study for the replacement of the boilers evaluated heat pumps.

MOTION: The UAB will submit a Letter of Support for the electric boiler at the MWWTP, as discussed, with Chair Campbell as the lead and Mr. Cohen included in the process. There were no objections, and the motion passed.

3. Cruise Ship Wastewater and Water Charging Overview

Mr. McGuire explained that Mr. Cohen inquired on Cruise Ship Revenue previously, which prompted this presentation. Mr. McGuire shared that not all cruise ships participate and shared with the group examples of wastewater cruise ship contracts and billing procedures. He shared that drinking water is indirectly billed to cruise ships through Docks and Harbors who re-sell the water to the ships. A slide was shared on Cruise Ship Revenue, and it was explained that the highest volume year was in 2019 and that Utilities revenue has gradually been bouncing back since cruise ships halted and restarted during the COVID pandemic.

Mr. McGuire shared that cruise ships also contribute to Utilities allowing funding from Marine Passenger Fees (MPFs) for lift stations and storage improvements.

Mr. Cohen asked if there was a rationale for the increased price of drinking water for cruise ships. Mr. McGuire explained that CBJ Utilities does not set the rates for the cruise ship drinking water and that is done by Docks & Harbors.

Chair Campbell explained that Docks and Harbors (D&H) has some costs that they add on for personnel services for monitoring and assisting with the cruise ship connections. Mr. Gubala added that there's additional D&H infrastructure as well.

Mr. Cohen asked if the amount being charged for wastewater was adequate. Mr. McGuire responded that a rate increase is supported.

Mr. Cohen asked for a comparison of the wastewater volume discharge from cruise ships compared to the local volume. He listed the example of the Noordam September discharge of 69,000 gallons. Mr. McGuire shared that Utilities receives around 1.5M gallons a year from the community.

Mr. Ritter pointed out to the group that there's a substantial difference between the flow from the local community compared to a single discharge of undiluted wastewater from a cruise ship.

Mr. Cohen asked staff if there was a rationale for increasing the costs to the cruise ship. He asked if there are other commercial users as high intensity as the cruise ships.

Mr. Ritter reminded the group that if the rates increased for the community, they would also increase for the cruise ships.

Mr. Cohen clarified that he was interested in whether it was rational to offset the cost of the rate increase to the community by increasing the cost of cruise ships for their high-intensity discharge.

Ms. Hall-Shempf inquired on how commercial users discharges such as the Brewery compare.

Mr. Larson shared that the Brewery has a commercial rate, and it is not adjusted based upon BOD and TSS. All Commercial Users are charged based on the gallons of water used and how much is assumed to go down the drain. The cruise ships are, therefore, paying more on a per-thousand-gallon basis by a substantial amount compared to commercial users in Juneau.

Discussion occurred on how CBJ Utilities is an enterprise fund and does not receive property tax funds (general funds) from either Juneau residents. It was clariid by Ms. Koch that property tax is not supporting CBJ Utilities.

4. Mendenhall Wastewater Treatment Plant (MWWTP) Permit Modification

Mr. McGuire provided a high-level update on the modification made last year, allowing Utilities to be more precise in measuring what affects the performance. Utilities used to run a BOD method that had all sorts of compounds in it. One is nitrogen-based, and one is carbon-based. Utilities has been able to switch to using carbon-based performance measurement.

No questions from the group.

5. Lead Service Line Inventory (LSLI) Update

Mr. Gubala provided a brief update to the group. Contractors are in the first phase and a date of transfer has been executed. The first round of screening and preparation for the direct survey phase is in the works. Ahead of that they'll get some information out to the public to prepare them for inquiries on their residences service lines. There will be community awareness coming online over the next couple of weeks. Mr. Gubala reminded the group that Lead in water is a sensitive topic and CBJ is expecting some communication traffic on this manner.

Chair Campbell shared that he was excited to see the results of the survey.

Mr. Ritter explained that, in his experience, no lead was used in service lines within the City and Borough of Juneau. He noted that copper and galvanized or black iron were primarily used. He believes the only lead in service lines is from older installations where it is not 80/20 solder.

Mr. Gubala shared that they are only in the discovery phase. Regulators have said that they don't expect to find much in regard to lead service lines.

6. FY25 CIP Resolution - Areawide Street Sales Tax Funds for Utility Projects

Mr. McGuire encouraged the UAB members to advocate for Utilities receiving Sales Tax to support CIP projects. Last fiscal year, Utilities received none. In the draft CIP FY25 Resolution, Utilities has a few projects proposed to be supported by Sales Tax.

7. Valley Water Supply During FY25 AEL&P Penstock Construction Update

Mr. Gubala shared that AEL&P advised CBJ to expect an outage in water supply for 3 months out of the year for years 2025, 2026, and 2027 during the months of April, May, and June. CBJ has since devised a program to compensate for the loss of the water for those 90 day periods. It was determined that

Utilities can likely take care of the demand for Juneau from Last Chance Basin. Still, contingent plans have been made. It is possible that water could be limited to cruise ships during outages. Utilities could possibly go to the public requesting voluntary limitation on usage.

Mr. Gubala shared that although Last Chance Basin is a good water source, CBJ continues to look for alternative water they can tap into in the short term and in the future. EPA will be in next month to work on a climate change audit on what they expect CBJ to have in terms of water supply. CBJ has also engaged DNR to look at supply areas. Looking at the distribution on where CBJ can insert additional water.

Mr. Gubala shared that the goal is to ensure that essential services continue going over the next 3 years during the AEL&P project.

Mr. Ritter inquired if the State is involved. Mr. Gubala confirmed that alternative water supplies must be approved by DEC. In addition, alternative sources must be legal by DNR standards with regard to water supply regulations.

Mr. Ritter asked if you had to filter groundwater. Mr. Gubala confirmed that no filtration would be needed, but that they would need to chlorinate at an adequate level.

Mr. Gubala shared that Salmon Creek provides a third of the water for the valley and out the road. The issue is more constrained by the CBJ distribution system than the supply.

Mr. Ritter clarified that if you pump the water up to the contact tank at Salmon Creek, the system remains the same as if Salmon Creek were on.

