



# FACT SHEET

**The United States Environmental Protection Agency (EPA) proposes to issue a National Pollutant Discharge Elimination System (NPDES) General Permit to discharge pollutants pursuant to the provisions of the Clean Water Act, 33 USC §1251 et seq. to:**

**Tribal Marine Net Pen Enhancement Facilities  
Within the boundaries of the State of Washington  
NPDES Permit Number: WAG132000**

Public Comment Period  
Start Date: April 30, 2015  
End Date: July 1, 2015

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## **EPA Proposes NPDES Permit:**

EPA proposes to issue a National Pollutant Discharge Elimination System (NPDES) General Permit to establish conditions for the discharge of pollutants from tribal marine net pen enhancement facilities to waters of the United States within the boundaries of the State of Washington. In order to ensure protection of water quality and human health, the General Permit includes limits on the types and amounts of pollutants that can be discharged and includes other conditions on such activity. This is the first permit issued by EPA to marine tribal net pen enhancement facilities in the State of Washington. This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a description of the industry
- a description of proposed permit conditions
- discussion supporting the conditions in the permit

- a list of known facilities eligible for coverage under this General Permit

**Public Comments to EPA on the Draft General Permit:**

Persons wishing to comment on the General Permit may do so in writing by the expiration date of the public notice. All comments must be in writing and must include the commenter's name, address, and telephone number, permit name, and permit number. Comments must include a concise statement of the basis and any relevant facts the commenter believes the EPA should consider in making its decision regarding the conditions and limitations in the final permit. All written comments and requests must be submitted to the attention of the EPA Regional Director, Office of Water and Watersheds at the following address: U.S. EPA, Region 10, 1200 6th Avenue, Suite 900, OWW-191, Seattle, WA 98101. Alternatively, comments may be submitted by facsimile to (206) 553-1280; or submitted via e-mail to Catherine Gockel at the above e-mail address by the expiration date of the public comment period.

Persons wishing to request a public hearing, may do so, in writing, by the expiration date of this public comment period. A public hearing is a formal meeting whereby EPA officials hear the public's views and concerns about an EPA action or proposal. A request for a public hearing must state the nature of the issues to be raised as they relate to the permit, reference the NPDES permit name and number, and include the requester's name, address, e-mail address (if applicable), and telephone number.

After the comment period closes, and all significant comments have been considered, the EPA will review and address all submitted comments. EPA's Regional Director for the Office of Water and Watersheds will then make a final decision regarding permit issuance. If no comments are received, the tentative conditions in the Draft Permit will become final. Pursuant to Section 509(b)(1) of the Clean Water Act [33 USC 1369(b)(1)], any interested person may appeal the permit in the Ninth Circuit Court of Appeals within 120 days following notice of EPA's final decision for the permit.

**Documents are Available for Review:**

The draft permit, and fact sheet can be reviewed or obtained by visiting or contacting the EPA Region 10 between 8:30 a.m. and 4:00 p.m., Monday through Friday:  
U.S. Environmental Protection Agency Region 10  
1200 Sixth Avenue, OWW-191  
Seattle, Washington 98101  
(206) 553-0523 or 1-800-424-4372 and request x-0523

The draft permit and fact sheet also are available for inspection and copying at the following offices:

U.S. Environmental Protection Agency Region 10  
Washington Operations Office  
300 Desmond Dr. SE, Suite 102  
Lacey WA 98503  
(360) 753-9437

Northwest Indian Fisheries Commission  
6730 Martin Way E.  
Olympia, WA 98516  
(360) 438-1180

The draft Tribal Marine Net Pen Enhancement Facilities General Permit and Fact Sheet can be found on the EPA Region 10 website at: [www.epa.gov/r10earth/waterpermits.htm](http://www.epa.gov/r10earth/waterpermits.htm). For technical questions regarding the permit or fact sheet, contact Catherine Gockel at the phone number or e-mail listed above. Services can be made available to persons with disabilities by contacting Audrey Washington at (206) 553-0523.

**Tribal and State Certification of the General Permit:**

Section 401 of the CWA requires that States and affected Tribes that have been approved by EPA for Treatment as a State (TAS) provide a certification that the EPA-issued permit meets relevant water quality standards. The tribes in Washington that EPA has approved for TAS under Section 518 of the CWA are: Chehalis, Kalispell, Lummi, Makah, Port Gamble S'Klallam, Puyallup, Spokane, Swinomish, and Tulalip. Port Gamble S'Klallam has a net pen and has been approved for Treatment as a State (TAS). This tribe also has water quality standards. The Port Gamble S'Klallam net pen is not located in tribal waters, since the waters are leased from the Washington State Department of Natural Resources. EPA does not believe that any facilities eligible for coverage under this permit discharge to waters for which these tribes have CWA Section 401 certification authority.

The EPA requested that the Washington State Department of Ecology certify this draft permit under provisions of Section 401 of the Clean Water Act (CWA), 33 USC § 1341. The State of Washington has provided a draft certification for the Draft Permit and it is attached as Appendix B. Questions on the draft Washington § 401 certification may be addressed to: Bill Moore at (360) 407-6460 or at [bmoo461@ecy.wa.gov](mailto:bmoo461@ecy.wa.gov). Comments regarding the draft certification should be directed to:

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## ACRONYMS

<b>BE</b>	Biological Evaluation
<b>BMPs</b>	Best Management Practices
<b>BO</b>	Biological Opinion
<b>BOD</b>	Biological Oxygen Demand
<b>CFR</b>	Code of Federal Regulations
<b>CWA</b>	Clean Water Act
<b>DMR</b>	Discharge Monitoring Report
<b>EA</b>	Environmental Assessment
<b>EFH</b>	Essential Fish Habitat
<b>EIS</b>	Environmental Impact Statement
<b>ELG</b>	Effluent Limitation Guidelines
<b>EPA</b>	United States Environmental Protection Agency
<b>ESA</b>	Endangered Species Act
<b>GPD</b>	Gallons per Day
<b>GPM</b>	Gallons per Minute
<b>MGD</b>	Million Gallons per Day
<b>MPRSA</b>	Marine Protection Research and Sanctuaries Act
<b>NEPA</b>	National Environmental Policy Act
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>NOI</b>	Notice of Intent
<b>NMFS</b>	National Marine Fisheries Service
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NSPS</b>	New Source Performance Standards
<b>O&amp;M</b>	Operation and Maintenance (of a treatment facility)
<b>OMB</b>	White House Office of Management and Budget
<b>OWW</b>	EPA Office of Water and Watersheds
<b>QAP</b>	Quality Assurance Plan
<b>QA/QC</b>	Quality Assurance/Quality Control
<b>TAS</b>	Treatment in a Manner Similar to a State (EPA-Tribal Government Process)
<b>USC</b>	United States Code
<b>USFWS</b>	United States Fish and Wildlife Service
<b>USGS</b>	United States Geological Survey
<b>WQBEL</b>	Water Quality-Based Effluent Limitation
<b>WQS</b>	Water Quality Standards

## DEFINITIONS

**Action Threshold** is a quantifiable measure of a water quality indicator. Action thresholds are both compliance indicators and corrective action triggers.

**Administrator** means the Administrator of the United States Environmental Protection Agency, or an authorized representative [40 CFR 122.2].

**CFR** means the Code of Federal Regulations, which is the official annual compilation of all regulations and rules promulgated during the previous year by the agencies of the United States government, combined with all the previously issued regulations and rules of those agencies that are still in effect.

**The Director** means the Regional Administrator of the EPA Region 10, or the Director of the EPA Region 10 Office of Water and Watersheds.

**Discharge** when used without qualification means the “discharge of a pollutant.”

**Discharge Monitoring Report (DMR)** means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by Permittees [40 CFR 122.2].

**Discharge of a pollutant** means:

Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger” [40 CFR 122.2].

**Draft permit** means a document prepared under 40 CFR 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit” [40 CFR 122.2].

**Effluent limitation** means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean [40 CFR 122.2].

**Enhancement Facility**, for purposes of this permit, is a finfish rearing operation that releases fish to supplement the native fish populations. Fish are not harvested from the net pens.

**EPA** is the United States Environmental Protection Agency.

**Existing Net Pen Enhancement Facility** is a facility that is operated in the same location and by the same operator as it was prior to the effective date of this permit.

**Excluded Waters, or prohibited waters**, means water bodies not authorized as receiving waters to be covered under this general NPDES permit.

**Facility** means any NPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

**General Permit** means an NPDES “permit” issued under Sec. 122.28 authorizing a category of discharges under the CWA within a geographical area [40 CFR 122.2].

**Grab sample** means a single water sample or measurement of water quality taken at a specific time.

**Indian Country** as indicated by 18 USC §1151 means: (a) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and, (c) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

**Indian Tribe** means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation [40 CFR 122.2].

**Influent** means the water from upstream that enters the facility.

**National Pollutant Discharge Elimination System (NPDES)** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA [40 CFR 122.2].

**New Net Pen Enhancement Facility** is a facility that commences operation after the effective date of this permit, and is either (1) deployed at a site where no other facility has been located for at least five years, or (2) is substantially independent of an existing facility at the same site.

