

Alaska Department of Environmental Conservation (DEC) Response to Comments for the Draft Certificate of Reasonable Assurance for the City and Borough of Sitka Wastewater Treatment Plant (WWTP) National Pollutant Discharge Elimination System (NPDES) Permit No. AK0021474

Summary

The Environmental Protection Agency and DEC jointly public noticed NPDES Permit AK0021474 and DEC's Draft Certificate of Reasonable Assurance for the City and Borough of Sitka WWTP between June 7, 2023 and July 24, 2023. DEC received two comments on the Draft Certificate of Reasonable Assurance, both from the City and Borough of Sitka. This document summarizes the comments and the justification for any action taken or not taken by DEC in response to the comments.

1. Fecal Coliform and Enterococcus Bacteria Compliance Schedule

Comment Summary

The City and Borough of Sitka stated that the five-year compliance schedule is not enough time to secure funding, complete a disinfection study, design, and construct a disinfection system and therefore requested an extension of the five-year compliance schedule to ten years. The City and Borough of Sitka estimates that disinfection will cost approximately 7-12 million dollars which will be a significant burden on rate payers and that ten years will allow the City and Borough of Sitka time to obtain grants and alternative funding. The City and Borough of Sitka proposed an alternate schedule that with the exception of construction startup, (the compliance schedule in the Draft Certificate of Reasonable Assurance specifies that construction commence four years after the effective date of the permit vs seven years proposed by the City and Borough of Sitka), doubles the allowable time for each sequential interim requirement.

DEC Response

40 Code of Federal Regulations, Duration of permits §122.46(a), limits the length of NPDES permits to a fixed term not to exceed five years. Alaska implements the NPDES program as the Alaska Pollutant Discharge Elimination System (APDES) program. DEC regulations at 18 Alaska Administrative Code (AAC) 83.020, Term of permit (a), states that an APDES permit is effective for a fixed term that must be listed in the permit and must not exceed five years. The fecal coliform and enterococcus compliance schedule is a condition of the permit; therefore, the compliance schedule cannot extend beyond the five-year permit term.

18 AAC 83.560, Schedules of compliance, states that any schedule of compliance must require compliance as soon as possible. 18 AAC 83.560(b)(1) specifies that the time between interim requirements must not exceed one year. The interim requirements contained in the Draft Certificate of Reasonable Assurance that will lead to compliance with the final fecal coliform and enterococcus bacteria effluent limits and the dates for their achievement are attainable progressive actions that will ensure that the City and Borough of Sitka complies with the final effluent limits as soon as possible, but no later than 5 years after the effective date of the permit.

2. Mixing Zone Basis and Supporting Documentation

Comment Summary

The City and Borough of Sitka commented that DEC authorized mixing zones and provided the acute and chronic dilution factors but did not provide the basis or supporting documentation to explain these values. They requested that DEC provide citations and or references to supporting technical reports,

calculations, and/or materials to support mixing zone dilutions and distances for inclusion in NPDES Fact Sheet Appendix H.

DEC Response

The following are regulatory references, guidance documents, and technical reports that provide the basis for DEC's reasonable potential analysis, water-quality based effluent limits, and mixing zone modeling.

REFERENCES

- Alaska Department of Environmental Conservation (ADEC) 2020. 18 AAC 70, Water quality standards, as amended through March 5, 2020.
- ADEC, 2017. 18 AAC 83, Alaska pollutant discharge elimination system, as amended through November 7, 2017.
- ADEC, 2017. 18 AAC 72, Wastewater disposal, as amended through November 7, 2017.
- ADEC, 2014. Alaska Pollutant Discharge Elimination System permits reasonable potential analysis and effluent limits development guide.
- ADEC, 2008. Alaska water quality criteria manual for toxic and other deleterious organic and inorganic substances, as amended through December 12, 2008.
- Doneker, Robert and Jirka, Gerhard. 2007. CORMIX user manual, U.S. Environmental Protection Agency, EPA-823-K-07-001, December 2007.
- Great Lakes Environmental Center, Inc. 2021. Mixing zone dilution modeling for six Alaska POTWS, prepared for EPA Region 10, August 2021.
- Oregon Department of Environmental Quality, 2022. Aquatic life water quality standards for ammonia. <https://www.oregon.gov/deq/wq/Pages/WQ-Standards-Ammonia.aspx> Accessed March 1, 2022.
- U.S. Environmental Protection Agency. USEPA, 1991. Technical support document for water quality-based toxics control, EPA/505/2-90-001, USEPA Office of Water, Washington D.C., March 1991.