Mr. Gubala shared that CBJ recently had an event at Salmon Creek, and CBJ inadvertently overpressured the system by 10%. We now know we can push more water from LCB to Salmon Creek. That being said, if we have a drought phase or fire, the storage in the valley area can get drawn down quickly. The question is how fast we can move water over to compensate for that.

Mr. Ritter inquired if the State of Alaska Department of Transporation flushing operations would be affected. Mr. Gubala explained that they would fill their tanks closer to town as much as possible.

The group expressed support for Utilities' commitment to ensure communication with cruise ships, DOT, and the public.

8. Letter of Support for Federal Funding for MWWTP FOG Compliance

Mr. McGuire shared that the letter is very similar to last year's UAB submission supporting Congressionally Directed Spending (CDS) for the Fats, Oils, and Grease (FOGs) project. Ms. Koch added that the letter of support must be submitted by the UAB to CBJ staff before March 21st at the absolute deadline.

MOTION: Mr. Larson moved to adopt the letter and send it to the congressional delegation. Second by Mr. Cohen. No objections. Motion passed.

G. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

None.

H. NEXT MEETING DATE

8. April 11, 2024 at 5:15PM

I. SUPPLEMENTAL MATERIALS

9. Utilities Superintendent Presentation

10. Mr. Larson asked that the UAB add UAB member vacancies as an agenda topic at the next meeting.

J. ADJOURNMENT – Meeting adjourned at 6:41pm

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.gov.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
UTILITIES DIVISION

Engineering & Public Works Department
155 South Seward Street
Juneau, Alaska 99801
Phone: 907-586-0393 | Fax: 907-463-2606

MEMORANDUM

DATE: **DRAFT** May 16, 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 are 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 ta 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 sought $950k to upgrade the Outer Drive wastewater lift station that transmits waste from cruise ships toward the Juneau-Douglas Wastewater Treatment Plant. Marine Passenger Fees have been used in the past to fund various Water & Wastewater Utility projects; 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 per 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 to be 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 that 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 Taqish: 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 potential and proposed 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 Comm 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 UTILTIES ADVISORY BOARD

Engineering and Public Works staff for the UAB include:

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

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

BACKGROND/ 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.

Presented by: PWFC
Introduced: 02/28/2005
Drafted by: J.W. Hartle

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2299

A Resolution Establishing a Utility Advisory Board.

WHEREAS, in February, 2004, Mayor Botelho established the Ad Hoc Utility Advisory Board with the purpose of making recommendations to the Assembly and Manager concerning operation and management policies of the municipally-owned utilities, specifically the Water Utility and Wastewater Utility; and

WHEREAS, state and federal grant availability has declined and is predicted to further decline in the future; and

WHEREAS, an ongoing review of water and sewer utility rates and fees for sufficiency and equity is necessary and in the public interest; and

WHEREAS, at the January 10, 2005, meeting of the Public Works & Facilities Committee, a motion was adopted to forward to the Human Resources Committee the Ad Hoc Utility Board's recommendation of creating a full time utility advisory board; and

WHEREAS, at the February 7, 2005, meeting of the Human Resource Committee a motion was adopted to forward a resolution to the Assembly establishing the Utility Advisory Board; and

WHEREAS, the Assembly has determined that a utility advisory board should be established to review and make recommendations to the Assembly and the CBJ administration on water and sewer rate structures and policy issues involving the utilities.

///

//

//

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

Section 1. Utility Advisory Board Established. There is established the City and Borough of Juneau Utility Advisory Board, which shall comprise seven members appointed by the Assembly.

Section 2. Membership Qualifications. To the extent practicable, appointments shall be made as follows:

(a) one engineer registered in the State of Alaska, preferably with training and experience in water, wastewater, and/or utility systems design and operation;

(b) one accountant, preferably experienced with utility financial management practices;

(c) one general contractor, preferably experienced in the construction of water and/or wastewater utility systems;

(d) two commercial customers of the City and Borough water and/or wastewater utility;

(e) one residential customer of the City and Borough water and/or wastewater utility; and

(f) one member of the general public.

Section 3. Utility Advisory Board Purposes. The purpose of the Utility Advisory Board is to advise the Assembly on issues relating to water and wastewater utilities. The board is encouraged to gather relevant information from all sources available, and hold public hearings as necessary on issues under review, and to report to the Assembly on an annual basis, at a minimum, concerning the status of water and wastewater utility issues as follows:

(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 the Manager may request.

Section 4. Procedures. The rules of procedure for Assembly advisory committees established by resolution, shall govern the conduct of business by the Utility Advisory Board.

Section 5. Staff Assistance. Staff support and assistance to the Utility Advisory Board shall be provided by the City and Borough Public Works, Engineering, Finance, and such other departments as available and appropriate.

Section 6. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this 28th day of February, 2005.

Bruce Botelho, Mayor

Attest:

Laurie J. Sica, Clerk

Overview: The current non-resident rates are scaled to commercial rates. However, resident commercial ratepayers also pay property tax that serves to sustain the utility system as described above. Juneau households and resident commercial users are subsidizing users who do not pay those taxes. I would like to explore leveling out that discrepancy by increasing non-resident fees to more equitable levels.

RATIONALES FOR A NON-RESIDENTIAL COMMERCIAL RATE

Utility IS NOT ratepayer sustained.

1. Water and Sewer are NOT supported by ratepayers alone. It has received sales tax revenue as well as Federal and State grants to sustain itself.
2. The system has been operating at a deficit for decades, further negating the idea that it is rate-payer sustained.

3. The infrastructure for the utility does not exist in isolation. Plowing the streets to allow repair vehicles to access pipes, providing schools for employees to educate their children and many other elements are ancillary costs that are nonetheless critical to operating the utilities. These costs are paid for with property and other taxes that non-resident users do not pay.

Currently, our biggest non-residential wastewater users are the cruise lines. Some of the cruise ships (primarily Carnival) process their waste here and some don't. These have to do with the ship's itinerary and its holding capacity. More about this at the meeting.

Methodologies for adjusting the charges:

Compare disposal rates in Juneau to other disposal rates in Canada or Seattle.

