

Fact Sheet

**The U.S. Environmental Protection Agency (EPA)
Proposes to Reissue National Pollutant Discharge Elimination System (NPDES) General
Permits to Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA)
to:**

**Aquaculture Facilities in Idaho Excluding Facilities Discharging Into the
Upper Snake-Rock Subbasin (IDG131000)**

and

Aquaculture Facilities Located in Indian Country in Idaho (IDG133000)

Public Comment Start Date: June 6, 2019

Public Comment Expiration Date: July 22, 2019

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The EPA Proposes to Reissue NPDES General Permits

The EPA proposes to reissue two NPDES General Permits (GPs) for aquaculture facilities that discharge to waters of the U.S. in Idaho, excluding those facilities that discharge into the Upper Snake-Rock Subbasin Watershed. One GP is for facilities discharging to state waters and the other is for facilities discharging to tribal waters. Other than coverage area, these GPs are essentially the same. The draft GPs place conditions on the discharge of pollutants from cold water and warm water rearing aquaculture facilities to waters of the United States in Idaho. The GPs will largely replace and combine the NPDES General Permit for Cold Water Aquaculture Facilities in Idaho not subject to Wasteload Allocations (Cold Water GP) and the NPDES General Permit for Aquaculture Facilities in Idaho subject to Wasteload Allocations (WLA GP). Both of these GPs were issued by the EPA on October 25, 2007 with an effective date of December 1, 2007, which expired on November 30, 2012. The draft permits will not provide coverage to the facilities that discharge into the Upper Snake-Rock Subbasin. To the extent those facilities have coverage under the WLA GP, permit coverage will continue to be administratively extended. To ensure protection of water quality and human health, the permits place limits on the types and amounts of pollutants that can be discharged from the facilities.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- descriptions of the types of facilities and discharges covered under the GPs
- a listing of proposed effluent limitations and other conditions
- a description of the specific facilities currently covered
- technical material supporting the conditions in the GPs

Clean Water Act Section 401 Tribal and State Certification

Pursuant to Section 401 of the Clean Water Act (CWA), the EPA may not issue a final permit until the State or Tribe (with Treatment as a State) where the discharge originates has granted or waived CWA 401 certification. The Tribes and the State may, as a condition of final certification, require that the final permits include more stringent limitations or monitoring requirements needed to comply with the CWA or tribal or state law. The EPA is required to include any such limitation or requirement in the final permits pursuant to CWA Section 401(d).

The EPA has approved Coeur d'Alene and Shoshone-Bannock Tribes for Treatment as a State (TAS) under the CWA. As of the date of this Fact Sheet, three facilities covered by the Cold Water GP discharge to tribal waters, but they discharge within the Nez Perce Reservation, which does not have TAS.

The EPA requested CWA 401 certification from the Coeur d'Alene and Shoshone-Bannock Tribes for IDG133000, the permit that covers discharges to tribal waters. On May 9, 2019, the Shoshone-Bannock Tribe provided the EPA with a final CWA §401 certification. On May 14, 2019, the Coeur d'Alene Tribe denied CWA § 401 certification for TAS waters within the Reservation.

The EPA requested CWA 401 certification from the Idaho Department of Environmental Quality (IDEQ) for IDG131000, the permit that covers discharges to state waters. IDEQ provided the EPA with its draft CWA § 401 certification on April 29, 2019.

Comments on IDEQ's certification can be sent to:

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Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
(208) 373-0173

Public Comment

Persons wishing to comment on or request a Public Hearing for the draft General Permits may do so in writing by the expiration date of the Public Comment period. A request for a Public Hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

By the expiration date of the public comment period, all written comments and requests must be submitted to the attention of the EPA Regional Director, Water Division at the following address:

U.S. EPA, Region 10, 1200 6th Avenue, Suite 155, WD, Seattle, WA 98101

Alternatively, by the expiration date of the public comment period, comments may be submitted by facsimile to (208) 378-5744; or submitted via e-mail to Lisa Kusnierz at Kusnierz.Lisa@epa.gov.

After the Public Notice expires, and all comments have been considered, the EPA's regional Director for the Water Division will make a final decision regarding permit issuance. If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. Pursuant to Section 509(b)(1) of the CWA, 33 U.S.C. § 1369(b)(1), any interested person may appeal the General Permit in the Ninth Circuit Court of Appeals within 120 days following notice of the EPA's final decision for the permit.

Documents are Available for Review

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting the EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday at the address below. The draft GPs, fact sheet, and other information can also be found by visiting the Region 10 NPDES website at:

<https://www.epa.gov/npdes-permits/about-region-10s-npdes-permit-program>

US EPA Region 10
Suite 155, 19-C04
1200 Sixth Avenue
Seattle, Washington 98101
(206) 553-0523 or
Toll Free 1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The fact sheet and draft permits are also available at:

U.S. Environmental Protection Agency Region 10
Idaho Operations Office
950 W. Bannock Street, Boise, ID 83702
(208) 378-5746

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Avenue
Twin Falls, Idaho 83301
(208) 736-2190

Idaho Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, Suite 300
Pocatello, Idaho 83204
(208) 236-6160

Idaho Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Pkwy
Coeur d'Alene, Idaho 83814
(208) 769-1422

For technical questions regarding the GPs or fact sheet, contact Lisa Kusnierz at (208) 378-5626 or Kusnierz.Lisa@epa.gov. Those with impaired hearing or speech may contact a TDD operator at 1-(800) 833-6384 and ask to be connected to the appropriate phone number. Additional services can be made available to a person with disabilities by contacting Lisa Kusnierz.

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I. Introduction

A. Industry Description

40 CFR §122.24 defines concentrated aquatic animal production (CAAP) facilities as point sources subject to the National Pollutant Discharge Elimination System (NPDES) permit program. The regulations define CAAP facilities as a hatchery, fish farm, or other facility that contains, grows, or holds:

1. Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures, and includes:
 - a. Facilities which discharge at least thirty days per year,
 - b. Facilities that produce more than 20,000 harvest weight pounds of aquatic animals per year, and
 - c. Facilities that feed more than 5,000 pounds of food during the calendar month of maximum feeding.
2. Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures, and includes:
 - a. Facilities which discharge at least 30 days per year, and
 - b. Facilities which produce more than 100,000 harvest weight pounds of aquatic animals per year.

Cold water aquatic animals include, but are not limited to, the *Salmonidae* family of fish, e.g. trout and salmon. Warm water aquatic animals include, but are not limited to, the *Ameiuride*, *Centrarchidae* and *Cyprinidae* families of fish, e.g., respectively, catfish, sunfish and minnows. The General Permits (GPs) will apply to CAAP facilities that produce or hold cold water or warm water species.

The terms “aquaculture facility” and “hatchery” are used interchangeably with “CAAP facility” within the fact sheet and GPs.

Aquaculture facilities may use one of several types of production systems, including ponds, flow-through systems, and recirculating systems. Ponds have infrequent discharges which may occur as a result of a storm event or draining for harvest or repairs. Due to decomposition of biological material and settling of solids (feces, uneaten feed, and sediment), ponds are capable of treating and removing pollutants in the water; and when discharges occur, pollutant loads are often relatively low because of the settling that has taken place within the pond. Best management practices (BMPs) are used to minimize the discharge of pollutants from pond systems. The BMPs for ponds focus on minimizing disturbance of sediments, reducing drainage frequency, managing water levels, minimizing erosion in and around pond banks, feed management, and the proper use and storage of chemicals and drugs.

Flow-through production systems, which are used at most facilities covered by the GPs, provide an environment that imitates the natural environment. In such systems, fresh water, diverted from springs, streams and/or wells, enters continuously at the top of the system near the water source. The flow-through systems generally discharge to a single combined

effluent stream with water volumes that may significantly dilute pollutant concentrations, although some facilities have multiple outfalls. Most facilities include a quiescent zone at the bottom end of their raceways to allow solids and debris to settle out where they can be vacuumed and removed, thus preventing their release into the receiving water. Quiescent zones include a screen which extends across the entire bottom end of the raceway which prevents fish from entering and allows the solids to settle.

In addition, there are a few recirculating production systems in Idaho that may be covered by the GPs. They use tanks with continuously flowing water and side stream treatment technologies, which continuously treat a portion of the flow and return it to the production system.

B. Characterization of Discharge

Aquaculture facilities may discharge a variety of pollutants attributed to: (1) feeds, directly or indirectly (feces), (2) residuals of drugs or chemicals used for maintenance or restoration of animal health, and (3) residuals of chemicals used for cleaning equipment or for maintaining or enhancing water quality conditions. To identify pollutants of concern for further analysis, the U.S. Environmental Protection Agency (EPA) evaluated the technology-based limits, total maximum daily load (TMDL) wasteload allocations (WLAs), existing effluent limits, Discharge Monitoring Reports (DMRs), annual reports, and Notices of Intent for permit coverage (NOIs) that were submitted by the facilities under the previously issued GPs (i.e., 2007 GPs). Based on the EPA's analysis, the pollutants of concern for these GPs are five-day biochemical oxygen demand (BOD₅), biological wastes, floating and submerged matter, total suspended solids (TSS), settleable solids, nutrients (phosphorus and nitrogen), ammonia, chlorine, temperature, and therapeutic drugs and chemicals. Aquaculture facilities are not considered to be significant sources of pathogens that affect human health (e.g., *Escherichia coli*).

C. General Permits

Section 301(a) of the CWA, 33 USC §1311(a), provides that the discharge of pollutants to waters of the U.S. is unlawful except in accordance with terms and conditions of a NPDES permit. 40 CFR §122.28 provides the EPA with the authority to issue a GP to numerous facilities as long as certain factors are met.

In determining whether a GP is appropriate, the Director must consider whether the facilities:

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

The EPA is proposing to issue these draft GPs for aquaculture facilities in Idaho discharging to state waters and to tribal waters. The GPs meet the criteria under 40 CFR §122.28 for the following reasons:

Geographic area

The geographic area of coverage are waters of the U.S. within the State of Idaho excluding the Upper Snake-Rock Subbasin. IDG131000 will cover facilities that discharge to state waters and IDG133000 will cover facilities that discharge to tribal waters within the State (Figure 1).

Involves the Same or Substantially Similar Types of Operations

The facilities covered by these permits involve the same or substantially similar types of fish rearing operations.

Discharge the Same Types of Waste

The facilities covered by these permits discharge the same types of effluent. See a characterization of the discharges in section I.B., above.

Same Effluent Limits or Operating Conditions

The GPs propose similar effluent limits, monitoring requirements and other operating conditions for all facilities covered by the permits.

Same or Similar Treatment Technologies or Monitoring Requirements

Aquaculture facilities employ similar treatment technologies and waste management practices, such as settling basins, quiescent zones, and solids disposal. The monitoring requirements are generally the same for all facilities, with some additional monitoring for facilities with effluent limits for additional parameters (e.g., temperature) or discharging to water bodies impaired for pollutants of concern.

Appropriateness

Because of the factors discussed above, the EPA has determined that the majority of the aquaculture facilities that discharge in the State of Idaho and to Indian Country within Idaho are more appropriately controlled under a GP rather than individual NPDES permits. The similarity of the operations, the technologies used to manage wastes generated by these facilities, and the resulting discharge of similar waste types has prompted the EPA to propose to issue these GPs.

