FACT SHEET FOR
CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION
YAKAMA NATION FISHERIES
UPPER WENATCHEE BASIN ACCLIMATION PROGRAM
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) DISCHARGE PERMIT No. WA0991108

March 20, 2019

Purpose of this fact sheet

This fact sheet explains and documents the decisions by the Department of Ecology (Ecology) in drafting the proposed NPDES permit for the Upper Wenatchee Basin Acclimation Program which consists of a series of fish acclimation ponds. The ponds are used specifically to acclimate anadromous species of fish (coho and chinook salmon as well as steelhead trout) before release at smolt size (approximately 15 fish per pound) to water bodies of the state.

This proposed NPDES permit limits the discharge of pollutants to surface waters under the authority of the Federal Water Pollution Control Act (U.S.C.S. 1251) and limits the discharge of pollutants to surface and ground water under the authority of Chapter 90.48 Revised Code of Washington (RCW).

This fact sheet explains the nature of authorized discharges, Ecology's decision on limiting the pollutants in fin-fish acclimation ponds, and the regulatory and technical basis for those decisions.

Public role in the permit

This fact sheet complies with Section 173-220-060 of the Washington Administrative Code (WAC), which requires that Ecology prepare a draft permit and accompanying fact sheet for public review and evaluation prior to issuing an NPDES permit for discharging wastewater to waters of the state.

Ecology makes the draft permit and fact sheet available for public review and comment at least 30 days before issuing the final permit. Copies of the fact sheet and draft permit for the **Yakama Nations Fisheries Upper Wenatchee Basin Acclimation Program, NPDES Permit No. WA0991018**, are available for public review and comment. For more details on the preparing and filing comments about these documents, please see **Appendix B – Public Involvement Information**.

The Yakama Nations Fisheries reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions regarding the site locations, history, discharges, or receiving waters prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and provide responses to them. Ecology will include the summary and responses to comments on this fact sheet as Appendix F – Response to Comments, and publish it

when issuing the final NPDES permit. Ecology generally will not revise the rest of the fact sheet. The full (final) document will become part of the legal history contained in the facility's permit file.

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Introduction

The federal Clean Water Act (CWA, 1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), administered by the federal Environmental Protection Agency (EPA). The EPA authorized the state of Washington to manage the NPDES permit program in Washington state. The Washington state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to Ecology. The Legislature defined Ecology's authority and obligations for the wastewater discharge permit program in 90.48 RCW.

State regulations specify procedures for issuing industrial NPDES discharge permits (chapter 173-220 WAC). It also specifies water quality criteria for surface waters (chapter 173-201A WAC), water quality criteria for ground waters (Chapter 173-200 WAC), whole effluent toxicity testing and limitations (chapter 173-205 WAC), sediment management standards (chapter 173-205 WAC), and submissions of plans and reports for construction of wastewater treatment components or facilities (chapter 173-240 WAC).

These rules require any industrial facility owner/operator to obtain an NPDES permit before discharging wastewater to state waters. They also help define the basis for limitations on each discharge and for performance requirements imposed by the permit.

Under the NPDES permitting program and in response to a complete and accepted permit application, Ecology must prepare a draft permit and fact sheet and make them available for public review before final issuance of a discharge permit. Ecology must also publish an announcement (public notice) telling people where they can read the draft permit and fact sheet, and how to submit their comments for a minimum of thirty days before issuance (WAC 173-220-050). See **Appendix B – Public Involvement Information** in this document for more information about the public notice, public hearing, and comment procedures. After the public comment period ends, Ecology may make changes to the draft NDPES discharge permit in response to (any) comment(s) received. Ecology will summarize the comments and any responses to comments and any changes to the permit in **Appendix F** of this document. The remainder of the fact sheet will remain unchanged.

Permit coverage

Upland fin-fish hatching and rearing facilities are defined in Chapter 173-221A WAC as facilities in which fin-fish are hatched, fed, nurtured, held, maintained, or reared to reach the size of release or for market sale. This may include hatcheries, rearing ponds,

spawning channels, and other similarly constructed or fabricated public, tribal, or private facilities. The WAC specifically states that a wastewater discharge permit is required for:

i) All facilities which produce more than 20,000 net pounds of fin-fish a year; or
ii) Feeds more than 5,000 pounds of fish food during any calendar month; or
iii) Is designated as a significant contributor of pollution by the department in accordance with 40 CFR 122.24.

Ecology evaluated the application for an NPDES discharge permit to ensure compliance with state water quality standards for surface and ground waters (Chapters 173-201A and 173-200 WAC, respectively). The acclimation ponds covered under this permit are being utilized to specifically acclimate (feed or rear) anadromous species of fish (coho and chinook salmon as well as steelhead trout) to reach the size of release determined to enhance the smolts chance to reach the pacific ocean.

The acclimation ponds covered by this permit, require an NPDES discharge permit because of "other relevant factors" (40 CFR 122.24.c.iv). Specifically, all of the acclimation ponds in the Upper Wenatchee Basin Acclimation Program eventually discharge into the upper Wenatchee River.

A *Total Maximum Daily Load (TMDL)* is a regulatory mechanism (promulgated by the federal Clean Water Act) to determine the amount of pollutant that a water body can receive and still meet water quality standards. *A TMDL regulates* water quality in the lower Wenatchee River basin. The following Ecology report details the TMDL: *Wenatchee River Watershed Dissolved Oxygen and pH Total Maximum Daily Load, Water Quality Improvement Report* (Ecology Publication No. 08-10-062). The TMDL report explains how excess concentrations of nitrogen (N) and/or phosphorus (P) influence dissolved oxygen and pH levels in water.

Commercial fish feed is often made from carcass fish. This fish feed can have phosphorus and nitrogen content, and if fed in excess, may add to levels of nitrogen and/or phosphorus in the stream or water body downstream. The proposed NPDES permit controls levels of N & P discharged above the river reach covered by the TMDL.

This permit includes technology-based and water quality-based effluent limitations and other permit conditions that Ecology has determined meet both the state requirement for "all known, available, and reasonable treatment" (AKART) (RCW 90.48.010 and RCW 90.54.020) and the federal and state requirements of best conventional pollutant control technology (BCT) and best management practices (BMP).

Background Information

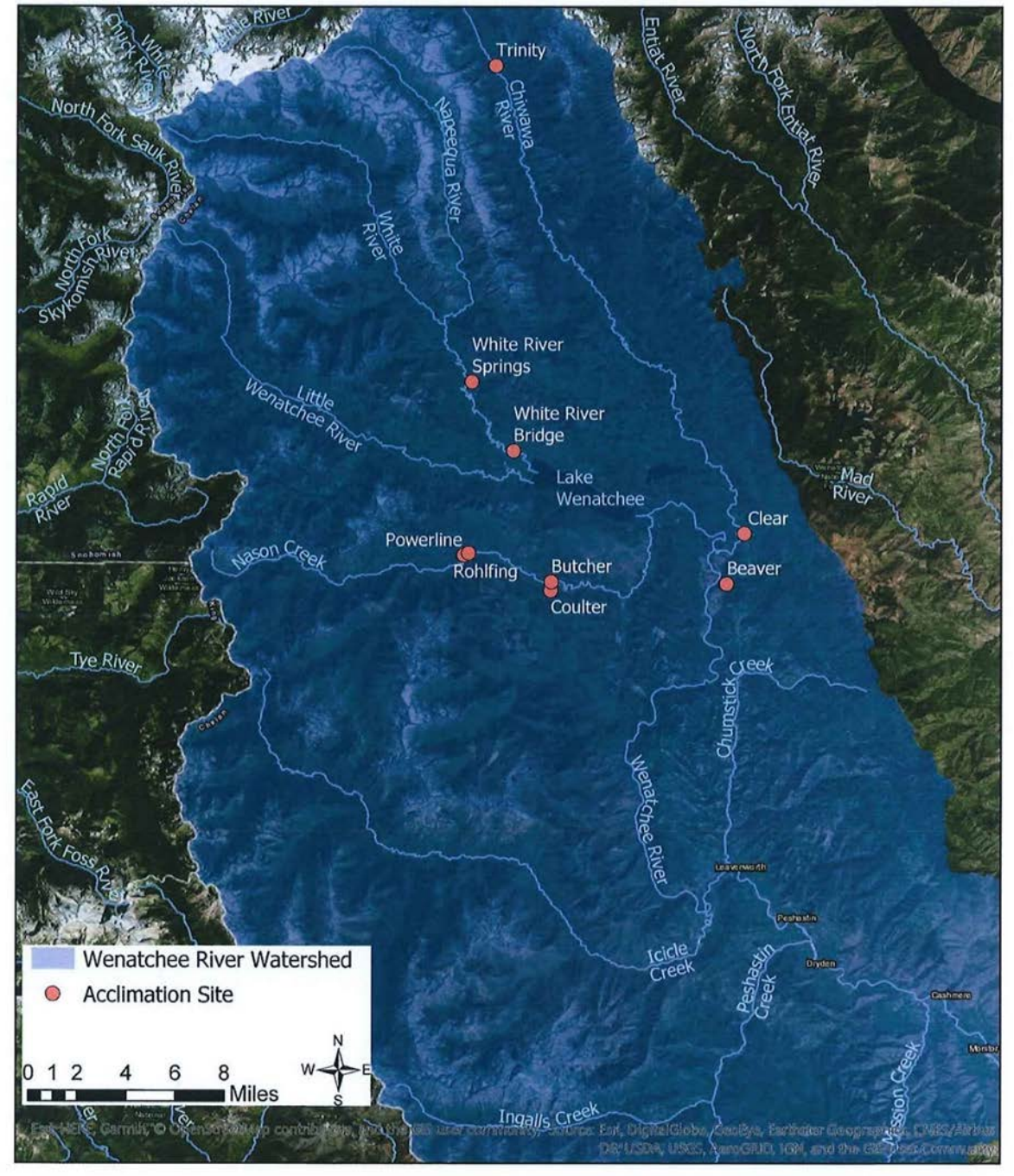
Table 1 General Facility Information

Facility Information	
Applicant Name and Address	Confederated Tribe and Bands of the Yakama Nation Yakama Nation Fisheries PO Box 151 Toppenish, WA 98948
Facility Name and Facility Office of Record	Upper Wenatchee Basin Acclimation Program Yakama Nation Fisheries 7051 U.S. Highway 97 Peshastin, WA 98847
Industry Type	Upland Fin-Fish Rearing
SIC Codes	0273 – Animal Aquaculture 0921 – Fish Hatcheries and Preserves
Type of Treatment	Acclimation Pond Flow-Through Settling
Discharge Waterbody Name and Location	See Table 2 (below) and Map 1 (below)
Permit Status	
Issuance Date of First Permit Projected Date	Issuance: May 1, 2019 Effective: July 1, 2019
Application for Permit Submittal Date	Initial: August 21, 2018 Supplements: November 19 and December 04, 2018
Date of Ecology Acceptance of Application	December 7, 2018
Inspection Status	
Initial New Permitting Inspection Date	August 14, 2018

