RESPONSE TO COMMENTS

HAINES BOROUGH WASTEWATER TREATMENT PLANT

NPDES PERMIT AK0021385

DATE: DECEMBER 5, 2024

SUMMARY

On May 4, 2023, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed issuance of a National Pollutant Discharge Elimination System (NPDES) permit and the tentative Clean Water Act 301(h) decision for the Haines Borough Wastewater Treatment Plant (WWTP). The public comment period closed on July 3, 2023.

This document presents the EPA's responses to comments received during the public comment period, identifies conditions incorporated into the permit as a result of the 401 certification, and identifies conditions incorporated into the permit as a result of Endangered Species Act (ESA) consultation.

During the public comment period, the EPA received comments from:

- Alaska Department of Environmental Quality (ADEC)
- Haines Borough (Haines)

CHANGES IN RESPONSE TO PUBLIC COMMENT AND 401 CERTIFICATION

This document presents all comments received and provides corresponding responses to those comments. As a result of comments received, the following revisions were made to the final permit from the May 2023 draft permit:

- The EPA corrected the latitude and longitude of the outfall.
- The EPA revised Table 1 to require only influent or effluent flow monitoring.
- The EPA revised Table 1 to clarify that copper monitoring and limits are for total recoverable copper.
- The EPA revised the maximum daily copper limits in Table 1 to 58 mg/L and 0.52 lbs/day.
- The EPA revised Table 1 to require interim monitoring of enterococcus in the effluent, to begin within 6 months of the effective date of the permit.
- The EPA corrected the minimum dissolved oxygen (DO) limit in Table 1 to 6.0 mg/L at the surface per the final 401 certification.
- The EPA corrected Table 1 to require per- and polyfluoroalkyl substances (PFAS) monitoring for 2 years (8 sampling events).
- The EPA removed previous Permit Parts I.B.3 and I.B.4 that referenced requirements for continuous temperature monitoring and clarified that weekly temperature monitoring is required.
- The EPA revised the whole effluent toxicity (WET) dilution series to: 70%, 50%, 25%, 12.5%, 6.25%, 5.3%, 3.125% effluent and a control (0% effluent).
- The EPA established a WET sampling holding time of 36 hours, not to exceed 72 hours.
- The EPA corrected the sample depth required for secchi to be in accordance with the method.

- The EPA revised the receiving water monitoring for fecal coliform and enterococcus to allow discontinuation of monitoring if there is continued compliance with final fecal coliform and enterococcus limits.
- The EPA reduced the required zone of initial dilution (ZID) boundary stations for receiving water from four to two.
- The EPA removed the requirement for the Permittee to conduct a sediment analysis for total volatile solids (TVS) from the Biological Monitoring requirements in Permit Part I.E.
- The EPA revised Permit Part I.E. and Table 3 to allow completion of the benthic survey from May through September.
- The EPA inserted the compliance schedule timeline and details from the final 401 certification.

CHANGES AS A RESULT OF ESA CONSULTATION WITH THE NATIONAL MARINE FISHERIES SERVICE PURSUANT TO SECTION 7 OF THE ENDANGERED SPECIES ACT

On August 30, 2024, the EPA requested to initiate ESA Section 7 Consultation with the National Marine Fisheries Service (NMFS) on the reissuance of six (6) 301(h) modified NPDES permits for publicly owned WWTP's located in southeast Alaska, including the Haines WWTP. The EPA submitted a Biological Evaluation (BE) analyzing the effects of the discharges on threatened, endangered, and candidate species and designated critical habitats under the NMFS' jurisdiction. The analysis of effects in the BE determined that the discharges may affect, but are not likely to adversely affect (NLAA), any ESA-listed species or designated critical habitat. On October 15, 2024, NMFS concurred with the EPA's NLAA determination and provided the following conservation recommendations which the EPA has adopted in the final permit as mitigation measures:

- The project proponent will provide NMFS with annual water temperature and water quality reports from each of the six POTWs in Southeast Alaska (email information to akr.prd.records@noaa.gov).
- The project proponent will provide NMFS a report of sunflower sea star sighting and density data collected during benthic surveys around each outfall and reference site once during the 5-year permit period. This report also will include the date, water depth of each survey, and water quality.
- If it appears that a sunflower sea star has sea star wasting syndrome or if any dead sunflower sea stars are observed, pictures of the individuals will be taken and infected individuals will be counted. The infected sunflower sea stars will not be touched or relocated. These and all sunflower sea star survey findings will be reported to NMFS, including latitude/longitude and transect line, at akr.prd.records@noaa.gov.

The EPA concurs with these conservation recommendations and has included them in the final permit as summarized below:

- Permit Part I.D.11. has been revised – in addition to the EPA and ADEC, the surface water monitoring report must also be provided to the NMFS.
- Permit Part I.E.5. has been added, and Permit Part I.E.6 has been revised – The new Part I.E.5 requires the observation of the presence and density of sunflower sea stars as part of the benthic survey required in Permit Part I.E. Permit Part I.E.6. has been revised to require the reporting of results to NMFS in addition to the EPA and ADEC.