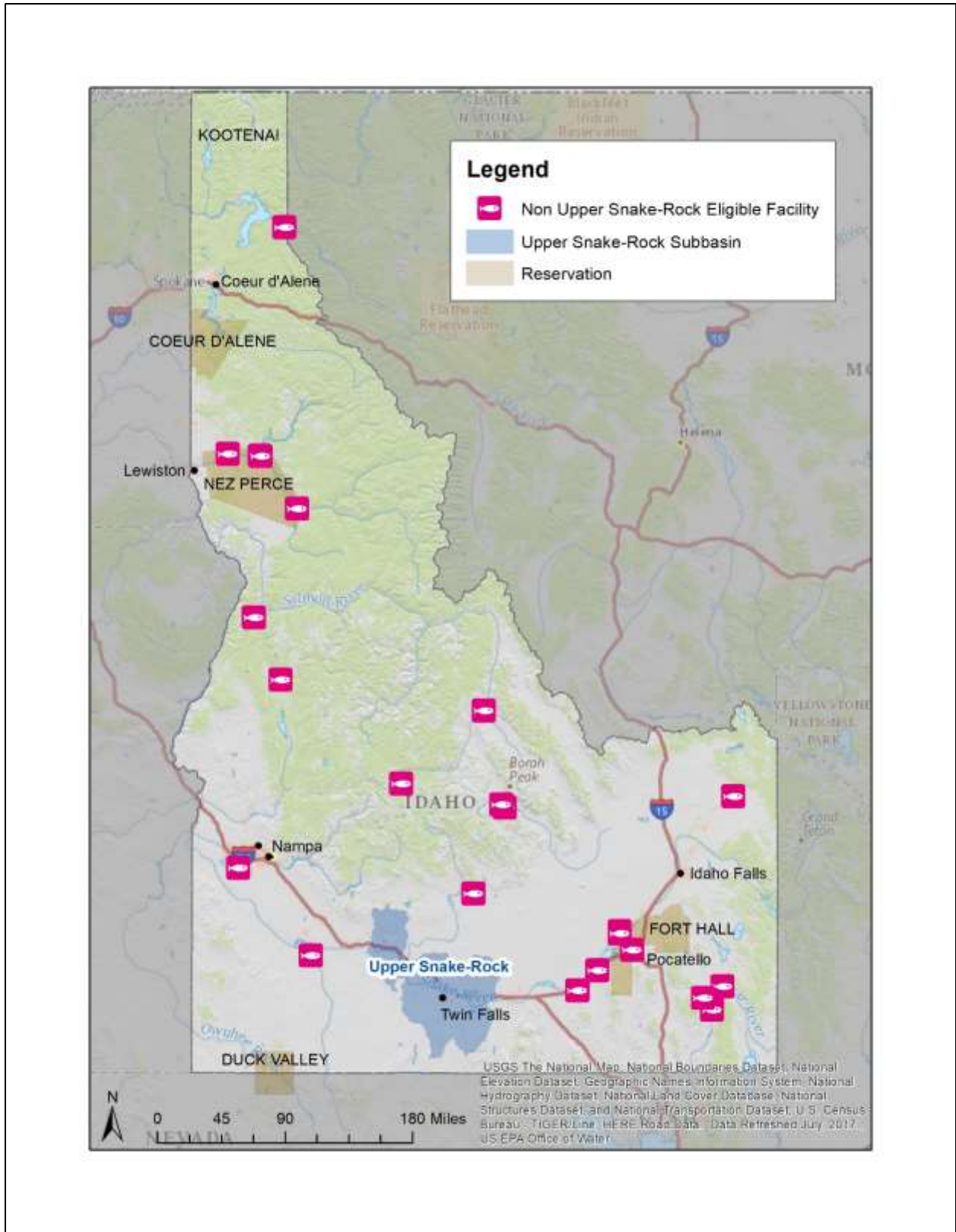


Figure 1. Area of permit coverage (excluding Upper Snake-Rock Subbasin).

D. Permit History

The GPs will largely replace and combine the NPDES General Permit for Cold Water Aquaculture Facilities in Idaho (not subject to Wasteload Allocations) (Cold Water GP) and the NPDES General Permit for Aquaculture Facilities in Idaho (subject to Wasteload Allocations) (WLA GP). The existing permits had an effective date of December 1, 2007 and expired on November 30, 2012. The majority of the facilities that will be covered under these GPs had coverage under the Cold Water GP. The facilities that had coverage under the two permits submitted the necessary information to allow for an administrative extension of coverage under the expired permits. The issuance of these GPs will replace the Cold Water GP. The permit number will remain the same (i.e., IDG131000) for discharges to state waters and a new permit number will be used for discharges to tribal waters (IDG133000). The draft GPs are split by jurisdiction of the receiving water because of the upcoming transfer of the permitting authority for GPs to IDEQ for discharges in Idaho outside of Indian Country (see Section I.F., below).

The existing aquaculture permits were structured similarly because the aquaculture facilities have similar types of effluent and treatment technologies. Some facilities currently covered under the WLA GP (IDG130000) are subject to WLAs under the Upper Snake-Rock TMDLs. IDEQ is planning to revise those TMDLs, which may affect the aquaculture WLAs. Therefore, CAAP facilities with WLAs in the Upper Snake-Rock TMDLs are not eligible for coverage under these GPs, and they will be covered by a separate GP to be developed following approval of the revised TMDLs. The EPA has determined that the aquaculture facilities located outside of the Upper Snake-Rock Subbasin involve similar enough facilities and discharges that they may be appropriately covered under these GPs.

The existing permits set conditions on the discharge of pollutants to waters of the U.S. in Idaho. To ensure protection of water quality and human health, the GPs contained limits for all facilities for TSS and total phosphorus (TP), with temperature and total nitrogen (TN) limits for some facilities. The GPs also imposed other requirements to minimize the discharge of pollutants. The permits required each facility to develop a BMP plan that documented how it would address solids control, facility maintenance, recordkeeping, and chemical storage. The limits, disposal requirements, discharge prohibitions, record keeping and reporting requirements were designed to reduce discharges of oxygen demanding materials, residual feed, and floating, suspended, and submerged matter, including dead fish.

DMR data for the previous five years (i.e., 2012 – 2017) was queried for effluent violations. Overall, compliance with effluent limits has been good. Six of the facilities covered by the Cold Water GP have had no effluent violations in the past five years, and the remaining four facilities (IDG131003, IDG131004, IDG131007, and IDG131010) collectively had two TP violations and a handful of TSS violations. Of the 12 facilities currently under the WLA GP that are eligible under these GPs, nine have had no effluent violations in the previous five years; between two of the facilities (IDG130043 and IDG130123), there was one TSS violation and one TP violation. The third facility (IDG130030) had consistent temperature violations, but the frequency of violations is expected to decrease dramatically as IDEQ has recently revised the WLA for that facility to incorporate naturally occurring

temperatures in its source water (see Appendix A).

E. Summary of Major Changes from Previous Permit

The EPA proposes several changes in these draft GPs relative to the 2007 Cold Water and WLA GPs. The changes are summarized below in Table 1 and discussed in more detail in the Fact Sheet.

Table 1. Summary of Major Changes Proposed in General Permit IDG131000/IDG133000

Category	Change Summary
Facilities covered by the permits	<ul style="list-style-type: none"> • Scope of eligible CAAP facilities changed from cold water facilities throughout Idaho with no WLA to all warm and cold water CAAP facilities outside the Upper Snake-Rock Subbasin, regardless of WLA status. • Facilities discharging to tribal waters will be covered by a new permit (IDG133000) because of the authorization of Idaho's NPDES program and upcoming transfer of GPs to IDEQ for discharges in Idaho outside of Indian Country (see Section I.F.)
Temporary Shutdown	<ul style="list-style-type: none"> • Elimination of "Inactive Status." Inactive facilities must continue to follow permit requirements.
Technology Based Effluent Limits (TBELs)	<ul style="list-style-type: none"> • Removal of TSS percent removal requirement for offline settling basins (OLSBs).
Water Quality Based Effluent Limits (WQBELs)	<ul style="list-style-type: none"> • Single raceway copper BMP changed to prohibition on usage. • Chlorine limits added for facilities using chlorine or Chloramine-T that has the potential to be discharged. • Some changes to WQBELs based on new or revised TMDL WLAs. See Appendix A.
Effluent Monitoring	<ul style="list-style-type: none"> • Copper monitoring discontinued because of the prohibition. • Nitrogen monitoring discontinued for Springfield and Batise Springs based on removal of the WQBEL. • OLSB ammonia and temperature monitoring discontinued based on reasonable potential analysis. TSS percent removal monitoring discontinued for OLSBs because of TBEL removal. • Continuous temperature monitoring added for some facilities. • Effluent flow monitoring changed from monthly for all facilities to matching the parameter monitoring frequency (i.e., monthly, quarterly, semi-annually). For months with monitoring, frequency increased from once to weekly. • Monitoring of discharges comprising <1% of raceway flows discontinued.
Receiving Water Monitoring	<ul style="list-style-type: none"> • Monitoring requirements for OLSBs removed because sufficient data were collected during previous permit cycle. • Continuous temperature monitoring required from May through November for certain facilities for a portion of the permit cycle.

Category	Change Summary
Notice of Intent	<ul style="list-style-type: none"> Facilities who submitted an NOI prior to expiration of the previous permit must submit an updated NOI. Quality Assurance Plan and BMP Plan certifications must be submitted with the NOI. Electronic NOI filing is required.
Annual Report	<ul style="list-style-type: none"> Records of all drugs, chemicals, and pesticides must be kept on-site and be available to EPA and IDEQ or Tribe (if applicable) upon request and during inspections instead of being submitted with the Annual Report. Annual Report form was revised and e-reporting is required.
Reporting of Monitoring Results	<ul style="list-style-type: none"> Results must be submitted electronically via NetDMR. Reporting deadlines changed from monthly for all permittees to match the frequency of monitoring for TSS and TP (i.e., semi-annually, quarterly, or monthly).

F. Idaho NPDES Authorization

On June 5, 2018, the EPA approved Idaho's application to administer and enforce the Idaho Pollutant Discharge Elimination System (IPDES) program. IDEQ will be taking the IPDES program in phases over a four-year period in accordance with the Memorandum of Agreement (MOA) between IDEQ and the EPA, and subject to EPA oversight and enforcement. IDEQ will obtain permitting for General Permits on July 1, 2020. At that time, all documentation required by the permit must be sent to IDEQ rather than to the EPA and any decision under the permit stated to be made by the EPA or jointly between the EPA and IDEQ will be made solely by IDEQ. Permittees will be notified by IDEQ when this transition occurs. Note: the documentation for new sources described in Section II.A. will not need to be submitted to IDEQ.

These changes do not apply to permittees discharging to waters of the U.S. located within Idaho in Indian Country (i.e., those covered by IDG133000), as the EPA will remain the permitting authority within Indian Country.

II. Facilities Covered by the Permits

These GPs will authorize discharges from cold water and warm water aquaculture facilities (i.e., CAAPs), as defined in Section I.A., that are located outside of the Upper Snake-Rock Subbasin. Existing facilities known to be eligible for coverage under the proposed GPs are listed in Table 2 and locations are shown in Figure 1. Maximum annual production ranges from less than 100,000 pounds to over 500,000 pounds of fish per year, with maximum monthly discharge flows ranging from 5 to 200 cfs.

Crystal Springs Hatchery is not currently permitted, as it is being renovated and not currently active, but the hatchery is planning to become operational within the next five years and will need to apply for permit coverage. Hayspur is also not currently permitted

but has submitted a NOI because it is planning to expand its production capacity above the CAAP threshold of 20,000 lbs of fish per year.

