Prince William Sound
Aquaculture Corporation
DEVELOPING SUSTAINABLE SALMON FISHERIES
FOR ALASKA AND THE WORLD

2/3/2023

Attn: Anne Weaver
Environmental Program Specialist III
Division of Water – APDES Seafood & Aquaculture Permitting
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501

Dear Ms. Weaver,

Prince William Sound Aquaculture Corporation appreciates the opportunity comment on the proposed changes to AKG130000 Draft General Permit that is in the public review and comment period.

Prince William Sound Aquaculture Corporation (PWSAC) was incorporated in 1974 owns and operates five aquaculture facilities within Alaska. Three of PWSAC's facilities are state-owned and operated under agreements with the state. Best management practices for aquaculture facilities rely on maintaining clean and healthy rearing environments. It is in PWSAC's best interest to maintain pristine rearing and environmental conditions. Procedures have been developed and established over the past decades to ensure that our facilities are operating in a manner that has negligible environmental impact.

PWSAC appreciates the time and effort ADEC has dedicated to working with Alaska's hatchery operators during this permit renewal process. ADEC took into consideration hatchery operator comments on the initial permit draft and has already addressed many areas of concern that were brought forward during that comment period.

Upon review of the current AKG130000 General Permit Draft, PWSAC has the following additional comments on areas of concern and is requesting further clarification:

1.5 Notification of Intent Requirements

> 1.5.6 – The facility must comply with current regulatory engineering plan review and approval requirements of 18 AAC 72.
>
> PWSAC would ask for additional clarification on section 1.5.6.
>
> - What will a regulatory engineering plan review look like and how will the review be applied to existing infrastructure?

- PWSAC is concerned that this regulation could be used to require modifications to existing infrastructure. Does the ADEC intend to implement this requirement to existing infrastructure?

3.2 Flow Through and Recirculation Facilities

3.2.1 – Effluent Monitoring

- The General Permit Draft allows for the combining of effluent samples from multiple outfalls prior to analysis (Table 2 footnote b). We would like clarification that it is appropriate to combine grab samples from multiple outfalls for pH, Total Ammonia DO and TRC analysis. For clarification do pH, DO and ammonia samples need to be sampled at each outfall or can grab samples from multiple outfalls be combined before testing these parameters?

- PWSAC would request an exemption for TSS samples that arrive at the lab that have either extended their hold time or have arrived out of temperature hold due to the remote location of our facilities. The remote location coordination extends the transport time it takes for samples to arrive at the testing laboratory.

- PWSAC would ask for further clarification on total residual chlorine (TRC) levels in 3.2.1 Table 2. Using a number for compliance other than what is listed in the table can present confusion. Additionally, TRC testing requirement for the previous permit cycle were specified in the authorization letters for each facility. Will the authorization letters now be consistent with parameters outlined in the permit and if different, when would PWSAC receive notification? Table 2 footnote [h] states that chlorine monitoring is required only if used as a disinfectant or otherwise introduced into the rearing or egg take process. We introduce chlorine into our egg take process, as required by the DEC food service permit, and were required under the previous authorization to monitor TRC daily and weekly during this process. The draft permit does not outline this requirement and PWSAC is requesting clarification to this requirement at this time if it is going to be further outlined in our authorization letters.

- PWSAC would recommend the department remove all pH monitoring requirements from this permit when the EPA does not have such a requirement. ADEC has developed standards that recognize when source waters are high or low due to natural causes and that corresponding effluent samples will reflect the source water and years of sampling have shown are not due to any effect of hatchery operations.

3.3 Net Pen Monitoring

3.3.1 – Permittees must monitor for dissolved oxygen at each net pen site at least once per month for the entire period the aquatic animals occupy the net and report results in the Annual Report (Part 7.1.1.10.2)

- PWSAC would recommend the elimination of net pen DO monitoring. Optimal dissolved oxygen levels are important to salmon growth and health. As such, dissolved oxygen levels are already monitored daily, and rearing nets are cleaned regularly to keep DO levels as high as possible for fish quality.

3.3.3 – At least once per week during the period when the aquatic animals occupy the net, visually assess the water column around the net for floating debris or other sign of solids, sheens. Or discoloration origination from the net pens, and include the results in the Annual Report (Part 7.1.1.10.4)

- PWSAC would recommend the elimination of net pen visual observations for hatcheries that can reasonably demonstrate net pen operations have no long-term impact on the marine environment. Fish are monitored daily when held in net pens and feeding regimes have been optimized to eliminate excess feed use. Feed not converted to growth by the salmon we raise is costly to our organization. Net pen visual observations to date have demonstrated no excess feed use and benthic surveys have corroborated that finding no feed or other organic material accumulating at PWSAC net pen sites.