Compare commercial wastewater income with commercial property tax income

Revisit technical aspects of how the cost for disposal are scaled to metrics of waste concentration. Are these national scales? When were they arrived at, and by whom? What's the precise rationale for their current calibration with standard costs? When this last updated?

Confer with Ak DEC to get a clear understanding of why certain boats process wastewater here and what their other options are.

Confer with CBJ legal staff to ascertain the legal way to raise rates without issues.

2023 ALL SHIPS CHRONOLOGICAL DISCHARGE SUMMARY

Date	Receipt No.	Vessel	Volume (gallons)	BOD conc. (mg/l)	BOD (lbs.)	TSS conc. (mg/l)	TSS (lbs.)	Charge Rate per 1000 gal.	Total CBJ Charge
4/28/2023	23001FKL	Carnival Miracle	99,479	400	332	160	133	$27.12	$2,697.87
5/2/23	23002FKL	Discovery Princess	69,630	630	366	100	58	$40.68	$2,832.55
5/2/23	23003CT	Nieuw Amsterdam	26,675	680	151	120	27	$40.68	$1,085.14
5/3/23	23004FKL	Grand Princess	10,160	610	52	270	23	$40.68	$413.31
5/4/23	23005FKL	Sapphire Princess	68,036	550	312	156	89	$27.12	$1,845.14
5/6/2023	23006FKL	Carnival Luminosa	17,452	730	106	307	45	$40.68	$709.95
5/7/23	23007FKL	Crown Princess	74,283	700	434	128	79	$40.68	$3,021.83
5/8/23	23008FKL	Royal Princess	95,840	33	26	12	10	$13.56	$1,299.59
5/8/23	23009AJ	Majestic Princess	74,496	320	199	66	41	$27.12	$2,020.33
5/9/23	23010FKL	Grand Princess	60,758	1,400	709	690	350	$67.80	$4,119.39
5/10/23	23011CT	Noordam	54,700	380	173	104	47	$27.12	$1,483.46
5/10/23	23012AS	Ruby Princess	70,750	980	578	860	507	$54.24	$3,837.48
5/10/23	23013FKL	Discovery Princess	99,675	450	374	119	99	$27.12	$2,703.19
5/12/23	23014FKL	Sapphire Princess	77,054	870	559	124	80	$40.68	$3,134.56
5/15/23	23015FKL	Royal Princess	51,561	530	228	112	48	$27.12	$1,398.33
5/16/23	23016FKL	Majestic Princess	146,481	460	562	78	95	$27.12	$3,972.56
5/17/23	23017CT	Noordam	77,350	500	323	136	88	$27.12	$2,097.73
5/17/23	23017FKL	Grand Princess	60,960	820	417	284	144	$40.68	$2,479.85
5/17/23	23019AS	Discovery Princess	167,550	770	1,076	148	207	$40.68	$6,815.93
5/18/2023	23019FKL	Carnival Miracle	82,125	660	452	240	164	$40.68	$3,340.85
5/18/23	23021FKL	Crown Princess	108,018	250	225	78	70	$13.56	$1,464.72
5/20/23	23022FKL	Sapphire Princess	143,408	820	981	168	201	$40.68	$5,833.84
5/22/23	23023CT	Ruby Princess	51,300	1,200	513	195	83	$67.80	$3,478.14
5/22/23	23024FKL	Royal Princess	82,114	500	342	110	75	$27.12	$2,226.93
5/23/23	23025FKL	Grand Princess	74,904	1,000	625	363	227	$54.24	$4,062.79
5/23/2023	23026AS	Viking Orion	39,250	54	18	36	12	$13.56	$532.23
5/24/23	23029CT	Nieuw Amsterdam	43,275	630	227	113	41	$40.68	$1,760.43
5/24/23	23027FKL	Majestic Princess	161,059	510	685	78	105	$27.12	$4,367.92
5/24/23	23028AS	Discovery Princess	145,325	1,000	1,212	189	229	$54.24	$7,882.43
5/25/23	23025CT	Noordam	58,050	570	276	150	73	$27.12	$1,574.32
5/28/23	23031CT	Crown Princess	144,250	110	132	19	23	$13.56	$1,956.03
5/28/23	23032FKL	Sapphire Princess	97,782	720	587	150	122	$40.68	$3,977.77
5/29/23	23033FKL	Royal Princess	60,667	690	349	69	35	$40.68	$2,467.93
5/30/23	23034FKL	Majestic Princess	190,714	320	509	52	83	$27.12	$5,172.16
5/31/23	23036CT	Noordam	88,075	530	389	150	110	$27.12	$2,388.59
5/31/23	23035FKL	Grand Princess	47,387	970	383	220	87	$54.24	$2,570.27
5/31/23	23037AS	Discovery Princess	158,975	770	1,021	119	158	$40.68	$6,467.10
6/1/23	23039CT	Nieuw Amsterdam	44,650	650	242	134	50	$40.68	$1,816.36
6/1/23	23038FKL	Ruby Princess	125,439	880	921	116	121	$40.68	$5,102.86
6/3/23	23040FKL	Sapphire Princess	151,212	940	1,185	152	192	$54.24	$8,201.74
6/5/23	23041FKL	Royal Princess	76,943	560	359	91	58	$27.12	$2,086.69
6/6/23	23042FKL	Grand Princess	77,435	1,300	840	440	284	$67.80	$5,250.09
6/7/23	23045CT	Nieuw Amsterdam	33,625	730	205	191	54	$40.68	$1,367.87
6/7/23	23043 FKL	Majestic Princess	191,767	550	880	71	114	$27.12	$5,200.72
6/7/23	23044AS	Discovery Princess	183,750	820	1,257	113	173	$40.68	$7,474.95
6/8/23	23046CT	Noordam	58,400	510	248	143	70	$27.12	$1,583.81
6/9/23	23047FKL	Ruby Princess	63,879	690	368	272	145	$40.68	$2,598.60
6/11/23	23048FKL	Sapphire Princess	109,686	730	668	126	115	$40.68	$4,462.03
6/12/23	23049FKL	Royal Princess	23,461	180	35	54	11	$13.56	$318.13
6/13/23	23050FKL	Majestic Princess	178,895	610	910	73	109	$40.68	$7,277.45
6/14/23	23053CT	Noordam	82,475	490	337	140	96	$27.12	$2,236.72
6/14/23	23051FKL	Grand Princess	59,505	1,000	496	310	154	$54.24	$3,227.55
6/14/23	23052AS	Discovery Princess	175,925	720	1,056	113	166	$40.68	$7,156.63
6/15/2023	23054FKL	Carnival Miracle	65,917	770	423	188	103	$40.68	$2,681.50
6/15/23	23055CT	Nieuw Amsterdam	32,775	510	139	130	36	$27.12	$888.86
6/16/23	23056FKL	Crown Princess	101,756	280	238	49	42	$13.56	$1,379.81
6/17/23	23057FKL	Sapphire Princess	133,797	670	748	125	139	$40.68	$5,442.86
6/17/2023	23058AJ	SS Explorer	12,100	480	48	120	12	$27.12	$328.15
6/19/23	23059FKL	Royal Princess	67,204	740	415	189	106	$40.68	$2,733.86
6/20/23	23060FKL	Grand Princess	89,339	1,100	820	424	316	$54.24	$4,845.75
6/21/23	23063CT	Nieuw Amsterdam	43,250	470	170	174	63	$27.12	$1,172.94
6/21/23	23061FKL	Majestic Princess	163,692	570	778	85	116	$27.12	$4,439.33
6/21/23	23062AS	Discovery Princess	185,300	830	1,283	160	247	$40.68	$7,538.00