Table 2. Existing facilities eligible for coverage under the proposed GPs. K = Thousand

	NPDES ID Under Existing GP	Facility	CW/WW	Annual Production Category ³ (lbs/year)	Maximum Monthly Flow (cfs) ⁴
1	IDG131001	Idaho Fish and Game (IDFG) Cabinet Gorge Hatchery	CW	<100K	15.4
2	IDG131002 ¹	IDFG Clearwater Hatchery	CW	>500K	77.5
3	IDG131003 ¹	U.S. Fish and Wildlife Service (USFWS) Dworshak National Fish Hatchery	CW	100K – 500K	200.1
4	IDG131004 ¹	USFWS-Nez Perce Kooskia National Fish Hatchery	CW	<100K	15.45
5	IDG131005	IDFG Mccall Hatchery	CW	<100K	23
6	IDG131006	IDFG Nampa Hatchery	CW	100K – 500K	37.37
7	IDG131007	IDFG Pahsimeroi Hatchery	CW	<100K	36.4
8	IDG131009	IDFG Rapid River Hatchery	CW	100K – 500K	39.7
9	IDG131010	IDFG Sawtooth Fish Hatchery	CW	<100K	42
10	IDG131011	Ashton Hatchery	CW	<100K	6.95
11	IDG130030 ²	IDFG Mackay Hatchery	CW	<100K	23.4
12	IDG130031 ²	IDFG American Falls Hatchery	CW	100K – 500K	25.12
13	IDG130034 ²	Clear Springs Foods Inc - Soda Springs Hatchery	CW	100K – 500K	19.2
14	IDG130035 ²	IDFG Grace Fish Hatchery	CW	100K – 500K	22.1
15	IDG130038 ²	IDFG Springfield Hatchery	CW	100K – 500K	33.71
16	IDG130043 ²	Batise Springs Trout Farm	CW	100K – 500K	28
17	IDG130073 ²	Clear Springs Foods Inc - Lost River Trout Hatchery	CW	100K – 500K	13.95
18	IDG130078 ²	Upper Fall Creek Hatchery	CW	100K – 500K	24
19	IDG130085 ²	Lower Fall Creek Hatchery	CW	100K – 500K	30
20	IDG130113 ²	BCT LLC - Bear River Trout Farm	CW	<100K	28.1
21	IDG130122 ²	Best Sea Foods - Arraina	WW	100K – 500K	5.7
22	IDG130123 ²	J.R. Simplot Company – Ace (not currently active)	WW	0	2.85
23	TBD ¹	Nez Perce Tribal Hatchery	CW	<100K	20
24	TBD	Shoshone-Bannock Crystal Springs Hatchery	CW	<100K	24
25	TBD	IDFG Hayspur Hatchery	CW	<100K	21
¹ NPDES ID will be assigned/reassigned under IDG133000. ² NPDES ID will be assigned/reassigned under IDG131000. ³ Based on the 2012 NOI. ⁴ Reported on DMRs 12/2007-2/2017, except Hayspur from its NOI and Crystal Springs is based on TMDL WLA flows. Note: CW = cold water, WW = warm water					

As specified in 40 CFR §122.24(c), the EPA may designate a smaller facility as requiring coverage under either of these permits if it is a significant contributor of pollution to waters of the U.S. In making this designation, the EPA considers the following factors: 1) the location and quality of the receiving water; 2) the production capacity of the facility; 3) the quantity and nature of the pollutants discharged; and 4) other relevant factors.

A facility is authorized to discharge to receiving waters of the U.S. within the State of Idaho, including Indian Country, under the applicable GP (IDG131000 or IDG133000)

after obtaining written authorization from the EPA. The EPA may notify a discharger that it is covered under one of these GPs even if the discharger has not submitted a Notice of Intent (NOI) to be covered.

A. New Sources

New source performance standards (NSPS) for the CAAP point source category went into effect on September 22, 2004 (40 CFR Part 451). The NSPS apply to a CAAP facility if the facility produces 100,000 pounds or more of aquatic animals per year. Thus, a *new source* CAAP facility is a facility that was constructed after September 22, 2004 and produces 100,000 pounds or more of aquatic animals per year. See 40 CFR §122.2, and §122.29. In addition, existing aquaculture operations may be considered new source facilities if planned upgrades or rehabilitation activities occur after September 22, 2004, and: (1) totally replace the process or production equipment that causes the discharge of pollutants at the existing facility; or (2) the new processes or production equipment are substantially independent of an existing facility at the same site. See 40 CFR §122.29(b).

In accordance with Section 511(c)(1) of the CWA and 40 CFR Part 6, NPDES permit coverage for new sources is subject to the procedural provisions of the National Environmental Policy Act (NEPA) prior to final action on the permit. None of the existing facilities that produce more than 100,000 pounds of aquatic animals were constructed after promulgation of the ELGs, thus, are not considered new sources. In addition, the EPA reviewed planned and completed facility upgrades for facilities known to be eligible for coverage under these GPs and concluded none of the facilities qualify as new sources, so no NEPA analysis is required.

If the EPA is the permitting authority (i.e., for IDG131000 prior to July 1, 2020, and IDG133000 for the entire permit term), any unanticipated hatcheries seeking coverage under one of these GPs must prepare and submit an Environmental Information Document (EID) to the EPA pursuant to 40 CFR §6.301 if they qualify as new sources. The EID needs to describe the proposed project and address the potential environmental effects of the new source discharge to the receiving environment. In accordance with 40 CFR §6.301, the EID must be prepared in consultation with the Region 10 NEPA Compliance Coordinator and be of sufficient scope and content to enable the EPA to prepare an Environmental Assessment and Finding of No Significant Impact or, if necessary, an Environmental Impact Statement and Record of Decision. New sources may be required to apply for an individual permit. New aquaculture facilities or those considering upgrades or rehabilitation activities should contact the Region 10 NEPA Compliance Coordinator to determine if the new or upgraded facility is considered a new source and will require submission of an EID.

B. Facilities and Discharges Excluded from GP Coverage

Any of the following types of discharges and facilities cannot be covered under these permits and must apply for the applicable NPDES General Permit (or Idaho Pollutant Discharge Elimination System (IPDES) General Permit if it is July 1, 2020, or later, and a facility discharging to state waters) or an individual NPDES permit (or IPDES permit for facilities discharging to state waters after July 1, 2019):

1. Facilities that discharge in the Upper Snake-Rock Subbasin (HUC 17040212).

2. Facilities that discharge to TAS waters within the Coeur d'Alene Reservation (i.e., St. Joe River and Coeur d'Alene Lake, except Heyburn State Park).
3. Facilities that would like to use pollutant trading to meet effluent limits. Trading may occur between eligible facilities, pursuant to the requirements in IDEQ's Pollutant Trading Guidance, but no trades are currently authorized nor proposed for facilities eligible for coverage under these GPs. IDEQ requires a public review period for a framework or plan, therefore, any eligible facilities seeking to trade to meet effluent limits must pursue individual permit coverage.
4. Discharges that do not consist solely of process effluent from aquaculture facilities. If aquaculture wastewater mixes with other wastewater (e.g., domestic wastewater) prior to being discharged, the combined discharge is not covered.
5. Discharges from aquaculture facilities where the GP does not adequately address the environmental concerns associated with the discharge, as determined by the EPA at the time a discharger seeks coverage under the GP.
6. Discharges to land or to publicly owned treatment works.
7. Discharges to waters that constitute an outstanding national resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance.
8. Discharges to waters that have been designated as outstanding resource waters by Idaho or that constitute special resource waters in Indian Country.

C. Permit Expiration and Continuation of Permit Coverage

In accordance with 40 CFR §122.46(a), NPDES permits must be effective for a fixed term not to exceed five (5) years. Therefore, each of these GPs will expire five years from the effective date of the final permit. If the GP is not reissued prior to the expiration date, the GPs will be administratively continued in accordance with 40 CFR §122.6 and the Administrative Procedures Act (APA).

Prior to the expiration date, any permittee granted coverage under either of these GPs that wishes to retain permit coverage after the expiration date of the permit must submit a complete NOI within the time frame set forth in the GP. This will allow the permitting authority to determine the scope and number of facilities who want/need a reissued permit. Permittees will remain covered by the applicable GP until the earlier of:

- Authorization for coverage under the reissued GP;
- The permittee's submittal of a Notice of Termination;
- The issuance of an individual NPDES permit; or,
- A formal permit decision by the Director not to reissue the GP, at which time the permittee must seek coverage under an alternative general or individual permit (Part X.B. of the GP, "Duty to Reapply").

III. Obtaining Authorization to Discharge under These GPs

A. Requirements to Submit a NOI

All the facilities covered under the existing GPs (i.e., 2007 GPs) who are located within the area of coverage for these permits submitted NOIs prior to permit expiration and are operating under the administratively continued permits. Because the current permit expired in 2012, and production levels, contact information, and other pertinent facility information may have changed since that time, all eligible aquaculture facilities seeking coverage under these permits must submit a NOI to the EPA and IDEQ or Tribe (as appropriate) within 90 days of the effective date of the applicable permit.

A Permittee authorized to discharge under either of these GPs must submit an updated and/or amended NOI when there is any material change in the information provided in the original NOI. A material change includes facilities where there is a change in the permittee due to a change in operator during the permit term. This requires a transfer of permit coverage (See Section X.I. of the Permit). In addition to meeting the transfer requirements, the new permittee must submit an updated NOI within 60 days of the transfer date.

In accordance with 40 CFR §122.28(b)(2)(i), a discharger who fails to submit a timely and complete NOI in accordance with the terms of a GP is not authorized to discharge under its terms, unless the Director notifies a discharger that it is covered by the GP in accordance with 40 CFR §122.28(b)(2)(vi). If a complete and timely NOI is not submitted by an eligible discharger (see Table 2) who is currently operating under the administratively continued permit, permit coverage will expire. A complete and timely submittal of a NOI fulfills the requirements for permit applications in 40 CFR §§122.6, 122.21 and 122.26.

The NOI must include the legal name and address of the owner and operator of a facility, the facility name, address and location, the nature and size of the facility, the nature and amount of production at the facility, the location, type and amounts of the effluent discharged, the name(s) of receiving stream(s), and information on any federal or state permits or licenses pertaining to the use of water or rearing of fish. All NOIs shall be signed by an authorized representative of the facility as defined in 40 CFR §122.22.

Permittees must file an electronic NOI (e-NOI) via the EPA's eNOI system, which is accessible at <https://cdx.epa.gov>. A summary of the information required on the e-NOI is contained in Appendix A of the GP. As part of the eNOI system, a copy of each NOI will be e-mailed to IDEQ for dischargers applying for coverage under IDG131000 and to the applicable Tribe for dischargers applying for coverage under IDG133000. A waiver from electronic reporting may be requested by completing an 'Electronic Reporting Waiver Request' application.

B. Notification Requirements

When an aquaculture facility is owned by one person or entity, and is operated by another person or entity, it is the operator's responsibility to apply for and obtain permit coverage [40 CFR §122.21(b)]. For owners or operators of multiple CAAP facilities, a separate NOI that clearly identifies the operator must be completed for each facility.

C. Authorization from the EPA to Discharge

The EPA will provide written notification to facilities seeking coverage under the GP if they are granted coverage under the reissued GP. Authorization to discharge will begin on the effective date indicated in the notification from the EPA.

D. Requirement to Apply for Individual Permit

In accordance with 40 CFR §122.28(b)(3)(iii), any owner or operator authorized by a GP may request to be excluded from the coverage of the GP by applying for an individual NPDES permit. In such cases, the owner or operator must submit an application to the EPA (or IDEQ, if it is after July 1, 2019, and the facility discharges to state waters), with justification supporting its request for an individual NPDES permit, no later than 90 days after the publication of the GP in the Federal Register. The request will be processed in accordance with the procedures set forth in 40 CFR Part 124. The EPA (or IDEQ, if applicable) will issue an individual permit, if the reasons cited by the owner or operator are adequate to support the request, and if the application is deemed to be timely and complete.

In accordance with 40 CFR §122.28(b)(3)(i), the EPA/IDEQ may elect to issue an individual permit instead of authorizing a facility to discharge under the GP. Cases where an individual NPDES permit may be required include, but are not limited to, where the Permittee is not in compliance with the terms and conditions of the GP; circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the GP, or, where a new TMDL has been completed for a water body or a segment of a water body and the WLA is not incorporated into the GP.

E. Termination of Authorization to Discharge

In accordance with 40 CFR §§ 122.64 and 122.22(d), the permittee may request termination of coverage under either of these GPs. For periods of shutdown or inactivity that are not intended to be permanent, a facility should not submit a Notice of Termination, as this action results in the termination of NPDES coverage. See discussion below regarding Inactive Status. For circumstances where permit termination is requested, the following requirements apply.

