ATTACHMENT 1 - New

MARINE FINFISH AQUACULTURE PERMIT
Mitigating Provisions

COOKE AQUACULTURE PACIFIC

Implementation of these provisions is a requirement of the Permit

Operations, including future finfish transport permits:

1. This Permit is for the marine cultivation of all-female triploid steelhead trout (*Oncorhynchus mykiss*) from embryos originating from Troutlodge, Bonney Lake, Washington.
2. Transgenic fish, as defined in WAC 220-370-100, are not permitted
3. In accordance with Washington State Law (2018 c 179 § 3; RCW 77.175.050) this permit is valid for existing marine net-pen facilities with valid leases of state-owned aquatic lands (Fort Ward, Orchard Rocks, Clam Bay, and Hope Island facilities). This permit will become valid for existing facilities without leases of state-owned aquatic lands (Cypress 1, Cypress 2, and Port Angeles) if these leases are restored, or new leases issued.
4. In accordance with WAC 220-370-100, this permit is valid for a maximum of five years, starting from the date of this correspondence and ending January 21, 2025 or on the date of termination of leases of state-owned aquatic lands, whichever is sooner (RCW 77.175.050).
5. Cooke must receive from the Washington Department of Ecology NPDES authorization to raise all-female triploid steelhead trout in their net-pen facilities in Puget Sound before Cooke can stock facilities with steelhead trout. All requirements and provisions stipulated by Ecology on NPDES permits must be followed.
6. All activities described in Cooke Aquaculture's Plan of Operation – All-female Triploid Rainbow Trout; Fish Escape Prevention, Response, and Report Plan; and Regulated Finfish Pathogen Report Plan must be followed as written, unless otherwise specified below. All plans must be updated annually and in consultation with WDFW Fish Health and Hatchery programs, with final drafts submitted to WDFW for approval no later than November 30 of the calendar year. The Fish Escape Prevention, Response, and Report Plan must be drafted in consultation with DNR, Ecology, WDFW, and effected treaty tribes.
7. All fish transported into net-pens must contain one or more visual marks, other than the shape of each fish, that *unambiguously* identifies each fish as commercial aquaculture fish, as opposed to hatchery- or natural-origin free ranging fish of Washington State. WDFW considers that commercial aquaculture steelhead marked with adipose fin clip only presents a risk of confusion with the state's hatchery-origin steelhead. Before July 2020 Cooke must implement an alternate method, approved by WDFW, to visually identify their fish.
8. For each lot of fish to be transported into marine net-pen facilities, Cooke must provide to WDFW a sample of tissue from 150 fish appropriate for genetic analyses, if the lot is derived from a single brood line. If the lot is composed of more than one brood line, Cooke must provide to WDFW samples of tissue from 150 fish from each brood line. The fish tissue can be from live or lethal sampling. WDFW will genotype samples using their baseline assay of SNP markers and will

use the information only to determine if steelhead samples from hatchery- or natural-spawning fish are commercial aquaculture fish or F1 offspring of commercial aquaculture fish.

9. Prior to stocking net pens, Cooke must provide WDFW, DNR, and Ecology the approximate dates for stocking. Within one month after stocking is completed Cooke must provide to WDFW, DNR, and Ecology a report documenting the facility stocked, dates in which stocking occurred, the total number of fish stocked per day, and any complications that may have occurred during stocking. Cooke must report immediately if fish escaped during stocking. If requested by WDFW, DNR, or Ecology, Cooke must allow appropriately trained personnel from these agencies to monitor the stocking activities.
10. Prior to harvest, Cooke must provide WDFW, DNR, and Ecology the approximate dates for harvest. Within one month after harvesting is completed Cooke must provide to WDFW, DNR, and Ecology a report documenting the facility harvested, dates in which harvesting occurred, the total number of fish harvested per day, and any complications that may have occurred during harvesting. Cooke must report immediately if any live fish escaped during harvesting, or if any fish carcass, parts, or offal were discarded into the Puget Sound waters. The discard of carcasses, fish parts, or offal is also a violation of Cooke's NPDES permit. Cooke also must report the number and species of bycatch caught during harvesting. If requested by WDFW, DNR, or Ecology, Cooke must allow appropriately trained personnel from these agencies to monitor the harvesting activities.
11. The following monitoring data needs to be reported to WDFW, DNR, and Ecology as part of an expanded Monthly Feed, Biomass, and Disease Control Chemical Use Report, or as separate monthly report(s): (1) the feed conversion rates at each facility, (2) the estimated number of live individuals at each facility, and (3) the number of dead fish collected or observed (the greater of these two numbers) at each facility during the period since the prior reporting month.
12. For each of their facilities, Cooke must continue the net hygiene monitoring protocol developed cooperatively by Cooke and DNR (see Section 4.3.1 above).
13. WDFW Finfish Transport Permits are required when moving fish from freshwater facilities to marine net pens, or between aquatic farm sites.