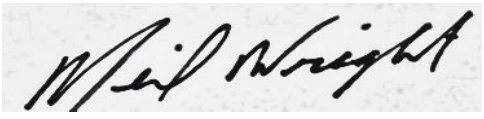
Further, PWSAC would reference the attached letter from Tom Chappel Director of Air and Water (ADEC) in which the ADEC petitioned the EPA in 2003 requesting the following:

"The EPA CAAP guidelines exclude Alaska net pens that are part of the rearing phase of non-profit salmon hatcheries. This exclusion recognizes the site-specific conditions in Alaskan waters. DEC recommends that all flow-through hatcheries in the state also be exempted from these guidelines or that EPA revise the guidelines to include a separate subcategory for Alaskan hatcheries".

- PWSAC respectfully request ADEC provide an explanation as to why this no longer appears to be ADEC stance on the impact of net pen sites to the marine environment?

We thank ADEC for the comment period and look forward to continued collaboration on permit requirements and authorization.

Sincerely,



Neil Wright
PWSAC Assistant Production Manager

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF AIR AND WATER QUALITY
DIRECTOR'S OFFICE

FRANK H. MURKOWSKI, GOVERNOR

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January 27, 2003

CERTIFIED MAIL # 7099 3400 0016 8434 6231
RETURN RECEIPT REQUESTED

Marta Jordan
Office of Water, Engineering and Analysis Division
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Proposed changes to 40 CFR Part 451 "Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category" DOCKET NO. W-02-01.

Dear Ms. Jordan

The Alaska Department of Environmental Conservation (DEC) reviewed the proposed effluent guidelines for Confined Aquatic Animal Production (CAAP guidelines) published September 12, 2002 [*Federal Register, Volume 6, Number 177*]. The department offers the following background information and recommendations regarding the application of the CAAP guidelines to Alaskan operations.

Finfish farming is prohibited by state law in Alaska to protect native salmon and other species. The CAAP guidelines recognize Alaska's unique aquaculture program. Alaskan CAAP facilities rear fish for juvenile stage release and do not bring fish to adult stage for marketing and direct human consumption. Therefore, the proposed effluent guidelines will only affect the 32 hatcheries in the state. Fish reared in Alaskan flow-through, raceway type facilities include all five species of Alaskan wild salmon, as well as steelhead, rainbow trout, char and grayling.

The main purposes of the hatchery program in Alaska are to: 1) stock lakes and streams for recreational fishing and 2) enhance runs of sport, subsistence and commercially caught salmon. Most Alaskan hatcheries are non-profit operations. Two are state-owned and operated by the Alaska Department of Fish and Game (ADF&G). Two are federal research facilities operated by the National Marine Fisheries Service (NMFS).

The intent of the proposed CAAP effluent guidelines is reduction of conventional pollutants (TSS, BOD, and pH for example), non-conventional pollutants (nutrients such as phosphorus) and toxic substances released into the waters of the United States. Another goal is closer

regulation of drugs and chemicals used in aquaculture operations. Proposals for preventing invasions of non-indigenous aquatic species are also described. The department shares EPA's goals for pollutant reduction in U.S waters. These proposed effluent guidelines, however, will not significantly improve Alaska's waters because wastewater permits are already in place for Alaska hatcheries.

EPA Region 10 has not issued an NPDES permit for hatcheries in Alaska to which these guidelines would apply. Although Alaska is not an NPDES-delegated state, DEC issues state permits for discharges that are considered "minor" by EPA Region 10. To ensure that fish hatcheries are not polluting state waters, the department issued a general permit (Permit No. 9640-DB005, attached) in 1996 for hatchery operations. Salient requirements of this permit include:

- Monitoring of flow rates, pH, total suspended solids (TSS), settleable solids, and bottom sampling under rearing pens;
- Submission of lists of any medications, drugs, disease control chemicals and disinfectants plus information on their use. Submission of the manufacturers' Material Safety Data Sheets for these substances.
- Prohibition of discharge of any non-natural substances causing visible sheen (e.g., from oil and grease) or other surface residue and debris.
  No violation of Alaska State Water Quality Standards
- Provisions for treatment, disposal and monitoring of domestic wastewater if the facility is remote and includes a sanitary treatment plant.
  Requirements for disposal of fish carcasses.