Table 2 Facilities Associated with this Discharge Permit

Acclimation Pond Site Name	Receiving Water / Latitude - Longitude
Rohlfing Acclimation Site	Unnamed tributary to Nason Creek 47.78528, -120.87925
Butcher Acclimation Site	Nason Creek 47.76950, -120.80231
Coulter Acclimation Site	Unnamed wetland, a tributary to Nason Creek 47.76444, -120.80277
Powerline Acclimation Site	Unnamed tributary to Nason Creek 47.78643, -120.87520
Trinity Over-Wintering and Acclimation Site 1	Chiwawa River 48.07361, -120.85194
Trinity Over-Wintering and Acclimation Site 2	Phelps Creek, a tributary to Chiwawa River 48.07361, -120.85194
Clear Creek Acclimation Site	Clear Creek, a tributary to Chiwawa River 47.79789, -120.63266
Beaver Creek Acclimation Site	Beaver Creek, a tributary to Wenatchee River 47.76821, -120.64815
White River Springs Acclimation Site	Dirty Face Creek, a tributary to White River 47.88739, -120.87249
White River Bridge Acclimation Site	White River 47.8467, -120.83571

Figure 1 Map of Facilities Associated with this Discharge Permit



A. Facility Description

History

These facilities are a Yakama Nation Fisheries series of acclimation ponds for the rearing of Coho and Chinook salmon, as well as steelhead trout, from parr (sub-yearling juvenile) to smolt size. This is a new permitting action. Some of the ponds in this permitting action have no historic use as acclimating ponds. Some of the ponds have been used in the past for acclimating purposes. Table 3 (below) lists whether each pond currently exists, construction information, the species and quantity of parr to be acclimated, and if there has been historic use of a pond in the past for fish rearing activities.

None of the previously operated facilities were issued an *Upland Fin-Fish Hatching and Rearing NPDES General Permit coverage*, because individually they were categorically exempt under chapter 173-221A WAC.

However, the Lower Wenatchee River *TMDL Water Quality Improvement Report for Dissolved Oxygen and pH* has calculated background contributions of phosphorus and nitrogen that ultimately requires Ecology to issue an NPDES discharge permit for this series of acclimation ponds for control of nutrient contribution to tributaries to the Wenatchee River.

Table 3 Acclimation Pond Historic Use, Fish Species and Quantity, and Infrastructure Existence/Plans

Site Name	Species	Start Quantity, Pounds (lbs.) Biomass [1]	Existing Pond	Historic Fish Acclimation Use (Years)	Future Development (year to be done)
Rohlfing	Coho Salmon	4,775	Yes	Yes (2003 – current)	None
Butcher	Coho Salmon	4,775	Yes	Yes (2001 – current)	None
Coulter	Coho Salmon	4,775	Yes	Yes (2003 – current)	None
Powerline	Steelhead Trout	3,410	No	No	To be built (2019)
Trinity, Site 1[2]	Spring Chinook Salmon	2,000	Yes	No	Prefabricated overwintering tanks will be added prior to pond (2019).
Trinity, Site 2[2]	Coho Salmon	4,000	No	No	Pond and prefabricated overwintering

Site Name	Species	Start Quantity, Pounds (lbs.) Biomass [1]	Existing Pond	Historic Fish Acclimation Use (Years)	Future Development (year to be done)
					tanks will be added (2019).
Clear	Coho Salmon	11,365	Yes	No	Seine net (annually)
Beaver	Coho Salmon	4,545	Yes	Yes (2002 – current)	None
White River Springs	Coho Salmon	2,275	Yes	No	Temporary delivery pipe annually.
White River Bridge	Coho Salmon	2,730	No	Yes (unknown years operated by Grant County Public Utilities District)	Prefabricated tanks will be installed and removed annually.
[1] Fish will enter the acclimating sites at approximately 22 fish per pound (fpp) and will be released at 15 fpp					
[2] At Trinity only, because of limited truck access, fish will enter the acclimating site at 25 fpp and will be released at 15 fpp.					

The White River Bridge and Trinity sites are the only sites that will utilize pumping; all others are gravity flow in and gravity flow out. Trinity will have pumping only when utilizing some portion of intake water from a domestic water well that is already on site.

All pond outlets will be screened while fish are on station, and all sites will have volitional (voluntary) release by removing outlet screen. All sites but Trinity 1 and 2, will have fish on station at the same times during the year, from March to mid-May/early June. The exact time frame varies slightly depending upon the species of fish; but generally all ponds will be vacated by early June.

Trinity 1 and 2, will overwinter chinook and coho parr due to limited road access to that site after the end of October. The site is accessible only by snowmobile or snow cat approximately November 1 through late April to mid-May. Release of fish at Trinity 1 and 2 will be similar to all other sites for release.

Parr at Trinity will overwinter in prefabricated tanks with Phelps Creek water and supplemented by well water when necessary. Feeding during the overwintering process occurs minimally due to the slowing metabolism of the parr.

A portion of the Trinity acclimation site will include water that is gravity discharged from an existing power plant. The well water that will at times be mixed with the

surface water supply, will be pumped to the existing pond, the new pond, and the overwintering prefabricated tanks when in use, but will gravity feed to the discharge(s).

The only facility that will have pumping of water specifically for fish acclimating purposes is the White River Bridge acclimation site. The water will be pumped from the White River adjacent to the acclimation site and through a series of prefabricated round and square tanks and will gravity flow back to the White River.

All other ponds either currently exist with flow through water from a water body, or will be built in such a manner as to have flow through water from an existing water body. No intake water will be used for cooling purposes. The function of these sites is to acclimate the fish to the natural water body so flow through from the source to the source is imperative for this entire operation.

B. Industrial Processes

Each acclimation site is comprised of at least one acclimating pond. There are no abatement ponds provided. Ecology does not require treatment at facilities with only rearing ponds as per WAC 173-221A-100.

Feed will comprise of dry food that is hand fed. Only as much feed as the fish will consume will be fed. In this manner, excess feed accumulation is avoided. Any remaining feed will flow out with the flow through water supply back to the surface water source and is not anticipated to collect in the ponds.

The feeding procedures are the same for any fish stock held in above ground prefabricated tanks. Above ground prefabricated tanks being operated as rearing ponds are cleaned on an as needed basis to prevent accumulation of solids. Solids removed are disposed at an upland location to prevent accidental reintroduction into the water body.

Intake source water and effluent receiving waters are listed in Table 4 below. See Table 3 above for acclimating numbers at each acclimation site. Table 3 also shows the species of fish to be acclimated at each site as well as intake and release weights.

Table 4 Intake (Source) Waters And Receiving Waters [1]

Site Name	Intake Water Source	Direct Receiving Water	Main Stem Receiving Water
Rohlfing	Unnamed Ephemeral Creek	Unnamed Ephemeral Creek	Nason Creek
Butcher	Butcher Creek	Nason Creek	Nason Creek
Coulter	Coulter Creek	Unnamed Wetland	Nason Creek
Powerline	Unnamed Creek	Unnamed Creek	Nason Creek
Trinity, Site 1	Phelps Creek, Well Water	Chiwawa River	Chiwawa River
Trinity, Site 2	Phelps Creek, Well Water	Phelps Creek	Chiwawa River
Clear	Clear Creek	Clear Creek	Chiwawa River
Beaver	Beaver Creek	Beaver Creek	Wenatchee River
White River Springs	Dirty Face Creek	Dirty Face Creek	White River
White River Bridge	White River	White River	White River

1 See **Appendix A** for aerial views of each acclimation site; see **Map 1** above for a location map of all sites.

C. Wastewater Treatment Processes and Solid Wastes

Above ground prefabricated tanks will be utilized at Trinity for over-wintering purposes. Additionally, above ground prefabricated tanks will be utilized for acclimating purposes at the White River Bridge Site. All above ground prefabricated tanks will be vacuumed with a portable pond vacuum on an as needed basis. Solids will be disposed at an upland location, with no possibility of reentering the receiving stream.

All other sites are natural or man-made ponds and solids build up are mitigated through Best Management Practices (BMP's) that prevent the build-up of excess solids. WAC 173-221A-100 does not require facilities with only rearing ponds to have wastewater treatment.

All earthen natural or man-made ponds will be monitored throughout the permit term for any solids build up. Ponds will be cleaned on an as needed basis. Dredge material will be disposed at a landfill or an upland location with no ability to reenter the receiving water.

Discharge Outfalls

Each acclimation site labeled above has one intake and one outfall. The Trinity acclimation site has two distinct ponds, each with its own intake and outfall and will acclimate two different species of fish.

D. Description Of The Receiving Water

The descriptions of the outfalls are listed in Table 4. Intake (Source) Waters and Receiving Waters.

E. Wastewater Characterization

The acclimation ponds are all new for permitting purposes. Under the *Upland Fin Fish Hatching and Rearing General Permit*, none of the individual sites are large enough to receive general permit coverage, either now or in the past. However, the lower *Wenatchee River Watershed Dissolved Oxygen and pH Total Maximum Daily Load*, Water Quality Improvement Project (Ecology Publication No. 08-10-062) addresses total nutrient loadings in the upper Wenatchee River watershed. Therefore, Ecology has determined that the acclimation ponds, collectively, require NPDES permitting under an individual permit to control tributary loadings downstream that may impact the Wenatchee River TMDL.

Prior to Ecology receiving permitting applications, the permittee presented a *Tier II Antidegradation Evaluation for Acclimation Sites in the Upper Wenatchee River Basin* in December of 2017. This evaluation looked at results of discharges from the acclimating activities at two Nason Creek operated sites, proposed as part of the Mid-Columbia Coho Restoration Program. The evaluation showed no appreciable downstream impacts from acclimation sites operating under Best Management Practices (BMP's) that effectively lowered the amount of excess fish food transported to the receiving water(s) downstream.