**Notice of Intent (NOI)** means a request, or application, to be authorized to discharge under a general NPDES permit.

**Nuisance** means anything which is injurious to the public health or an obstruction to the free use, in the customary manner, of any waters of the State [IDAPA 58.01.02.010.67].

**Pollutant** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials [except those regulated under the Atomic Energy Act of 1954, as amended (42 USC 2011 et seq.)], heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water [40 CFR 122.2].

**Services** means the United States Fish and Wildlife Service and/or the National Oceanic and Atmospheric Administration-National Marine Fisheries Service (NOAA Fisheries or NMFS)

**Waters of the United States or waters of the U.S.** means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate “wetlands;”

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

- (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;  
or
- (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition [40 CFR 122.2].

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## **I. Background**

### **A. General Permits**

Section 301(a) of the Clean Water Act (CWA), 33 USC § 1311(a), provides that the discharge of pollutants to waters of the U.S. is unlawful except in accordance with terms and conditions of an NPDES permit. The EPA's implementing regulations found under Title 40 of the Code of Federal Regulations (CFR), Part 122, Section 28, authorize the issuance of General Permits to categories of discharges [40 CFR 122.28]. In accordance with 40 CFR 122.28, the Director is authorized to issue a General Permit to numerous facilities when the facilities:

- Are located within the same geographic area;
- Involve the same or substantially similar types of operations;
- Discharge the same types of waste;
- Require the same effluent limits or operating conditions;
- Require the same or similar treatment technologies or monitoring requirements, and
- In the opinion of the EPA, are more appropriately controlled under a General Permit rather than an individual permit.

The EPA is issuing this draft General Permit for Tribal Marine Net Pen Enhancement Facilities discharging to waters within the boundaries of the State of Washington pursuant to EPA's authority under CWA Section 402. The General Permit meets the criteria for General Permits as follows:

#### ***Geographic area***

All of the discharges authorized by this General Permit will be into waters within the boundaries of the State of Washington. Eligible permittees are those operating a marine enhancement net pen facility in Indian Country, as defined in 18 U.S.C. § 1151, within the boundaries of the State of Washington, regardless of the type of ownership. In addition, facilities located in the State of Washington and owned or operated by an Indian Tribe may obtain coverage under this permit.

#### ***Involves the Same or Substantially Similar Types of Operations***

The proposed General Permit will authorize discharges from similar types of operations which are the marine cold water net pen enhancement facilities. This General Permit covers enhancement facilities which raise native fish species (e.g., Chum, Sockeye, and Pink Salmon) for release to regional water bodies to supplement native populations.

#### ***Discharge the Same Types of Waste***

The marine net pens discharge the same type of wastes. The discharge from net pens consists of biodeposits associated with food, feces and cleaning. Net pen facilities generate and/or contribute nutrients (nitrogen and phosphorus) and solids to receiving waters.

***Same Effluent limits or Operating Conditions***

The General Permit proposes the same effluent limits, monitoring requirements and other operating conditions for all marine net pens dischargers within the boundaries of the State of Washington.

***Same or Similar Treatment Technologies or Monitoring Requirements***

The General Permit proposes the same specific operating limitations and best management practices (BMPs). Permit requirements include prohibited discharges, prohibited practices, and discharge controls. The General Permit proposes the same monitoring requirements for all marine net pen dischargers.

***Appropriateness***

Because of these factors discussed above, the EPA has determined that the majority of the marine tribal net pens are more appropriately controlled under a General Permit than under individual NPDES permits. The similarity of the operations, and the technologies used at the facilities resulting in the discharge of similar waste types has prompted the EPA to issue this permit.

**B. Industry Description**

EPA defines concentrated aquatic animal production (CAAP) facilities as point sources subject to the National Pollutant Discharge Elimination System (NPDES) permit program. *See* 40 C.F.R. 122.24. Relevant to this permit, the regulations further define such a facility as a hatchery, fish farm, or other facility that contains, grows, or holds:

Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures that discharge at least thirty days per year, but does not include:

1. Facilities that produce less than 20,000 harvest weight pounds of aquatic animals per year, and
2. Facilities that feed less than 5,000 pounds of food during the calendar month of maximum feeding.

The proposed General Permit will authorize discharges from marine cold water net pen enhancement facilities. Fish are not harvested from enhancement facilities. As the name implies, enhancement facilities raise native fish species for release to regional water bodies to supplement native populations.

Young fish remain in the net pens for several months in order to imprint on the location, with the expectation that they will return a year or two later for harvesting at that time. Net pen systems take advantage of an existing water body's circulation to disperse wastes and bring fresh water to the animals. Net pens, which are used primarily to grow finfish to suitable size for release, are typically suspended from a floating structure and anchored to the sea bottom, while allowing some movement with tides and currents. In such systems, uneaten feed and feces add solids,

BOD<sub>5</sub>, nutrients, and drugs or other chemicals that are applied to the fish directly to the water column.

### C. Characterization of Discharges

Net pen enhancement facilities may discharge a variety of pollutants that could contribute to exceedances of water quality standards:

1. *Biodeposits associated with food, feces and cleaning.* Net pen facilities generate and/or contribute nutrients (nitrogen and phosphorus) and solids to receiving waters. These pollutants have the potential to contribute to a number of negative water quality impacts related to eutrophication – water column algal blooms, increased turbidity, low dissolved oxygen, changes in benthic flora and fauna, and stimulation of harmful microbial activity. The impact of biodeposits (fish feces and uneaten feed) on the environment beneath the net pens is considered one of the high risks associated with these operations, and sedimentation rates are fairly constant irrespective of farm size.<sup>1,2,3,4</sup> In addition *in situ* cleaning of nets can have notable effects on the benthos up to 30 meters away from the pens.<sup>5</sup>
2. *Biological Oxygen Demand in the Water Column.* Fish stocked in contained areas have a high oxygen demand, and monitoring in Washington State has found oxygen reduction in water passing through net pens where concentrated biomasses of fish are being fed.<sup>6</sup>

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1 Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

2 Pohle, G., B. Frost and R. Findlay. *Assessment of regional benthic impact of salmon mariculture within the Letang Inlet, Bay of Fundy*, ICES Journal of Marine Science, 58:417-426. 2001.

3 Goldberg, R. J., M. S. Elliott, R. L. Naylor. 2001. *Marine Net pen in the United States: Environmental Impacts and Policy Options*. Pew Oceans Commission, Arlington, Virginia. 42 pp.

4 Waknitz, F.H. et al. 2002. NOAA Technical Memorandum NMFS-NWFSC 53: *Review of Potential Impacts of Atlantic Salmon Culture on Puget Sound Chinook Salmon and Hood Canal Summer-Run Chum Salmon Evolutionarily Significant Units*. 98 pp.

5 Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

6 Ibid

3. *Pharmaceuticals*. Residual pharmaceuticals have the potential to affect other marine biota. The impact on non-target organisms by the use of therapeutic compounds (both pharmaceuticals and pesticides) at net-pen facilities has also been determined to be a concern for these operations.<sup>7</sup>
4. *Disease, i.e., bacteria, viruses and parasites*. Concentration of fish in high density net pens poses the threat of disease or parasite transmission to natural fish populations.<sup>8</sup> Net pen facilities are not considered to be notable sources of pathogens that affect human health.

Explanation of control measures and technologies for these pollutants is provided later in this fact sheet.

#### **D. Discharges to Impaired Waters**

Section 303(d) of the CWA requires states and Tribes with TAS to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the State or Tribe typically develops Total Maximum Daily Loads (TMDLs) that will specify wasteload allocations (WLAs) for specific pollutants for point sources and load allocations for non-point sources of pollutants, as appropriate. EPA approves TMDLs, and NPDES permitting authorities incorporate relevant WLAs in NPDES permits. None of the identified net pen enhancement facilities expected to seek coverage under this General Permit discharge to impaired waters. Thus, there are no relevant TMDL WLAs for the facilities that are expected to be authorized to discharge under this permit.

A new net pen enhancement facility seeking coverage to discharge to an impaired water for pollutants of concern identified for net pens is not eligible for coverage under this permit unless there is allocated capacity in the TMDL, *and* the provisions of this permit are adequate to ensure the discharge will comply with the relevant allocation.

## **II. Provisions of the Proposed Permit:**

### **A. Permit Coverage (Part I)**

#### ***Eligibility (Part I.A)***

The facilities expected to apply for coverage under this permit raise Coho Salmon. However, facilities raising other marine cold water species are eligible for permit coverage as long as the fish are native to the water body in which they are being raised (e.g., Chum, Sockeye, Pink

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<sup>7</sup> Ibid

<sup>8</sup> Ibid

Salmon). This permit does not include provisions for addressing the variety of issues associated with non-native species, thus facilities raising non-natives are not eligible for coverage.

