

## RESPONSE TO COMMENTS

Tribal Marine Net Pen Enhancement Facilities  
within the Boundaries of the State of Washington  
NPDES Permit Number WAG132000  
September 3, 2015

On April 30, 2015, the U.S. Environmental Protection Agency (EPA) issued a public notice for the issuance of the Tribal Net Pen Enhancement Facilities in the Within the Boundaries of the State of Washington National Pollutant Discharge Elimination System (NPDES) Permit, No. WAG132000 (General Permit). This Response to Comments document provides a summary of the significant comments on the General Permit and provides the corresponding EPA responses.

In response to ongoing feedback from a tribal facility regarding the feasibility of obtaining a crane or other large equipment to lift net pens out of the water and move them to an upland location for cleaning, the EPA has modified Part III.C.6 of the General Permit as follows (see Discharge Controls on page 10):

To the maximum extent possible, when the net pens are empty, allow the nets to dry over water, and remove them for upland cleaning. If infeasible to move the net pens to an upland location prior to cleaning, *in situ* cleaning is only allowed under conditions that will disperse solids and prevent concentrated bottom settling. Net cleaning of discreet portions of the net must be phased over a sufficient period of time in order to avoid an influx of material during a single cleaning event.

Comments were received from Phelps Freeborn. No changes were made the General Permit as the result of comments received from this commenter.

**Comment:** The commenter contends that the permit does not contain effluent limits, and furthermore, that the permit is not consistent with the NPDES regulations regarding limits/permit provisions, specifically 40 CFR §451 and 40 CFR §122.45.

**Response:** NPDES limits and other permit provisions are driven by all of 40 CFR Part 122, and those requirements must be considered collectively. 40 CFR Part 122.44(a) requires that technology based limits, including effluent limitations where guidelines have been established, must be incorporated into the permit. 40 CFR Part 122.44(k) provides for articulation of effluent limitations as best management practices (BMPs), in lieu of numeric end-of-pipe limits, as appropriate.

Recognizing that *in situ* aquaculture operations, including net pens, are not typical point sources, EPA has established an effluent limitation guideline (ELG) for such facilities at 40 CFR Part 451. The ELGs express discharge limits for concentrated aquatic animal production (CAAP) facilities as BMPs. In addition, the ELGs are only applicable to those facilities that contain more than 100,000 pounds of fish biomass. The facilities covered by this permit fall below that threshold. Nevertheless, EPA has

determined that it is appropriate to implement the ELGs in this permit, other than controls for harvesting since harvesting is prohibited by the permit, to ensure that the water quality of Puget Sound is protected.

In addition to NPDES regulations and guidance, EPA included conditions in the permit that reflect regulations and guidance established by the State of Washington for aquaculture operations and guidance from other agencies and organizations, e.g., National Marine Fisheries Services, Fisheries Co-Managers of Washington State. See the permit Fact Sheet for more in-depth discussion. The final permit reflects all of this information, and is consistent not only with NPDES regulations and recommendations, but also those from the State and other agencies.

**Comment:** The commenter suggests that the permit contain limits calculated for mass or concentration of BOD and TSS per secondary treatment standards for domestic sewage treatment. The commenter also suggests options such as use of a floating barge to collect wastes, payment to a third party for treatment of discharges, or payment of offsets.

**Response:** Establishing typical end-of-pipe limits when there is no discrete discharge point is not appropriate. Moreover, the secondary treatment standards for publicly owned treatment works (POTWs) only apply to those types of facilities and were not intended to be applied to net pen operations.

There are no proven technologies, per the commenter's suggestion, for collecting and treating wastes for these marine net pen enhancement facilities, nor is there a demonstrated water quality need. EPA also notes that there is no established program, bank or baseline to facilitate participating in an offset program at this time.

**Comment:** "...the proposed permit contains nothing to discourage the release of untreated organic wastes from the net pens, the only restriction is on littering."