All ten acclimation sites will be required to submit quarterly Discharge Monitoring Reports (DMR's) for discharges at the end of acclimation pond pipe to comply with performance standards for the fish rearing industry. In-stream monitoring data will be required from six sites on Nason Creek, Chiwawa River, Clear Creek, and Beaver Creek. In-stream monitoring data will be required to be submitted on quarterly DMR's, although limitations are based upon statistical analysis of an entire acclimation season and not per sampling event.

During the first permit term, the permit requires the facility to conduct effluent characterization studies at some of the acclimation ponds. At the end of the first permit term, the data will be presented and analyzed for permit renewal purposes.

Acclimation ponds contain some organic solid wastes consisting of uneaten food and fecal material. The quantity of these wastes depends upon the volume of fish food added, the type of fish food used, the method of feeding, the pounds of fish produced, pond design, and the amount of waste that settles out of the water prior to its discharge. WAC 173-221A-100 requires no further treatment if the facility has only rearing pond discharges. All sites are composed of rearing only ponds and equipment. Treatment for prefabricated above ground vessels, will include vacuuming of tanks on an as needed basis to prevent solids accumulation. The

accompanying permit addresses the rearing ponds and tanks through BMP guidelines.

Pollutants of Concern

The primary pollutants of concern in hatchery and rearing pond wastewater are the waste food and feces. The main chemical constituents of concern in the waste food and feces are primarily nitrogen and phosphorus. The pollutant loading in the effluent is characterized with monthly total suspended solids (TSS) and weekly settleable solids (SS) monitoring. The nitrogen and phosphorus levels are characterized in the effluent and in upstream and downstream monitoring to characterize downstream impacts and loading.

The above-mentioned pollutants are present in the discharge from the rearing ponds at acclimation ponds in low concentrations. Ecology determined that when facilities adequately remove solids and control feeding methods through BMP's and fish food purchasing, that hatchery discharges pose a low risk of causing water quality violations or contributing significant downstream loading of constituents.

Disease Control Chemicals

Ecology also considers the disease control chemicals used at these facilities as pollutants of concern. Fish acclimating facilities use these chemicals to treat both internal and external fish diseases and to prevent the spread of disease at or between facilities. The draft permit limits the use of these chemicals to only those approved for hatchery use by the United States Food and Drug Administration (USFDA) or by the United States Environmental Protection Agency (USEPA).

All disease control chemicals must be used in accordance with label instructions. The draft permit also prohibits the discharge of these chemicals in concentrations that would exceed federal or state water quality standards and requires facilities to use BMPs to minimize the concentration of these chemicals in the discharge. These chemicals include the following:

External Control	**Disinfectants/Other**
Acetic Acid	Chlorine
Buffered Iodophor	MS-222
Chloramine-T	Quaternary Ammonia
Formalin	Sodium Thiosulfate
Hydrogen Peroxide	Aquashade
Potassium Permanganate	LLMO
Sodium Chloride (Salt)	Chlorhexidine
Diquat	Lime Type-S
Citric Acid	Carbon Dioxide (gas)
Copper Sulfate	Ozone (gas)

Only internal disease control products approved by the USFDA or the USEPA may be used under the administration by a licensed veterinarian and may be used only in the event of an emergency epizootic disease occurrence. Ecology must be notified within 24 hours of the use of any internal disease control products. All products must be used in accordance with label instructions and the draft permit prohibits any discharge of these chemicals in concentrations that would exceed federal or state water quality standards.

Any disease control products kept on site, at any location, are to be stored in a manner that would prevent accidental spillage to a surface water of the state or in a manner to impact groundwaters of the state. Disease control chemical storage at any site must be addressed in the Spill Control Plan that the draft permit requires the Permittee to submit to Ecology. The Spill Control Plan also requires training of the facility staff of the plan contents.

F. Summary Of Compliance With Previous Permit Issuance

This is a new permitting action.

G. State Environmental Policy Act (SEPA) Compliance

A new source is defined as any new discharge from a fin-fish hatching or rearing operation that meets the state threshold of greater than 20,000 pounds of fish on station or feeds greater than 5,000 pounds of feed in any calendar month. No acclimation pond in this permitting action meets or exceeds those thresholds.

The project as a whole has completed SEPA with a determination of non-significance (DNS) (WAC 197-11-340) with adoptions by the lead agency as described in the following table:

Table 5 SEPA Determination

Acclimation Site	DNS Adopted Through EIS or EA (Document No.)	Date of Adoption
Rohlfing	March 2012 EIS (DOE/EIS-0425)	Okanogan County Lead: 07/04/2012
Butcher	March 2012 EIS (DOE/EIS-0425)	Okanogan County Lead: 07/04/2012
Coulter	March 2012 EIS (DOE/EIS-0425)	Okanogan County Lead: 07/04/2012
Powerline	July 2017 EA (DOE/EA-1998)	WDFW Lead: 07/28/2017
Trinity 1	December 2016 SA-03 (DOE/EIS-0425)	Okanogan County Lead: 02/14/17
Trinity 2	December 2016 SA-03 (DOE/EIS-0425)	Okanogan County Lead: 02/14/2017
Clear	Supplemental Analysis to EA (1996-040-00)	Okanogan County Lead: 05/27/2015
Beaver	March 2012 EIS (DOE/EIS-0425)	Okanogan County Lead: 07/04/2012
White River Springs	March 2012 EIS (DOE/EIS-0425)	Okanogan County Lead: 07/04/2012
White River Bridge	February 2015 SA-05 (DOE/EIS-0425)	Okanogan County Lead: 05/27/2015

Proposed Permit Limitations

Federal and state regulations require that effluent limitations in an NPDES permit be either technology- or water quality-based.

- Technology-based limits are based upon the treatment methods available to treat specific pollutants. Technology-based limits are set by the EPA and published as a regulation, or Ecology develops the limit on a case-by-case basis (40 CFR 125.3, and chapter 173-220 WAC).
- Water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (chapter 173-201A WAC), Ground Water Standards (chapter 173-200 WAC), Sediment Quality Standards (chapter 173-204 WAC), or the National Toxics Rule (40 CFR 131.36).
- Where a TMDL study exists a water quality-based limit may apply based upon a wasteload allocation (WLA).
- Ecology must apply the most stringent of these limits to each parameter of concern. These limits are described below.

The limitations in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, anti-degradation, etc.). Ecology evaluated the permit application and determined the limitations needed to comply with

the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation.

Ecology does not usually develop limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent [40 CFR 122.42(a)]. The permit conditions define a significant change as 20% or more of an increase in stocking levels. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

Technology – Based Effluent Limitations

The Technology-based effluent limitations are dictated by federal law (Title 40 CFR Part 451 – Concentrated Aquatic Animal Production Point Source Category) and by State law (requirements to meet AKART in WAC173-201A). 40 CFR Part 451 requires that investigational new animal drugs (INADs) be reported and a best management practices (BMPs) plan be developed and maintained on site. There are also a few requirements which need to be met in order to meet the USEPA's definition for best practicable control technology currently available (BPT), best available technology economically achievable (BAT), and best conventional technology (BCT). These elements are as follows:

- Solids Control
- Material Storage
- Structural Maintenance
- Recordkeeping
- Training

The elements listed below are limits in the *Upland Fin-Fish Hatching and Rearing NPDES Waste Discharge General Permit* and are implemented in the draft individual permit. These technology-based discharge standards are end of pipe limits at each acclimation site:

Rearing Pond Discharges	Limitation
Instantaneous Maximum Total Suspended Solids	15 mg/L
Average Monthly Total Suspended Solids Concentration	5 mg/L
Average Monthly Settleable Solids Concentration	0.1 mg/L
Rearing Pond Discharges for Fish Release	
Instantaneous Maximum Total Suspended Solids	100 mg/L
Instantaneous Maximum Settleable Solids	1.0 mg/L

Technology-based effluent limitations have also been established for this industry through the adoption of Chapter 173-221A WAC. This regulation contains both wastewater discharge standards and design criteria for wastewater treatment systems. This permit contains the same effluent limitations which have been adopted for this industry (Chapter 173-221A WAC).

The accompanying permit requires the Permittee to develop their pollution prevention plan, sampling plan, solid waste management plan, operation and maintenance plan, and spill control plan within 180 days of the effective date of the permit, or by **January 1, 2020**. The plans must be for each acclimation site, although to eliminate unnecessary redundancy, the permit allows the Permittee to develop these plans under one cover. Because of the remote location of some of the acclimation sites, and the lack of structural buildings at some sites, the plans may be housed at the facility office location of record in Peshastin, WA, but must be available to Ecology and facility staff at all times. The plans must be updated thereafter on an annual or as-needed basis and resubmitted at the beginning of each subsequent permit term.

The implementation of these plans during past permit cycles of the General Permit provided further reductions in the amount of solids discharged, protected groundwater quality, prevented spills, and required facilities to develop procedures for spill response and are therefore implemented in this permit. The Quality Assurance Project Plan (QAPP) will include the site-specific facility sampling plan for each acclimation site to identify influent and effluent sampling points and outline procedures for composite sampling. This facility sampling plan submittal requirement in the General Permit has resulted in more representative sampling of the discharges from the fish hatching and rearing facilities covered under the General Permit. Those same requirements have been adapted for implementation in this permit.

The accompanying permit implements the General Permit prohibition on the discharge of Atlantic salmon (*Salmo salar*) into freshwater surface waters of the state, without written permission from WDFW. Ecology based this prohibition in part on the May 1997 Pollution Control Hearings Board ruling declaring Atlantic salmon a biological pollutant.

Although Ecology realizes that the Yakama Nation does not propose to rear or release Atlantic salmon, Ecology also believes that a precautionary stance in regards to the inadvertent release of Atlantic salmon is a reasonable step to prevent their escapement to state waters. WAC 232-12-271 also prohibits the release of exotic species into the state without a permit from the WDFW.

Surface Water – Quality Based Effluent Limitations

The Washington State surface water quality standards (chapter 173-201A WAC) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that

ensure the discharge will meet the surface water quality standards (WAC 173-201A-510). Water quality-based effluent limitations may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load study (TMDL).