Eligible permittees are those operating an enhancement net pen facility in Indian Country, as defined in 18 U.S.C. § 1151, within the boundaries of the State of Washington, regardless of the type of ownership. In addition, facilities located in the State of Washington and owned or operated by an Indian Tribe may obtain coverage under this permit. This permit does not include water quality control measures for harvesting operations, therefore only enhancement facilities, i.e., those that release the fish after a certain period of growth, are eligible for coverage under this permit. Facilities that operate thirty or more days per year, produce between 20,000 and 100,000 pounds final release weight of cold water fish per year, and feed at least 5,000 pounds of food during the calendar month of maximum feeding are eligible for coverage under this General Permit. *See* 40 C.F.R. § 122.24. All facilities meeting these criteria are required to have permit coverage, though the operator of the facility may seek coverage under an individual permit (see Part II.F.2) rather than this General Permit. *See* 40 C.F.R. § 122.28(b)(3). Facilities producing less than 20,000 pounds final release weight of cold water fish per year may opt for coverage under this permit by submitting a Notice of Intent (NOI). EPA may also designate smaller facilities for coverage under this permit should the facility be identified as a significant contributor of pollution to Waters of the United States. *See* 40 CFR 122.24(c).

Facilities producing more than 100,000 pounds final release weight of cold water fish per year are subject to the effluent limitation guidelines for CAAP facilities (40 CFR Part 451), and are not eligible for coverage under this General Permit.

Any new marine net pen facility seeking coverage under this permit must also comply with the siting provisions of Part VIII in order to be eligible for coverage under this permit. Those provisions are discussed later in this Fact Sheet.

### **B. Authorized Discharges (Part I.B)**

The General Permit applies to tribal marine net pen enhancement operations that discharge in the State of Washington. A list of the existing facilities that are expected to be covered under this permit is provided in Appendix A of this Fact Sheet.

### **C. Limitations on Coverage (Part I.C)**

Two types of discharges are specifically excluded from coverage under this permit and must apply for an individual NPDES permit:

*Discharges to water designated by a state or tribe as a Tier 3 water body (Outstanding Resource Waters).* To prevent degradation of water quality, under the authority of 40 CFR §131.12, EPA requires states and eligible Indian Tribes to adopt and implement antidegradation policies. Washington State's antidegradation program establishes three formal tiers of protection. Tier 3 is used to prevent the degradation of waters formally listed as outstanding resource waters and applies to all sources of pollution. General Permits are not typically appropriate in any waters designated as Tier 3.

*Any discharge for the purpose of nutrient enhancement.* The addition of nutrients to surface waters for the purpose of enhancing secondary production, or for any other reason, is not authorized by this permit.

#### **D. Permit Expiration (Part I.D)**

In accordance with 40 CFR 122.46(a), NPDES permits shall be effective for a fixed term not to exceed five (5) years. Therefore, this General Permit will expire five years from the effective date of the final permit. If the General Permit is not reissued prior to the expiration date, it may be eligible for an administrative extension of coverage in accordance with the Administrative Procedures Act (APA) and will remain in full force. However, the EPA cannot provide written notification of administrative extension of coverage under this General Permit to any Permittee who submits the NOI for administrative continuance of coverage to the EPA after the permit expiration date.

Therefore, any Permittee granted coverage under the General Permit prior to the expiration date that submits an NOI for administrative continuance of coverage within the proper time frame, and receives notice from the EPA that the NOI is deemed timely and complete, will remain covered by this General Permit until the earlier of:

1. Authorization for coverage under reissuance or replacement of this General Permit following timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with requirements of the new permit;
2. The Permittee's submittal of a Notice of Termination;
3. The issuance of an individual NPDES permit; or,
4. A formal permit decision by the Director not to reissue this General Permit, at which time the Permittee must seek coverage under an alternative general or individual permit.

### **III. Obtaining Authorization to Discharge under this General Permit (Part II)**

#### **A. Deadlines for NOI submittal (Part II.A)**

In accordance with EPA regulations at 40 CFR §122.28, dischargers seeking coverage under the General Permit must submit a complete NOI to EPA Region 10, at the address set forth in Part II.C. of the Permit.

Existing net pen enhancement facilities seeking coverage under this permit must submit an NOI no more than 30 days following the effective date of this General Permit. In accordance with 40 CFR 122.23(b)(2)(i), a discharger who fails to submit a timely and complete NOI in accordance with the terms of a General Permit is not authorized to discharge. A complete and timely NOI fulfills the requirements of a permit application for purposes of 40 CFR 122.6 and 122.21.

**B. Required NOI Information (Part II.B)**

The required contents of the NOI are specified in Part II.B of the General Permit. It requires submittal of information necessary for adequate permit administration, including the legal name and address of the owner or operator; the facility name and location; specific depth, mooring and current information about the facility; information about the fish being stocked; lists of pharmaceuticals expected to be used; a description of the benthos beneath and in proximity to the facility; feed and feeding rates; and monitoring locations. All NOIs must be signed in accordance with the certification requirements at 40 CFR §122.22.

For the convenience of net pen operators, EPA is including with the permit, as Appendix A, a format that operators may use to submit the necessary NOI information. The use of this format is not required.

**C. NOI Submittal (Part II.C)**

The NOI must be submitted to:

NPDES Permits Unit OWW-191  
Marine Tribal Net Pen Enhancement Facility NOI  
US Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

**D. When the Permittee is Authorized to Discharge (Part II.D)**

A discharger is authorized to discharge on the date that EPA provides written authorization.

**E. Requirements for an Individual Permit (Part II.E)**

Under the provisions of 40 CFR §122.28(b)(3)(i), EPA may require an owner or operator seeking authorization or authorized by the General Permit to apply for and obtain an individual permit in the following circumstances:

1. Whenever the permittee is not, or is not reasonably expected to be, in compliance with the conditions of this General Permit;
2. Whenever a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source, therefore causing limitations of the General Permit to be inappropriate for the control or abatement of pollutants from the point source(s);
3. If a water quality management plan, including a Total Maximum Daily Load (TMDL), containing requirements applicable to the point source is approved after the effective date of the General Permit;
4. If circumstances have changed since the time of NOI submittal, so that the Permittee is no longer appropriately controlled under the General Permit, or either a temporary or permanent reduction or elimination of the discharge is necessary; or if the discharge is a significant contributor of pollutants, taking into account the

location and size of the discharge and the quantity and nature of the pollutants, as determined by the Regional Administrator.

Owners or operators meeting the criteria for coverage by the General Permit may request to be excluded from coverage by applying to EPA for an individual permit. Owners and operators may also request termination of General Permit coverage should the net pen operation fall below the duration and weight thresholds stipulated in Part I.A.2 of the permit.

#### **IV. Water Quality Standards**

Receiving waters for Permittees under this General Permit are Waters of the United States located in Indian Country and waters of the State of Washington (which are also Waters of the U.S.) where facilities discharge directly to state waters. States, including eligible Indian Tribes, establish water quality standards for receiving waters within their jurisdictions. Water quality standards are composed of designated beneficial water uses to be achieved and protected, as well as water quality criteria necessary to protect designated uses. Under the provisions of 40 CFR §131.10, the EPA requires states and eligible Indian Tribes to specify appropriate water uses to be achieved and protected. In designating uses of a water body and the appropriate criteria for those uses, states and eligible Indian Tribes must take into consideration the water quality standards of downstream waters and must ensure that its water quality standards provide for attainment and maintenance of the water quality standards of downstream waters.

##### **A. Tribal Water Quality Standards**

A number of tribes within the State of Washington have developed water quality standards. The EPA has approved water quality standards for the Chehalis, Kalispel, Lummi, Makah, Port Gamble S'Klallam, Puyallup, and Spokane Tribes. The EPA has also promulgated standards for the Confederated Tribes of the Colville Reservation. These standards, applicable to waters within the respective reservations, describe use classifications and the applicable water quality criteria. In addition, the EPA has authorized the Swinomish Indians and the Tulalip Tribes to administer their own water quality standards program, though the EPA has not yet approved water quality standards for these tribes. The EPA has reviewed all of the EPA-approved tribal water quality standards within Washington State and believes that this General Permit will be protective of tribal waters. For the parameters that are pertinent to this General Permit, tribal water quality standards are either identical or very similar to those of Washington State, and do not require modification of permit conditions.

##### **B. Washington State Water Quality Standards**

In developing the General Permit, the EPA has also given consideration to water quality standards of the State of Washington, Chapter 173-201A of the Washington Administrative Code, because these standards are applicable to the receiving waters downstream from many of the net pen facilities authorized to discharge under the General Permit. Washington State Standards at Washington Administrative Code (WAC) 173-201A-210 (marine water) establish aquatic life, recreation, water supply, shellfish harvesting, and miscellaneous uses, and those at WAC 173-201A-610 (marine water) designate uses for specific waters in the State. **WAC 173-**

221A-110 lists requirements applicable to all marine finfish rearing facilities in state waters. The EPA has written this General Permit to be protective of these uses.