2023 ALL SHIPS CHRONOLOGICAL DISCHARGE SUMMARY

Date	Receipt No.	Vessel	Volume (gallons)	BOD conc. (mg/l)	BOD (lbs.)	TSS conc. (mg/l)	TSS (lbs.)	Charge Rate per 1000 gal.	Total CBJ Charge
6/22/23	23064CT	Noordam	77,000	470	302	152	98	$27.12	$2,088.24
6/25/23	23065FKL	Sapphire Princess	110,841	710	656	142	131	$40.68	$4,509.01
6/26/23	23066FKL	Royal Princess	36,485	540	164	120	37	$27.12	$989.47
6/27/23	23067FKL	Majestic Princess	193,794	730	1,180	132	213	$40.68	$7,883.54
6/28/23	23069CT	Noordam	86,950	660	479	172	125	$40.68	$3,537.13
6/28/23	23068FKL	Grand Princess	67,730	1,100	621	392	221	$54.24	$3,673.68
6/28/23	23070AS	Discovery Princess	182,275	800	1,216	151	230	$40.68	$7,414.95
6/29/23	23072CT	Nieuw Amsterdam	47,425	580	229	130	51	$27.12	$1,286.17
6/29/23	23071FKL	Ruby Princess	48,297	1,300	524	770	310	$67.80	$3,274.54
6/30/2023	23073FKL	Carnival Miracle	86,314	810	583	253	182	$40.68	$3,511.25
7/1/23	23074FKL	Sapphire Princess	112,662	820	770	130	122	$41.49	$4,674.35
7/1/2023	23075CT	SS Explorer	37,650	770	242	310	97	$41.49	$1,562.10
7/3/23	23076FKL	Royal Princess	65,896	720	396	130	71	$41.49	$2,734.03
7/4/23	23077FKL	Grand Princess	79,005	1,400	922	408	269	$69.15	$5,463.20
7/5/23	23080CT	Nieuw Amsterdam	51,050	720	307	251	107	$41.49	$2,118.06
7/5/23	23078FKL	Majestic Princess	149,938	510	638	116	145	$27.66	$4,147.29
7/5/23	23079AS	Discovery Princess	194,875	780	1,268	117	190	$41.49	$8,085.36
7/6/23	23082CT	Noordam	77,950	330	215	108	70	$27.66	$2,156.10
7/6/23	23081FKL	Crown Princess	37,302	900	280	280	87	$55.32	$2,063.55
7/9/23	23083FKL	Sapphire Princess	105,741	680	600	140	123	$41.49	$4,387.19
7/9/2023	23084CT	SS Explorer	5,575	210	10	39	2	$13.83	$77.10
7/10/23	23085FKL	Royal Princess	80,600	660	444	136	91	$41.49	$3,344.09
7/11/23	23086FKL	Majestic Princess	186,808	870	1,355	290	452	$41.49	$7,750.66
7/12/23	23088CT	Noordam	77,775	540	350	134	87	$27.66	$2,151.26
7/12/23	23087FKL	Grand Princess	49,437	990	408	384	158	$55.32	$2,734.85
7/12/23	23089AS	Discovery Princess	179,950	930	1,396	202	303	$55.32	$9,954.83
7/13/2023	23090FKL	Carnival Miracle	35,403	690	204	196	58	$41.49	$1,468.87
7/13/23	23091CT	Nieuw Amsterdam	52,200	710	309	166	72	$41.49	$2,165.78
7/15/23	23092FKL	Sapphire Princess	162,659	850	1,153	185	251	$41.49	$6,748.72
7/17/23	23093FKL	Royal Princess	79,983	510	340	101	67	$27.66	$2,212.33
7/18/23	23094FKL	Grand Princess	60,729	1,200	608	563	285	$69.15	$4,199.41
7/19/23	23096CT	Nieuw Amsterdam	43,375	520	188	140	51	$27.66	$1,199.75
7/19/23	23095FKL	Majestic Princess	192,207	680	1,090	186	298	$41.49	$7,974.67
7/19/23	23097AS	Discovery Princess	234,000	880	1,717	208	406	$41.49	$9,708.66
7/20/23	23099CT	Noordam	67,250	560	314	146	82	$27.66	$1,860.14
7/20/23	23098FKL	Ruby Princess	97,051	850	688	500	405	$41.49	$4,026.65
7/23/23	23100FKL	Sapphire Princess	100,765	830	698	146	123	$41.49	$4,180.74
7/23/2023	23101CT	SS Explorer	17,550	560	82	112	16	$27.66	$485.43
7/24/23	23102FKL	Royal Princess	44,848	830	310	162	61	$41.49	$1,860.74
7/25/23	23103FKL	Majestic Princess	205,665	480	823	106	182	$27.66	$5,688.69
7/26/23	23105CT	Noordam	80,925	470	317	182	123	$27.66	$2,238.39
7/26/23	23104FKL	Grand Princess	34,603	950	274	400	115	$55.32	$1,914.24
7/26/23	23106AS	Discovery Princess	190,450	570	905	93	148	$27.66	$5,267.85
7/27/23	23107CT	Nieuw Amsterdam	48,775	690	281	176	72	$41.49	$2,023.67
7/28/2023	23108FKL	Carnival Miracle	75,619	500	315	116	73	$27.66	$2,091.62
7/29/23	23109FKL	Sapphire Princess	135,159	590	665	122	138	$27.66	$3,738.50
7/30/23	23110FKL	Ruby Princess	118,473	980	968	298	294	$55.32	$6,553.93
7/31/23	23111FKL	Royal Princess	79,695	500	332	114	76	$27.66	$2,204.36
8/1/23	23112FKL	Grand Princess	103,682	1,200	1,038	520	450	$69.15	$7,169.61
8/2/23	23115CT	Nieuw Amsterdam	38,750	500	162	227	73	$27.66	$1,071.83
8/2/23	23113AS	Discovery Princess	192,450	470	754	66	106	$27.66	$5,323.17
8/2/23	23114FKL	Majestic Princess	176,819	470	693	103	152	$27.66	$4,890.81
8/3/23	23116FKL	Noordam	59,228	570	282	160	79	$27.66	$1,638.25
8/6/23	23117FKL	Sapphire Princess	98,052	570	466	84	69	$27.66	$2,712.12
8/6/2023	23118CT	SS Explorer	26,275	510	112	103	23	$27.66	$726.77
8/7/23	23119FKL	Royal Princess	82,109	68	47	28	19	$13.83	$1,135.57
8/8/23	23120FKL	Majestic Princess	209,309	640	1,117	147	257	$41.49	$8,684.23
8/9/23	23121CT	Noordam	81,475	650	442	205	139	$41.49	$3,380.40
8/9/23	23122AS	Discovery Princess	187,900	480	752	118	185	$27.66	$5,197.31
8/9/23	23123FKL	Grand Princess	78,048	660	430	229	149	$41.49	$3,238.21
8/10/23	23125CT	Nieuw Amsterdam	51,150	620	264	162	69	$41.49	$2,122.21
8/10/23	23124FKL	Ruby Princess	134,752	950	1,068	332	373	$55.32	$7,454.48
8/12/23	23126FKL	Sapphire Princess	145,603	670	814	152	185	$41.49	$6,041.07