Numerical criteria for the protection of aquatic life and recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. Ecology uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical criteria for the protection of human health

The U.S. EPA has published 91 numeric water quality criteria for the protection of human health that are applicable to dischargers in Washington State (40 CFR 131.36). These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters.

Narrative criteria

Narrative water quality criteria (e.g., WAC 173-201A-240(1); 2006) limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge to levels below those which have the potential to:

- Adversely affect designated water uses.
- Cause acute or chronic toxicity to biota.
- Impair aesthetic values.
- Adversely affect human health.

Narrative criteria protect the specific designated uses of all fresh waters (WAC 173-201A-200, 2006) and of all marine waters (WAC 173-201A-210, 2006) in the state of Washington.

Antidegradation

The purpose of Washington's Antidegradation Policy (WAC 173-201A-070) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.

• Apply to human activities that are likely to have an impact on the water quality of surface water.
• Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
• Apply three tiers of protection (described below) for surface waters of the state.

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 dischargers do not degrade waters of a higher quality than the criteria assigned unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities. Tier III prevents the degradation of waters formally listed as "outstanding resource waters" and applies to all sources of pollution.

Facility Specific Requirements--Ecology determined that this complex of acclimation ponds must meet Tier II requirements. 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.

The Permittee submitted an antidegradation report, *Tier II Antidegradation Evaluation for Acclimation Sites in the Upper Wenatchee River Basin*, December, 2017. Ecology reviewed the document and took it under advisement; however because of the over-riding requirements of the TMDL, in-stream monitoring and limitations in the accompanying permit prevent any further degradation of the water quality in the receiving stream(s) due to the acclimation activities.

Ecology considers it important that the public have the opportunity to weigh in on whether individual actions are in the overriding public interest. The antidegradation rule establishes a refutable presumption that they do, but only through a public notice of intent to provide NPDES permit coverage and expected compliance with limitations does the general public have an opportunity to question individual actions. Thus, Ecology will solicit public comments for this permit, through public notification in a local paper and on Ecology's webpage.

Mixing zones

A mixing zone is the defined area in the receiving water surrounding the discharge port(s), where wastewater mixes with receiving water. Within mixing zones the pollutant concentrations may exceed water quality numeric standards, so long as the discharge doesn't interfere with designated uses of the receiving water body (for example, recreation, water supply, and aquatic life and wildlife habitat, etc.) In the

accompanying permit, the pollutant concentrations outside of the mixing zones must meet water quality numeric standards and must not degrade the water quality below what the background establishes at each discharge location.

State and federal rules allow mixing zones because the concentrations and effects of most pollutants diminish rapidly after discharge, due to dilution. Ecology defines mixing zone sizes to limit the amount of time any exposure to the end-of-pipe discharge could harm water quality, plants, or fish.

This permit does not authorize a mixing zone beyond establishing in-stream compliance points to prevent an increased background loading of nitrogen and phosphorus to the Wenatchee River that were established in the TMDL study.

Designated Uses And Surface Water Quality Criteria

Applicable designated uses and surface water quality criteria are defined in chapter 173-201A WAC. In addition, the U.S. EPA set human health criteria for toxic pollutants (EPA 1992). The table included below summarizes the criteria applicable to this facility's discharge.

- Aquatic Life Uses are designated based on the presence of, or the intent to provide protection for the key uses. All indigenous fish and non-fish aquatic species must be protected in waters of the state in addition to the key species. The Aquatic Life Uses for the receiving waters are identified below.

Table 6 Freshwater Aquatic Life Uses and Associated Criteria

Core Summer Salmonid Habitat	
Temperature Criteria – Highest 7-DAD MAX	16°C (60.8°F)
Dissolved Oxygen Criteria	9.5 mg/L
Turbidity Criteria	• 5 NTU over background when the background is 50 NTU or less; or • A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Total Dissolved Gas Criteria	Total dissolved gas must not exceed 110 percent of saturation at any point of sample collection.
pH Criteria	The pH must measure within the range of 6.5 to 8.5, with a human – caused variation within the above range of less than 0.2 units.

• The *recreational* uses for this receiving water are identified below.

Table 7 Recreational Uses and Associated Criteria

Recreational Use	Criteria
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 100 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 200 colonies/100 mL.

• The *water supply* uses are domestic, agricultural, industrial, and stock watering.

• The *miscellaneous freshwater uses* are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

Wenatchee River Watershed Total Maximum Daily Load

The Wenatchee River Watershed has an approved Total Maximum Daily Load (TMDL) Water Quality Improvement Report for Dissolved Oxygen and pH. In order to achieve the goals of the TMDL for dissolved oxygen and pH, large reductions of point source and nonpoint source of phosphorus loading are required. Nason Creek and its tributaries, Chiwawa River and its tributaries, all confluence with the Wenatchee River. None of the acclimation ponds being permitted in this action are in the reach of the Wenatchee River that is governed by point source discharges for nutrient control. The TMDL does include limitations on background sources of nutrients. The back ground sources of phosphorus and nitrogen are controlled from the acclimation sites through in-stream compliance points limitations and monitoring..

Though none of the acclimation sites, individually, meet the permitting requirements of fish pounds on station or for pounds of fish fed (WAC 173-221A-100), the complex is being issued an NPDES discharge permit to protect downstream loadings of nitrogen and phosphorus per the TMDL goals.

The use at these acclimation ponds is limited to a time of year when receiving waters are typically cooler, have higher flows, and often have dissolved oxygen levels near saturation.

The draft permit requires in-stream nutrient monitoring compliance points to ensure no net increase in loading of phosphorus or nitrogen occurs, based upon comparison at the compliance points with background concentration upstream of the acclimation sites. In this manner, the restoration of coho salmon (an endangered species) project can be accomplished without increasing the loading of nitrogen or phosphorus downstream from upstream activities, per the TMDL.

The TMDL identifies two critical periods for point source discharges in the Wenatchee River Watershed. One is an early season critical period from March through May. The second critical period is from July through October. Discharges with fish on station during the late critical season is prohibited from occurring at any site, with the exception of overwintering of parr chinook and coho salmon at Trinity 1 and Trinity 2.

At the Trinity sites, due to lack of road access for large parts of the year, overwintering is required in above ground tanks from October through March. Overwintering during the final month of the late critical season at Trinity will be allowed because the parr metabolism is slowing, that will require only minimal feeding. Final acclimation at Trinity and the other acclimating sites will occur during the early critical season.

In-Stream Nutrient Monitoring Requirements and Limitations

Ecology has previously determined that up to ten years (two permit terms) may be utilized to allow facilities to establish compliance with TMDL requirements whether numeric or narrative. The Lower Wenatchee River Dissolved Oxygen and pH TMDL study lists narrative requirements for the upper Wenatchee River basin.

The acclimation ponds covered under this individual permit utilize in-stream monitoring and limitations of nutrients (total phosphorus and total nitrogen). Because the monitoring and limitation is based upon a dynamic system of rivers and streams, it was determined that initially, limitations must be developed based upon a series of monitoring over a period of time to calculate margins of error and confidence intervals within the data submitted.

In-stream compliance points of the draft permit are established with one site on the upper Chiwawa River and one site on the lower Chiwawa River. One site on Beaver Creek (a tributary to the Wenatchee River) and one site on Clear Creek (a tributary to the Chiwawa River just upstream of the confluence with the Wenatchee River). The permit also includes three in-stream sites on Nason Creek. Each site includes two monitoring points, an upstream of acclimation pond potential influence and a downstream of acclimation pond potential influence.

The first permit term will involve up to five and six in-stream monitoring events each year that actual fish acclimation takes place. All individual in-stream monitoring event concentration results for any year acclimating takes place will be due quarterly as part of the normal DMR submittal program (see permit S4.A). A final report demonstrating compliance with permit requirements for in-stream monitoring is due by July 31 of each year (see permit S4.B).

The final limitations require that downstream concentrations must not be significantly higher than upstream concentrations at any in-stream monitoring site pair.

Annual Report for In-Stream Nutrient Monitoring

The permit requires that the facility demonstrate no significant increase in Total Nitrogen and Total Phosphorus at downstream monitoring points (DMP1-6) above levels of Total Nitrogen and Total Phosphorus at upstream monitoring points (UMP1-6). The permittee must utilize a standard statistical procedure that tests the relationship of the paired data points and that does not violate underlying statistical assumptions. The statistical analysis is to determine compliance with the no significant increase at the downstream monitoring point from the upstream monitoring point concentration.

The statistical analysis must show the relationship of the two sets of data (upstream monitoring point and downstream monitoring point). The permittee must utilize all data sets from monitoring in any year that fish acclimating takes place from each of the six in-stream monitoring sites.

Compliance with nutrient monitoring limitations of the permit are to be demonstrated in a report containing the results from the statistical analysis. The report must be submitted annually through the Water Quality Reporting portal by July 31 of each year. All work must be shown in the report, any assumptions discussed, and the significance of the statistical test chosen and why. The report must provide a summary dissertation on statistical analysis result for each set of the in-stream monitoring sites and whether it did or did not meet the limitation.

Failure to meet the demonstration for any one sites sampling pairs is considered non-compliance and is a violation of permit requirements. For any non-compliance in nutrient management at the in-stream sites, a discussion must be included in the report that describes steps the permittee will take to adjust BMP's in order to comply in future acclimating years.

The first report is due **July 31, 2020** and annually thereafter. Ecology will approve the use of any reliable software package for statistical analysis.

Quality Assurance Project Plan (QAPP)

The permit requires that the facility submit a QAPP within 180 days of the effective date of this permit or by **January 1, 2020**. Ecology will supply approval of the plan, or comments for revisions within ninety (90) days of receipt or by **March 31, 2020**.

The QAPP must include the in-stream monitoring protocols that will be followed to assure that data submitted is accurate, repeatable, and reliable.

The QAPP must list the statistical software package that will be utilized to meet in-stream nutrient limitations and the statistical program that will be utilized in the in-stream nutrient compliance report due annually.

Evaluation of Surface Water Quality-Based Effluent Limits For Narrative Criteria

Ecology must consider the narrative criteria described in WAC 173-201A-160 when it determines permit limits and conditions. Narrative water quality criteria limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge which have the potential to adversely affect designated uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health.