### **C. Total Maximum Daily Loads (TMDLs)**

Section 303(d) of the CWA requires states and eligible Indian Tribes to identify specific water bodies where water quality standards are not met or not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the State or Tribe must develop and adopt Total Maximum Daily Loads (TMDLs) that will specify wasteload allocations (WLAs) for specific pollutants for point sources and load allocations for non-point sources of pollutants, as appropriate. WLAs are implemented through effluent limitations in NPDES permits. Effluent limitations for point sources must be consistent with applicable TMDL allocations. The EPA has approved the State of Washington's December 21, 2012, 303(d) list of impaired water bodies, which is available online at: <http://www.ecy.wa.gov/programs/Wq/303d/currentassessmt.html>. Certain receiving waters in the State that do not fully support beneficial uses have been scheduled for TMDL development. The extensive 303(d) list is not presented in this Fact Sheet; however, it must be consulted by applicants discharging to State waters, because information about the status of the water quality in the receiving stream and any assigned wasteload allocations (WLAs) must be included in the NOI. As of the date of this Fact Sheet, there are no applicable WLAs for facilities which will be covered by this General Permit. There are no Washington tribes with 303(d) lists.

Where facilities discharge to water bodies impaired for pollutants of concern, the EPA will review these cases individually to determine whether they can be covered under this General Permit, or if an individual permit will be needed.

### **V. Effluent Limitations (Part III)**

Sections 101, 301, 304, 308, 401, 402 and 403 of the CWA provide the basis for effluent limitations and other conditions in the proposed permit. EPA has evaluated discharges from net pen facilities with respect to these sections of the CWA and relevant NPDES implementing regulations to determine what conditions and requirements are appropriate.

In general, the CWA requires effluent limits that are the more stringent of either technology-based or water quality-based limitations. Technology-based effluent limits are based on a minimum level of treatment for discharges from point sources that is provided by currently available treatment technologies. Water quality-based effluent limits (WQBELs) are developed to ensure that applicable water quality standards for receiving waters are met. In developing the General Permit, EPA has given consideration to water quality standards of the State of Washington, Chapter 173-201A of the Washington Administrative Code, because these standards are applicable to the receiving waters for all known net pen enhancement facilities which will likely become authorized to discharge under this General Permit. Washington water quality standards at Washington Administrative Code (WAC) 173-201A-200 (fresh water) and WAC 173-201A-210 (marine water) establish aquatic life, recreation, water supply, shellfish harvesting, and miscellaneous uses, and those at WAC 173-201A-600 (fresh water) and WAC

173-201A-610 (marine water) designate uses for specific waters in the State. WAC 173-221A-110 is the regulation specific to marine finfish rearing facilities. WAC 173-204-412 identifies marine finfish rearing facility siting, operation, closure, and monitoring requirements including sediment monitoring requirements.

The CWA authorizes and EPA regulations at 40 CFR §122.44 (k) provide for requirements to implement best management practices (BMPs) in NPDES permits to control or abate the discharge of pollutants whenever necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA, and when numeric limits are infeasible. BMPs are important tools for waste minimization and pollution prevention, and are an appropriate way to articulate effluent limitations for net pen enhancement facilities. The proposed General Permit requires all dischargers to adhere to specific operating limitations and BMPs that have been determined to be industry standards for protection of water quality.

#### **A. Prohibited Discharges (Part III.A)**

Consistent with relevant water quality standards and limitations, as outlined above, net pen enhancement facilities are prohibited from discharging:

1. Visible oil sheen, foam, discoloration, floating solids, or settleable solids that would impair the designated uses of the receiving water.
2. Solid waste. The facility shall collect used feed bags and other solid wastes for transport, recycling and/or disposal at a recycling or disposal facility.

#### **B. Prohibited Practices (Part III.B)**

Consistent with relevant water quality standards and limitations, as outlined above, the permit prohibits net pen enhancement facilities from engaging in the practices described below:

The impact on benthic communities by the accumulation of heavy metals in the sediments below the net pens has been identified as an activity with notable environmental effects. Both copper, from marine anti-fouling compounds used on net pens, and zinc, from fish feeds, can be toxic in their ionic forms to marine organisms. Levels of copper are elevated around some net-pen farms which use government-approved anti-fouling paints on structures or, more likely, treat their nets with approved commercial compounds containing copper.<sup>9</sup> Therefore the use of biocidal chemicals for cleaning nets in the water is prohibited unless prescribed by a veterinarian or so determined by the Fish Health Specialist of the Northwest Indian Fisheries Commission, pursuant to policies outlined in *The Salmonid Disease Control Policy of the Fisheries Co-*

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<sup>9</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

*Managers of Washington State* (revised July 2006) as necessary to prevent the spread of disease. (Part III.B.1)

At the end of the season many net pen operators remove nets to upland locations for cleaning, which is preferred to *in situ* cleaning because it eliminates the discharge of solids directly to the water, as well as preventing the settling of those solids to the benthos. When nets are cleaned upland, the permit stipulates that no runoff or solids from cleaning shall be discharged to surface waters. (Part III.B.2)

The process of harvesting fish from a net pen operation can result in the discharge of a variety of pollutants. However, since enhancement operations release fish rather than harvest them, the permit prohibits fish harvesting, other than for the purposes of removing fish to evaluate growth, health or other sub-sampling for evaluation purposes. (Part III.B.3)

In general it is impractical and unnecessary to provide routine maintenance to boats and other equipment at the site of the net pen facilities. Given the water quality risks should an oil or gasoline spill occur, EPA believes it is appropriate to undertake these practices at marinas or other shore-docking locations better equipped to handle spills and other accidents should they occur. Therefore the proposed permit prohibits fueling, lubrication and other general maintenance of boats and other mechanical equipment at the net pen facility, with the exception of short-term pump fueling during fish transfer (see Part II.C.2). (Part III.B.4)

### **C. Discharge Controls (Part III.C)**

One of the most effective methods to ensure proper implementation of all provisions of this permit is for all personnel involved in net pen operations to have a solid understanding of how the operation is supposed to be run, including what activities are prohibited.<sup>10</sup> The General Permit requires that all relevant personnel must be trained on fish husbandry, feeding, and other management provisions stipulated in this permit. (Part III.C.1)

As noted in Part III.B.4 of the permit, fueling, lubrication and other activities that do not need to be performed over open water at the net pen facility should be restricted to upland and shoreline locations where prevention and response measures are more easily and effectively implemented. However, gasoline powered pumps are needed at the facility during fish transport. These pumps may be fueled at the facility as long as that activity takes place within secondary containment. Spill response procedures must also be established, and the necessary materials for responding to spills must be on-site and readily available for immediate response. (Part III.C.2)

The impact of biodeposits (fish feces and uneaten feed) on the environment beneath the net pens is considered one of the risks associated with these operations. Biodeposits from salmon farms settle onto sediments near the net pens and can have effects on their chemistry together with their benthic and infaunal biota.<sup>11</sup> Feed is effectively the only major source of net pen-derived

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<sup>10</sup> U.S. EPA, *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, 2006. EPA-821-B-05-001, Chapter 13.

<sup>11</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric

nutrients, such as nitrogen and phosphorus, and solids in flow through systems. Optimizing feed management by using high quality feeds and minimizing feed waste can reduce the nutrients and solids generated and released to the environment.<sup>12</sup> In order to minimize excess feed, the General Permit requires implementation of protocols that closely match feeding rates to fish size and other factors, i.e., calculation of feed conversion ratios, in combination with direct fish feeding observations designed to cease feeding when the fish are not eating. (Part III.C.3)

As noted above, settling of solids on the bottom is a threat to water quality and benthic biota. Therefore nets and anchoring systems must be installed to allow proper current flow through and around the net pen structures, and not exacerbate sedimentation or deposition.<sup>13</sup> The permit requires that nets and anchoring structures must not impede the current flow or tidal exchange in a way that would contribute to the deposition of solids. (Part III.C.4).

Solids settling from net pen operations pose a threat to the benthos, and solids management is a critical element of net pen operations.<sup>14</sup> In particular, *in situ* cleaning of nets can have notable effects on the benthos up to 30 meters away from the pens.<sup>15</sup> While EPA prefers removal to upland locations for net cleaning, some cleaning is necessary during the fish rearing season. In addition, frames and anchoring structures remain in the water year round, and must be cleaned *in situ*. Unfortunately, there are no feasible demonstrated solids collection methods available for cleaning net pens in the current conditions typical in Puget Sound. Therefore, EPA is proposing to allow mechanical solids removal with brushes or power washing under conditions of high tide and rapid current that will disperse solids and prevent concentrated bottom settling.

In response to the preliminary Washington State Department of Ecology Certification, EPA added Section III C 6 which states that “When the net pens are empty, allow the nets to dry over water, and remove them for upland cleaning.”

The Salmonid Disease Control Policy of the Fisheries Co-Managers of Washington State outlines the treatment, surveillance and reporting policies and procedures to be followed in order to protect free-ranging and cultured fish populations from management activities that could cause the importation, dissemination, and amplification of pathogens known to adversely affect

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Administration, National Marine Fisheries Service. 125 pp.

<sup>12</sup> U.S. EPA, *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, 2006. EPA-821-B-05-001, Chapter 9.

<sup>13</sup> *Ibid*, Chapter 11.

<sup>14</sup> *Ibid*, Chapters 9 and 15.