1. A permittee must be covered under the GP until it has properly disposed of wastewater or solids that were generated at the facility, and until the facility is no longer discharging to waters of the U.S.
2. The permittee is required to submit DMRs until the effective date of permit termination. Termination of coverage will become effective 30 days after the written determination is sent to the permittee by the EPA, unless the permittee objects within that time.
 - a. Requests to terminate coverage under these permits must be made in writing and signed in accordance with the signatory requirements identified in 40 CFR §122.22. The request must also include the permit number indicate the date discharge(s) ended, and it must be submitted to the EPA at the following address:

U.S. Environmental Protection Agency, R10
Unit Manager, NPDES Permitting Section
1200 Sixth Avenue, Suite 155, 19-C04
Seattle, WA 98101

Additionally, the EPA may terminate coverage under an NPDES permit for the following reasons, and using the procedures provided in 40 CFR §122.64. These reasons include:

- Noncompliance by the permittee with any condition of the permit;
- Failure to fully disclose all relevant facts during the application or permit issuance process, or the misrepresentation of any relevant facts at any time;
- Determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
- Change in a condition that requires reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit.

F. Inactive Status

During periods of shutdown or inactivity, the previous aquaculture GPs included the option to “inactivate” the permit. The EPA has taken this provision out of this GP because there is no regulatory provision that allows inactivation of an NPDES permit. In cases of temporary shutdown where permit coverage will be required in the future, a permittee should maintain its existing permit coverage. A Notice of Termination should not be submitted. Instead the permittee must continue to follow the monitoring requirements and all other permit conditions, including submitting DMRs in a timely manner. If there is no discharge during the shutdown period, the permittee may report “no discharge” on the DMR (i.e., NODI code = “c”). If there is a discharge because of the source water but the facility is not operating, the permittee may report that conditional monitoring is not required (i.e., NODI code = 9).

IV. Receiving Waters

Receiving waters for permittees under these GPs are waters of the U.S. located in Idaho, including Indian Country within Idaho, but excludes discharges into the Upper Snake-Rock Subbasin (Figure 1). Receiving waters for facilities currently permitted or known to be eligible are listed in Table 3. Under the provisions of 40 CFR §131.10, states and eligible Indian Tribes (i.e., those with Treatment as a State (TAS) status under section 518 of the CWA), establish water quality standards for receiving waters within their jurisdictions. Water quality standards are composed of designated beneficial water uses to be achieved and protected, as well as water quality criteria necessary to protect designated uses. In designating uses of a water body and the appropriate criteria for those uses, states and eligible Indian Tribes must take into consideration the water quality standards of downstream waters and must ensure that its water quality standards provide for attainment and maintenance of the water quality standards of downstream waters.

Within Idaho, the Coeur d’Alene Tribe and the Shoshone-Bannock Tribes have TAS under the CWA, whereas the Nez Perce Tribe and Kootenai Tribe have not applied for TAS under the CWA. Only the Coeur d’Alene Tribe has EPA-approved water quality standards. The EPA has

reviewed the EPA-approved water quality standards within Idaho and concludes that these GPs will be protective of water quality standards. For facilities discharging to tribal waters within reservations without EPA-approved water quality standards, such as the Nez Perce, the Idaho water quality standards were used as reference for setting permit limits and to protect downstream uses in the State of Idaho.

Section 303(d) of the CWA requires states and eligible Indian Tribes to identify specific water bodies where water quality standards are not met. For all 303(d)-listed water bodies and pollutants, the State or Tribe, where applicable, must develop TMDLs that will specify WLAs for specific pollutants for point sources and load allocations for non-point sources of pollutants, as appropriate. No Idaho tribes have 303(d) lists or TMDLs. Idaho's 2014 303(d) List has been approved by the EPA and is available on IDEQ's website, as well as an interactive map with links to approved TMDLs, at <http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report.aspx>. IDEQ TMDL information can also be found at <http://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/>. Table 3 also lists the watersheds (i.e., subbasins), Idaho 303(d) listings, and TMDLs for the associated receiving water.

Table 3. Receiving water, 303(d) status, and associated TMDLs for facilities eligible for coverage under IDG131000 or IDG133000.

	Permit Number Existing GP	Facility	Receiving Water	Basin	2014 303(d) Status	TMDL Status
1	IDG130038	IDFG Springfield Hatchery	Boom Creek, American Falls Reservoir	American Falls	Boom Creek not listed but reservoir listed for chl a, nutrients, DO, sediment	TP & TSS TMDLs (2012) with approved TP WLAs for the hatcheries.
2	Not assigned ¹	Shoshone-Bannock Crystal Springs Hatchery	Crystal Springs Creek			
3	IDG130113	BCT LLC – Black Canyon Trout Farm	Bear River	Bear	TSS, TP, <u>temperature</u>	TP & TSS TMDL (2006) with WLAs. Addendum (2013) no WLA change. IDEQ planning to revise TP TMDL but not change hatchery WLAs.
4	IDG130035	IDFG Grace Fish Hatchery	Whiskey Creek, Bear River		TSS & TP; Bear River for TSS, TP, & <u>temperature</u>	
5	IDG130034	Clear Springs Foods Inc - Soda Springs Hatchery	Big Springs Creek, Bear River		Big Springs Creek not listed but Alexander Reservoir d/s for TSS & TP; Bear River for TP, TSS, <u>temperature</u>	
6	IDG130073	Clear Springs Foods Inc - Lost River Trout Hatchery	Warm Springs Creek	Big Lost	Temperature	TSS & temperature TMDL (2004) with WLAs. 2011 and 2017 Addendum - revisions to temperature WLAs.
7	IDG130030	IDFG Mackay Hatchery				
8	IDG130123	Ace Hatchery	Jacks Creek	Bruneau	E. coli, sediment, TSS, TP, <u>temperature</u>	TSS & TP TMDL (2001) with WLA. Jack's Creek TMDL (2007), revised TSS & TP WLAs. Not E. coli source.
9	IDG130122	Arraina Hatchery				
10	IDG131004	USFWS-Nez Perce Kooskia National Fish Hatchery	Clear Creek to Clearwater River	Clearwater	Tribal water, not assessed	N/A
11	IDG131003	USFWS Dworshak National Fish Hatchery	Clearwater River		Total dissolved gases (d/s of Nez Perce Reservation) but this section of the Clearwater is within the Reservation Boundary	No TMDL but pollutant not associated with hatcheries
12	IDG131002	IDFG Clearwater Hatchery				
13	Not assigned ¹	Nez Perce Tribal Hatchery				
14	IDG130085	Lower Fall Creek Hatchery	Fall Creek, Snake River	Lake Walcott	Fall Creek not listed; Snake River for sediment, nutrients, bacteria, mercury	TSS & TP TMDLs (2007) with WLAs. Mercury and bacteria not a hatchery pollutant of concern.
15	IDG130078	Upper Fall Creek Hatchery	Fall Creek, Snake River			

	Permit Number Existing GP	Facility	Receiving Water	Basin	2014 303(d) Status	TMDL Status
16	IDG130031	IDFG American Falls Hatchery	Rueger Springs to Snake River		Springs not assessed and immediate Snake River segment not listed. Snake River d/s for sediment, nutrients, bacteria. Lake Walcott for mercury.	TSS TMDL (2000) with WLA. Addendum (2007) revised TSS WLA and added TP WLA. Not a source for bacteria.
17	Not assigned ¹	Hayspur Hatchery	Butte Creek, trib to Loving Creek	Little Wood	Butte Creek not assessed but Loving Creek is listed for <u>temperature</u>	Temperature TMDL (2005). No WLA because it was below CAAP value and not permitted.
18	IDG131001	IDFG Cabinet Gorge Hatchery	Clark Fork River	Lower Clark Fork	Metals (Cd, Cu, Zn), total dissolved gases, & <u>temperature</u>	Metals and gas TMDLs approved. No WLAs because hatchery found not to be a source.
19	IDG131006	IDFG Nampa Hatchery	Wilson Drain to Boise River	Lower Boise	TSS, TP, bacteria, <u>temperature</u>	TSS TMDL (1999) with WLAs and TP TMDL (2015) with WLAs. Not E. coli source.
20	IDG131011	Ashton Hatchery	Black Springs Creek, Henry's Fork Snake River	Lower Henry's Fork	Beneficial uses not assessed	N/A
21	IDG131005	IDFG McCall Hatchery	North Fork Payette River	NF Payette Cascade Reservoir	Fully supporting but Cascade Reservoir downstream is listed for TP & pH	3 downstream phased TMDLs (1996, 1998, 2009) for TP with WLA.
22	IDG131007	IDFG Pahsimeroi Hatchery	Pahsimeroi River, Salmon River	Pahsimeroi	TSS, temperature	TSS and temperature TMDL (2001) with TSS WLA. Addendum (2013) for bacteria. No WLA for temperature because not a source.
23	IDG130043	Batise Springs Trout Farm	Portneuf River	Portneuf	Oil & grease, sediment, TN, TP, E. coli, DO, <u>temperature</u>	TSS TMDL (1999); Addendum (2001) for TP, TIN, TSS. Revision & addendum (2010) ² TSS & TP with WLAs. Not a source for oil & grease or E. coli.
24	IDG131010	IDFG Sawtooth Fish Hatchery	Salmon River	Salmon	Fully supporting; Downstream for temperature and sediment	Temperature TMDL downstream but no WLA because not a source. Sediment recommended for delisting.
25	IDG131009	IDFG Rapid River Hatchery	Rapid River		Fully supporting	N/A

Notes: Facilities in the Clearwater Basin are the only ones eligible under IDG133000. ¹ Not currently permitted but will require coverage. Underlined pollutants on 303(d) list indicate those not addressed via TMDL or ruled out as a potential pollutant of concern. TMDL approval year is in parentheses. ² 2010 TMDL revision superseded the 2001 addendum, so there is no TIN WLA for Batise Springs Trout Farm.

Key: chl a = chlorophyll a d/s = downstream DO = Dissolved Oxygen TIN = Total Inorganic Nitrogen TN = Total Nitrogen
TP = Total Phosphorus TMDL = Total Maximum Daily Load TSS = Total Suspended Sediment WLA = Wasteload Allocation

V. Rationale for Effluent Limitations

A. General Approach to Determining Effluent Limitations

Section 301(a) of the CWA, 33 USC § 1311(a), prohibits the discharge of pollutants to waters of the U.S. unless the discharger is authorized to discharge pursuant to an NPDES permit. CWA Section 402, 33 USC § 1342, authorizes the EPA, or an approved state or tribal NPDES program, to issue an NPDES permit authorizing discharges subject to limitations and requirements imposed pursuant to CWA Sections 301, 304, 306, 401 and 403, 33 USC §§ 1311, 1314, 1316, 1341 and 1343.

In general, the CWA requires that the limits for a particular pollutant be the more stringent of either technology-based effluent limits (TBELs) or water quality-based effluent limits (WQBELs). TBELs are set according to the level of treatment that is achievable using available technology. WQBELs are designed to ensure that the EPA-approved (state or tribal) water quality standards are being met, and they may be more stringent than TBELs. In many cases, TBELs are based on effluent limitation guidelines (ELGs) promulgated by the EPA for discharges from specific industries. If the EPA has not developed ELGs for an industrial category or for a pollutant, the EPA may use best professional judgment (BPJ) to develop TBELs.

After determining the appropriate TBEL(s), the EPA must determine if a WQBEL is necessary. This analysis is based upon an assessment of the pollutants discharged and a review of applicable water quality standards. In some cases, a dilution allowance or mixing zone is permitted. A mixing zone is a limited area or volume of water where initial dilution of a discharge takes place and within which certain water quality criteria may be exceeded (EPA, 2014). These permits do not allow for mixing zones, so the reasonable potential analysis and WQBELs are based on meeting the water quality standard at the discharge location (i.e., end of pipe). Monitoring requirements must be included in the permit to determine compliance with effluent limitations. Effluent and ambient monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

The EPA has evaluated possible discharges from aquaculture facilities with respect to these sections of the CWA and relevant NPDES implementing regulations to determine what conditions and requirements to include in the GPs.