EDITORIAL AND TECHNICAL CORRECTIONS TO THE PERMIT

The EPA has corrected the following editorial errors in the permit:

- The EPA corrected typos, formatting, punctuation errors, and added abbreviations in the permit.
- The EPA corrected internal references.
- The EPA clarified that the permittee must submit the NPDES and 301(h) Application Renewal in the Schedule of Submissions.
- The EPA removed the reference to metals, dissolved organic carbon, conductivity, and hardness in Permit Part I.D.9.
- The EPA clarified the requirements of the surface water observations in Permit Part I.B.2. The final permit requires that the surface water observations be conducted during the receiving water monitoring required in Permit Part I.D., and observations must be included with the receiving water monitoring report required in Part I.D.8.
- The EPA removed the narrative limitations in Part I.B. from the final permit because they were included in error. Specifically, these limitations came from an Idaho WQS narrative provision. The narrative limitation from the 2001 permit is being retained in the renewed permit.
- The EPA added Permit Part I.C.5.e. to clarify that the salinity of whole effluent toxicity (WET) samples must match the salinity of the water test organisms were cultured in.

RESPONSE TO COMMENTS

The comments are in the following categories: Comments from ADEC, Comments from Haines: General Comments, and Comments from Haines: Comments on Changes from 2001 Permit

COMMENTS FROM ADEC

Comment 1. *Permit Section I.B. Table 1.* The permit contains copper effluent limits 64 µg/L, 21 µg/L. DEC's RPA resulted in copper effluent limits 58 µg/L, 29 µg/L total recoverable. DEC's RPA supports CORMIX inputs and the mixing zone. Therefore, DEC's resultant effluent limits should be used rather than EPA's.

Response. ADEC's 401 certification requires copper limits of 29 ug/L and 0.46 lbs/day monthly average and 58 ug/L and 0.52 lbs/day max daily. The draft permit contained effluent limits of 21 ug/L and 0.33 lbs/day monthly average and 64 ug/L and 1.01 lbs/day max daily. The maximum daily limits are more stringent than the limits in the draft permit due to EPA's use of a larger dataset. Therefore, as required by CWA section 401(d), the EPA has changed the maximum daily limits in the final permit to the more stringent maximum daily limits in ADEC's 401 Certification. The EPA is not required to include conditions of a certification that are less stringent than the conditions in the permit. See 40 CFR 122.55(b).

Comment 2. *Permit Section I.B. Table 1.* Copper effluent limits should be noted that they are total Recoverable.

Response. The EPA agrees the copper effluent limits are total recoverable limits and has clarified this in Table 1 of the final permit.

Comment 3. *Permit Section I.B. Table 1*. Enterococcus bacteria should have interim monitoring reporting requirements.

Response. The EPA agrees that enterococcus bacteria should have interim monitoring reporting. The EPA has revised Table 1 to require reporting twice monthly enterococcus sampling of the effluent. The monitoring for enterococcus must begin within six months of the effective date of the permit. The EPA has revised the final permit accordingly.

Comment 4. *Permit Section I.C.5.a.* WET dilution series should include the IWC 5.3% (based on 19:1 dilution).

Response. The EPA agrees that the WET dilution series should include the instream waste concentration (IWC) 5.3% to account for the 19:1 dilution. The EPA has added a 5.3% effluent concentration to the dilution series.

Comment 5. *Permit Section I.C.5.a.* 100% effluent concentration should be removed from dilution series. The highest concentration that can be tested using hypersaline brine is 70% effluent.

Response. The EPA has removed the 100% effluent concentration from the dilution series and replaced it with a 70% effluent concentration.

COMMENTS FROM HAINES BOROUGH

GENERAL COMMENTS

Comment 6. *Financial Impact to Local Government and Users.* The proposed changes in the draft permit, especially the increased sampling and the disinfection requirement, will produce substantial rate increases for individual users of the Haines Townsite Sanitary Sewer System. *Haines Borough Ordinance No. 22-02-609* increased user rates for sewer approximately 3 percent each year between 2022 to 2025. For the Haines Borough to implement these proposed permit requirements, without any other financial support such as federal or state grants, will require doubling, tripling or even quadrupling the current monthly user fees, both residential and commercial. (See *Attachment 1* for a spreadsheet and explanatory outline detailing the anticipated additional costs beyond the scope of the current permit.)

As stated in the ARRI Report, *Water Quality Measures in Alaska's Ports and Shipping Lanes: 2020 Annual Report,* prepared for the Alaska Department of Environmental Conservation (ADEC), samples taken at the edge of the mixing zone for Haines-Chilkoot Inlet have results less than the proposed permit's final limits of 200 fecal coliform per 100 ml and 665 enterococcus per 100 ml. This report summarizes samples taken in June 2020, showing a maximum value for fecal coliform of 5 per 100 ml, more than an order of magnitude less than the proposed final limit. For enterococcus, the values reported were two orders of magnitude less – 5 MPN per 100 ml. Further, the average temperature noted by ARRI for the Haines-Chilkoot Inlet ranged from 11.4 to 12.4 degrees; C. Fecal coliform bacteria prefer 37 to 45 degrees C. The ARRI Report records levels without disinfection.