<sup>15</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

salmonids.<sup>16</sup> Relevant tribal net pen enhancement operations in Washington are already party to this agreement, and EPA believes that following the agreement will adequately meet the treatment, surveillance and reporting needs for Salmonid disease control. Therefore the General Permit requires permittees to comply with the provisions of the Policy, but imposes no additional control measures for disease control. (Part III.C.6)

The impact on non-target organisms by the use of therapeutic compounds (both pharmaceuticals and pesticides) at net-pen facilities has also been determined to be a concern for these operations.<sup>17</sup> The permit allows for use of drugs and pesticides only in accordance with applicable label directions. Exceptions are allowed only if the operation is participating in Investigational New Animal Drug (INAD) studies, or when a veterinarian determines per prescription, extra-label drug use. (Part III.C.7)

On-site storage of large quantities of any substance, including food, with the potential to impact water quality is discouraged.<sup>18</sup> However, due to logistical considerations of net pen operations, EPA is proposing to allow fish food to be stored on barges adjacent to the operation in quantities larger than daily, e.g., weekly. Under such circumstances, food must be in covered and locked facilities to minimize the likelihood of discharges due to inclement weather, vandalism, navigational accidents, or other events that could result in unintentional releases. (Part III.C.8) In order to minimize the effects of spills and other releases, fuel and other potential pollutants must be stored off-site and conveyed to the facility in daily quantities.<sup>19</sup> (Part III.C.9) Fish carcasses and fish parts are considered waste materials, and fish mortalities should be collected, recorded and properly disposed of.<sup>20</sup> The proposed permit requires animal mortalities to be disposed of in leak-proof containers no less frequently than once per week. Disposal must be to an approved land-based facility, which can include properly maintained dumpsters, composting facilities or incineration. Discharges of dead fish, fish tissue or fish products to the

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<sup>16</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

<sup>17</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

<sup>18</sup> U.S. EPA, *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, 2006. EPA-821-B-05-001, Chapter 10.

<sup>19</sup> Ibid, Chapter 10.

<sup>20</sup> Ibid, Chapter 15.

<sup>20</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

water is prohibited. The disposal method(s) used should be described in the annual report. (Part III.C.10)

Young fish are typically brought to the net pen facilities from upland hatcheries in tanks that are often disinfected. EPA discourages the discharge to surface waters of any water that has been disinfected with chlorine or other chemicals. However, should the operator decide to discharge these disinfected waters to waters of the U.S. they must first be properly treated, i.e., dechlorinated. (Part III.C.11)

## **VI. Monitoring Requirements (Part IV)**

In accordance with Section 308 of the CWA and EPA regulations at 40 CFR §122.48 and §122.44(i), monitoring requirements are included in an NPDES permit to determine compliance with effluent limitations, to gather data to evaluate the need for future effluent limitations, and/or to monitor impacts on the receiving water. All analyses required by the General Permit must be conducted in accordance with methods and procedures established at 40 CFR Part 136.

EPA is proposing monitoring provisions that are adequate to detect water quality-related problems and commensurate with the size of the facilities and duration of the discharges. Simple pollutant indicators have been chosen for sediments (total organic carbon) and water (dissolved oxygen), and other monitoring requirements are based on visual evaluations. If serious water quality-related problems are discovered, EPA may require additional monitoring.

### **A. Sediment Characterization (Part IV.A)**

The purpose of the sediment characterization project is to find out if the net pens are having any effect on the benthos beneath them, by determining if there are biodeposits and other pollutants beneath the net pens. The divers will collect samples from beneath each net pen. These samples will be analyzed for total organic carbon (TOC) and percent silt-clay particles, in order to find out what effect the net pens are having on the benthic environment. The General Permit requires sediment characterization once during the 5 year permit cycle. Samples will be collected from underneath the nets pens approximately 30 days prior to release of the fish. As already described in several places in this fact sheet, biodeposits and other pollutants from net pen operations often have effects on the benthos, so it is important to find out if the net pens covered by this permit are affecting the benthos. Biodeposits, such as food and feces, as well as heavy metals, are commonly associated pollutants.<sup>21</sup> Since the use of biocides is prohibited by this permit, the sediment monitoring provisions do not include monitoring for biocides such as copper and zinc.

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21 Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

Carbon decomposition is a critical source of oxygen demand below net pens, and carbon monitoring is a reasonable indication of whether or not the benthos are being affected by the net pens. Total organic carbon (TOC) levels are then indexed to the silt/clay content of the sediments, using reference values for Puget Sound. The net pens discharge to Puget Sound, in waters for which water quality standards and sediment TOC reference values have been established by the State of Washington. Washington Administrative Code (WAC) 173-204-412(3)(b) establishes these reference values and this monitoring methodology for existing marine finfish rearing facilities. The Washington regulations typically apply to larger facilities than those covered under this permit, and therefore do not automatically apply. However, EPA chooses to use the Washington methodology because of its relative simplicity and because it utilizes a scientifically-based and well-established set of reference values for Puget Sound.

EPA is proposing two options for sediment characterization. Option one requires the permittee to cooperate with an EPA-conducted characterization study. The permittee will not be responsible for sampling or analysis, but must allow EPA personnel access around and beneath the net pen operation for the purpose of sampling the bottom sediments beneath the facility. EPA will schedule sampling ahead of time with the net pen operator who is encouraged to have staff on site during the sampling.

Option two requires the permittee to conduct sediment characterization which includes sampling the bottom sediments beneath the facility and analysis of the samples. If fish are released early during the second year of the permit term, the study may be postponed until the following year. Should permittees opt to conduct the sediment characterization study themselves, EPA recommends that the permittee consult Washington Department of Ecology *Guidance on the Development of Sediment Sampling and Analysis Plan*<sup>22</sup>.

#### **B. Visual Assessments (Part IV.B)**

The benthos must be evaluated within 30 days prior to the release of the fish. This is an annual requirement. The sediments must be evaluated for type and color, including an assessment for anoxic sediments, which are typically black or darker in color than the surrounding sediments, have spontaneous or induced gassing, and may also appear pimples. The bottom should also be evaluated for any feed or other deposits originating from net pen operations. Finally the benthos should be evaluated for the presence of *Beggiatoa* or other bacterial or fungal growths; percent coverage of these mats should be estimated for the area under the net pens and within 150 feet down-current of the mats.

Some net pen operators have indicated that the bottom beneath the nets is easily viewable at low tide. Therefore, permittees have the option of making visual assessments of the benthos either through the use of underwater photography or diving. EPA will allow direct observation from the surface, with an underwater viewing device, if the benthos can be clearly viewed from the surface.

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**C. Surface Water Monitoring (Part IV.C)**

Large biomasses of fish being fed in a net pen can result in a depletion of dissolved oxygen. Fish stocked in contained areas such as net pens have a high oxygen demand. Monitoring in Washington State has documented oxygen concentration reductions in water passing through net pens where large biomasses of fish are being fed.<sup>23</sup> EPA expects that the control measures stipulated in this permit, coupled with current velocities in Puget Sound are adequate to prevent potential water quality problems. Therefore, the EPA does not expect that the net pens will prevent achievement of the water quality criteria for dissolved oxygen. However, since it is feasible and affordable to measure dissolved oxygen, the permit requires measuring dissolved oxygen to assess any impacts to water quality from the net pens.

**D. Evaluation of Monitoring Data (Part IV.D)**

EPA is proposing several pollutant indicator action thresholds in this permit to prompt the permittee to further investigate and mitigate possible water quality problems.

<b>Pollutant Indicator</b>	<b>Action Threshold</b>
Sediment Total Organic Carbon	Exceeds relevant reference value
Presence of anoxic sediments	25% or more of the area under the net
Presence of bacterial/fungal mats	25% or more of the area under the net
Water column dissolved oxygen concentration	6 mg/L or less, anywhere in the water column

EPA stresses that none of these thresholds is an effluent limitation per se, and therefore an exceedance of the action threshold is not an automatic permit violation. However, the purpose of including monitoring provisions and action thresholds is to avoid and eliminate water quality problems. Therefore ongoing and/or multiple exceedances may be determined to be permit violations, if appropriate corrective actions are not undertaken. This would be a violation of the corrective action condition of the permit. EPA is aware that several existing net pen enhancement operations are located in areas with other possible pollutant sources, and will consider those sources, seasonal variations, and all relevant data when making water quality and compliance assessments.

The primary purpose of establishing the thresholds is to alert permittees to discharges with the potential to create water quality problems, and to trigger corrective action.

<sup>22</sup> Washington State Department of Ecology, *Guidance on the Development of Sediment Sampling and Analysis Plans Meeting the Requirements of the Sediment Management Standards (Chapter 173-204 WAC)*, 2008.

<sup>23</sup> Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: *The net-pen salmon farming Industry in the Pacific Northwest*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

The action threshold for sediment total organic carbon is based on Puget Sound Reference Values, as described above. Proposed action thresholds for anoxic sediments, bacterial/fungal mats and dissolved oxygen are based on assessment of a variety of data and information on marine systems in Puget Sound and elsewhere. EPA will consider establishing different thresholds if provided with data suggesting that these thresholds are either too restrictive or not restrictive enough for marine systems in Washington.