Escape Prevention, Response, and Reporting:

1. In accordance with Washington State Law (2018 c 179 § 12; RCW 77.175.060) for each net-pen facility, Cooke must hire, at their own expense, a marine engineering firm approved by WDFW to conduct inspections. Inspections must occur approximately every two years, when net pens are fallow, and must include topside and mooring assessments related to escapement potential, structural integrity, permit compliance, and operations. Analyses of the mooring and cage systems of each net-pen facility must use environmental condition data that are consistent with the Norwegian aquaculture standard NS 9415 (see Section 4.3.1 above).
2. Cooke must report to WDFW Fish Health Supervisor, Lead Veterinarian, or Aquaculture Coordinator within 24 hours of discovery of any fish that has been observed to have escaped from any net-pen facility or during transfer into or out of a net-pen facility, regardless of numbers of fish involved (i.e., the minimum reporting number is one).
3. It is conceivable that an attempt to recover fish after an escape event might negatively affect native Pacific salmonids more than no attempt to recover fish. Cooke is required to work with WDFW, Ecology, DNR, effected treaty tribes, and NOAA to include a no-recovery option in the

2021 Fish Escape Prevention, Response, and Reporting Plan, to be finalized December 2020. This option should include when, where, and under what conditions a recovery effort should not be attempted. A no-recovery option would be triggered by the state, in consultation with co-managers and federal agencies for the purpose of protecting native Pacific salmonids.

4. Both the Washington Department of Health and WDFW need to be notified if escaped fish were on medicated feed at the time of their escape or are within the required withdrawal period for the medicated feed used.
5. Before January 1, 2021, Cooke must have engineered mooring and anchoring plans and site-specific engineered drawings stamped by a structural engineer, for each net-pen facility.

Triploidy error rate

1. Cooke is to work with Troutlodge and WDFW to develop or implement an alternative method or employ a different sampling and statistical design to estimate the triploidy error rate. This method will be implemented on each lot of fish to be transported into marine net-pen facilities and provide the state with an estimated number of diploid-fertile fish in that lot. This alternative method or design must be implemented no later than July 2020, unless stated otherwise by WDFW. In the absence of the alternative method Cooke will be required to sample 600 fish from each lot to determine triploidy error rate (see Section 4.3.5 above)

Finfish Pathogen Reporting and Biosecurity:

1. Cooke must ensure that all state and federal Veterinary-Client-Patient-Relationship (VCPR), Veterinarian of Record (VOR), and Veterinary Feed Directive (VFD) rules and laws are followed (e.g., WAC 246-933-200, 21 CFR 514, 21 CFR 558).
2. In accordance with WAC 220-370-080 and 220-370-130 authorized WDFW employees shall have access to freshwater hatchery facilities and marine net-pen facilities to conduct inspections, to collect samples for disease surveillance, and to inspect net-pen infrastructure.
3. Net-pen facilities must remain fallow for 42 days after the last fish are harvested and the last containment net is removed for cleaning and repair. This number can be increased per determination of WDFW veterinarian due to disease prevalence just prior to or at the time of harvest.
4. Net-pen facilities must be managed as single-generation stocking.
5. Broodstock (parents) of embryos or fish going to Cooke Aquaculture freshwater rearing facilities will be sampled and tested at a certified lab for Washington Regulated Pathogens (see Table 1 below) at the 2% APPL annually within three months of transfer from Troutlodge to Cooke's freshwater facility.
6. Lots of pre-marine smolts prior to transfer from Cooke's freshwater faculties to marine net-pens will be sampled and tested at a certified testing lab for Washington State Regulated and Reportable pathogens (see #2 above) at the 2% APPL.
7. Cooke's freshwater and marine facilities are subject to inspections by WDFW to ensure proper biosecurity, fish health, and pathogen sampling. Sampling levels can be modified by WDFW in response to pathogen findings.
8. Under no conditions should fish carcasses be removed from the net-pens and returned into waters of Puget Sound. The discard of carcasses is also a violation of Cooke's NPDES permit.

9. All disease outbreaks, unexplained mortality, regulated, reportable, or exotic pathogen findings must be reported to the WDFW Fish Health Supervisor, Lead Veterinarian, or Aquaculture Coordinator within 24 hours.
10. A fish health evaluation report written by a certified fish health inspector must be submitted to WDFW each year, no later than January 31, summarizing fish health inspections, laboratory tests, and the presence of pathogens, for the previous calendar year, at each net-pen facility (one report that includes all net-pen facilities).

Table 1. Regulated and Reportable pathogens described in WAC 220-370 and in The Salmonid Disease Control Policy of the Fisheries Co-Managers of Washington State.

a. Regulated Pathogens:
    i. Infectious hematopoietic necrosis virus (IHNV)
    ii. Infectious pancreatic necrosis virus (IPNV)
    iii. Infectious salmon anemia virus (ISAV)
    iv. *Oncorhynchus masou* virus (OMV)
    v. Viral hemorrhagic septicemia virus (VHSV)
    vi. *Myxobolus cerebralis* (whirling disease only known in fresh water)

b. Reportable Pathogen:
    i. All viral replicating agents other than those listed as Regulated pathogens that are found on cell culture using procedures outlined in the AFS-USFWS Specific Procedures for Aquatic Animal Health Inspections or OIE Aquatic Code.
    ii. Strains of pathogenic bacteria resistant to antimicrobial agents approved for use in fish or used through an extra-label prescription or INAD permit.
    iii. *Piscirickettsia salmonis*
    iv. *Nucleospora salmonis*
    v. North Atlantic variants of PRV 1, and all variants of PRV 3