Chlorination may cause effects beyond wastewater treatment. Disinfection with chlorine may kill pathogenic bacteria and other disease-causing microbes in the Haines WWTP effluent. However, this disinfectant may also kill other microbes essential to the aquatic environment in the mixing zone and beyond, endangering the survival of species dependent on these other microbes.

Response. The EPA appreciates the commenter's concerns regarding the costs associated with the new permit requirements and increases in user fees and rates. Under the Clean Water Act (CWA) and its implementing regulations, the permitting authority is required to establish water quality-based effluent limits (WQBELs) when there is reasonable potential to cause or contribute to excursions of applicable water quality standards. See 40 CFR 122.44(d)(1)(i). Compliance and cost are not factors when evaluating the need for WQBELs. The basis for the new WQBELs is discussed in the Fact Sheet.

Further, Section 401 of the CWA requires the state in which the discharge originates to certify that the discharge complies with the appropriate sections of the CWA, as well as any appropriate requirements of state law. See 33 USC 1341. If the certifying authority includes a more stringent condition in the 401 certification, then the permitting authority is required to include that condition in the NPDES permit pursuant to CWA section 401(d). The mixing zone authorized by ADEC in the final 401 certification is smaller than the mixing zone from the 2001 permit that was evaluated in the ARRI Report. Therefore, the samples from the ARRI Report do not indicate compliance with the effluent limits in the final permit.

ADEC recognized that the Permittee will not be able to comply with these effluent limits immediately upon issuance of the permit. Therefore, ADEC authorized a compliance schedule as a condition of the 401 certification, which the EPA has included as a condition of the final permit. This will allow the Permittee additional time to comply with the final effluent limits in the permit.

In the event that the Permittee implements disinfection using chlorine, the facility is required to notify the EPA pursuant to Permit Part IV.I so that the EPA can determine whether to modify the permit to establish chlorine limits. If chlorine limits are necessary, the EPA would establish WQBELs to protect aquatic life in the receiving water. The Permittee may contact the EPA during project planning to discuss potential chlorine limits to help guide planning efforts.

No changes were made to the permit as a result of this comment.

Comment 7. *Increased Sampling Necessitates Additional Staff and Increased Lab Costs.* As outlined in *Attachment 1*, the proposed sampling requirements place significant additional expenses on our community for little apparent gain in water quality. Further, if one set of tests yields satisfactory results for the WET series as well as the five ZID stations, why does this costly testing for these parameters warrant multiple annual repeats? (See *Attachment 1*, *Section 1*, last bullet.) Moreover, for the ZID area, the accuracy of the specific GPS locations for the five sample sites will be impossible to maintain in a boat with variable weather and sea conditions.

We also must build contingencies into our sampling programs. Between weather issues with sampling and sample transportation to labs, multiple sets must be retaken each year as hold times are exceeded. If sample results are unsatisfactory for whatever reason, this triggers additional sampling, requiring more staff time with added transportation and lab fees.

Response. The EPA appreciates the commenter's concerns about the costs associated with implementing the new permit requirements and managing logistical challenges including holding time requirements for effluent and receiving water samples. Section 308 of the CWA and 40 CFR 122.44(j) require the permitting authority to include monitoring requirements in the permit that are

representative of the permitted activity. As explained in the fact sheet, WET and receiving water monitoring are necessary to ensure that water quality standards are met.

Additionally, the EPA acknowledges the difficulty maintaining a precise sampling location during variable weather. In response to comment #8, the EPA has reduced the number of receiving water monitoring stations.

Comment 8. *Proposed Sampling Substantially Scaled Up.* The type and frequency of sampling increases significantly with the proposed permit. For example, the number of samples for enterococcus in receiving waters goes from zero in the current permit to 55 per year. The Water and Sewer Department staff includes only three operators. This testing will place an additional sampling burden on staff with a heavy workload, creating a need for additional personnel. Please explain what useful data will be gathered by taking samples five times a year from 11 different sites within a thousand meters of the effluent discharge outfall in Portage Cove. We request that the number of sites and/or the frequency of sampling for this parameter be reduced.

Response. Per 40 CFR 125.63(c), water quality monitoring programs for facilities with 301(h) waivers must provide adequate data for evaluating compliance with water quality standards at and beyond the ZID. However, since prior sampling results showed little difference between the ZID boundary stations, the EPA believes that monitoring at the north and south boundaries of the ZID will be sufficient to evaluate compliance at the ZID boundary. The EPA revised the final permit accordingly.

Comment 9. *Some Sampling Schedules Lack Flexibility and Viability.* The proposed sediment and benthic survey, with the requirement to only be conducted in August, is a narrow timetable for Water and Sewer Department staff to comply. Maintenance and improvement projects that can only be completed during summer months have priority. There are also concerns about storms and boating safety. August can have severe inclement weather. A timeframe of May through September would allow more flexibility for staff scheduling and weather conditions.

Response. The EPA understands the need for scheduling flexibility and has revised the permit to allow the Permittee to conduct the survey between May and September.