2023 ALL SHIPS CHRONOLOGICAL DISCHARGE SUMMARY

Date	Receipt No.	Vessel	Volume (gallons)	BOD conc. (mg/l)	BOD (lbs.)	TSS conc. (mg/l)	TSS (lbs.)	Charge Rate per 1000 gal.	Total CBJ Charge
8/12/2023	23127CT	SS Explorer	27,975	540	126	202	47	$27.66	$773.79
8/14/23	23128FKL	Royal Princess	85,506	720	513	142	101	$41.49	$3,547.64
8/15/23	23129FKL	Grand Princess	83,670	1,100	768	427	298	$55.32	$4,628.62
8/16/23	23132CT	Nieuw Amsterdam	45,950	600	230	180	69	$41.49	$1,906.47
8/16/23	23130AS	Discovery Princess	185,900	1,000	1,550	350	543	$55.32	$10,283.99
8/16/23	23131FKL	Majestic Princess	214,682	640	1,146	142	254	$41.49	$8,907.16
8/17/23	23133CT	Noordam	67,725	540	305	203	115	$27.66	$1,873.27
8/20/23	23135FKL	Sapphire Princess	97,510	560	455	107	87	$27.66	$2,697.13
8/20/2023	23134CT	SS Explorer	38,925	760	247	180	58	$41.49	$1,615.00
8/21/23	23136FKL	Royal Princess	95,390	390	310	84	67	$27.66	$2,638.49
8/22/23	23137FKL	Majestic Princess	237,505	600	1,188	118	234	$41.49	$9,854.08
8/23/23	23139CT	Noordam	74,700	530	330	169	105	$27.66	$2,066.20
8/23/23	23138FKL	Grand Princess	69,132	1,400	807	488	281	$69.15	$4,780.48
8/23/23	23140AS	Discovery Princess	188,550	510	802	104	164	$27.66	$5,215.29
8/24/2023	23142FKL	Carnival Miracle	63,368	600	317	253	134	$41.49	$2,629.14
8/24/23	23141CT	Nieuw Amsterdam	47,200	510	201	168	66	$27.66	$1,305.55
8/26/23	23144FKL	Sapphire Princess	143,841	650	780	136	163	$41.49	$5,967.96
8/26/2023	23143AS	SS Explorer	33,475	550	154	168	47	$27.66	$925.92
8/28/23	23150FKL	Royal Princess	79,295	530	350	104	69	$27.66	$2,193.30
8/29/23	23151FKL	Grand Princess	90,423	1,100	830	464	350	$55.32	$5,002.20
8/29/23	23152CT	Ruby Princess	21,375	660	118	150	27	$41.49	$886.85
8/30/23	23153CT	Nieuw Amsterdam	42,750	890	317	284	101	$41.49	$1,773.70
8/30/23	23154AS	Discovery Princess	183,950	560	859	91	140	$27.66	$5,088.06
8/30/23	23155FKL	Majestic Princess	207,009	760	1,312	170	293	$41.49	$8,588.80
8/31/23	23156FKL	Noordam	64,879	640	346	167	90	$41.49	$2,691.83
9/3/23	23158FKL	Sapphire Princess	99,576	490	407	116	96	$27.66	$2,754.27
9/3/2023	23157CT	SS Explorer	31,825	520	138	129	34	$27.66	$880.28
9/4/23	23159FKL	Royal Princess	85,833	530	379	120	86	$27.66	$2,374.14
9/5/23	23160FKL	Majestic Princess	226,881	620	1,173	116	219	$41.49	$9,413.29
9/6/23	23163CT	Noordam	88,900	570	423	167	124	$27.66	$2,458.97
9/6/23	23161FKL	Grand Princess	51,816	900	389	396	171	$55.32	$2,866.46
9/6/23	23162AS	Discovery Princess	175,800	730	1,070	144	211	$41.49	$7,293.94
9/7/23	23164CT	Nieuw Amsterdam	50,550	650	274	184	78	$41.49	$2,097.32
9/7/23	23165FKL	Ruby Princess	24,206	640	129	377	76	$41.49	$1,004.31
9/9/23	23166FKL	Sapphire Princess	151,528	830	1,049	154	195	$41.49	$6,286.90
9/9/2023	23167CT	SS Explorer	30,475	440	112	130	33	$27.66	$842.94
9/11/23	23168FKL	Royal Princess	79,593	490	325	103	68	$27.66	$2,201.54
9/12/23	23169FKL	Grand Princess	85,653	1,000	714	560	400	$55.32	$4,738.32
9/13/23	23171CT	Nieuw Amsterdam	33,000	760	209	192	53	$41.49	$1,369.17
9/13/23	23170FKL	Majestic Princess	179,096	540	807	88	131	$27.66	$4,953.80
9/13/23	23172AS	Discovery Princess	167,775	760	1,063	145	203	$41.49	$6,960.98
9/14/23	23173CT	Noordam	69,000	570	328	172	99	$27.66	$1,908.54
9/15/2023	23174FKL	Carnival Miracle	61,392	520	266	136	70	$27.66	$1,698.10
9/17/23	23176FKL	Sapphire Princess	173,681	530	768	102	148	$41.49	$7,206.02
9/17/23	23177CT	Ruby Princess	45,925	870	333	356	136	$41.49	$1,905.43
9/17/2023	23175CT	SS Explorer	23,275	760	148	174	34	$41.49	$965.68
9/19/23	23178FKL	Majestic Princess	247,318	720	1,485	186	384	$41.49	$10,261.22
9/20/23	23179FKL	Grand Princess	48,903	1,000	408	522	213	$55.32	$2,705.31
9/20/23	23180AS	Discovery Princess	160,200	630	842	106	142	$41.49	$6,646.70
9/21/23	23181CT	Nieuw Amsterdam	41,900	690	241	187	65	$41.49	$1,738.43
9/22/23	23182FKL	Sapphire Princess	115,897	480	464	131	127	$27.66	$3,205.71
9/27/23	23184AS	Discovery Princess	136,775	550	627	117	133	$27.66	$3,783.20
		AVERAGE	**96,301**	**674**	**542**	**189**	**138**	**$37.69**	**$3,633.93**
		TOTAL	**17,141,514**		**96,484**		**24,486**		**$646,838.97**

