



City of Ketchikan, Alaska

CONGRESSIONAL ALERT: ASSISTANCE NEEDED TO ADDRESS THE CITY OF KETCHIKAN'S DRINKING WATER SYSTEM

The City of Ketchikan d/b/a Ketchikan Public Utilities (KPU) provides high quality drinking water to its customers from the protected water sources of Ketchikan Lakes and Granite Basin. The water system operates under filtration avoidance regulations defined in the US Environmental Protection Agency (EPA) Surface Water Treatment Rule (SWTR), 40 CFR Part 141, Subpart H, promulgated in June 1989. Compliance with the rule has been challenging due to recent trends toward warmer and drier summers and an increase in non-native wildlife in the watershed. For decades, KPU has been extremely proactive in treatment process improvements and system operation.



The City has expended close to \$10,000,000 since 2009 to comply with new and more restrictive drinking water regulations. Although the City technically became non-compliant in November of 2019, there have been no observed issues with the water quality delivered to KPU's consumers.

One of the filtration avoidance requirements is the source water (before treatment) must contain less than 20 fecal coliforms per 100 mL in at least 90% of samples in the previous 6 months. As of the November 2019 sampling, KPU's untreated water had dropped to 89% of the source water samples meeting these criteria. In November 2019, the Alaska Department of Environmental Conservation (ADEC) notified KPU that filtration needs to be installed. Throughout 2020, the City entered into Compliance Order by Consent (COBC) negotiations with ADEC to develop a viable action plan.

To meet filtration order requirements the City would need to construct a new water filtration facility. A filtration project will require a \$70 million capital investment and add an additional \$2 million in annual operations and maintenance costs. Ketchikan's demand for water is 6 times higher than similarly sized cities due to two main industries: fish processing and cruise ship tourism. These industries are the primary economic drivers for the region, but they are high water consumers.

KPU met with ADEC on March 4th to begin discussion of a draft COBC. KPU informed ADEC that filtration facility construction is not a financially viable option and requested that the State work with the City to pursue a Limited Alternative to Filtration (LAF) as described below. The State was very receptive to the City's LAF proposal, but it requires approval of the approach from US EPA before it can proceed.

Ketchikan's Proposed Regulatory Pathway

The Safe Drinking Water Act Amendments of 1996 (Section 106) provide a Limited Alternative to Filtration (LAF) regulatory pathway for water systems like the City of Ketchikan's to remain unfiltered even with raw water coliforms above the limits described above as long as the delivered water meets all potable water regulatory requirements. Two-thirds of the water served to City of Seattle customers is treated by the Cedar Water Treatment Facility, which operates under the LAF regulatory umbrella. Approval of this regulatory approach will require action and ultimately approval by the US EPA and ADEC to allow KPU to operate under LAF status.

Section 106 allows the LAF approach if the water supply meets these criteria:

- An uninhabited, undeveloped watershed that is access-controlled by the utility operating the water system.
- An alternative treatment train that ensures greater removal or inactivation efficiencies of pathogenic organisms than would be achieved by the combination of filtration and chlorine disinfection.

To implement this approach, each state must establish guidelines on a case by case basis after notice and opportunity for public comment. For example, when the Seattle’s source water similarly exceeded the coliform limit for filtration avoidance, the State of Washington established a process for LAF. ADEC has not yet developed a similar process.

Ketchikan meets the above criteria and is a candidate for the LAF regulatory approach but will need cooperation from ADEC and the US EPA to develop a framework to stay unfiltered under this regulatory pathway.

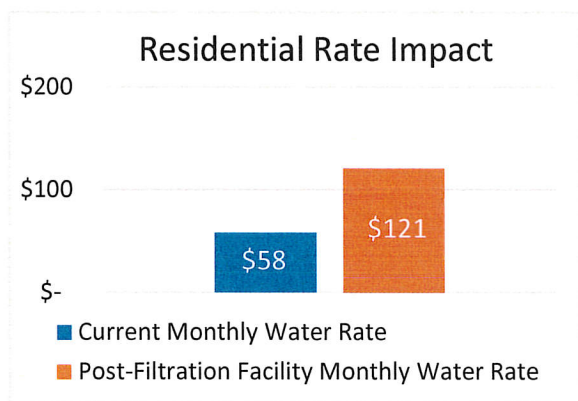
The City has demonstrated to the State that the current treatment system provides a higher level of pathogens treatment through UV, free chlorine, and chloramine disinfection than would be required for a filter system with chlorination (As shown in the Table to the right).

Pathogen	KPU Current Treatment*	Filtration Treatment Required*
Crypto	3.0	2.0
Giardia	3.0 +	3.0
Virus	4.0 +	4.0
*Treatment levels shown are log inactivation/removal		

ADEC is awaiting US EPA approval of the LAF approach for Ketchikan. At this point, it does not seem that US EPA shares the City and State’s view that LAF is the correct regulatory framework for Ketchikan. US EPA has stated concern over watershed ownership. The City does not own 100% of the watershed. It is owned by the federal government and is covered by a July 27, 1939 Act of Congress (H.R. 2413) that explicitly restricts the watershed’s use (“location, entry, or appropriation”) to water supply purposes only, allowing no unauthorized access. In 1992 both the US Bureau of Land Management and the US Forest Service confirmed full land use restrictions for their lands in the watershed. This assures the City that the watershed will remain pristine, undeveloped, and uninhabited.

Potential Need for Financial Support

If a regulatory pathway to save the City from installing costly filtration cannot be achieved, the City will require financial assistance to implement this mandated water treatment upgrade. If the City is required to construct a new filtration facility and the \$70 million capital investment and \$2 million increase to annual O&M costs to produce water is 100% locally funded, the result will be a rate increase of 113% to residential ratepayers. This represents an unmanageable burden to the community’s already stressed economy. This increase already assumes that Ketchikan would obtain low interest funding through such programs as the US EPA WIFIA and the Alaska Drinking Water Fund.



The City’s debt service is already high due to recent community hospital and other critical infrastructure investments. With the addition of the State mandated water filtration, Ketchikan’s debt service would skyrocket from over \$22,000 per capita to over \$36,000 per capita.

Even if a smaller capital investment is required by ADEC and the US EPA as part of the LAF approach, Ketchikan will likely need funding support to pay for the required improvements. The City’s current debt

obligations severely limit Ketchikan’s ability to fund significant capital investments locally, especially given the adverse economic impacts from the loss of tourism revenue due to COVID-19.

Summary

In summary, the City of Ketchikan remains steadfast in its commitment to protect public health, but the City cannot afford to construct a filtration facility. A filtration facility is not needed to protect public health. The City is actively collaborating with ADEC and ready to move forward with the LAF, pending approval from the US EPA. **Immediate delegation intervention is requested to encourage the US EPA to work with the Ketchikan and ADEC to recognize federal land ownership and congressional protection as sufficient watershed protection to allow Limited Alternative to Filtration approval.**

If you have any questions on this subject, please contact Karl R. Amylon, City Manager by phone at (907) 228-5603, or email at karla@ktn-ak.us. Thank you.