## **VII. Corrective Action (Part V)**

### **A. Problem Identification and Corrective Action (Part V.A)**

Consistent with EPA regulations 40 CFR §122.44(d) the permittee must take all necessary steps to mitigate discharges that may contribute to water quality problems. Upon discovery or notification of a potential problem that can be traced to net pen operation, steps must be taken immediately to determine and correct the source of a poorly controlled discharge or the cause of a poorly functioning pollutant control measure.

### **B. Notifying EPA (Part V.B)**

The permittee must notify EPA in writing within 5 days of becoming aware of a problem requiring corrective action. The notification should describe the problem and the measures being taken to correct it.

### **C. Documentation in Annual Reports (Part V.C)**

EPA proposes that final resolution of the problem shall be described in the next annual report.

## **VIII. Record Keeping and Annual Reporting (Part VI)**

### **A. Record Keeping (Part VI.A)**

Consistent with the effluent limitations in Part III of this permit, EPA is proposing that the following records be kept:

1. Feed amounts and numbers and weights of fish to calculate feed conversion ratios.
2. All dates of pharmaceutical application, types and amounts of pharmaceuticals applied.
3. The frequency of cleanings, inspections, maintenance, and repairs.
4. All monitoring locations, dates, methods and data as required per Part IV.
5. Any other information necessary to complete the Annual Report per Part B of this section.

### **B. Annual Reports (Part VI.B)**

Consistent with 40 CFR §122.41(l) the permittee, EPA is proposing the following annual reporting requirements:

1. Name and contact information of the person preparing the report and/or person who can be contacted by EPA if additional information is needed.
2. Date that fish were added to and date that fish were released from the net pen(s).
3. Species of fish in the net pen(s) during the season.
4. Summary of fish mortalities. For typical mortalities a brief estimate of numbers is adequate. In the event of mass mortalities, the annual report should include dates, causes of death, pounds or numbers of fish mortalities.
5. Total weight of the fish when added to the net pen(s) and total weight of the fish when released from the net pen(s).
6. The total amount of feed used during the season, by week.
7. Dates of pharmaceutical application, types and amounts of pharmaceuticals applied.
8. Documentation and explanation of the use of any chemicals, processes or materials not accounted for by feeding or pharmaceutical applications.
9. All monitoring data, including locations, dates collected and methods used for collection and analysis, per Part IV of this permit.
10. Description & dates of spills, discharges, releases, exceedances of monitoring pollutant indicator action thresholds or permit noncompliance, the reasons for such incident, and the steps taken to correct the problem.

For the convenience of net pen operators EPA is including with the permit, as Appendix B, a format that operators may use to submit the necessary annual report information. The use of this format is not required.

**C. Mailing Address (Part VI.C)**

Annual Reports, Corrective Action Notifications and Non-compliance Notifications should be sent to:

US EPA Region 10  
Attn: ICIS Data Entry Team  
1200 Sixth Avenue, Suite 900  
OCE-133  
Seattle, Washington 98101-3140

## **IX. Other Permit Conditions**

### **A. Siting for New Net Pen Enhancement Facilities (Part VII)**

Siting is a critical factor associated with whether or not a net pen operation will have undesirable impacts on the environment.<sup>24</sup> The State of Washington established guidelines in 1986 for the management of marine net pen operations in Puget Sound.<sup>25</sup> At that time the Washington Department of Ecology considered the guidelines to be interim. However, the recommendations in the guidelines have stood the test of time, and have yet to be updated or preempted. The siting guidelines in particular provide a simple yet robust depth vs current velocity algorithm for evaluating the appropriateness of proposed sites for net pen operations.

EPA does not anticipate the development of many new tribal net pen enhancement operations in Washington State during the term of this permit. However, in the event this does occur, and in order consider those facilities eligible for coverage under the General Permit, EPA believes it is important that siting provisions be established.

#### ***Current Velocity vs. Depth (Part VII.A)***

The Washington interim guidance provides different depth and current velocity thresholds for different size facilities. Given that only facilities with 20,000 – 100,000 pounds harvest-weight per year are eligible for coverage under this permit, the siting provisions are consistent with the Washington Class II (20,000 – 100,000 lbs/yr) thresholds.

Figure 1 in the proposed General Permit is adapted from the Washington Department of Ecology guidance.<sup>26</sup> With increasing current velocity to provide flushing of solids from around and beneath the net pens, minimum depth beneath the pens can be somewhat shallower. In no case should there be fewer than 25 feet between the bottom of the net pens and the bottom of the receiving water. In no case should the mean current velocity be less than 5 centimeters/second. Up to about 50 centimeters/second, depth varies with current velocity.

#### ***Protection of Special Habitats (Part VII.B)***

There are a number of habitat types that warrant special protections. Net pen operations should never be located over or in proximity to these types of habitat. Consistent with the Washington guidance<sup>27</sup>, the permit proposes that a new net pen enhancement facility may not be located within 300 feet in the direction of prevailing tidal currents, or within 150 feet in any other direction, of any of seven classes of special habitats, as detailed in the permit.

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24 Nash, C. E. (editor). 2001. NOAA Technical Memorandum NMFS-NWFSC-49: The net-pen salmon farming Industry in the Pacific Northwest. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 125 pp.

25 Washington Department of Ecology, *Recommended Interim Guidelines for the Management of Salmon Net-Pen Culture in Puget Sound*, 1986.

26 Ibid, Figure 1, page 3.

27 Ibid, Table 1, page 4.

### **B. Tribal Consultation (Executive Order 13174)**

Efforts have been taken to provide tribal entities with information about the draft Tribal Marine Net Pen Enhancement Facilities General Permit development process, and to simultaneously seek early input on the permit. There were opportunities for the tribes to get involved at the early stage of permit development and to provide information about existing facilities and operations. The EPA held two meetings to discuss the permit at the Northwest Indian Fisheries Commission on June 25, 2013 and December 4, 2013. At these meetings and during follow-up correspondence, EPA worked with the tribes to understand their current best management practices, monitoring, and operations. EPA took this information into consideration when the permit conditions were drafted. EPA's intent was to have the permit conditions reflect current tribal net pen practices, to the extent possible.

Executive Order 13175 (November, 2000) entitled "Consultation and Coordination with Indian Tribal Governments" requires federal agencies to have an accountable process to assure meaningful and timely input by tribal officials in the development of regulatory policies on matters that have tribal implications and to strengthen the government-to-government relationship with Indian tribes. In May, 2011, the EPA issued the "EPA Policy on Consultation and Coordination with Indian Tribes" which established national guidelines and institutional controls for consultation. During permit development, NPDES permits staff followed the EPA Region 10 Tribal Consultation and Coordination Procedures, available online at [http://www.epa.gov/region10/pdf/tribal/consultation/r10\\_tribal\\_consultation\\_and\\_coordination\\_procedures.pdf](http://www.epa.gov/region10/pdf/tribal/consultation/r10_tribal_consultation_and_coordination_procedures.pdf). In addition, the EPA has invited all of the tribes with net pens in Washington State to engage in government-to-government consultation.

Consistent with the executive order and the EPA tribal consultation policies, the EPA will honor requests for consultation meetings either via teleconferences or in-person meetings on the draft Marine Tribal Net Pen Enhancement Facilities General Permit from federally-recognized tribal governments.

### **C. Environmental Justice Considerations**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities." The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. "Overburdened" communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. As part of an agency-wide effort, the EPA Region 10 has considered implementing enhanced public involvement opportunities for EPA-issued permits where facilities' discharge to waters in overburdened communities. For more information, please visit <http://www.epa.gov/compliance/ej/plan-ej/>.

As part of the permit development process, the EPA conducted a screening analysis to determine whether this permit action could affect overburdened communities. The EPA used a nationally consistent geospatial tool that contains demographic and environmental data for the United States at the Census block group level. This tool is used to identify permits for which enhanced outreach may be warranted. As part of the screening process, it was determined that none of the net pens to be covered by this permit are located within or near an overburdened community.

The EPA does not believe that these net pens present an environmental justice concern. The net pens tend to be located in fairly remote areas, and far enough from neighboring communities that they would not pose a health threat. Net pens are not considered to be sources of pathogens that threaten human health. The net pens covered by this permit are not commercial enterprises; they are enhancement net pens aiming to raise native fish species for release to regional water bodies to supplement native populations. Young fish remain in the net pens for several months in order to imprint on the location and then they return in a year or two for harvesting. The net pens provide an environmental justice service to nearby communities, because they supply them with a healthy and high protein food source that is culturally significant.

Regardless of whether a facility is located near a potentially overburdened community, the EPA encourages permittees to review (and to consider adopting, where appropriate) Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways To Engage Neighboring Communities (see <https://www.federalregister.gov/articles/2013/05/09/2013-10945/epa-activities-to-promote-environmental-justice-in-the-permit-application-process#p-104>). Examples of promising practices include: thinking ahead about community's characteristics and the effects of the permit on the community, engaging the right community leaders, providing progress or status reports, inviting members of the community for tours of the facility, providing informational materials translated into different languages, setting up a hotline for community members to voice concerns or request information, follow up, and other activities.