Row Labels	Sum of Visits
Carnival Luminosa	1
Carnival Miracle	8
Crown Princess	5
Discovery Princess	22
Grand Princess	21
Majestic Princess	20
Nieuw Amsterdam	19
Noordam	19
Royal Princess	19
Ruby Princess	11
Sapphire Princess	21
SS Explorer	11
Viking Orion	1
(blank)	
Grand Total	**178**

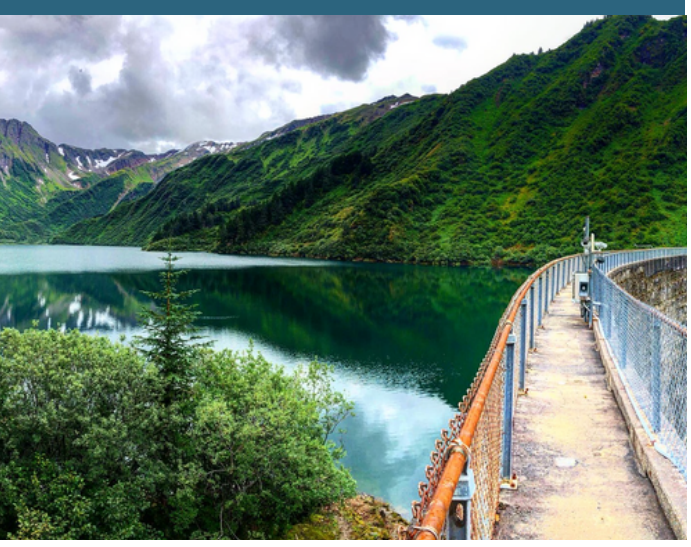
Carnival Ship	Juneau	Sitka	Whittier
Carnival Luminosa	1	0	0
Carnival Miracle	8	3	0
Crown Princess	5	4	0
Discovery Princess	22	0	0
Grand Princess	21	1	9
Majestic Princess	20	0	0
Nieuw Amsterdam	19	1	9
Noordam	19	2	9
Royal Princess	19	1	10
Ruby Princess	11	0	0
Sapphire Princess	21	1	9
SS Explorer	11	0	0
Viking Orion	1	14	0
Grand Total	178	27	46

No NCL

Fun Facts

- Only 3-3.5% of the earth's water is fresh, and only around 1% is available for use. Juneau's water is derived from high-quality natural resources but still requires treatment to eliminate bacteria and other naturally occurring substances.
- Turning off the tap while brushing your teeth can save 8 gallons of water per day and, while shaving, can save 10 gallons of water per shave. Assuming you brush your teeth twice daily and shave 5 times per week, you could save nearly 5,700 gallons per year.
- Letting your faucet run for five minutes while washing dishes can waste 10 gallons of water and uses enough energy to power a 60-watt light bulb for 18 hours.

Source: Environmental Protection Agency. "Statistics and Facts." Water Stats, accessed 5/15/2024, https://www.epa.gov/watersense/statistics-and-facts



FOR MORE INFORMATION

Thank you for reading this report and helping us protect Juneau's water supply. If you have any questions, comments, or would like more information please contact Brian McGuire, CBJ Utilities Superintendent at (907) 586-0393 or the ADEC at (907) 465-5066

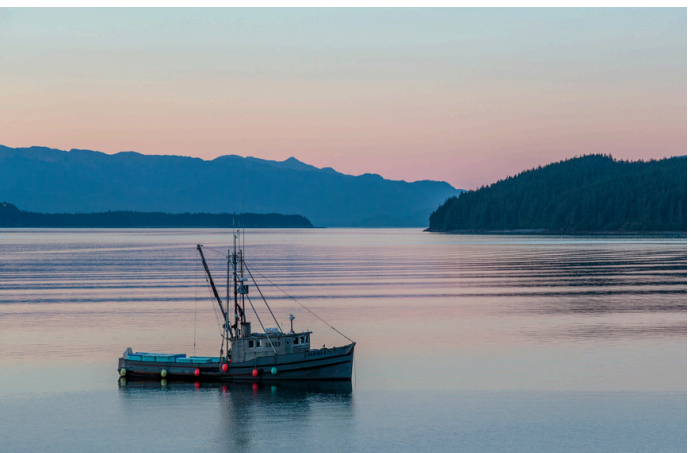
Your Water. Your Report.