Ecology considers narrative criteria when it evaluates the characteristics of the wastewater and when it implements all known, available, and reasonable methods of treatment and prevention (AKART) as described above in the technology-based limits section. When Ecology determines if a facility is meeting AKART it considers the pollutants in the wastewater and the adequacy of the treatment to prevent the violation of narrative criteria.

In addition, Ecology considers the toxicity of the wastewater discharge by requiring whole effluent toxicity (WET) testing when there is a reasonable potential for the discharge to contain toxics. Ecology's analysis of the need for WET testing for these discharges are described later in the fact sheet.

Evaluation of Surface Water Quality - Based Effluent Limits For Numeric Criteria

Temperature and Dissolved Oxygen

The pollutants of potential concern in the first version of the Upland Fin-Fish Hatching and Rearing General Permit were temperature and constituents that impacted dissolved oxygen in the receiving water. These potential concerns are maintained in this permitting action.

The concern was raised in a 1988 study by Ecology on the "*Quality and Fate of Fish Hatchery Effluents During the Summer Low Flow Season*". The facilities with coverages under the General Permit monitored these parameters during their first year of permit coverage. The results of this monitoring showed that these facilities do not have a reasonable potential to exceed these parameters. Based upon this information, Ecology determined that it would not require further monitoring of temperature and dissolved oxygen in subsequent permits for every hatching or rearing facility. This relevant permit information from the General Permit has been implemented in this permit.

However this permit covers 10 acclimation ponds that ultimately discharge into the Wenatchee River in the upper watershed, and a TMDL exists on the Wenatchee River in the lower watershed which includes dissolved oxygen. The use of these acclimation ponds for fish acclimating purposes all occurs during typical spring runoff periods with cooler snow melt water and higher dissolved oxygen saturation levels due to the cool water and increased turbulence from high water flows. TMDL

protection downstream is better served by in-stream monitoring of nutrients; constituents that could have the potential to impact dissolved oxygen and pH levels further downstream if not controlled closer to the source.

Human Health

Washington's water quality standards include numeric human health-based criteria for 97 priority pollutants that Ecology must consider when writing NPDES permits.

Ecology determined the applicant's discharge does not contain chemicals of concern based on existing effluent data or knowledge of discharges to the system. Ecology will reevaluate this discharge for impacts to human health at the next permit reissuance.

Sediment Quality

The aquatic sediment standards (chapter 173-204 WAC) protect aquatic biota and human health. Under these standards Ecology may require a facility to evaluate the potential for its discharge to cause a violation of sediment standards (WAC 173-204-400). You can obtain additional information about sediments at the Aquatic Lands Cleanup Unit website. http://www.ecy.wa.gov/programs/tcp/smu/sediment.html

Ecology has determined through a review of fish hatching and rearing facility wastewater characteristics that this discharge has no reasonable potential to violate the sediment management standards.

Groundwater Quality Limits

The groundwater quality standards (chapter 173-200 WAC) protect beneficial uses of groundwater. Permits issued by Ecology must not allow violations of those standards (WAC 173-200-100).

No acclimation pond covered under this permit discharge wastewater to the ground. No permit limits are required to protect groundwater.

Whole Effluent Toxicity

The water quality standards for surface waters forbid discharge of effluent that has the potential to cause toxic effects in the receiving waters. Many toxic pollutants cannot be measured by commonly available detection methods. However, laboratory tests can measure toxicity directly by exposing living organisms to the wastewater and measuring their responses. These tests measure the aggregate toxicity of the whole effluent, so this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

Using the screening criteria in chapter 173-205-040 WAC, Ecology determined that toxic effects caused by unidentified pollutants in the effluent are unlikely. Therefore, this permit does not require WET testing. Ecology may require WET testing in the future if it receives information indicating that toxicity may be present in this effluent.

Monitoring Requirements

Ecology requires monitoring, recording, and reporting (WAC 173-220-210 and 40 CFR 122.41) to verify that the fish acclimating process is functioning correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

Wastewater Monitoring

The monitoring schedule for each pond discharge are detailed in the proposed permit, under Special Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, significance of pollutants, the Wenatchee River TMDL downstream, and the cost of monitoring.

Net Values

The draft permit allows the use of *net values* when submitting results for TSS and settleable solids. If the facility chooses to calculate net discharge values for solids, it must report both the intake water and effluent values on the DMR form. It must take a sample of the "raw" or intake water that represents the influent sample. The net calculation is applicable when the material (solids) in the intake water is substantially similar in character as the solids in the effluent. Ecology may require additional sampling for Total Volatile Suspended Solids (TVSS) or BOD5, to determine the organic proportion of solids in the influent and effluent, if it has concerns. If no intake values are provided for at any single acclimation site, than the concentration of the intake is assumed to be zero at that site.

Lab Accreditation

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters detailed in the permit under Special Condition S3.B.)

Other Permit Conditions

Reporting And Record Keeping

Ecology based Special Condition S4 on its authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-220-210).

Quality Assurance Project Plan (QAPP)

A site-specific facility sampling plan is required for each acclimation pond and is to be submitted as part of the QAPP under Condition S4.D. It is to delineate the sampling locations and procedures for each acclimation site discharge. The facility must sample in accordance with this plan along with any revisions directed by Ecology. The Permittee must keep a copy of the QAPP on site and available to staff and Ecology upon request and must submit a copy of the QAPP for approval within 180 days of the effective date of this permit, or **January 1, 2020**. Ecology will supply approval of the plan, or comments for revisions within ninety (90) days of receipt or by **March 31, 2020**. The acclimation sites in this permit are often remote with no structural buildings being available; the Permittee may keep the QAPP at the facility location office of record in Peshastin, WA.

Operational Log

The Permittee is required to keep records on disease control chemicals used at the acclimation sites, including who administered the chemicals, date of application, trade name, where used (specific pond), estimated concentration during application and at discharge, duration of use, reason for use, and disposal methods. WDFW developed a form during a cycle of the General Permit that Ecology is incorporating into this permit (Chemical Operational Log – Appendix E). The purpose of the Operational Log is to verify chemical concentration calculations and amounts. The collection and recording of meaningful information to determine chemical concentration in the effluent is necessary to verify permit and water quality standards compliance.

The Operational Log must also include hatchery fish loadings and total amount of food fed for each calendar month. The fish loadings and total amount food fed per month is required to be reported for each acclimation site with fish on station, as described under special conditions S2 of the permit. An operational log including the Chemical Operation Log (Appendix E) are to be prepared annually for each acclimation site. The log must be kept on-site when possible, or at the office of record in Peshastin, WA, be kept available while fish are on station, and available to Ecology employees upon request.

Solid Waste Control Plan

Ecology has determined that these facilities can prevent groundwater contamination and minimize the release of pollutants through the development and use of a Solid Waste Management Plan. The plan must address floating, suspended, and settled solids and describe how it plans to remove collected solids. Facilities must operate in accordance with this plan along with any revisions directed by Ecology to prevent pollution. The plan may be written as a permit wide plan, as long as each facility is addressed in it individually. The log must be kept on-site when possible, or at the office of record in Peshastin, WA, be kept available while fish are on station, and available to Ecology employees upon request.

The Permittee is required to prepare or update the Solid Waste Management Plan and submit to Ecology for review within 180 days of the permit effective date or January 1, 2020, and review and update the plan as necessary.

Mortality Placement: Carcasses from mortalities at acclimation sites where fish size is limited to no larger than smolt (approximately 15 fpp) would do little to enhance natural nutrient replacement in water bodies and are considered solid waste at the facilities in this permit. Individual or large fish kills (greater than 5% of the mass quantity of fish in the pond) must be disposed of at either a landfill or in a lime pit located on site.

Pollution Prevention Plan

Ecology has determined that fish hatching and rearing facilities can prevent or minimize the release of pollutants through the development and use of a Pollution Prevention Plan (S7). Facilities must operate in accordance with this plan along with any revisions directed by Ecology to prevent an accidental release of pollutants under the authority of 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080. Facilities must review the Pollution Prevention Plan each permit cycle and update it as necessary, as well as ensure that facility staff are aware of and trained in implementing the Plan. A permit wide Pollution Prevention Plan may be developed but each acclimation site must be addressed individually in the permit wide plan. A copy of the plan must be kept on site if possible, or at the office of record in Peshastin, WA, available when fish are on station, and to Ecology employees upon request. The plan must be submitted to Ecology within 180 days of the effective date of this permit or **January 1, 2020**.

The Permittee must include, disease control chemical BMPs, and spill prevention; as well as action levels for the procurement of low phosphorus food, or action levels for the addition of other BMP's for the control of nitrogen and phosphorus.

Spill Plan

Acclimation sites may store and use chemicals that have the potential to cause water pollution or groundwater contamination. Ecology can require a facility to develop Best Management Plans to prevent this accidental release (Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080). A spill plan is required in the permit under special condition S8. which may be combined with the other plans required with this permit. A permit wide Spill Plan may be developed but each acclimation site must be addressed individually in the permit wide plan. A copy of the plan must be kept on site if possible, or at the office of record in Peshastin, WA, available when fish are on station, and to Ecology employees upon request. The plan must be submitted to Ecology within 180 days of the effective date of this permit or **January 1, 2020**.

S4.J requires the Permittee to report spills of oil or hazardous materials in accordance with RCW 90.56.280 and Chapter 173-303-145 WAC.

General Conditions

Ecology bases the standardized General Conditions on state and federal law and regulations. They are included in all individual industrial NPDES permits issued by Ecology.

Permit Issuance Procedures

Permit Modifications

Ecology retains the right to modify this permit to impose other limitations, if necessary, to further protect public interest, to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for groundwaters, after obtaining new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

Effluent characterization studies completed in the first term may result in additional limitations or different monitoring schedules in subsequent permit issuances. In-stream monitoring during the first permit term may demonstrate the need for additional measures to protect downstream water users in subsequent permit issuances.

Proposed Permit Issuance

This proposed permit includes all statutory requirements for Ecology to authorize a wastewater discharge. The permit includes limitations and conditions to protect human health and aquatic life, and the beneficial uses of waters of the state of Washington. Ecology proposes to issue this permit for a term of 5 years.

Reissuance (or permit renewal) will occur every 5 years. The accompanying permit provides direction for reapplication for permit renewal under special condition S10.