Additionally, 40 CFR 125.63(b)(2) provides that *small*[1] 301(h) applicants are not subject to sediment analysis requirements if they discharge at depths greater than 10 meters and can demonstrate through a suspended solids deposition analysis that there will be negligible seabed accumulation in the vicinity of the modified discharge. The Haines WWTP discharges at depths greater than 10 meters and the suspended solids deposition analysis provided below demonstrates there will be negligible seabed accumulation in the vicinity of the discharge.

Figure B-2 in Appendix B of the 1994 *Amended Section 301(h) Technical Support Document* provides a simplified graphical method for small estuarine dischargers to assess the potential for suspended solids deposition around their outfall using the reported daily solids mass emission rate (y-axis in Fig.

[1] A *small* 301(h) facility is defined as a POTW with a contributing population of less than 50,000 people and average dry weather flows of less than 5.0 mgd.

B-2) and the height-of-rise of the discharge (x-axis in Fig. B-2). For the discharge height-of-rise, also known as the plume trapping depth, the height-of-rise from dilution modeling should be used, or 0.6 times the water depth, whichever is larger. The height-of-rise for the Haines discharge is approximately 20 meters and the discharge depth is 24.4 meters; 20 meters was selected for the x-axis in Figure B-2.

The guidance recommends calculating the suspended solids daily mass emission rate using the average flow rate and an average suspended solids concentration. The maximum reported monthly average flow rate from the Haines WWTP between 2016 and 2021 was 0.66 million gallons per day and the maximum monthly average total suspended solids (TSS) concentration was 121 mg/L. To determine the daily loading of solids the monthly average concentration of TSS was multiplied by the reported average monthly flow and the loading conversion factor of 8.34 (see Footnote 1 in Table 1 of the final permit for more information on mass loading calculations).

121 mg/L X 0.66 million gallons per day X 8.34 = 666.03 lbs/day.

Using this loading rate along the y-axis and 20 meters along the x-axis in Figure B-2, the projected steady state sediment accumulation is expected to be well below 25g/m^2. The EPA considers this to be a negligible accumulation of sediment. Therefore, the applicant has satisfied the requirement of 40 CFR 125.63(b)(2) and the EPA has removed the requirement to conduct sediment TVS analysis from the final permit.

The EPA revised the final permit accordingly.

Comment 10. *Inclement Weather and Limited Transportation Options for Sample Integrity.* All samples requiring processing in Juneau labs and beyond place a challenge on our community due to hold times and the few flights from Haines to Juneau, especially in the winter with frequent storms. The last time a WET test was completed for Haines, it took four sets of samples to make the hold time to a Pacific Northwest lab, and this effort required special courier services with expediting fees. Each set of samples necessitated contract services with an out-of-community diver.

Response. The EPA appreciates the commenter's concern regarding the logistical challenges of meeting hold time requirements for samples, including for WET and bacteria, in remote locations such as Alaska. Samples collected for use in the NPDES permitting program are subject to the holding time requirements outlined in 40 CFR Part 136.

The final permit has been revised to establish a WET sampling holding time of 36 hours, not to exceed 72 hours. The permittee must document in the DMR for the month following sample collection the conditions that resulted in the need for the holding time exceeding 36 hours and the potential effect on the sampling results (see Permit Part I.C.5.c.v.).

Comment 11. *De-Chlorination May be Required to Protect Lynn Canal Fisheries.* If disinfection is required, given the importance of the salmon, halibut, crab and shrimp fisheries in this area, de-chlorination may be an essential system component. The projected costs for a disinfection system with de-chlorination will run over four million dollars, requiring a significant, financial investment by the community. (See *Attachment 1*, page 8 of 23.)

Response. The EPA acknowledges that to meet the bacteria limits in the final permit, the Permittee may need to install disinfection with de-chlorination. However, Section 301(b)(1)(c) of the CWA requires the development of limitations in permits necessary to meet water quality standards (WQS) of affected states. ADEC has adopted WQS for bacteria that includes enterococcus. In addition, ADEC has included a condition in the 401 certification that requires the inclusion of fecal coliform limits. As such, the EPA cannot change the bacteria effluent limits in the final permit See the response to comment #6 and #9.

No changes were made to the final permit in response to this comment.

Comment 12. *More Reporting Requirements Decreases Staff Time for Regular Operations.* The proposed increased monitoring for temperature requires an annual data dump after the end of each year. Current staffing levels make additional reporting demands onerous. We suggest that this reporting be replaced with the Haines Borough maintaining five years of data on-site at the WWTP, readily available for EPA and ADEC personnel to review.

Response. In response to comment #25, the EPA has reduced the temperature monitoring frequency to weekly. The weekly temperature samples will be reported on the monthly discharge monitoring report (DMR), which will reduce the reporting demands. No changes to the final permit were made in response to this comment.

Comment 13. *Lack of Standard Monitoring Parameters and Requirements for Alaska 301(h) Waiver Communities.* State of Alaska Water Quality Standards are statewide. Please explain why there are ranges of values for the same parameters listed in the proposed 301(h) draft permits for Wrangell, Sitka and Haines. For instance, why does Wrangell's WWTP effluent and receiving waters have a proposed final fecal coliform count more than seven times higher than the one EPA is proposing for Haines: 1,568 FC per 100 ml versus 200 FC per 100 ml?