Per the United States Environmental Protection Agency's (EPA) National Primary Drinking Water Regulations, all drinking water suppliers are required to provide the public with an annual statement describing the community's water supply and quality. The belief at the City & Borough of Juneau is that our local water resource is your water, and it is the Utility's job to protect its purity and deliver it safely so that is clean and delicious for all residents, visitors, and businesses.

Juneau's drinking water comes from groundwater and surface water sources. The primary water source is the Last Chance Basin (LCB) wellfield located in the Gold Creek watershed; it provides roughly two-thirds of Juneau's water. Surface water, collected at the Salmon Creek (SC) Reservoir, comes from snowmelt and rainfall. This is Juneau's secondary water source and supplies about one-third of the drinking water demand.

Juneau's water requires very little treatment compared to the rest of the United States. Both sources are gently chlorinated to kill any disease causing microorganisms that may be present. As required by the EPA, all surface water is also run through an additional filtration unit.

The CBJ Utility regularly monitors its waters for contaminants, including lead, which have been known to adversely affect water quality in other communities. In the fall of 2022, the reservoir tanks were inspected and cathodic protection systems repairs were made at each reservoir to prevent internal corrosion. Additionally, divers were employed to clean the sediment on the bottom of the tanks. Rigorous monitoring and maintenance programs like these have allowed CBJ to consistently deliver water that meets and exceeds drinking water standards as set by the EPA.



Prst. Std.
ECRWSS
US Postage
PAID
Juneau, AK
Permit No. 61

POSTAL CUSTOMER

CBJ Utilities Division
2009 Radcliffe Road ● Juneau, AK 99801

LEAD SERVICE LINE INVENTORY PROGRAM

In response to a water quality crisis in 2014 in Flint, Michigan, the EPA in 2024 mandated that all public drinking water supplies seek to ensure that their entire distribution systems - including privately owned service lines - be lead-free. To help accomplish this goal, the CBJ must inventory the entirety of our drinking water distribution system, including all water mains and service lines to every individual household, school, and business, regardless of ownership.

During 2024, the Utility will be contacting all property owners with privately owned water lines within the City and Borough of Juneau to engage in self-surveys and facilitated inspections in order to complete our federal requirements for this program. The composition of all water service lines will be identified as one of four categories: lead, galvanized containing lead, non-lead, or lead status unknown.

Upon completion of the LSLI, the results will be made available to the public through the Alaska Department of Environmental Conservation (ADEC) and as part of the descriptive information found within the CBJ's Parcel Viewer. Any property owner with a water supply service line that does or may contain lead will be immediately contacted, advised of the current risk, and provided with options for mitigation.

We look forward to partnering with the community to continue our legacy of delivering clean, pure, and delicious drinking water.

EPA

WATER QUALITY REPORT 2023

Denise Koch

ENGINEERING & PUBLIC WORKS DIRECTOR

CBJ's Utility staff maintains the critical infrastructure that delivers delicious high-quality drinking water to Juneau residents and visitors year after year. It's such an essential and reliable service that most of us rarely think about the treatment facilities, constantly evolving regulations, and 175 miles of distribution lines the Utility monitors, maintains, and updates every day. The next time you turn on your faucet, consider raising a glass to the team behind the tap – cheers!

Protect Your Water

PICK UP PET WASTE
Pet waste pollutes waterways with bacteria and excess nutrients. All pets must be leashed in the watershed areas.

RESPECTFUL RECREATION
Camping, shooting, recreational mining (except gold panning) and any hazardous substances are prohibited within the watershed boundaries.

REPORT SUSPICIOUS ACTIVITY
Call the Utilities Division at (907) 586-0393 if you see suspicious activity in or around our water sources or reservoirs.

GET EDUCATED
Contact the Utilities Division if you'd like more information or a tour of our facilities.

SIGN UP FOR PAPERLESS BILLING
Help the Utility conserve resources by receiving your bill by email! Sign up at www.bit.ly/cbj-paperless.

Drinking Water Monitoring & Test Results

TEST	UNITS	MAX CONTAMINANT LEVEL	MAX CONTAMINANT LEVEL GOAL	LAST CHACE BASIN	SALMON CREEK	DATE SAMPLED	SOURCE OF CONTAMINANT
Measured Before Treatment							
Turbidity	NTU	0.3	0	N/A	0.011 avg 0.031 max	Continuous	Turbidity data is recorded post filtration
Arsenic	mg/L	0.01	0	<0.001	<0.001	2022*	Erosion of natural deposits
Barium	mg/L	2	2	0.047	0.042	2022*	Erosion of natural deposits
Fluoride	mg/L	4	4	<0.1	<0.1	2022*	Naturally present in the environment (CBJ has not added fluoride since Jan. 2007)
Nitrate (as Nitrogen)	mg/L	10	10	0.33	<0.1	2023	Fertilizer runoff; sewage leaching; erosion of natural deposits
Selenium	mg/L	0.05	0.05	<0.002	<0.002	2015*	Erosion of natural deposits
Alpha Particles	pCi/L	15	0	1.1	0.26	2015*	Erosion of natural deposits
Radium 226	pCi/L	5	0	0.44	0.84	2015*	Erosion of natural deposits
Radium 228	pCi/L	5	0	1.8	0.22	2015*	Erosion of natural deposits
Measured in the Distribution System							
Total Coliform Bacteria	count	1 positive sample/month	0	No Violation		Weekly	Runoff from organic material
Haloacetic Acids (HAAS)	mg/L	0.06	N/A	0.0019 avg ND-0.0074		Quarterly	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	mg/L	0.08	N/A	0.0033 avg. 0.00071-0.00753		Quarterly	By-product of drinking water disinfection
Chlorine	mg/L	MRDL = 4	MRDL = 4	0.49 avg		Continuous	Disinfectant used to control microbes
Copper	mg/L	AL = 1.3	1.3	90th percentile = 0.320		2022*	Corrosion of household plumbing systems, erosion of natural deposits
Lead	mg/L	AL = 0.015	0	90th percentile = 0.0006		2022*	Corrosion of household plumbing systems, erosion of natural deposits