B. Technology-Based Limitations

The intent of a TBEL is to require a minimum level of treatment based on currently available treatment technologies while allowing a discharger to choose and use any available control technique to meet the limitations. Accordingly, every individual member of a discharge class or category is required to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices.

40 CFR Part 451 contains ELGs for CAAP facilities. Although the NPDES permit program applies to all discharges from CAAP facilities, as defined at 40 CFR §122.24 (and in Section I.A. of this Fact Sheet), only those facilities that produce, hold, or contain 100,000 pounds or more of fish during any twelve-month period are subject to the CAAP ELGs. The CAAP ELGs include

narrative effluent limitations for production facilities, as well as reporting requirements for all facilities subject to the rule. The ELGs do not include numeric limitations because the EPA concluded that best management practices (BMPs) focusing on solids controls would also effectively control concentrations of other pollutants of concern, such as nutrients, because other pollutants are either bound to the solids or are incorporated into them.

ELG-Based TBELs

The draft GP contains the following narrative TBELs based upon the ELGs at 40 CFR §451.11(a) through (e). In the existing aquaculture GPs (i.e., 2007 GPs), the EPA applied the ELG requirements through BPJ to all facilities subject to the GP even if they did not meet the ELG threshold of 100,000 pounds per year. This is because the BMPs are consistent with current industry practices and maintain equity among the Idaho facilities and with facilities nationwide. The draft GP has retained the ELG-based requirements for all facilities subject to the GP.

1. Permittees that use flow-through and recirculating systems must develop and maintain a BMP Plan on site, which describes how they will achieve the following requirements:
 - a. *Solids control.* The permittee must employ efficient feed management and feeding strategies; identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting of aquatic animals in the production system; and remove and properly dispose of aquatic animal mortalities on a regular basis.
 - b. *Materials storage.* The permittee must properly store drugs, pesticides, and feed in a manner to prevent spills, and implement procedures for containing, cleaning, and disposing of any spilled material.
 - c. *Structural maintenance.* The permittee must inspect, conduct regular maintenance of, and repair the production and wastewater treatment systems on a routine basis.
 - d. *Recordkeeping.* The permittee must document feed amounts and numbers and weights of aquatic animals to calculate feed conversion ratios, and document the frequency of cleanings, inspections, maintenance, and repairs.
 - e. *Training.* The permittee must train personnel in spill prevention and response and on the proper operation and cleaning of production and wastewater treatment systems.

In addition, the EPA is including the following additional requirements pursuant to BPJ. *See also* 40 CFR §451.11. These requirements are also in the 2007 GPs but are reorganized in these permits to improve clarity.

Recordkeeping:

- a. Document all medicinal and therapeutic chemical usage for each treatment at the facility.
- b. Maintain a copy of the label (with treatment application requirements) and the Material Safety Data Sheet (MSDS) in the facility's records for each drug or chemical used at the facility.

Operational Requirements:

- a. Treatment equipment used to control the discharge of floating, suspended or submerged matter must be cleaned and maintained at a frequency sufficient to prevent overflow or bypass of the treatment unit by floating, suspended, or submerged matter.
- b. Prevent fish from entering quiescent zones, full-flow, and off-line settling basins. Fish which have entered quiescent zones or basins must be removed as soon as practicable.

Numeric TBELs

Since the 1999 permit cycle, all Idaho Aquaculture GPs have included numeric TBELs for total suspended solids (TSS) and total phosphorus (TP) based on BPJ using treatment data collected in the 1970s and 1980s. The monitoring data were used to identify achievable average monthly limits (AMLs) for raceways and flow-through facilities and a maximum daily limit (MDL) for offline settling basins (OLSBs). Using statistically-based methods in the *Technical Support Document for Water Quality Based Toxics Control (TSD)* [EPA/505/2-90-001], the MDLs were calculated for raceways/flow-through facilities and the AML was calculated for OLSBs.

The TBELs for warm water facilities were revised during the 2007 permit cycle based on facility-specific differences and a more comprehensive dataset. Part of the revision of the warm water TBELs was updated coefficients of variation (CVs) for TP and TSS based on updated facility data. Although only the warm water TBELs were revised, new TP and TSS CVs for cold water rearing facilities were calculated from a subset of the effluent data compiled by IDEQ for the years 2000 – 2002, using the data reported by 22 of the largest cold water facilities. The basis for the TBELs is not being re-examined for these permits because the treatment technology has not changed since the TBELs were derived.

The 90 percent TSS percent removal requirement in the 2007 GP that applied to OLSBs is being removed. It was initially included in the aquaculture GPs to be similar to the removal efficiency requirement in the National Secondary Standards (for publicly owned treatment works); that requirement was included within the National Secondary Standards to promote municipalities to reduce infiltration and inflow in their collection systems and to prevent intentional dilution of the influent. Although there is generally a high level of compliance with the percent TSS removal limit, the limit is not appropriate because aquaculture facilities are operationally much different than publicly owned treatment works. OLSBs typically receive only about 1 percent of flow going through an aquaculture facility and are a secondary settling zone that receive water and solids from quiescent zones and rearing areas (IDEQ, 1997). Under CWA §402(o)(2)(B)(ii), the EPA can remove the TSS percent removal requirement because the requirement was inappropriately applied as a TBEL. Thus, there is a basis to backslide from the previous permit requirement.

With the exception of the removal of the percent removal requirements for TSS, the proposed TBELs remain the same as in the existing permit. The TBELs are listed below in Table 4.

Table 4. Proposed TBELs

Wastewater Source	Pollutant	Average Monthly Limit (mg/L) ¹	Maximum Daily Limit (mg/L) ¹
Coldwater Raceways and Ponds	TSS	5	10

Table 4. Proposed TBELs

Wastewater Source	Pollutant	Average Monthly Limit (mg/L) ¹	Maximum Daily Limit (mg/L) ¹
	TP	0.10	0.16
All Offline Settling Basins	TSS	67	100
Ace (IDG130123)	TSS	33.3	79.2
	TP	0.4	0.8
Arraina (IDG130122)	TSS	21.8	43.4
	TP	0.3	0.5

¹Net = effluent concentration – influent concentration. For OLSBs, influent = facility influent, which equals 0 if not sampled.

C. Water Quality-Based Effluent Limitations

Section 301(b)(1)(C) of the CWA requires the development of limitations in permits necessary to meet water quality standards. Discharges to State or Tribal waters must also comply with limitations imposed by the State or Tribe as part of its certification of NPDES permits under section 401 of the CWA. 40 CFR §122.44(d)(1) requires that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State or Tribal water quality standard, including narrative criteria for water quality. If there is reasonable potential, the EPA must determine whether the TBEL will be protective of the corresponding water quality criteria, and if the TBEL is not protective of water quality standards or there is no TBEL for a pollutant with reasonable potential, a WQBEL must be developed. WQBELs must be stringent enough to ensure that water quality standards are met and be consistent with any available TMDL WLA (40 CFR §122.44(d)(1)(vii)(B)).

As shown in Table 2, 18 of the eligible facilities have applicable TMDL WLAs. If there are no applicable WLAs, the WQBEL is calculated directly from the applicable water quality standards. This section summarizes the proposed WQBELs; additional details about the evaluation process and applicable WQBELs are provided in Appendix A.

Narrative WQBELs

Under 40 CFR §122.44(k), the EPA may apply BMPs as WQBELs for a variety of reasons, including if numeric effluent limitations are infeasible, or if the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In the absence of numeric criteria for drugs or chemicals used at the aquaculture facilities (except for chlorine) and because solids control is one of the primary mechanisms for ensuring attainment of State and/or Tribal narrative water quality standards, the following narrative WQBELs apply to all permittees to ensure discharges do not violate Idaho's surface water quality criteria at IDAPA §58.01.02.200, hazardous material storage rules at IDAPA §58.01.02.800, or the Coeur d'Alene Tribe's narrative criteria.

- a) All approved drugs and registered pesticides must be used in accordance with applicable label directions (FIFRA or FDA), except as part of participation in Investigational New Animal Drug (INAD) studies or as prescribed by a veterinarian;
- b) Discharge of any toxic substances, including drugs, pesticides, disinfectants, or other chemicals in concentrations that impair designated uses are prohibited;

- c) Discharge of copper sulfate and chelated copper compounds to waters of the U.S. is prohibited;
- d) Discharge of untreated cleaning wastewater (e.g., obtained from a vacuum or standpipe bottom drain system or rearing/holding unit disinfection) is prohibited;
- e) Discharge of floating, suspended or submerged matter, including solids, foam, fish guts, blood or dead fish, in amounts causing nuisance or objectionable condition or that may impair designated beneficial uses in the receiving water is prohibited;
- f) Removal of dam boards in raceways or ponds which allow accumulated solids in excess of the limits to be discharged to waters of the U.S. is prohibited;
- g) Sweeping, raking, or otherwise intentionally discharging accumulated solids from raceways or ponds to waters of the U.S. is prohibited; and
- h) Containing, growing or holding fish within a full-flow or OLSB is prohibited; this prohibition does not apply to basins or ponds where fish are used as part of the waste treatment system.
- i) Hazardous and deleterious materials must not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the U.S., unless adequate measures and controls are provided to ensure that those materials will not enter waters of the U.S.

The discharge of copper compounds is not prohibited in the 2007 GPs, however the GPs include a BMP requirement to apply chelated copper compounds and copper sulfate to one raceway at a time. The draft GP prohibits the discharge of copper compounds because the aquaculture industry has shifted away from using chelated copper compounds and copper sulfate, and because of copper's toxicity to aquatic life. Additional rationale for the change is provided in Appendix A.

Numeric WQBELs

Where TMDL WLAs have been approved by the EPA (as part of TMDLs developed by IDEQ), numeric effluent limits have been developed. Depending on the facility, WQBELs were developed for TSS, TP, and/or temperature. The WLAs and associated WQBELs are discussed in more detail in Appendix A, Section 2.B. The EPA concluded that where there is no impairment in the receiving water or applicable WLAs, TBELs and narrative WQBELs are sufficient to meet water quality standards and no numeric WQBELs are necessary for the following pollutants of concern: BOD₅, biological wastes, floating and submerged matter, TSS, settleable solids, TP, TN, ammonia, temperature, and therapeutic drugs and chemicals (except chlorine).

Chlorine

For facilities that use chlorine or Chloramine-T that is discharged to waters of the U.S., the EPA determined there is reasonable potential to exceed the water quality standard, and is applying an average monthly limit (9 ug/L) and a maximum daily limit (18 ug/L). Additional details about the WQBEL evaluation process and applicable WQBELs are provided in Appendix A, and the chlorine effluent limit calculations are in Appendix B.

VI. Effluent Limitations

The following effluent limitations and conditions apply to all eligible facilities.

Narrative Effluent Limits

- 1) Develop and implement a BMP Plan that addresses the minimum requirements listed in Part VIII.C. of the Fact Sheet.

Prohibited Practices and Discharges

- 1) Discharge of untreated cleaning wastewater (e.g., obtained from a vacuum or standpipe bottom drain system or rearing/holding unit disinfection) is prohibited;
- 2) Discharge of any toxic substances, including drugs, pesticides, disinfectants, or other chemicals in concentrations that impair designated uses are prohibited;
- 3) Discharge of copper sulfate and chelated copper compounds to waters of the U.S. is prohibited;
- 4) Discharge of floating, suspended or submerged matter, including solids, foam, fish guts, blood or dead fish, in amounts causing nuisance or objectionable condition or that may impair designated beneficial uses in the receiving water is prohibited;
- 5) Removal of dam boards in raceways or ponds which allow accumulated solids in excess of the limits to be discharged to waters of the U.S. is prohibited;
- 6) Sweeping, raking, or otherwise intentionally discharging accumulated solids from raceways or ponds to waters of the U.S. is prohibited; and
- 7) Containing, growing or holding fish within an OLSB is prohibited; this prohibition does not apply to basins or ponds where fish are used as part of the waste treatment system.