Response. The fecal coliform limits in the final 301(h) permits are conditions of ADEC's 401 certifications for each of the permits and final fecal coliform limits are the same for Wrangell, Sitka, and Haines.

No changes were made to the final permit as a result of this comment.

Comment 14. Page 1 of 54: Latitude and longitude needs to be corrected. Latitude: 59.232,647 degrees; Longitude:-135.430,868 degrees WGS 84

Response. The EPA acknowledges the incorrect latitude and longitude of the outfall. The EPA revised the final permit to reference the correct outfall location. This change does not affect any of the conditions in the permit.

Comment 15. Page 17 of 54, Table 3: Secchi Disk is measured to the depth where the disk is no longer visible, not every 5 meters to the bottom. Table 3 does not include metals, dissolved organic carbon, conductivity and hardness, as mentioned on page 19 of 54, item 9. What is the actual requirement?

Response. The EPA agrees that Secchi disk measurements are recorded at the depth where the disk is no longer visible and has corrected Table 3 accordingly. In addition, the permit does not require

sampling of metals, dissolved organic carbon, conductivity, and hardness as mentioned in Permit Part I.D.9 in the draft permit and the EPA has removed this requirement from the final permit.

Comment 16. Page 44 of 54 and Page 45 of 54, Receiving Water Monitoring Maps: Diffuser location: see first bullet above, Page 1 of 54. Latitude and longitude of other sites need verification. Current information based on effluent pipe discharge location. End of pipe location based on PND Engineers, Inc., Haines Borough Portage Cove Harbor Expansion, Wastewater Outfall Plan & Profile, 2.01, Sheet 8 of 32, September 2018 As-Built Drawing. EPA location is approximately 1,600 ft NE from PND location.

Response. The EPA has revised the final permit and receiving water monitoring maps to reference the correct outfall location. See also Response to Comment 15.

Comment 17. Page 7 of 54, Table 1 – PFAS: Table 1 shows sampling frequency of 2 per year whereas footnote 10 states 2 years (8 quarters). Which one is the actual proposed sampling frequency?

Response. PFAS monitoring should be conducted for 2 years (8 quarters), beginning at the start of the first complete quarter in the third year of the permit term. The EPA revised Table 1 to reflect this frequency.

Comment 18. The November 13, 2022 ADEC recreational water quality limits for contact and secondary activities in marine waters are 35 enterococcus in 100 ml (30-day geometric mean) for contact recreation and 200 FC in 100 ml for secondary recreation (30-day geometric mean) respectively. Why is the proposed effluent discharge level at the Haines WWTP outfall in Portage Cove, which is 56 feet below sea level, being changed from a monthly average of 977,000 FC per 100 ml (in the current permit) to 200 FC per 100 ml - the same value as the secondary contact recreation standard – when significant dilution occurs with tidal action? This is nearly a five-thousand-fold decrease. In contrast, the proposed enterococcus level for WWTP effluent is 19-times higher than the ADEC contact recreation standard of 35 enterococcus in 100 ml.

Response. The effluent limit for fecal coliform is a condition of ADEC's 401 certification. The limit in the certification is more stringent than the WQBEL calculated by the EPA, therefore, pursuant to CWA section 401(d), the EPA is required to include the more stringent limit in the final permit.

The permittee also submitted this comment to ADEC during the public comment period for the 401 certification and ADEC's responses to comments on the 401 certification are available with the final permit on the website at https://www.epa.gov/npdes-permits/npdes-permit-haines-wastewater-treatment-facility-alaska.

No changes were made to the final permit in response to this comment.

Comment 19. Proposed testing requirements are expected to increase costs significantly as documented in *Section 2*. What are the potentials for waivers and/or reductions in testing after completing a specific number of tests with satisfactory results? A specified process for potential waivers would be useful.

For instance, the current permit states: *If fecal coliform bacteria concentrations monitored at the edge of the mixing zone do not exceed a monthly average of 14 FC per 100 ml and a daily maximum of 43 FC per 100 ml during the first two years of monitoring, then the required monitoring frequency*

for fecal coliform will be reduced to once per year in each subsequent year, performed on the same day as the water quality monitoring of Section 1.B.4.a above. (See page 7 of 32 of Permit #AK-002138-5.)

Response. There are no waivers from required monitoring except as detailed in the permit.

Receiving water monitoring is required for 301(h) permittees for all "significant variables" as described in Question II.B.6.a of the 301(h) Questionnaire. Receiving water monitoring allows the EPA to evaluate compliance with Clean Water Act section 301(h)(9) and 40 CFR 125.62(a), which require compliance with Alaska WQS, including numeric criteria, at the boundary of the ZID. Fecal coliform and enterococcus are considered significant variables in the discharge until disinfection technology is implemented and the final limits are attained, and receiving water monitoring data will allow the EPA to monitor the presence of bacteria to evaluate compliance with the permit limits.