***This table presents a summary of the most recent water quality test results for the CBJ water system. ADEC and EPA limit the amount of certain contaminants in drinking water to ensure the safety of public health. Juneau's treated drinking water met all State and Federal standards for public health. Some data, though representative, is more than a year old. Per State requirements, some contaminants are monitored less than once per year due to infrequent concentration shifts.**

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

ABBREVIATIONS

ADEC	**Alaska Department of Environmental Conservation**
AL	**Action Level** - The concentration of a contaminant which, if exceeded, triggers additional treatment or other requirements
CBJ	**City and Borough of Juneau**
EPA	**U.S. Environmental Protection Agency**
FDA	**U.S. Food & Drug Administration**
LCB	**CBJ's Last Chance Basin** - Water source
MCL	**Maximum Contaminant Level** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the CMLGs as feasible using treatment technology
MCLG	**Maximum Contaminant Level Goal** - The level of a contaminate in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety
MGD	**Millions Gallons per Day**
mg/L	**Milligram per Liter** - Or parts per million
MRDL	**Maximum Residual Disinfectant Level** - The highest level of a disinfectant allowed in drinking water
N/A	**Not Applicable**
ND	**None Detected at specified level**
NTU	**Nephelometric Turbidity Unit** - The unit of measure for turbidity, or the light scatter create by particles suspended in water
PCi/l	**Pico Curies per Liter**
PPB	**Parts per Billion**
SC	**CBJ's Salmon Creek** - Water Source

EXEMPTIONS AND WAIVERS

The CBJ water system operates under waivers for synthetic organic chemicals and reduced asbestos monitoring as authorized by ADEC.

Potential Water Contaminants

CBJ's drinking water is regularly tested and required to provide the results annually to the public - ensuring that is clean, pure, and delicious. All drinking water may be reasonably expected to contain small amounts of certain contaminants. Contaminants often enter the source water naturally; as water travels over land or through the ground, it dissolves occurring minerals and may pick up substances from the presence of animals or human activity.

The presence of a contaminant does not necessarily indicate that the water poses a health risk. The EPA limits the amounts of contaminants in public water systems to ensure that water is safe to drink. The FDA establishes contaminant limits for bottled water.

SOURCE WATER PROTECTION

A Source Water Assessment was performed for CBJ watersheds to identify the potential for contamination. LCB received a "Medium" susceptibility designation common to groundwater sources. SC reservoir received a "Very High" susceptibility designation (due to potential exposure by wildlife and recreational uses) common for surface water sources. These ratings do not directly reflect the quality of the drinking water; they provide the Water Utility with information as to how prone the water sources are to possible contamination.

Copies of the Source Water Assessments for LCB and SC are available from the ADEC Drinking Water Program at (866) 956-7656, or the Alaska Resource Library at (907) 272-7547.

CONTAMINANTS THAT MAY BE PRESENT IN DRINKING WATER SOURCES

Microbial Contaminants are viruses and bacteria that may come from local wildlife or human activity and could affect source watersheds. The most common examples of these include: giardia, cryptosporidium, salmonella, campylobacter, Escherichia coli (E.coli), Hepatitis A, and Norwalk-type viruses.

Inorganic Contaminants can include a combination of metals, salts, compounds, particles, and mineral complexes which do not contain carbon. Inorganic contaminants include natural or man-made elements or compounds that can contaminate water or be concentrated in the water cycle. Some of the most common contaminants include carbon dioxide and other gases, salts like chloride, sodium, calcium, potassium, iron, and manganese. Inorganic contaminants commonly create a salty or bitter taste, discoloration, or even chemical scale/corrosion.

Organic Contaminants in drinking source waters are comprised of Synthetic Organic Compounds (SOCs) and Natural Organic Matter (NOM). SOCs are man-made chemicals typically from the petroleum, plastics, chemical, pharmaceutical, and agricultural industries. NOM is often due to trace organic compounds from decomposing plant and animal material in the environment. These include a variety of acids, proteins, algae, and microorganisms. Excepting the rare instance of harmful algal blooms, NOM is generally not a health threat.

Radionuclide Contaminants found in public drinking water sources occur naturally. Radioactive radium and uranium are found in small amounts in almost all rock and soil, and can dissolve in water. Radon, a radioactive gas, created through the decay of radium, can also naturally occur in groundwater. If it is not removed, radon in water will increase the risks of kidney damage and cancer.

Contaminants of Special Concern are determined through continual monitoring by the USEPA and currently include Lead and PFAS.

PFAS, or Per- and Polyfluoroalkyl Substances, are persistent synthetic compounds used in a variety of industrial and consumer product applications including non-stick cookware and firefighting foams. PFAS poses a significant threat to human and ecosystem health and the allowable limits in drinking water have recently been further restricted by the EPA to 2 parts per trillion (2 ng/l). There is currently no detectable PFAS in Juneau's source water.

Lead is a toxic metal that is persistent in the environment and can accumulate in the body over time. The USEPA has set the maximum contaminant level goal for lead in drinking water at zero because lead can be harmful to human health even at low exposure levels. The most common sources of lead in drinking water are lead pipes, faucets, and plumbing fixtures. Certain pipes that carry drinking water from the water source to the home may contain lead. Household plumbing fixtures, welding solder, and pipe fittings made prior to 1986 may also contain lead. There is currently no detectable lead in Juneau's source water.

For more information about contaminants in drinking water sources and potential health effects, contact the EPA's Safe Drinking Water Hotline (1-800-426-4791) or visit water.epa.gov/drink/contaminants.