Numeric Effluent Limits

For any facility that uses Chloramine-T or chlorine that is or may be discharged to waters of the U.S., the applicable effluent limits for total residual chlorine are listed in Table 5. This does not apply if chlorine is being used for disinfection and allowed to dry in place.

Table 5. Effluent limits for Total Residual Chlorine for all facilities

Parameter	Average Monthly Limit ($\mu\text{g/L}$) ¹	Maximum Daily Limit ($\mu\text{g/L}$) ¹
Total Residual Chlorine	9	18

¹Permittee will be in compliance with the effluent limits if the reported concentration is at or below the compliance evaluation level of 50 $\mu\text{g/L}$.

Facilities with no applicable WLAs have TBELs for TSS and TP (Table 6). Facilities with applicable WLAs have WQBELs for the associated pollutant, unless the TBEL is more stringent (Table 7). As denoted in Table 7, limits for several facilities changed because of new or revised WLAs. As discussed in Section VIII.A. and Appendix A, Ace and Arraina hatcheries will receive interim limits and a compliance schedule to meet their new TSS and TP WQBELs (Table 8). Additional information about the WLAs and WQBELs is provided in Appendix A.

Table 6. Proposed Effluent Limits for Coldwater Facilities with No WLAs

Permit ID (Existing GP)	Facility	<i>Raceway, Pond, Full-Flow Settling Basin Discharges</i>				OLSB (if applicable) ²	
		Average Monthly Limit TSS (mg/L) ¹	Maximum Daily Limit TSS (mg/L) ¹	Average Monthly Limit TP (mg/L) ¹	Maximum Daily Limit TP (mg/L) ¹	Average Monthly Limit TSS (mg/L) ¹	Maximum Daily Limit TSS (mg/L) ¹
IDG131001	IDFG Cabinet Gorge Hatchery	5	10	0.10	0.16	67	100
IDG131002	IDFG Clearwater Hatchery						
IDG131003	USFWS Dworshak National Fish Hatchery						
IDG131004	USFWS-Nez Perce Kooskia National Fish Hatchery						
IDG131009	IDFG Rapid River Hatchery						
IDG131010	IDFG Sawtooth Fish Hatchery						
IDG131011	Ashton Hatchery						
Not assigned	Hayspur Hatchery						
Not assigned	Nez Perce Tribal Hatchery						

¹Net = effluent concentration – influent concentration. For OLSBs, influent = facility influent, which equals 0 if not sampled. ²Based on NOIs, IDG131003 and IDG131004 are the only eligible facilities with OLSBs.

Table 7. Proposed Effluent Limits for Facilities with TMDL WLAs

Permit ID (Existing GP)	Facility	Parameter	AML	MDL	Limit Basis
IDG130038	IDFG Springfield Hatchery	Net TP	13.5 lb/d	Annual limit: 3260 lb/yr	WLA ¹
		Net TSS	5 mg/L	10 mg/L	TBEL ¹
Not assigned	Shoshone-Bannock Crystal Springs Hatchery	Net TP	6.48 lb/d	Annual limit: 1560 lb/yr	WLA ¹
		Net TSS	5 mg/L	10 mg/L	TBEL ¹
IDG130113	BCT LLC – Black Canyon Trout Farm	Net TP	Jan 1 – Mar 31: 5.4 lb/d Apr 1 – Jun 30: 8.0 lb/d Jul 1 – Dec 31: 3.6 lb/d	Jan 1 – Mar 31: 8.0 lb/d Apr 1 – Jun 30: 11.8 lb/d Jul 1 – Dec 31: 5.3 lb/d	WLA
		Net TSS	539.0 lb/d	1024.1 lb/d	WLA
IDG130035	IDFG Grace Fish Hatchery	Net TP	Jan 1 – Mar 31: 1.32 lb/d Apr 1 – Jun 30: 0.99 lb/d Jul 1 – Sep 30: 0.51 lb/d Oct 1 – Dec 31: 0.46 lb/d	Jan 1 – Mar 31: 2.0 lb/d Apr 1 – Jun 30: 1.5 lb/d Jul 1 – Sep 30: 0.8 lb/d Oct 1 – Dec 31: 0.7 lb/d	WLA
		Net TSS	425.8 lb/d	809.0 lb/d	WLA
IDG130034	Clear Springs Foods Inc - Soda Springs Hatchery	Net TP	Apr 1 – Sep 30: 2.05 lb/d Oct 1 – Mar 31: 4.6 lb/d	Apr 1 – Sep 30: 3.0 lb/d Oct 1 - Mar 31: 6.8 lb/d	WLA ¹
		Net TSS	475.8 lb/d	904.0 lb/d	WLA
IDG130073	Clear Springs Foods Inc - Lost River Trout Hatchery	Temperature Sep 1 – Jul 15	Influent ≤9°C: 9°C Influent >9°C: 0.15°C Δ	Influent ≤13°C: 13°C Influent >13°C: 0.15°C Δ	WLA ¹
		Net TP	0.10 mg/L	0.16 mg/L	TBEL
		Net TSS	2.0 ² mg/L	5.0 mg/L	WLA
IDG130030	IDFG Mackay Hatchery	Temperature Sep 1 – Jul 15	Influent ≤9°C: 9°C Influent >9°C: 0.15°C Δ	Influent ≤13°C: 13°C Influent >13°C: 0.15°C Δ	WLA ¹
		Net TP	0.10 mg/L	0.16 mg/L	TBEL
		Net TSS	2.0 ² mg/L	5.0 mg/L	WLA
IDG130085	Lower Fall Creek Hatchery	Net TP	4.0 lb/d	5.9 lb/d	WLA
		Net TSS	672.3 lb/d	1277.4 lb/d	WLA
IDG130078	Upper Fall Creek Hatchery	Net TP	6.7 lb/d	9.9 lb/d	WLA
		Net TSS	577.8 lb/d	1097.8 lb/d	WLA
IDG130031	IDFG American Falls Hatchery	Net TP	8.6 lb/d	12.7 lb/d	WLA
		Net TSS	534.6 lb/d	1015.7 lb/d	WLA
IDG131006	IDFG Nampa Hatchery	Net TP	16.2 lb/d	--	WLA ¹
		Net TSS	5 mg/L	10 mg/L	WLA ¹
IDG131005	IDFG McCall Hatchery	Net TP	0.02 mg/L	Annual limit: 480.6 lb/yr	WLA ¹
		Net TSS	5 mg/L	10 mg/L	TBEL
IDG130043	Batise Springs Trout Farm	Net TP	13.0 lb/d	19.2 lb/d	WLA
		Net TSS	838.2 lb/d	1592.6 lb/d	WLA
IDG131007	IDFG Pahsimeroi Hatchery	Net TP	0.10 mg/L	0.16 mg/L	TBEL
		Net TSS	5 mg/L	10 mg/L	WLA

Note: For Net TSS and TP, Net = effluent concentration – influent concentration.

¹Change in limit from 2007 GP based on new or revised TMDL WLAs. See Appendix A for details.

²Permittee will be in compliance if the reported concentration is at or below the method detection limit of 5 mg/L.

Table 8. Interim and final effluent limits for Ace and Arraina hatcheries.

Permit ID (Existing GP)	Facility	Parameter ¹	Interim AML ²	Interim MDL ²	Final AML	Final MDL
IDG130122	Arraina Hatchery	Net TSS	356.4 lb/d	1001.5 lb/d	53.46 lb/d	103.7 lb/d
		Net TP	4.8 lb/d	10.2 lb/d	0.72 lb/d	1.25 lb/d
IDG130123	Ace Hatchery	Net TSS	218.7 lb/d	614.5 lb/d	32.81 lb/d	73.82 lb/d
		Net TP	2.9 lb/d	6.2 lb/d	0.44 lb/d	0.88 b/d

¹ For Net TSS and TP, Net = effluent concentration – influent concentration.
²The interim TSS and TP limitations are effective beginning the effective date of the authorization to discharge, not to exceed 5 years.

A. Antibacksliding Analysis

Section 402(o)(2) of the Clean Water Act and federal regulations at 40 CFR §122.44 (l) generally prohibit the renewal, reissuance or modification of an existing NPDES permit that contains effluent limits, permit conditions or standards that are less stringent than those established in the previous permit (i.e., anti-backsliding) but provides limited exceptions. Section 402(o)(1) of the CWA states that a permit may not be reissued with less stringent limits established based on Sections 301(b)(1)(C), 303(d) or 303(e) (i.e. WQBELs or limits established in accordance with state treatment standards) except in compliance with Section 303(d)(4). Section 402(o)(1) also prohibits backsliding on TBELs established using BPJ [i.e. based on Section 402(a)(1)(B)].

The EPA has reviewed Idaho's antidegradation analyses and finds it is consistent with the § 401 certification requirements and the State's antidegradation implementation procedures. Therefore, any revised limits that are less stringent than in the previous permit are not prohibited by the CWA Section 303(d)(4)(B). See Appendix D for the state's draft CWA § 401 certification. More details regarding specific effluent limit changes are discussed in Appendix A.

VII. Monitoring and Reporting Requirements

A. Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and 40 CFR §122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality.

The permittee is responsible for conducting the monitoring and for reporting results on DMRs, annual reports, or on the application for renewal, as appropriate, to the EPA. Permittees must analyze water samples using a sufficiently sensitive EPA approved analytical method.

B. Monitoring Location(s)

Discharges authorized by these permits must be monitored at each outfall identified in the NOI. Facilities with multiple effluent discharge points to the same receiving water and/or influent points must composite samples from all points proportionally to their respective flows. Composite

samples must consist of four (4) or more discrete samples taken at one-half hour intervals or greater in a 24-hour period when the pollutant being measured is anticipated to be at its highest concentration. When applicable, at least one fourth of the samples must be taken during quiescent zone or raceway cleaning. If a facility discharges from multiple locations to more than one receiving water, one representative composite sample must be analyzed for each receiving water.

Effluent samples must be collected from the effluent stream just prior to discharge into the receiving water. If off-line settling basin effluent combines with raceway flows, at least one quarter of the grab samples that go into a composite sample must be collected when the OLSB is discharging.

The current permit requires limited monitoring of small discharges that make up less than one percent of raceway flows. Based on inspection observations and annual reports, such flows are unusual, and if present are so small that they are difficult to quantify. No facilities eligible for coverage under either of these permits have reported small discharges that make up less than one percent of raceway flows and based on a review of all eligible facilities in Idaho, only a handful have such discharges. In a review of data from four facilities between 2015 and 2018, the flows make up between 0.2% and 0.02% of raceway flow, are of similar or better quality than raceway discharges, and are generally associated with excess spring flows that are not exposed to hatchery processes. Based on the infrequency, quantity, and quality of these discharges, this monitoring requirement is being discontinued.

C. Effluent Monitoring Parameters

All facilities must monitor flow, TSS, and TP, and some facilities must monitor total residual chlorine and temperature, as described below. Hardness and total recoverable copper monitoring were required in the 2007 GP when copper sulfate or chelated copper compounds were used but this requirement is being discontinued since copper usage is prohibited in these GPs. Two facilities have TN monitoring requirements in the 2007 GPs because of effluent limits, but TN monitoring is being discontinued for those facilities because the effluent limits are being removed in association with revised TMDLs.

Total Residual Chlorine

Chlorine monitoring is not required if chlorine is used for disinfection and allowed to dry at the location of use. If Chloramine-T or chlorine is or may be discharged to waters of the U.S., monitoring must be performed when the effluent concentration is expected to be greatest. The permittee will be considered in compliance with the effluent limits for total residual chlorine if the concentration is at or below the Minimum Level (ML) of 50 µg/L. If the maximum daily limit is violated, reporting to the EPA is required within 24 hours.