References For Text And Appendices

Washington State Department of Ecology (Ecology)

1989. Quality and Fate of Fish Hatchery Effluents During the Summer Low Flow Season. Publication No. 89-17.

1995. Chapter 173-221A WAC, Wastewater Discharge Standards and Effluent Limitation.

2016. Upland Fin-Fish Hatching and Rearing NPDES General Permit and Fact Sheet.

2018. WDFW Voights Creek Hatchery NPDES Permit and Fact Sheet.

2012. Total Maximum Daily Load (TMDL) Water Quality Improvement Report for Dissolved Oxygen (DO) and pH Publication No. 08-10-062

Environmental Protection Agency (EPA)

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

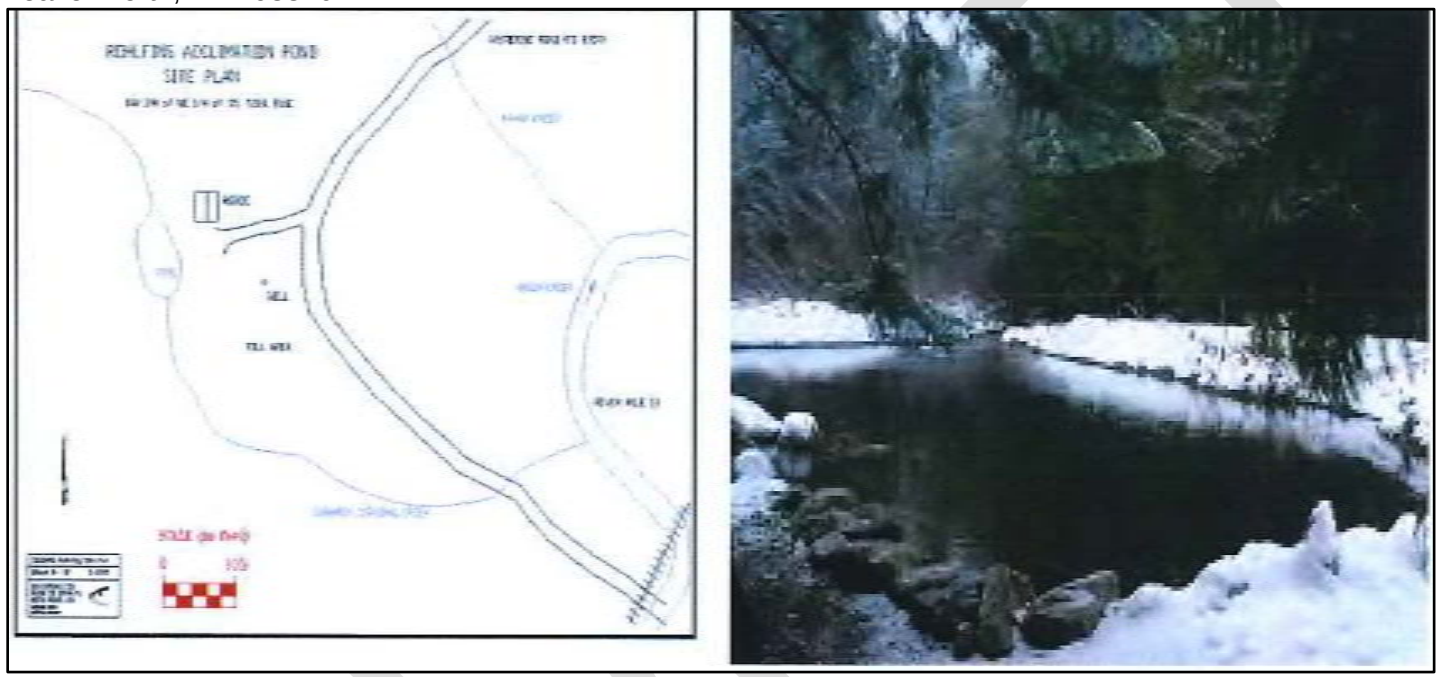
Permittee (Confederated Tribes and Bands of the Yakama Nation)

2017. *Tier II Antidegradation Evaluation for Acclimation Sites in the Upper Wenatchee River Basin* in December of 2017

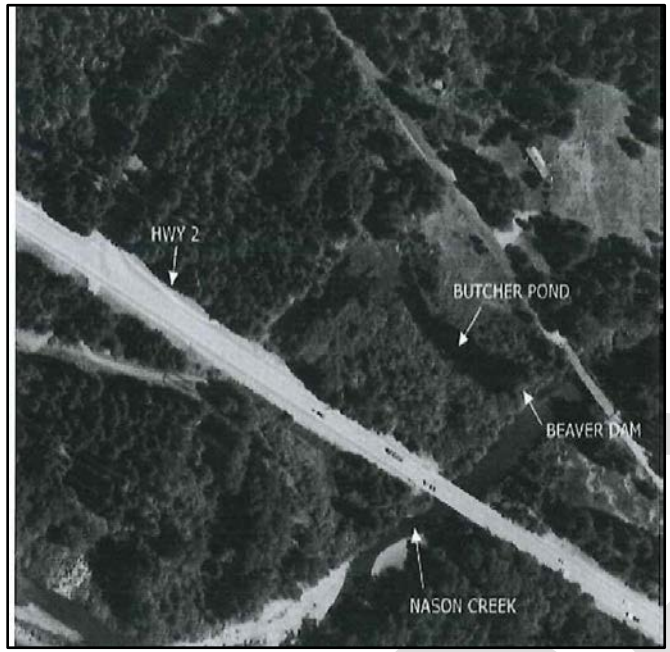
2018. NPDES Permit Application and Supplements

Appendix A—Acclimation Sites By Name

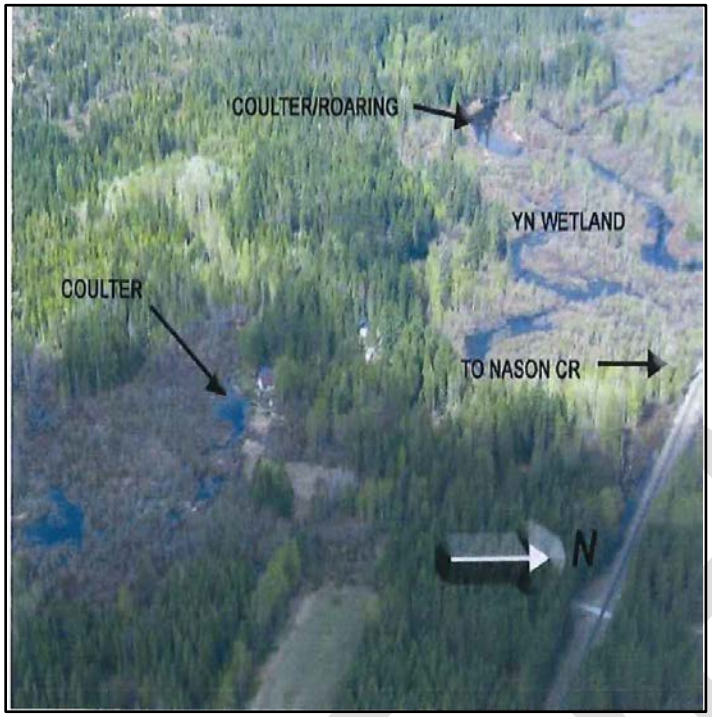
Rohlfing Acclimation Site
20622 White Pine Road
Leavenworth, WA 98826



Butcher Acclimation Site
18.5 miles West of Leavenworth WA
Off of U.S. Highway 2, on Nason Ridge Road

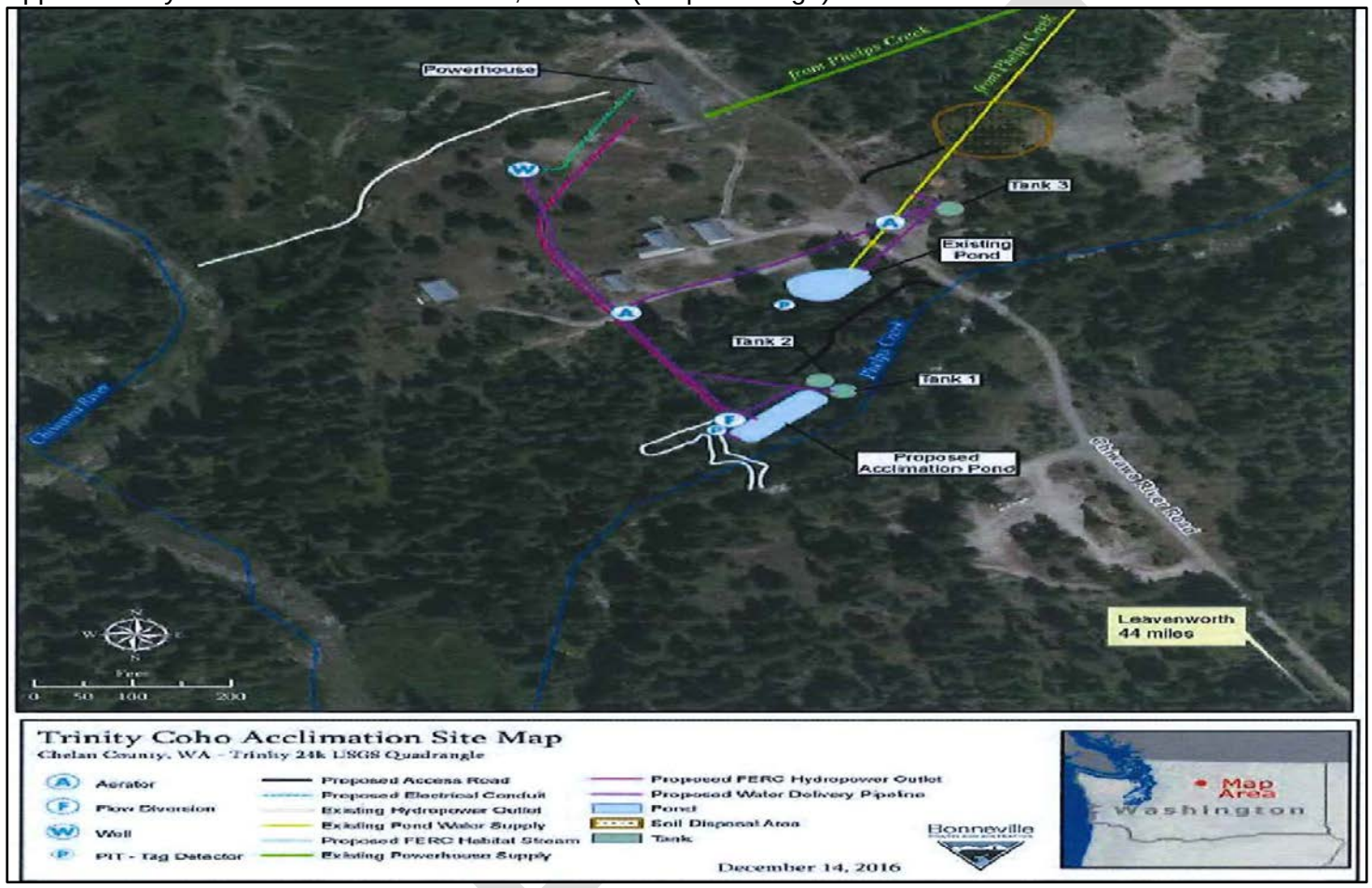


Coulter Acclimation Site
18.4 miles West of Leavenworth, WA.
Off of U.S. Highway 2, off of Dardenelles Road