The EPA determined that once the facility is able to consistently achieve compliance with the final fecal coliform enterococcus limits in the permit and has demonstrated ongoing compliance with Alaska WQS at the boundary of the ZID, continued sampling for fecal coliform and enterococcus is no longer warranted to satisfy the requirements of 40 CFR 125.62(a). By achieving compliance with the final fecal coliform and enterococcus limits the EPA expects the facility will be able to meet Alaska's WQS for bacteria at the edge of the ZID after initial mixing.

The EPA has revised the receiving water monitoring requirement for fecal coliform and enterococcus in the final permit to allow the permittee to discontinue monitoring after 12 consecutive months of compliance with the final fecal coliform limits and final enterococcus limits [See Permit Table 4] and the following summer's receiving water sampling results demonstrate full compliance with Alaska's water quality standards for fecal coliform at all ZID Boundary (Permit Part I.D.2.b.) and Nearshore Sites (Permit Part I.D.2.d.). If the permittee violates the final fecal coliform limits and final enterococcus limits, the permittee is required to restart the receiving water monitoring until 12 continuous months of effluent samples that meet the final limits are achieved.

COMMENTS ON CHANGES FROM 2001 PERMIT

The commentor provide budget estimates for each change described below. The budget estimations can be viewed in the original comments at https://www.epa.gov/npdes-permits/npdes-permit-haines-borough-wastewater-treatment-plant-alaska.

Comment 20. *Total Flow. Proposed Permit Requirement*: Changes from *Influent or Effluen*t to *Influent and Effluent*, requiring a total of two flow meters. *Response*: Unacceptable, as this is an added expense providing little additional information. Only a minimal amount of sludge is removed from the WWTP influent. *Justification*: The additional monitoring each month will require at least one extra 10-hour shift for daily monitoring with an on-going need for meter calibration with flow testing. Since there is negligible loss of effluent through the WWTP, what data are gained by measuring the WWTP flows twice?

Response. The EPA acknowledges that minimal sludge is removed from the facility and has revised the flow requirement monitoring in the final permit to require influent or effluent flow monitoring.

Comment 21. *Fecal* Coliform: Interim & Final Limits. *Proposed Permit Requirement*: This parameter is included in the current permit with one grab sample per month. This proposed change is two-fold: 1) Sampling increased to twice per month, 2) Lower interim limit and a much lower final limit, one requiring disinfection to achieve. *Response*: Two samples per month is acceptable. Final lower limit count of 200 fecal coliform per 100 ml unacceptable. *Justification*: The additional testing each month increases labor costs. To achieve the proposed final limit, engineering services will be required to develop a design for a disinfection / de-chlorination process. Then there will be the accompanying equipment procurement and construction and/or remodeling to accommodate this new treatment. Public would be adversely impacted by chlorination as many residents rely on subsistence fisheries in Lynn Canal waters, requiring the addition of de-chlorination.

Response. The fecal coliform effluent limit is a condition of ADEC's 401 certification and therefore the EPA must incorporate the limit into the permit. See Responses to Comments 11 & 18. No changes were made to the final permit as a result of this comment.

Comment 22. *Enterococcus: Final Limit. Proposed Permit Requirement:* This is a new parameter not included in the current permit. The ADEC November 13, 2022 Water Quality Standards *18 AAC 70* set the enterococcus level at no more than 35 per 100 ml for marine water involving contact recreation (swimming, diving and water skiing). Recreation in the Portage Cove area mostly consists of secondary recreation: boating, camping, hunting, hiking, wading, recreational fishing (does not include fish consumption). The secondary recreation standard involves only fecal coliform and the level is no more than 200 FC per 100 ml.

Haines has an annual January 1 New Year's Day Polar Bear Swim where several people participate in contact reaction: diving and swimming. Even so, the ARRI 2020 Report shows the Haines-Chilkoot Inlet with enterococcus levels of 5 MPN per 100 ml, well below the new 35 standard as well as the 665 FCU per 100 ml level in the draft permit. At least one rugged individual regularly swims in Portage Cove daily for about 20 minutes year-round although this person keeps their head above water.

Response: Acceptable as this is a new indicator organism and recreation in Portage Cove creates some limited, potential risk to public health. *Justification*: If we elect to do the testing in-house, additional equipment and staff time will be required. If these samples are shipped to a Juneau lab for processing, there will be additional cost for shipping and contract services as well as more staff time required to acquire the samples.

Response. The EPA appreciates the commenter's desire to protect public health and acknowledgement that the additional testing is necessary. No changes to the permit were made in response to this comment.

Comment 23. *Disinfection/De-chlorination. Proposed Permit Requirement*: This is a new requirement to meet the proposed fecal coliform and enterococcus levels for the Haines Borough. *Response*: Please explain why the acceptable bacteria levels proposed for effluent were reduced nearly 5,000-fold. This change will place considerable cost upon our community, causing a financial hardship. This proposal is unacceptable without grants. *Justification*: To achieve the proposed final limits for fecal coliform and enterococcus counts, engineering services will be required to develop a design for a disinfection process. Then there will be the accompanying equipment procurement and construction and/or remodeling to accommodate this new treatment process. Because of fisheries

concerns, a de-chlorination process will be included in this system. We are estimating the WWTP expansion to accommodate this system will run over four million dollars.