## **X. Other Legal Requirements**

### **A. Clean Water Act Antidegradation Requirements**

The EPA is required under Section 301(b)(1)(C) of the Clean Water Act (CWA) and implementing regulations (40 CFR 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with state and tribal water quality standards, including antidegradation requirements. Since the net pen facilities either discharge to Washington waters or to Indian Country (with Washington as the downstream state), the EPA used Washington's antidegradation implementation procedures as guidance. The EPA referred to Ecology's 2011 Supplemental Guidance on Implementing Tier II Antidegradation, which is available at <http://www.ecy.wa.gov/biblio/1110073.html>. The EPA also referred to the relevant tribal antidegradation policies, which are part of those tribes' EPA-approved water quality standards. See <http://water.epa.gov/scitech/swguidance/standards/wqslibrary/tribes.cfm#r10>.

#### Determining the Applicable Level of Protection

The State of Washington's antidegradation policy follows the federal regulations in establishing three tiers of protection:

Tier I ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollution.

Tier II ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary to accommodate important economic or social development and is in the overriding public interest.

Tier III prevents the degradation of waters identified as constituting an outstanding national or reservation resource and applies to all sources of pollution. The receiving waters to which the five net pen facilities discharge qualify for both Tier I and Tier II protection, as explained in more detail below.

#### Tier I Protection

A facility must first meet Tier I requirements. Existing and designated uses must be maintained and protected. No degradation may be allowed that would interfere with, or become injurious to, existing or designated uses, except as provided for in Chapter 173-201A WAC.

In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with the narrative and numeric criteria of the State/Tribe's water quality standards, which address water quality limited waters. Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited and a TMDL must be prepared for those pollutants causing the impairment. Discharge permits must contain limitations that are consistent with the WLAs in the EPA-approved TMDL. A permit with effluent limitations consistent with the WLA from an applicable TMDL will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier 1 antidegradation requirements.

Since this is a General Permit, the EPA referred to the applicable designated uses for waters of the State of Washington in this antidegradation analysis. The draft General Permit ensures a level of water quality necessary to protect the designated uses and, in compliance with 40 CFR 131.12(a)(1) and 131.35(e)(2)(i), also ensures that the level of water quality necessary so that existing uses are maintained and protected. The EPA developed permit conditions to protect the following uses: salmonid and other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

Where technology-based limits are not protective enough to meet water quality standards, the EPA sets water quality-based effluent limits (WQBELs). If the EPA receives information during the public comment period demonstrating that there are additional existing uses for the waterbodies in this General Permit, the EPA will consider this information before issuing a final permit and will establish additional or more stringent permit conditions if necessary to ensure protection of existing uses.

The General Permit will provide coverage to 5 existing facilities. None of these facilities discharge to waterbodies that are impaired for Pollutants of Concern. The limitations and requirements contained in the General Permit will ensure compliance with the narrative and numeric criteria in the water quality standards. Therefore, EPA has determined that the permit will protect and maintain existing and designated beneficial uses in compliance with the Tier 1 provisions.

#### Tier II Protection

A Tier II analysis consists of an evaluation of whether or not the proposed degradation of water quality that would be associated with a new or expanded action would be both necessary and in the overriding public interest. A Tier II analysis focuses on evaluating feasible alternatives that would eliminate or significantly reduce the level of degradation. The analysis also includes a review of the benefits and costs associated with the lowering of water quality. New discharges and facility expansions are prohibited from lowering water quality without providing overriding public benefits.

None of the five Net Pen facilities have had past NPDES permits, and therefore each is considered a new or expanded action. Accordingly, EPA evaluated whether a Tier II analysis would be necessary. If a discharge has the potential to cause measurable change in degradation to existing water quality at the edge of the chronic mixing zone, the facility would then need to conduct a full Tier II analysis.

Under Ecology's antidegradation policy, individual facilities covered under General Permits do not require a Tier II analysis. Instead, the Tier II evaluation focuses on whether the General Permit meets the Tier II requirements. Therefore, the EPA evaluated whether the General Permit meets the Tier II antidegradation requirements.

Washington water quality standards define a measurable change to include:

- (a) *Temperature increase of 0.3°C or greater;*
- (b) *Dissolved oxygen decrease of 0.2 mg/L or greater;*
- (c) *Bacteria level increase of 2 cfu/100 mL or greater;*
- (d) *pH change of 0.1 units or greater;*
- (e) *Turbidity increase of 0.5 NTU or greater; or*
- (f) *Any detectable increase in the concentration of a toxic or radioactive substance.*

The EPA determined that a Tier II analysis is **not** required for any of the facilities because none of the discharges will cause measurable change to existing water quality. An explanation of the EPA's Tier II eligibility analysis is below.

- (a) *Temperature increase of 0.3°C or greater;*

There are no activities in a normally operated net pen facility which will result in any measurable change in temperature. Therefore, this parameter does not trigger a Tier II antidegradation analysis.

*(b) Dissolved oxygen decrease of 0.2 mg/L or greater;*

The impact fish respiration may have on receiving water ambient dissolved oxygen (DO) levels will be minimal. The ambient DO level required in the water quality standards was based upon what is necessary for maintaining healthy fish. Operators of these facilities employ management practices to minimize DO impacts and maintain high dissolved oxygen levels to maintain fish health. Therefore, the discharges will not cause measurable change to existing water quality and this parameter does not trigger a Tier II antidegradation analysis. In addition, the permit requires measuring dissolved oxygen to assess any impacts to water quality from the net pens.

*(c) Bacteria level increase of 2 cfu/100 mL or greater;*

The EPA has no evidence to conclude that bacteria levels will be impacted by the net pens. Therefore, the discharges will not cause measureable change to existing water quality and this parameter does not trigger the Tier II antidegradation analyses.

*(d) pH change of 0.1 units or greater;*

Levels of pH are not a pollutant of concern for net pens. Therefore, the discharges will not cause measurable change to existing water quality and this parameter does not trigger a Tier II antidegradation analysis.

*(e) Turbidity increase of 0.5 NTU or greater; or*

Floating net pens generally produce no measurable increase in the fine solids that are measured by a turbidimeter except if during net pen cleaning activities. These activities could have an impact on receiving water turbidity. The permit requires the use of net cleaning practices which prevents to the maximum extent practicable the discharge of accumulated solids and attached marine growth without prior treatment. There are cleaning practices currently in use by the industry which should reduce impacts to ambient turbidity levels. Therefore, the discharges will not cause measurable change to existing water quality and this parameter does not trigger a Tier II antidegradation analysis.

*(f) Any detectable increase in the concentration of a toxic or radioactive substance.*

Fish excrete small amounts of ammonia nitrogen which in high doses can be toxic to fish, depending on pH and temperature that controls the ionic species of the ammonia-ammonium complex. The swift currents in the receiving water have a high degree of dilution. The discharges will not cause measurable change to existing water quality and therefore this parameter does not trigger a Tier II antidegradation analysis.

Summary

The EPA determined that the net pens do not need to complete a Tier II analysis at this time. No data or information has been provided or found to show the receiving water quality constituents are higher than the criterion designated for that water in the state surface water quality standards. Monitoring required by this permit will be used to continue this assessment. In the EPA's opinion, facilities covered under the General Permit will not cause a measureable change in degradation to existing water quality. Therefore, a Tier II analysis is not necessary.

### **B. Endangered Species Act**

The Endangered Species Act (ESA) requires federal agencies to consult with the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) and the U. S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered species and/or their designated critical habitat. EPA has analyzed the discharges proposed to be authorized by the draft Tribal Marine Net Pen Enhancement Facilities General Permit, and their potential to adversely affect any of the threatened or endangered species or their designated critical habitat areas in the vicinity of the discharges. Based on this analysis, EPA has determined that the issuance of this permit will have no effect to any threatened or endangered species in the vicinity of the discharge.

### **C. Magnuson-Stevens Fishery Conservation and Management Act**

Under the Magnuson-Stevens Fishery Conservation and Management Act, NMFS and various fisheries management councils must identify and protect "essential fish habitat" (EFH) for species managed under the Act. The EFH regulations define an *adverse effect* as any impact that reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species fecundity), site-specific, or habitat wide impacts, including individual, cumulative, or synergistic consequences of actions. Agency actions that may adversely affect EFH requires consultation with NMFS. EPA has evaluated the General Permit and has made the determination that issuance of the General Permit will have no effect on EFH.