Powerline Acclimation Site
21.5 miles West of Leavenworth, WA
Off of U.S. Highway 2, off of Whitepine Creek Road
(adapted image, facility not yet built)

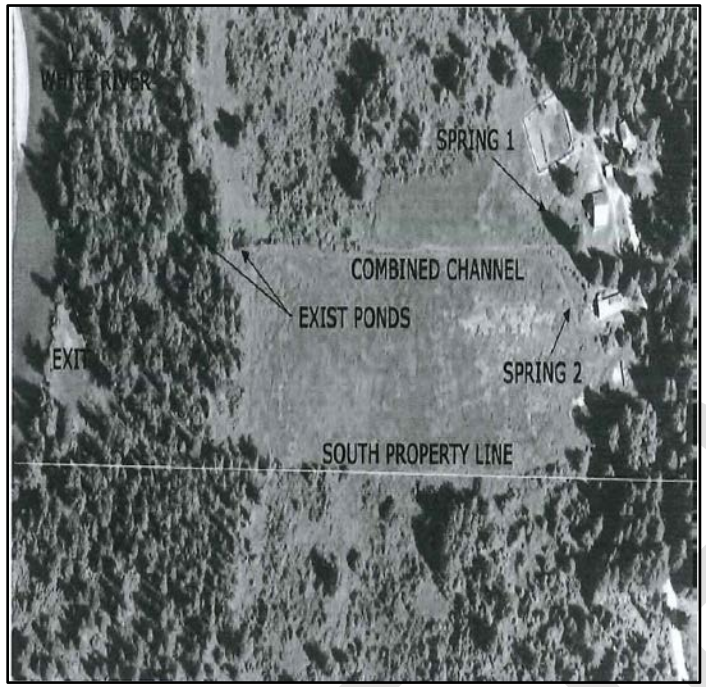
Trinity Acclimation Site (Trinity 1 and Trinity 2)
22861 Chiwawa River Road, Leavenworth, WA 98826
Approximately 44 miles from Leavenworth, WA (adapted image)



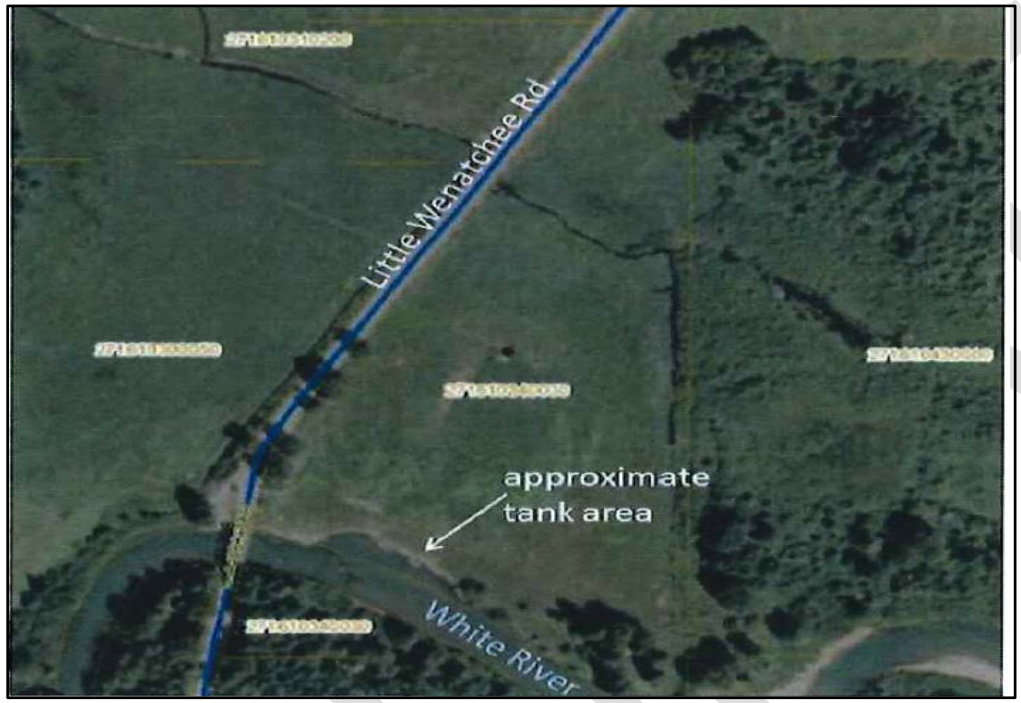
Clear Acclimation Site
Clear Creek Lodge at Thousand Trails
20752 Chiwawa Loop Road/County Highway 22
Leavenworth, WA 98826

Beaver Acclimation Site
Mountain Springs Lodge
19115 Chiwawa Loop Road/County Highway 22
Leavenworth, WA 98826

White River Springs Acclimation Site
Approximately 28 miles from Leavenworth, WA
Off Lake Wenatchee Road/WA-207 on White River Road/County Route 167



White River Bridge Acclimation Site
Approximately 25 miles from Leavenworth, WA
Off of Lake Wenatchee Highway/WA-207 on Little Wenatchee River Road
(Tanks will be added at this former Grant County PUD Acclimation Site)



Appendix B—Public Involvement Information

Ecology proposes to issue a NPDES discharge permit to the Confederated Tribes and Bands of the Yakama Nation, Yakama Nation Fisheries to operate and discharge from the Upper Wenatchee Basin Acclimation Program. The permit includes wastewater discharge limitations and other conditions. This fact sheet describes the acclimation sites and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on December 27, 2018, in the Wenatchee World to inform the public about the submitted application and to invite comment on the issuance of this permit.

Ecology will place a Public Notice of Draft on March 22, 2019, in the Wenatchee World to inform the public and to invite comment on the proposed draft National Pollutant Discharge Elimination System permit and fact sheet. Additionally, Ecology will hold a public hearing on or about April 18th, 2019 in Leavenworth, WA.

The notice:

• Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
• Offers to provide the documents in an alternate format to accommodate special needs.
• Urges people to submit their comments, in writing, before the end of the Comment Period
• Explains the next step(s) in the permitting process.

NOTICE: **ANNOUNCEMENT OF AVAILABILITY OF APPLICATION**
PERMIT NO.: **WA0991018**
APPLICANT: **Yakama Nation Fisheries**
FACILITY: **Upper Wenatchee Basin Acclimation Program**
7051 U.S. Highway 97
Peshastin, WA 98847

Yakama Nation Fisheries has applied for a new National Pollutant Discharge Elimination System (NPDES) Permit No. WA0991018 in accordance with the provisions of Chapter 90.48 Revised Code of Washington (RCW), Chapter 173-220 Washington Administrative Code (WAC), and the Federal Clean Water Act.

Following evaluation of the application and other available information, a draft permit will be developed which would allow the discharge of acclimation pond water to Nason Creek, Nason Creek tributaries, Chiwawa River, Chiwawa River tributaries, and the Wenatchee River from 10 acclimation sites located in the upper Wenatchee River basin.

All discharges to be in compliance with the Department of Ecology's Water Quality Standards for a permit to be issued.

A tentative determination has been made to draft a permit based on the effluent limitations and special permit conditions that will prevent and control pollution. A final determination will not be made until all timely comments received in response to this notice have been evaluated.

PUBLIC COMMENT AND INFORMATION

The application may be viewed at the Department of Ecology (Department) website: https://fortress.wa.gov/ecy/paris/PermitSearch.aspx?PermitNumber=WA0991018&FacilityName=&City=&County=&Region=0&Address=&ZipCode=&PermitType=0 . The application and other related documents are available at Ecology's Central Regional Office for inspection and copying between the hours of 8:00 a.m. and 4:30 p.m., weekdays. To obtain a copy or to arrange to view copies at the Central Regional Office, please call 509/575-2490 or write to the address below.

All comments must be submitted by January 27, 2019 to be considered for the final determination. Submit comments online at: http://ws.ecology.commentinput.com/?id=PC9Gr .

Written comments should be sent to: Cynthia Huwe, WQ Permit Coordinator, Department of Ecology, Central Regional Office, 1250 West Alder Street, Union Gap, WA 98903-0009.

Any interested party may request a public hearing on the proposed permit application within 30 days of the publication date of this notice. The request for a hearing shall state the interest of the party and the reasons why a hearing is necessary. The request should be sent to the above address. Ecology will hold a hearing if it determines that there is significant public interest. If a hearing is to be held, public notice will be published at least 30 days in advance of the hearing date. Any party responding to this notice with comments will be mailed a copy of a hearing public notice.

If you require special accommodations or need this document in a format for the visually impaired, call Cindy Huwe at 509-457-7105. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Publication date of this Notice is December 27, 2018.

NOTICE: **ANNOUNCEMENT OF AVAILABILITY OF DRAFT PERMIT**
PERMIT NO.: **WA0991018**
APPLICANT: **Yakama Nation Fisheries**
PO Box 151
Toppenish, WA 98948
FACILITY: **Upper Wenatchee Basin Acclimation Program**
7051 U.S. Highway 97
Peshastin, WA 98847

Yakama Nation Fisheries has applied for a National Pollutant Discharge Elimination System (NPDES) permit in accordance with the provisions of Chapter 90.48 Revised Code of Washington (RCW) and Chapter 173-220 Washington Administrative Code (WAC), and the Federal Clean Water Act.