Response. The EPA acknowledges the additional costs required to implement these new effluent limits. The effluent limits in the draft permit meet Alaska water quality standards, and the limits in the final permit are a condition of ADEC's final 401 certification. ADEC provides additional rationale for the limits in the 401 Certification available on ADEC and the EPA's website. No changes to the final permit were made as a result of this comment. See also Responses to Comments #6, #11 #18.

Comment 24. *Copper: Lower Limit. Proposed Permit Requirement:* Current permit requires quarterly monitoring. Proposed changes require monthly monitoring. Maximum daily limit and monthly average are substantially reduced. *Response*: We object to the eight additional tests per year, preferring quarterly tests. *Justification*: Community cannot afford to substantially increase sewer rates for consumers to support the proposed increased number of tests for several parameters. Copper analyses are sent to a contract laboratory. There will also be additional staff workload to collect and ship the samples. Another SE Alaska community similar in size to Haines and operating with a 301(h) permit for their WWTP, is being asked only to monitor this parameter in their proposed permit.

Response. As explained in the Fact Sheet, the EPA determined that the Haines WWTP has reasonable potential to exceed the water quality standard for copper, and therefore effluent limits were required. 40 CFR 122.41(j) requires that permits contain representative monitoring. To monitor compliance with the monthly copper effluent limits, monthly monitoring is required. Therefore, no changes to the final permit were made as a result of this comment.

Comment 25. *Temperature: Continuous Monitoring. Proposed Permit Requirement:* Current permit requires weekly monitoring of the WWTP. The change to continuous monitoring will require set-up costs for a probe, conduit and cable, as well as a data logger. *Response***:** We object as we do not see any added value for these additional expenses. Please explain what this information will be used for. *Justification*: More tasks for a small Public Works Staff with a heavy workload. Budget constraints make the hiring of additional personnel to accommodate the increased workload created by additional sampling for multiple parameters problematic. Previous data show that temperature fluctuations are based on seasonality and storms.

Response. The EPA acknowledges the additional workload and costs required by continuous temperature monitoring. The EPA has reconsidered the value of the continuous temperature monitoring and due to the lack of concerns about effluent temperature at this facility, the EPA has revised the required temperature monitoring from continuous to weekly grab samples in the final permit. In addition, the EPA has removed Permit Parts I.B.3 and I.B.4 that describe requirements for continuous temperature monitoring.

Comment 26. *Ammonia: Quarterly Monitoring. Proposed Permit Requirement*: This is a new parameter. *Response***:** We object as there is no maximum contaminant level for ammonia. Please explain why this data collection is required. *Justification*: These quarterly samples would be sent to a Juneau lab, creating additional contractual expense as well as more staff time to collect and ship samples.

Response. Ammonia is a pollutant of concern in the effluent of wastewater treatment plants, including the Haines WWTP. Ammonia effluent sampling is required in order to conduct a reasonable potential analysis in the next permit cycle and to inform future permit decisions. Therefore, no changes to the final permit were made as a result of this comment.

Comment 27. *PFAS – Influent, Effluent & Sludge. Proposed Permit Requirement:* This is a new parameter, requiring testing of influent, effluent (composite samples) and sludge (grab sample) twice per year. *Response*: We object as there are no standards for PFAS levels in wastewater or sediment presently. *Justification*: These semi-annual samples will be sent to a lab for analysis, creating added expense. Staff time will be needed to collect samples.

Response. The EPA is not limited in requiring monitoring only for pollutants that have established water quality standards. Under Clean Water Act section 308, the EPA has broad authority to prescribe the collection of data and reporting requirements in NPDES permits. See also 40 CFR 122.44(i) (permittees must supply monitoring data and other measurements as appropriate).

As discussed in the June 2023 fact sheet, the purpose of these monitoring and reporting requirements is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits. In December 2022, the EPA released a guidance memo[2] to the EPA Regions and states for addressing PFAS in NPDES permitting. The memo recommends PFAS monitoring for all POTW permits since they are known contributors of PFAS into the aquatic environment through a variety of industrial, commercial, and consumer sources. The permit conditions reflect the recommendations in the memo as well as the EPA's commitments in the PFAS Strategic Roadmap, which directs the Office of Water to leverage NPDES permits to reduce PFAS discharges to waterways "at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources."

PFAS regulations currently in development as part of the Strategic Roadmap include efforts to develop a primary drinking water regulation and ambient water quality criteria for the protection of aquatic life and human health. Aquatic life criteria are designed to protect aquatic life from toxics exposure and typically include both a freshwater and marine component. The draft aquatic life criteria for PFAS, released for public comment in April of 2022, includes benchmarks for marine waters. Human health criteria are designed to protect people from exposure to toxics resulting from the consumption of water and/or fish or other aquatic organisms. While direct exposure to PFAS through the consumption of water impacted by the permitted discharge is not likely since the discharge is to an estuarine environment, the consumption of fish and other aquatic organisms within the receiving waters could be a potential exposure pathway since PFAS chemicals have been shown to bioaccumulate and bio-magnify within the aquatic environment.