**Response:** The permit includes many provisions to prevent and minimize the discharge of organic wastes and other pollutants, including prohibition on discharges of any visible oil sheen, foam, discoloration, floating solids, settleable solids or solid wastes that would impair the designated uses of the receiving water. The permit prohibits: the standard use of copper and zinc in anti-fouling activities; cleaning of nets over open water; harvesting of fish (other than sub-sampling to evaluate fish growth and health); and fueling or maintenance of boats and other mechanical equipment at the net pen site. For all other net pen activities with the potential to have water quality impacts, the permit establishes specific controls, including: limits on feeding; secondary containment; operation and maintenance requirements; restrictions on the use of pharmaceuticals; storage and handling requirements; spill containment and response measures; mortality disposal requirements; and more.

**Comment:** Monitoring requirements are insufficient. More specificity in DO sampling is needed.

**Response:** Based on a number of monitoring studies of net pen facilities, it is clear that the inherent variation in water column data under flow through conditions, as exist in Puget Sound, make it very difficult to obtain easily interpretable monitoring data for a variety of analytes. These studies also suggest that it is highly unlikely that net pen operations of this size will produce any measurable impact on water quality in the water column. See page 23 of the permit Fact Sheet for additional discussion. For this reason, EPA has established an indicator parameter – dissolved oxygen – and monitoring requirements that will serve as a trigger for additional investigation and action. EPA believes that dissolved oxygen monitoring requirements are appropriate for the situation: locations (including multiple depths) and frequencies are specified. More importantly, an action threshold of 6 mg/L has been established, and requirements for notifying EPA and taking corrective action whenever the threshold is exceeded are required.

Studies indicate that, unlike in the water column, impacts to the benthos are quite possible. For this reason EPA has established a variety of benthic monitoring requirements beneath and in proximity to the net pens. This includes annual visual inspections during the time when fish are in the pens, as well as a sediment characterization study to be undertaken in the second year of the permit term. Because of the more sensitive nature of the benthos, the permit establishes 3 action thresholds: total organic carbon, the presence of anoxic sediments and the presence of bacterial/fungal mats. The exceedance of any *one* of these thresholds triggers an immediate requirement to inform EPA and take corrective action.

EPA acknowledges that the potential for benthic impacts exists, but had no site-specific data to use in development of this permit. For this reason EPA has decided to undertake a study in the second year of the permit term to characterize benthic sediments, though individual net pen operators may opt to do so themselves. If the study indicates that permit provisions are not adequately protective, additional controls can be incorporated into a modified permit or in subsequent permits.

**Comment:** The commenter contends that the amount of feed fed and the growth of the fish (plus losses such as mortalities) should be reported on a dry weight basis. The commenter also contends that permittees should also report the BOD, C, N, and P in the feed and the amount the fish have grown.

**Response:** Neither EPA nor the Washington Department of Ecology (Ecology) require dry weight reporting on feed in their net pens or upland hatchery NPDES permits. Nor do the ELGs require dry weight reporting. Facilities are, however, required to ensure that excess feeding does not occur; they must record feed amounts and numbers and weights of fish to calculate feed conversion ratios (see Part III.C.3 of the Permit). The annual reports require summary information on fish mortalities, including cause of death, pounds of fish, and the steps taken to address the problem. It is EPA's perspective that requiring dry weight reporting of fish mortalities is neither feasible nor necessary.

**Comment:** With respect to siting, why are net pens allowed in South Puget Sound when it does not meet water quality criteria for excess nutrients and BOD?

**Response:** The tribal enhancement net pen operations expected to obtain coverage under this permit have been operating in Puget Sound for many years. These are not new operations, and thus are not subject to siting provisions for new net pen enhancement facilities (see Part VII of the Permit). The permit does establish requirements in the event a Tribe decides to deploy a new facility and seek coverage under this permit. These requirements reflect the *Recommended Interim Guidelines for the Management of Salmon Net-Pen Culture in Puget Sound* developed by Ecology.

**Comment:** "...allowing netpens to release wastes without treatment or payment for the services provided by the public is bad public policy..."

**Response:** The permit requires net pen operators to implement a wide variety of measures to protect water quality. These operators will incur the direct expenses of complying with these permit provisions.