Following evaluation of the application and other available information, a draft permit has been developed which would allow the discharge of acclimation pond water to Nason Creek, Nason Creek tributaries, Chiwawa River, Chiwawa River tributaries, and the Wenatchee River from 10 acclimation sites located in the upper Wenatchee River basin. All discharges to be in compliance with the Department of Ecology's Water Quality Standards for a permit to be issued.

A tentative determination has been made on the effluent limitations and special permit conditions that will prevent and control pollution. A final determination will not be made until all timely comments received in response to this notice have been evaluated.

PUBLIC COMMENT AND INFORMATION

The draft permit and fact sheet may be viewed at the Department of Ecology (Department) website: https://apps.ecology.wa.gov/paris/PermitDocumentSearch.aspx?PermitNumber=WA0991018&FacilityName=&City=&County=&Region=0&PermitType=0. The application, fact sheet, proposed permit, and other related documents are also available at the Department's Central Regional Office for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m., weekdays. To obtain a copy or to arrange to view copies at the Central Regional Office, please call Jackie Cameron at (509) 575-2027, e-mail jackie.cameron@ecy.wa.gov , or write to the address below.

Interested persons are invited to submit written comments regarding the proposed permit. All comments must be submitted by April 22, 2019 to be considered for the final determination.

PUBLIC HEARING

A public hearing will be held to explain the proposed permit and to answer questions about the proposed permit.

DATE: **April 18, 2019**
TIME: **5:00 to 7:00 P.M.**

LOCATION: **Chumstick Grange #819**
621 Front Street
Leavenworth, WA 98826

During the hearing, the public may give oral testimony and written comments on the proposed permit. Written comments will receive the same consideration as oral testimony.

Written comments should be sent to: Cynthia Huwe, WQ Permit Coordinator, Department of Ecology, Central Regional Office, 1250 West Alder Street, Union Gap, WA 98903-0009.

Submit comments online at: http://ws.ecology.commentinput.com/?id=KEQa8 .

Please bring this public notice to the attention of persons who you know would be interested in this matter. The Department is an equal opportunity agency. If you need this publication in an alternate format, please contact us at (509) 575-2490 or TTY (for the speech and hearing impaired) at 711 or 1-800-833-6388.

Ecology has published a document entitled Frequently Asked Questions about Effective Public Commenting which is available on our website at https://fortress.wa.gov/ecy/publications/SummaryPages/0307023.html.

You may obtain further information from Ecology by telephone, 509-457-7105, or by writing to the address listed below.

Water Quality Permit Coordinator Department of Ecology Central Regional Office 1250 W. Alder Street, Union Gap, WA 98903-0009.

The primary author of this permit and fact sheet is Marcia A. Porter, Environmental Specialist IV.

Appendix C—Your Right To Appeal

You have a right to appeal this permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2) (see glossary).

To appeal you must do the following within 30 days of the date of receipt of this permit:

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Address	Mailing Address
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive Southeast Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk P.O. Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road Southwest, Suite 301 Tumwater, WA 98501	**Pollution Control Hearings Board** P.O. Box 40903 Olympia, WA 98504-0903
Department of Ecology Central Regional Office Attn: David Bowen 1250 W. Alder Street Union Gap, WA 98903-0009	**Department of Ecology** Central Regional Office Attn: David Bowen 1250 W. Alder Street Union Gap, WA 98903-0009

Appendix D—Glossary

1-DMax or 1-day maximum temperature -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

7-DADMax or 7-day average of the daily maximum temperatures -- The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

40 CFR -- Title 40 of the Code of Federal Regulations. The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

Acclimation pond -- A specific pond (lined or unlined), tank, or other holding area specifically to accomplish the process or result of acclimating; especially physiological adjustment by an organism to an environmental change allowing it to maintain performance across a range of environmental conditions.

Acute toxicity --The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

AKART -- The acronym for “all known, available, and reasonable methods of prevention, control and treatment.” AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

Alternate point of compliance -- An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An “early warning value” must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

Ambient water quality -- The existing environmental condition of the water in a receiving water body.

Ammonia -- Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Antidegradation policy -- Is the policy stated in WAC 173-201A-070.

Applicable TMDL – Is any TMDL which has been completed either before the issuance date of this permit or the date the Permittee first obtains coverage under this permit, whichever is later.

Average monthly (intermittent) discharge limit-- The average of the measured values obtained over a calendar months' time taking into account zero discharge days.

Average monthly discharge limit -- The average of the measured values obtained over a calendar months' time.

Background water quality -- The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

Best management practices (BMPs) -- Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD5 -- Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD5 is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass -- The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine -- A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic toxicity -- The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean water act (CWA) -- The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance inspection-without sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance inspection-with sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

Composite sample -- A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction activity -- Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous monitoring -- Uninterrupted, unless otherwise noted in the permit.

Critical condition -- The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Date of receipt – This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

Detection limit -- The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

Early warning value -- The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

Ecology – The Washington State Department of Ecology. **Enforcement limit** -- The concentration assigned to a contaminant in the groundwater at the point of compliance for

the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

Engineering report -- A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Epizootic -- Is the occurrence of a specific disease which can be detected in 50 percent of the mortality or moribund individual fish in an affected container or within an affected population, and which results in an average daily mortality of at least one-half of one percent of the affected individual fish for five or more days in any 30-day period.

Fecal coliform bacteria -- Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of warm-blooded animal feces.

Grab sample -- A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Groundwater -- Water in a saturated zone or stratum beneath the surface of land or below a surface water body

Industrial wastewater -- Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

Instantaneous maximum – Is the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.

Major facility -- A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum daily discharge limit -- The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

µg/L -- Means micrograms per liter.

mg/L -- Means milligrams per liter.

ml/L -- Means milliliters per liter.

Method detection level (MDL) -- See Detection Limit.

Minor facility -- A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing zone -- An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

National pollutant discharge elimination system (NPDES) -- The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

New Discharge(r) – Is a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a final effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Facility -- Means a facility that begins activities that will result in a discharge or potential discharge to waters of the state on or after the effective date of this permit.

pH -- The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life

Point of compliance -- The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

Production -- Is the act of harvesting, processing or releasing fish in a hatchery or the harvest weight of fish contained, grown, or held in a CAAP facility in a year. 40 CFR §122 Appx.C.

Quality Assurance (QA) – Means the adherence to a system for assuring the reliability of measurement data.

Quality Assurance Project Plan (QAPP) – Means a document that describes the objectives of a project and the procedures necessary to acquire data that will serve those objectives

Quantitation level (QL) -- Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration

standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1,2,or 5) x 10n, where n is an integer. (64 FR 30417).

ALSO GIVEN AS: The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

Rearing vessel -- Means all rearing ponds, raceways, and fish hauling tanks.

Reasonable potential -- A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

Representative sample -- Means multiple outfalls with similar waste streams can be sampled and combined into one sample for one analysis. The sample volume from each outfall shall be apportioned according to the volume of flow at the time of sampling. These apportioned samples can then be combined into one representative sample for analysis.

Responsible corporate officer -- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sample Maximum -- No sample may exceed this value.

Settleable solids – Are those solids in surface waters or wastewaters which are measured volumetrically in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater and typically are comprised of the solids that are heavier than the specific gravity of water.

Solid waste -- All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials

Soluble BOD5 -- Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD5 test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD5 test is sufficient to remove the particulate organic fraction.

State waters -- Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Substantially deviates -- Means a production change of greater than 20 percent from what was originally listed in the original application for permitting or in any subsequent applications.

Surface waters -- Includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington. For the purposes of this permit, surface waters do not include hatchery ponds, raceways, pollution abatement ponds, and wetlands constructed solely for wastewater treatment.

Technology-based effluent limit -- A permit limit based on the ability of a treatment method to reduce the pollutant.

Total dissolved solids --That portion of total solids in water or wastewater that passes through a specific filter.

Total Maximum Daily Load (TMDL) -- Is the sum of all waste load allocations (WLAs) and load allocations (LAs) (non-point source and background) and a safety margin. The TMDL is a mechanism for establishing water quality-based controls on all point and nonpoint sources of pollutants within a water quality-limited basin, subbasin, or hydrographic segment. And is a determination of the amount of pollutant that a water body can receive and still meet water quality standards.

Total suspended solids (TSS) -- The amount of particulate material in water, either that floats on the surface or that remains in suspension. Discharge of large quantities of suspended solids may cause solids to accumulate in receiving waters. Apart from any toxic effects attributable to substances leached from the solids by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries or by clogging their gills and respiratory passages. Suspended solids can also screen out light and can promote and maintain noxious conditions through oxygen depletion. The analytical procedure for determining this amount is typically Standard Methods for the Examination of Water and Wastewater, Method 2540 D.

Total volatile suspended solids (TVSS) – That portion of the total suspended solids that are volatilized when heated to 550 degrees Celsius. TVSS represents a rough estimate of the amount of organic matter in the suspended solids fraction of water. The analytical procedure for determining this amount is typically Standard Methods for the Examination of Water and Wastewater, Method 2540 E.

Upset -- An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Waters of the State -- Include those waters defined as “waters of the United States in 40 CFR 122.2 within the geographic boundaries of Washington State and “waters of the State” as defined in Chapter Revised Code of Washington (RCW) 90.48 which include lakes, rivers, ponds, streams, waters, underground waters, salt waters, and all other surface water and water courses including wetlands within the jurisdiction of the state of Washington.

Water quality-based effluent limit -- A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

Water quality standards -- Means the water quality standards for groundwaters of the state of Washington [Chapter 173-200 Washington Administrative Code (WAC)], the water quality standards for surface waters of the state of Washington (Chapter 173-201A WAC), and the sediment management standards of the State of Washington (Chapter 173-204 WAC).

Appendix E—Chemical Use Operation Log

Keep records on station for at least five years

YEAR ____________

Facility: ____________________

NPDES Permit Number: ____________________

Brood Stock Species	Pond/ Race-way	Date of Appli-cation	Chemical Name	Dosage	Duration	Method Appli- cation	Amt used	Reason for use	Flow	Water Temp	Estimated Conc. In Discharge	Method Disposal	location of dischg	Initials

Notes:

Adopted from WDFW Chemical Operational Log - C. Mains

2007 Chemical log form.xls

Appendix F—Response To Comments