Only two of the Alaskan hatcheries in the state, both located in Anchorage, discharge to fresh water. Their locations in Alaska's only metropolis ensure scrutiny by State inspectors and by the public since they are also tourist attractions. Most remote hatcheries are located at tidewater where nearby freshwater is available for intake, used in hatchery operations, and then discharged to marine waters. Discharge is by way of outfall pipes at depths that allow effective mixing of effluent plumes. The large amplitude tides and fast currents in many marine waters result in high flushing rates and dilution. In fact, many EPA-permitted POTWs in the state, including the largest one in Anchorage, operate with primary treatment because of rapid dispersal of pollutants.

Alaskan flow-through hatcheries are not rearing fish to market size, but release them as smolt. This reduces food consumption and keeps feces production low. Most facilities operate seasonally or reduce operations during winter months. These facilities discharge to high quality waters with few, if any, downstream users or any upstream activities degrading water quality.

These waters tend to be low nutrient, high dissolved oxygen waters. Because there is little human activity near many of the hatcheries, nutrient loading from agricultural runoff, POTWs, CAFOs or other sources is negligible. Recent studies show that much of the nutrient cycling in the creeks and rivers of coastal Alaska is the result of spawned out and decomposing salmon.

DEC reviewed seven years of TSS and settleable solids data from a typical seasonal hatchery during normal and cleaning operations (data attached). Outfall TSS concentrations were at or near non-detection during normal operations. The spikes of higher TSS during ten-minute clean out operations averaged 100 mg/l, well below the end-of-pipe concentrations at most Alaskan POTWs. The proposed guidelines [page 57891] state that control of TSS is effective in controlling other pollutants present in CAAP facilities wastewater. In DEC's view, Alaskan hatcheries are effectively controlling TSS in their discharges.

During 2002 inspections of hatcheries in the state (four in remote Prince William Sound locations, two in Anchorage and one in Valdez), staff noted that the use of high-quality, low residue food is standard. Overfeeding is not economical when hatcheries must ship supplies to remote locations. Feed management is a priority, and waste production from uneaten food and feces is minimized.

The EPA CAAP guidelines exclude Alaska net pens that are part of the rearing phase of non-profit salmon hatcheries. This exclusion recognizes the site-specific conditions in Alaskan waters. DEC recommends that all flow-through hatcheries in the state also be exempted from these guidelines or that EPA revise the guidelines to include a separate subcategory for Alaskan hatcheries. An Alaskan hatchery subcatagory could establish Alaska-specific Best Management Practices in lieu of effluent limits since the DEC State permit already includes them. This would give guidance to EPA Region 10 and DEC if a hatchery NPDES permit is ever issued.

DEC finds the existing State permit is effective in regulating Alaska's flow-through hatcheries. The department reviewed the CAAP pollution reduction and monitoring requirements for flow-through, raceway rearing systems. The retrofitting of facilities that produce more than 100,000 pounds to meet these requirements would not bring appreciable benefit to water quality in the state. These facilities are remotely situated in areas that experience few, if any, other man-made sources of TSS to impair state waters.

Constructing settling basins or other treatment works for solids removal would impact additional coastal land, require shipping of construction materials to remote sites, and would require a land disposal site for solids and sludge. The negligible TSS removal would require other environmental tradeoffs. The costs of retrofit would be prohibitive and would likely cause many of these facilities to shut down. Any proposed, larger hatcheries in the state would also find costs to meet New Source Performance Standards a disincentive for construction and operation.

These proposed guidelines would also address control of non-indigenous species and potential escapes from CAAP facilities. As previously mentioned, no non-native finfish species are reared in Alaska. Other federal agencies such as USF&W and NMFS appear to be more appropriate federal agencies than EPA to oversee regulations on non-native species. Similarly,

it is our understanding that the FDA has a process in place to oversee the use of medications and drugs at hatcheries.

Thank you for the opportunity to respond to the proposed CAAP guidelines. Please refer any technical questions on these comments to Sharmon Stambaugh, Industrial Wastewater permits @ 907.269.7565 or Sharmon_Stambaugh@envircon.state.ak.us.

Sincerely,

Tom Chapple
Director

Enclosure:
ADEC General Permit No. 9640-DB005
Hatchery Wastewater Sampling Data

cc. Alaskan Hatchery Operators
Nancy Sonafrank, DEC Water Quality Standards
Glenn Haight, DCED Fisheries Development
Steve McGee, DF&G/Comm. Fish