Temperature

The facilities listed in Table 9 are required to perform continuous temperature monitoring (at one-hour intervals) at the locations and for the time frames indicated. Any facilities with a WLA must monitor for the entire permit term. All cold water facilities in Table 9 without a WLA must monitor for one year from May 1st through November 30th. The warm water facilities, Ace and Arraina, must monitor effluent temperatures continuously year-round for the first two years of permit coverage, except for when effluent is entirely used for irrigation and not discharged to Jacks Creek.

No influent monitoring is required for the warm water facilities since wells are used for their source water. Temperature data must be collected using a micro-recording temperature device known as a thermistor. If a facility has multiple intakes and/or outfalls, the permittee must ensure monitoring is representative of influent and effluent quality by sampling in a location of combined influent/effluent, and if that is not possible, by using separate temperature loggers for each location, unless it is documented in the QAP why a single influent and effluent monitoring location is representative (e.g., based on the same source or from paired temperature data).

As indicated in Table 3, monitoring is required for these facilities based on impairment of the receiving water or a downstream water, or because of an existing TMDL. For facilities with a WLA, the data will be used to evaluate permit compliance but for all other facilities the data are intended to support TMDL development. Hayspur Hatchery discharges to Butte Creek, a tributary to Loving Creek, which has a temperature TMDL based on the natural potential vegetation (i.e., target shade) condition. There are no WLAs in the TMDL. Monitoring is required in lieu of a limit because the facility is on a spring fed tributary to Loving Creek, uses spring water as its influent, and there is insufficient information to determine if the facility needs a limit.

The temperature monitoring for facilities only required to monitor during one year must be completed and data submitted to the EPA and IDEQ within 4 years of the effective date of the permit. It is recommended that facilities consult with the appropriate regional IDEQ office for support regarding thermistor deployment and placement. To conserve resources, facilities may coordinate monitoring so that several facilities use the same thermistors during different years. Permittees must complete and submit the monitoring information in Appendix C of the GP to the EPA and IDEQ prior to initiating continuous temperature monitoring and follow the IDEQ protocol for thermistor deployment (http://www.deq.idaho.gov/media/487602-wq_monitoring_protocols_report10.pdf).

Table 9. Facilities required to conduct temperature monitoring.

	Permit	Facility	Receiving Water	Basin	Duration
1	IDG130113	BCT LLC – Black Canyon Trout Farm	Bear River	Bear	May-Nov one yr
2	IDG130035	IDFG Grace Fish Hatchery	Whiskey Creek, Bear River		May-Nov one yr
3	IDG130034	Clear Springs Foods Inc - Soda Springs Hatchery	Big Springs Creek, Bear River		May-Nov one yr
4	IDG130073	Clear Springs Foods Inc - Lost River Trout Hatchery	Warm Springs Creek	Big Lost	Permit Term
5	IDG130030	IDFG Mackay Hatchery			Permit Term
6	IDG131006	IDFG Nampa Hatchery	Wilson Drain to Boise River	Boise	May-Nov one yr
7	IDG131001	IDFG Cabinet Gorge Hatchery	Clark Fork River	Lower Clark Fork	May-Nov one yr
8	IDG130043	Batise Springs Trout Farm	Portneuf River	Portneuf	May-Nov one yr
9	IDG130123	Ace Hatchery	Jacks Creek	Bruneau	Year-round first two years of permit coverage ¹
10	IDG130122	Arraina Hatchery			
11	Not assigned	IDFG Hayspur Hatchery	Butte Creek, trib to Loving Creek	Little Wood	May-Nov one yr

¹Monitoring is only required at Ace and Arraina at times when effluent is being discharged to Jacks Creek.

Table 10 summarizes influent and effluent monitoring requirements for all facilities. All facilities must monitor flow, TSS, and TP. Temperature monitoring is only required for the subset of facilities indicated in Table 9. Total residual chlorine monitoring is only required if Chloramine-T or chlorine is or is expected to be discharged, not if chlorine is used as a disinfectant that dries in place.

Table 10. Monitoring Requirements for Raceways, Full-Flow Settling Basins, and OLSBs.

Parameter	Units	Sample Frequency	Sample Type	Sample Location
Flow	cfs	Weekly ¹	Meter, calibrated weir, or other approved method	Effluent ²
Total Suspended Solids (TSS)	mg/l	Variable ³	Composite	Influent & Effluent ⁴
	lbs/day			
Total Phosphorus (TP)	mg/l	Variable ³	Composite	Influent & Effluent ⁴
	lbs/day			
Temperature (only facilities in Table 8)	°Celsius	Continuous	Thermometer	Influent & Effluent ⁴
Total Residual Chlorine ⁵	µg/L	1/quarter	Grab	Effluent ²

¹Flow must be measured weekly during the months when TSS and TP sampling is conducted, see Section VII.D, below. The measurement conducted the week TSS and TP are collected must be collected the same day as those samples.

²Effluent samples must be collected prior to discharge into the receiving waters. If sampling is for an OLSB that goes directly into the receiving water, influent or effluent flow may be taken, if it is representative of effluent flows.

³ Sampling frequency for TSS and TP is dependent on facility production volume, see Section VII.D, below.

⁴Influent and effluent samples must be collected the same day. No influent temperature monitoring is required for the warmwater facilities.

⁵ Only required if Chloramine-T or chlorine may be discharged. Sample when concentration is expected to be greatest.

D. Monitoring Timing and Frequency

All facilities must monitor flow once weekly during the months TSS and TP are collected (see discussion below regarding frequency) to calculate the average monthly flow and a maximum daily flow (for the month). This is a change from the current permit, which requires once monthly discharge measurements. The change is being proposed because the main value of flow measurements is in computing TSS and TP loads and focusing more measurements on the months when those parameters are collected will allow for a more robust measurement of monthly loads. During the week of TSS and TP sampling, flow measurements must be taken concurrently with each pollutant sampling, when applicable, once for every composite sample; it may be taken on either the influent or effluent as long as the measurement at that location accurately reflects the discharge flow to the receiving water. Facilities using spring water as influent sources may elect to take grab samples instead of composite if the influent water quality is consistent throughout the day. If no discharge occurs during the reporting period, “no discharge” shall be reported on the DMR.

When TSS and TP sampling is required, all influent and effluent samples must be taken on the same day. The frequency of monitoring for TSS and TP is dependent on the annual production volume of the facility. For facilities that produce more than 500,000 pounds of harvestable weight of fish per year, monitoring is required monthly, starting the first full month of permit coverage. For facilities that produce between 100,000 and 500,000 pounds of harvestable weight of fish per year, monitoring is required once per calendar quarter, beginning in the first full calendar quarter after the permit’s effective date. For facilities that produce less than 100,000 pounds of harvestable weight of fish per year, monitoring is required twice per calendar year, once in January – June and once in

July – December, beginning in the first full calendar half year after the permit’s effective date. Although the frequency may change for some facilities based on updated NOIs, using the production information from NOIs on file (see Table 2), most facilities will be required to monitor quarterly (Table 11). All facilities with an annual TP limit (see Table 7) must monitor at least quarterly. Because the monitoring frequency is dependent on production, which must be indicated on the NOI, the TSS and TP monitoring frequency for each facility will be specified in the discharge authorization letter.

Table 11. Probable Effluent Monitoring Frequency for Parameters Besides Temperature and Chlorine (if applicable). Final Frequency will be indicated in permit authorization letter.

Current NPDES ID (IDG13____)	Effluent Monitoring Frequency
1001, 1004, 1007, 1010, 1011, 0030, 0113, Hayspur	Semiannually
1003, 1005 ¹ , 1006, 1009, 0031, 0034, 0035, 0038, 0043, 0073, 0078, 0085, 0122	Quarterly
1002, IDG0028266	Monthly

¹Produces <100K pounds annually but must monitor quarterly for TP because it has an annual limit

E. Surface Water Monitoring

Based on the addition of the copper prohibition and the findings of the ammonia and temperature reasonable potential analyses for OLSBs, the receiving water monitoring requirements will no longer apply to OLSBs. However, to facilitate evaluation of the influent/effluent data for TMDL development, as well as a Use Attainability Analysis for Jacks Creek (i.e., receiving water for Ace and Arraina), facilities identified in Table 9, except for Mackay and Lost River Hatcheries (which have TMDLs), are required to collect continuous temperature data in the receiving water upstream of the facility. All cold water facilities in Table 9 without a WLA must collect receiving water temperatures during one year of the permit term from May 1st through November 1st. The surface water temperature monitoring must be conducted the same year as the influent/effluent monitoring. The warm water facilities, Ace and Arraina, must collect receiving water temperatures during the first two years of permit coverage during time periods when effluent is being discharged to Jacks Creek, which corresponds with the time period for effluent monitoring. The same data submission and coordination requirements that apply to the effluent apply to the surface water monitoring (see Section VII.C., above).

F. Electronic Submission of Discharge Monitoring Reports

The draft permit requires that the permittee submit DMR data electronically using NetDMR. NetDMR is a national web-based tool that allows DMR data to be submitted electronically via a secure Internet application.

The EPA currently conducts free training on the use of NetDMR. Further information about NetDMR, including upcoming trainings and contacts, is provided on the following website: <https://netdmr.epa.gov>. The permittee may use NetDMR after requesting and receiving permission from EPA Region 10.

G. Annual Reporting

All permittees are required to submit an Annual Report that describes the previous year's production, feed rates, use of aquaculture drugs and chemicals, and the facility's efforts to adhere to required operating practices. The information required for the Annual Report is included in Appendix B of the GP but the report must be submitted electronically.

H. Other Reporting

Based on the reporting requirements at 40 CFR § 451.3, all permittees are required to report certain events to the EPA before or when they happen, including the use of an Investigational New Animal Drug (INAD) or the extra-label use of an aquaculture drug, failures in containment systems that result in unanticipated releases of pollutants, and spills of drugs and pesticides that result in their release to receiving waters. The EPA has clarified the reporting requirements for INAD and extra-label drug use (See Section VII.B. of the General Permit, and Chapter 6 of the EPA Compliance Guide for CAAP Facilities at http://water.epa.gov/scitech/wastetech/guide/aquaculture/upload/2006_05_03_guide_aquaculture_guidance_full-final.pdf).

VIII. Special Conditions

A. Compliance Schedules

Compliance schedules are authorized by federal NPDES regulations at 40 CFR § 122.47 and Idaho WQS at IDAPA 58.01.02.400.03. Compliance schedules allow a discharger to phase in, over time, compliance with water quality-based effluent limitations when limitations are in the permit for the first time. The EPA has found that a compliance schedule is appropriate for Ace and Arraina hatcheries because they cannot immediately comply with the TSS or TP effluent limits, which are substantially less than their current limits. The rationale is described in more detail in Appendix A.

Because the effluent limits are 15 percent of the existing limits, which correspond to TMDL WLAs (*see* Appendix A) and are based on irrigation season reuse, but apply year-round, Ace and Arraina will be provided five years to meet the final effluent limits. The interim effluent limits correspond to the limits in the existing permit.

B. Quality Assurance Plan (QAP)

Federal regulations at 40 CFR § 122.41(e) require permittees to properly operate and maintain their facilities, including "adequate laboratory controls and appropriate quality assurance procedures." To implement this requirement, the GP requires the permittee develop or update a QAP to ensure that the monitoring data submitted to the EPA are complete, accurate, and representative of the environmental or effluent conditions.

Permittees with an existing QAP and new Permittees must submit a certification statement containing the information in Appendix C to the EPA and IDEQ (or applicable Tribe) with the NOI to certify a QAP has been developed and is being implemented. The permittee may submit the notification as an electronic attachment to the DMR. The QAP must include the standard operating procedures the permittee follows for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting. The QAP must be kept on-site and made available to the EPA and the IDEQ upon request. The EPA does not propose any changes to the QAP requirements from the previous permit. The permittee must review the QAP annually. In addition, a certified statement

that the annual review has been completed and that the QAP fulfills the requirements set forth in the permit must be included in the Annual Report (see example in Appendix B of the GP) that is submitted to the EPA and IDEQ (or applicable Tribe), due by January 20th each year.