### **D. National Environmental Policy Act (NEPA)**

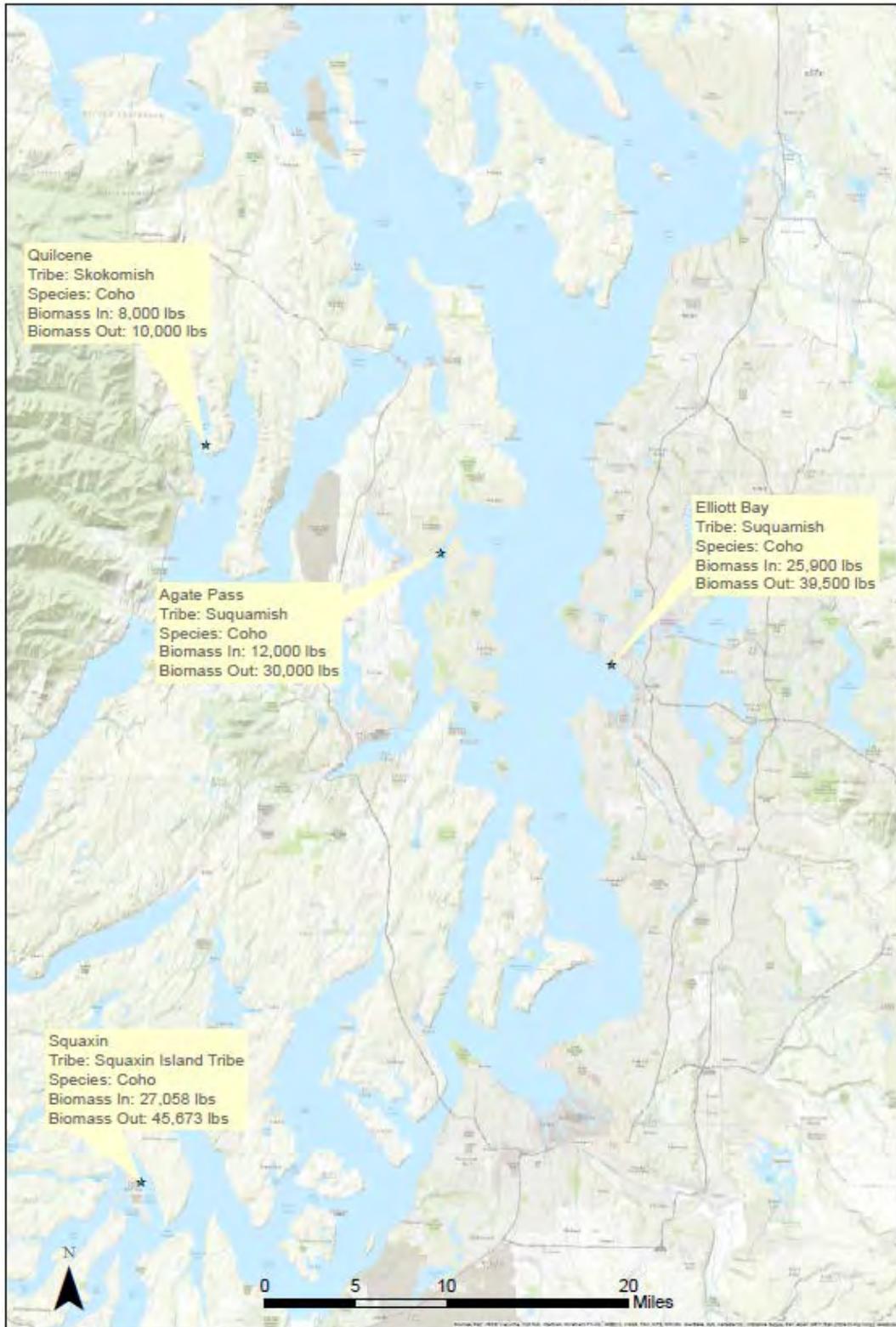
Section 511(c)(1) of the CWA requires that EPA comply with the National Environmental Policy Act (NEPA) for federal issuance of NPDES permits for *new sources*. Under NPDES regulations, *new sources* are those buildings, structures, facilities or installations from which there is or may be a discharge of pollutants, the construction of which commences after promulgation or proposal of new sources performance standards. (See 40 C.F.R. §122.2) New source performance standards for the *concentrated aquatic animal production* point source category became effective on September 22, 2004. They apply to net pen facilities that produce 100,000 pounds or more of aquatic animals each year. Since none of the facilities covered under this General Permit produce 100,000 pounds or more, they are not considered a *new source* and therefore issuance of the General Permit is therefore not subject to NEPA review procedures. New net pen enhancement facilities must submit NOIs at least 180 days prior to initiation of operations. Operations may not commence until permit coverage has been obtained.

**Appendix A: Facilities Eligible for Coverage:**

As of publication of today’s public notice, the following existing net pen enhancement facilities are known to be eligible to apply for coverage under the proposed permit. These facilities are all located in Puget Sound as shown on the map:

<b>Facility Name</b>	<b>Location Name</b>	<b>Tribe</b>	<b>Latitude Longitude</b>	<b>Species</b>	<b>Biomass Out (lbs)</b>	<b>Months of Operation</b>	<b>Number of Months per Year</b>
Agate Pass	Puget Sound Agate Pass	Suquamish	47.57668133 122.5283877	Coho	30,000	March to June	4
Elliott Bay	Puget Sound Elliott Bay	Suquamish	47.62220296 122.3676885	Coho	39,500	March to June	4
Quilcene	Puget Sound Quilcene Bay	Skokomish	47.78935470 122.8519801	Coho	10,000	March to May	3
Squaxin	Puget Sound	Squaxin Island	47.20169392 122.9048089	Coho	45,673	January to June	6

## Tribal Net Pens in Puget Sound



**Appendix B: Washington State Department of Ecology CWA Section 401  
Certification**



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

April 10, 2015

Mr. Michael J. Lidgard  
NPDES Permit Unit Manager  
U.S. EPA, Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

**RE: Pre-certification of Draft General Permit for  
Tribal Marine Net Pen Enhancement Facilities**

Dear Mr. ~~Lidgard~~ <sup>Mike</sup>:

The Washington State Department of Ecology (Ecology) has reviewed the Environmental Protection Agency's (EPA) draft National Pollutant Discharge Elimination System (NPDES) General Permit for Tribal Marine Net Pen Enhancement Facilities within the Boundaries of the State of Washington (WAG132000). This letter transmits comments based on our review of the draft permit.

Thank you for the opportunity to comment. If you have any questions, please contact me at [bill.moore@ecy.wa.gov](mailto:bill.moore@ecy.wa.gov) or (360) 407-6460, or contact Lori LeVander at [lori.levander@ecy.wa.gov](mailto:lori.levander@ecy.wa.gov) or (425) 649-7039.

Sincerely,

Bill Moore, P.E., Manager  
Program Development Services Section  
Water Quality Program

Enclosure

cc: Lori LeVander, Ecology, NWRO



**Washington State Comments on the Draft EPA NPDES General Permit for Tribal Marine  
Net Pen Enhancement Facilities within the Boundaries of the State of Washington  
(WAG132000)**

**General Comments**

Ecology has discussed minor permit corrections and suggestions with the EPA permit writer. The following comments mainly address additions or corrections to meet the Washington State Water Quality standards.

**Permit Comments**

Page 5 under Permit Coverage, A. Eligibility 4.

Add “or submit an NOI if requested by EPA” to the final sentence.

*Such net pen facilities may voluntarily submit the information required in a Notice of Intent with a cover letter requesting to be covered by the permit, or submit an NOI if requested by EPA.*

Some facilities may fall below the listed threshold but need permit coverage to condition the operations of the facility to meet state water quality standards.

Page 13, VI. B. Annual Reports

This is the only discussion or requirement in the permit where fish mortalities are reported. The permittees should be required to notify EPA and Washington State Fish and Wildlife if there is a fish disease outbreak or mass mortality at the permitted net pen site, as soon as they are aware of an outbreak.

Ecology permits use a 5% mortality of fish on hand as a threshold of notification. The permit should also require a plan for disposal of mass fish mortality so as not to impact water quality.

**Fact Sheet Comments**

Page 17, IV. B. Washington State Water Quality Standards

**WAC 173-221A-110 Marine finfish rearing facilities** should be referenced. This water quality regulation lists requirements applicable to all marine finfish rearing facilities in state waters and will ensure compliance with the State Water Quality Standards, including the Sediment Standards.

- a) Comply with all applicable state water quality standards and sediment quality standards.
- b) Comply with list of general requirements meant to reduce pollutants in the effluent.
  - Feeding practices.
  - Disease control chemical use practices.
  - Operational conditions.
- c) Pollution prevention plan.

Specifically, this regulation also requires that net cleaning occur at upland site and not over water. Ecology does not believe it is unreasonable to require upland net cleaning, as opposed to cleaning in situ or over water. Current practice for Ecology-permitted facilities is to pull the nets when the pens are empty, allow the nets to dry over water, and then remove them for upland cleaning. This prevents solids and debris from entering state waters. The draft permit requirement for upland cleaning of the nets is considered All Known, Available, and Reasonable Treatment (AKART) and will comply with State Water Quality Standards.

Page 18, V. Effluent Limitations (Part III)

The Fact Sheet should cite WAC 173-221A-110 here also, as this regulation is specific to marine finfish rearing facilities. This rule sets waste discharge standards for finfish rearing facilities located within marine waters of the State.

Sediment Standards: WAC 173-204-412

This section identifies marine finfish rearing facility siting, operation, closure, and monitoring requirements to meet the intent of the chapter, including the following sediment quality monitoring requirements:

- Baseline monitoring.
- Existing facility monitoring for total organic carbon (TOC) levels, benthic infaunal abundance.
- Closure monitoring.
- Identifies sediment impact zones.

These standards apply to NPDES facilities permitted by the State of Washington. The threshold used for permitting a facility is 20,000 pounds of fish on hand at any time.

Compliance with these best management practices and standards, including Sediment Standards, will ensure compliance with the Washington State Water Quality Standards.