The EPA agrees with the commenter that any PFAS chemicals entering the facility are likely to be exiting the facility. Sampling the influent, effluent, and sludge will provide necessary data to determine PFAS levels at each of these three points in the treatment process for use in future

[2] *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, Office of Water, USPEA, Dec 2022.

permitting decisions. Influent data shows how much PFAS is entering the facility, effluent data will provide data on how much is being discharged and removed through the primary treatment process, and sludge data will show how much PFAS is partitioned within the sludge.

As stated in the June 2023 fact sheet, the EPA acknowledges there is currently no approved analytical method for PFAS in 40 CFR Part 136. However, 40 CFR 122.44(i)(1)(iv)(B) provides that, in the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR Part 136 or methods are not otherwise required under 40 CFR chapter I, subchapter N or O, monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters. Therefore, the final permit retains the requirements that until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Draft Method 1633, which was finalized January 31, 2024.

The EPA recognizes the costs associated with these monitoring requirements for small communities. As discussed in the response to comment #7, the EPA revised the final permit to clarify that PFAS monitoring is required for only two years (8 sampling events) and the Permittee is not required to begin until the third year of the permit. This will allow time for planning and preparation associated with the costs and logistics involved in successfully completing the required monitoring.

No changes were made to the permit in response to this comment.

Comment 28. *Whole Effluent Toxicity (WET). Proposed Permit Requirement:* The proposed permit increases the WET testing from one composite sample every five years to ten composite samples every five years (two per year). *Response*: We object as previous sample results showed no violation of limits. Please explain what benefit these additional samples will provide.

Justification: The last time Public Works Staff did a WET sample, it took four tries for the contract lab to receive the samples within the allowable hold time, creating significant expense for contract divers, staff time and sample transportation. The estimate below includes a cushion for repeat samples and shipping as our rural location makes samples reaching out-of-state laboratories in a timely manner difficult.

Response. The EPA acknowledges the commenter's concerns regarding the ability to consistently meet the holding time requirements of WET testing and increased WET sampling requirements. As discussed in the fact sheet, an increase in the frequency of WET monitoring is necessary given the designation of the facility as a major facility discharging >1 million gallons per day, and the uncertainty in the toxicity of the effluent. The EPA may authorize extensions to WET sample holding requirements on a case-by-case basis in instances where the samples are delayed or lost due to circumstances beyond the control of the permittee, provided adequate documentation is provided regarding the circumstances, and does not impact the toxicity of the sample. See Response to Comment 10. No change was made as a result of this comment.

Comment 29. *Toxic Pollutant Scan. Proposed Permit Requirement:* The proposed permit maintains the same level of testing as the current permit for this parameter, once every five years. *Response***:** Acceptable *Justification*: No change from current permit.

Response. Comment noted. No changes were made to the final permit as a result of this comment.

Comment 30. *Receiving Water Monitoring: Expanded from 8 to 9 Parameters with 3 Additional Testing Sites at 6 Additional Depths. Proposed Permit Requirement:* The proposed permit requires more sampling sites as well as more frequent sampling. See following four tables for specific details regarding sample types and frequency. These tables contain information for physical parameters, fecal coliform, enterococcus, and benthic infauna monitoring and sediment analysis. These tables also detail projected costs for these proposed changes. *Response*: We object to the additional tests, although we are willing to take on limited enterococcus testing to show we meet the November 13, 2022 Alaska Water Quality Standards *18 AAC 70* for marine water recreation. *Justification***:** The sampling for these parameters is significantly increased from the current permit. It is unfeasible with the variable sea and weather conditions in the Portage Cove area to accurately secure samples from five different sites within a 100-ft radius.

Response. The EPA believes the permittee can maintain a reasonable accuracy for sampling using navigational tools. As described in the response to Comment #19, the EPA has changed the permit to eliminate receiving water sampling for fecal coliform and/or enterococcus if they consistently meet effluent limits. No changes were made to the final permit as a result of this comment.

Comment 31. *Scheduled Submissions: Reviews / Plans. Proposed Permit Requirement*: The proposed permit requires the development of multiple plans as specified on page 2 of 54 of the draft permit. We also were required to provide specific details about the mixing zone from a software program, and to review / comment on the draft permit. *Response***:** Acceptance with reservations. Current workloads for staff lack time for preparing these documents. We will need to use contractual services with some staff involvement, creating significant additional costs. *Justification*: Due to the in-house staff workload and budget constraints, we prefer the timeline for some of these plans to have greater flexibility than 180 days from permit finalization.

Response. The plans referenced by the commenter include the Quality Assurance Plan, the Operation and Maintenance Plan and the Emergency Response and Public Notification Plan. Each of these plans are critical for proper implementation of the permit and operation of the facility, therefore they must be completed within 180 days. The 2001 permit also required the development of a QAP, and Part II.B.1 of the draft permit states that existing QAPs may be modified. No changes were made to the final permit as a result of this comment.