C. Best Management Practices (BMP) Plan

The Clean Water Act authorizes and the EPA regulations at 40 CFR §122.44(k) provide for requirements to implement BMPs in NPDES permits to control or abate the discharge of pollutants whenever necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. The BMP Plan is intended to meet the narrative TBELs described in Section V.B of this Fact Sheet. Through implementation of the BMP Plan, the permittee will prevent or minimize the generation and discharge of wastes and pollutants from the facility to the waters of the U.S.

Compared to the current permit, there are no new BMP Plan requirements, but the requirements have been reorganized to better align with how they are expressed in 40 CFR § 451.11(a) through (e). The BMP Plan must, at a minimum, describe how the permittee will achieve the following requirements:

1) Record Keeping:

- a. Document the frequency of cleanings, inspections, maintenance, and repairs.
- b. Document feed amounts and numbers and weights of aquatic animals to calculate feed conversion ratios.
- c. Document all medicinal and therapeutic chemical usage for each treatment at the facility. Include the information required in the Drug, Pesticide & Chemical Use Report (Appendix D of the GP) and in the Annual Reports (Appendix B of the GP).
- d. Maintain a copy of the label (with treatment application requirements) and the Material Safety Data Sheet (MSDS) in the facility's records for each drug or chemical used at the facility.

2) Chemical Storage:

- a. Ensure proper storage of drugs and other chemicals to prevent spills that may result in the discharge to waters of the U.S.
- b. Procedures must be implemented to prevent the release of chemicals, disinfectants or cleaning agents to waters of the U.S.;

3) Structural Maintenance:

- a. Routinely inspect rearing and holding units and waste collection and containment systems to identify and promptly repair damage.
- b. Regularly conduct maintenance of rearing and holding units and waste collection and containment systems to ensure their proper function.

4) Training Requirements:

- a. Train all relevant personnel in spill prevention and how to respond in the event of a spill to ensure proper clean-up and disposal of spilled materials.

- b. Train personnel on proper structural inspection and maintenance of rearing and holding units and waste collection and containment systems.

5) Operational Requirements:

- a. Fish feeding must be conducted in such a manner as to minimize the discharge of unconsumed food.
- b. Treatment equipment used to control the discharge of floating, suspended or submerged matter must be cleaned and maintained at a frequency sufficient to prevent overflow or bypass of the treatment unit by floating, suspended, or submerged matter.
- c. Exclude fish from quiescent zones, full-flow and off-line settling basins. Fish which have entered quiescent zones or basins must be removed as soon as practicable.
- d. All approved drugs and registered pesticides must be used in accordance with applicable label directions (FIFRA or FDA), except under the following conditions, both of which must be reported to the EPA and IDEQ (or applicable Tribe) in accordance with Part IV.A., below:
 - e. Participation in Investigational New Animal Drug (INAD) studies, using established protocols; or
 - f. Extralabel drug use, as prescribed by a veterinarian.
 - g. Implement procedures to prevent the release of chemicals, disinfectants or cleaning agents to waters of the U.S.
 - h. Implement procedures to ensure animal mortalities are removed from raceways on a regular basis.

Based on a review of the BMP Plan requirements in the current permit relative to practices and conditions at Idaho hatcheries, the requirements to implement procedures to eliminate the release of PCBs from any known sources and use purchasing procedures that preferentially select fish feed with the lowest quantity of PCBs are being removed. This decision is discussed in more detail in Appendix A.

Existing and new permittees must submit the certification statement containing the information in Appendix C of the GP to the EPA and IDEQ (or applicable Tribe) with the NOI to certify that a BMP Plan has been developed and is being implemented. An existing BMP Plan may be modified. The permittee must maintain a copy of the BMP Plan at the facility and make it available to the EPA, IDEQ/applicable Tribe, or an authorized representative upon request. The BMP Plan is an enforceable condition of the permit and must be amended whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to surface water. With any change in operator, the BMP plan must be reviewed and modified, if necessary.

The permittee must review the BMP Plan annually. A certified statement that the annual review has been completed and that the BMP Plan fulfills the requirements set forth in the GP is one of the items that must be included in the Annual Report (see information in Appendix B of the GP) which must be submitted to the EPA and IDEQ (or applicable Tribe), due by January 20th each year.

IX. Environmental Justice Considerations

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

The EPA does not believe that these hatcheries present an environmental justice concern. The eligible facilities tend to be located in fairly remote areas, and far enough from neighboring communities that they would not pose a health threat. Hatcheries are not considered to be sources of pathogens that threaten human health. All therapeutic drugs and chemicals must be applied according to label instructions, or with permission of an INAD or veterinarian prescription. Regardless of whether a facility is located near a potentially overburdened community, The EPA encourages permittees to review (and to consider adopting, where appropriate) “Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways to Engage Neighboring Communities” (see <https://www.federalregister.gov/articles/2013/05/09/2013-10945/epa-activities-to-promote-environmental-justice-in-the-permit-application-process#p-104>). Examples of promising practices include thinking ahead about community’s characteristics and the effects of the permit on the community, engaging the right community leaders, providing progress or status reports, inviting members of the community for tours of the facility, providing informational materials translated into different languages, setting up a hotline for community members to voice concerns or request information, follow up, and other activities.

X. Other Legal Requirements

A. Antidegradation Requirements

The EPA must consider state and tribal antidegradation policies. In the absence of EPA-approved antidegradation policies, Idaho’s antidegradation implementation methods will be used as guidance for any facilities that discharge to eligible tribal waters within Idaho.

Under Idaho’s Antidegradation Policy [IDAPA 58.01.02.051], a water body is afforded Tier 1, Tier 2, or Tier 3 protections depending on the support status of the beneficial uses that are either designated in Idaho’s Water Quality Standards [IDAPA 58.01.02, Sections 110-160] or have been determined to exist in that water body [IDAPA 58.01.02.010.37].

The IDEQ employs a water body-by-water body approach to implementing its antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality [IDAPA 58.01.02.052.05.a]. Any water body not fully supporting its

beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met [IDAPA 58.01.02.052.05.c]. The most recent federally-approved Integrated Report and supporting data are used to determine support status and the tier of protection [IDAPA 58.01.02.052.05].

Antidegradation implementation for general permits is outlined in IDAPA 58.01.02.52.03. This section of the Idaho Water Quality Standards states that the IDEQ will determine if a permit adequately addresses antidegradation during the 401 certification process. If supported by the permit record, the IDEQ may also presume that discharges authorized under a general permit are insignificant.

See Appendix D for the state's draft CWA § 401 certification and final tribal CWA § 401 certifications. The EPA has reviewed Idaho's antidegradation analysis and finds it is consistent with the § 401 certification requirements and the State's antidegradation implementation procedures. Comments on the § 401 certification, including the antidegradation analysis, can be submitted to the IDEQ as set forth above (see the Tribal and State Certification Section on page 2 this document).

B. Endangered Species Act

Section 7 of the Endangered Species Act requires federal agencies to request a consultation with the NOAA Fisheries (NMFS) and the U.S. Fish and Wildlife Service (USFWS) if their actions have the potential to either beneficially or adversely affect any threatened or endangered species. The EPA prepared a Biological Evaluation (BE) for review by the NMFS and USFWS analyzing the effects of this General Permit (and the other Idaho aquaculture General Permits) on listed species. The BE will be available on the EPA website at www.epa.gov/npdes-permits/draft-npdes-general-permits-aquaculture-facilities-idaho once the permit is issued. The EPA is not taking comments on the BE.

Aquaculture drugs and chemicals expected to be discharged into receiving waters are the primary pollutant of concern for threatened and endangered aquatic species. As required in the General Permit, facilities must report proposed/anticipated chemical use in the NOI (i.e., permit application), and must report actual chemical use in the annual report for that year. The EPA reviewed NOI and annual report information for each facility to determine which chemicals are likely to be discharged to receiving waters. The list of chemicals most likely to be present in aquaculture effluent was refined after conversations with hatchery managers in Idaho regarding product usage. In general, the chemicals that may be released to surface waters by Idaho hatcheries are disinfectants with short residence times in the environment, and are unlikely to bioaccumulate in aquatic species serving as prey for any avian or mammalian species. Based on their potential to be released into receiving waters, the following chemicals were evaluated: Chloramine-T, Formalin (active ingredient: formaldehyde), Potassium permanganate, and Povidone-iodine.

As part of the BE, the EPA conducted a risk assessment for these aquaculture chemicals using a worst-case scenario not reflective of typical hatchery operations. For each chemical, the EPA compared the estimated environmental concentration (i.e., the calculated concentration of a

chemical in a receiving body of water after its release from a hatchery) with either the measured or calculated chronic (i.e., long-term) no effect concentration for a threatened or endangered species. Based on the receiving waters in the geographic area where facilities eligible for coverage under these permits are located, the risk assessment for the four chemicals above were evaluated for potential effects to listed aquatic species in the permit coverage area: bull trout, chinook salmon, sockeye salmon, and steelhead. The BE concluded issuance of these permits “may affect but is not likely to adversely affect” the listed aquatic species in the permit coverage area. The EPA has received concurrence from the NMFS and USFWS on this determination.

C. Essential Fish Habitat

Essential fish habitat (EFH) is the waters and substrate (sediments, etc.) necessary for fish to spawn, breed, feed, or grow to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (January 21, 1999) requires the EPA to consult with NOAA Fisheries when a proposed discharge has the potential to adversely affect EFH (i.e., reduce quality and/or quantity of EFH). The EFH regulations define an adverse effect as any impact which reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species’ fecundity), site specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The EPA’s EFH assessment is documented in the BE and it has consulted and received concurrence from the NMFS regarding the impact of these permits on EFH and its finding of “may affect but is not likely to adversely affect.”

D. National Environmental Policy Act (NEPA)

42 USC § 4322 requires federal agencies to conduct an environmental review of their actions (including permitting activity) that may significantly affect the quality of the human environment. 40 CFR §122.29(c) requires the EPA to conduct a NEPA environmental review when issuing NPDES permits to new sources. As discussed in Section II.A., there are no new sources eligible for coverage under these GPs; therefore, NEPA review is not required.

E. Impact on Small Businesses

The EPA analyzed the potential impact of the GP on small entities and concludes that this reissuance will not have a significant impact on small entities. As discussed in Section I.E., Summary of Changes from Previous Permit, most changes involve streamlining permit requirements, including the elimination of some monitoring and a reduction in the frequency of reporting monitoring data. As a result of TMDLs, some facilities have new effluent limits, but most of the WLAs (and resulting effluent limits) are based on the current load coming from facilities and should be achievable by continuing current practices and permit requirements. The EPA did not conduct a quantitative analysis of impacts as that would only be appropriate if the permit would affect a substantial number of small entities. In general, the use of a General Permit allows the EPA and dischargers, including small entities, to allocate resources in a more efficient manner, obtain timely permit coverage, and avoid seeking resource-intensive individual permits, while simultaneously providing greater certainty and efficiency and ensuring consistent permit conditions for comparable facilities.

F. State and Tribal Certification

Section 401 of the CWA, 33 USC 1341, requires the EPA to seek a certification from the state and Tribes that the conditions of the General Permit are stringent enough to comply with applicable

state and Tribal water quality standards before issuing the final permit. The State and Tribes must either certify that the draft GP complies with State or Tribal water quality standards, as applicable, or waive certification before the final GP is issued. The Idaho Tribes that the EPA has approved for Treatment as State under the Clean Water Act are Coeur d'Alene and Shoshone-Bannock. The EPA requested that IDEQ as well as the Coeur d'Alene and Shoshone-Bannock Tribes review the permit and provide a draft certification pursuant to 40 CFR §124.53. IDEQ and the Tribes may, as a condition of final certification, require that the final permits include more stringent limitations or monitoring requirements needed to comply with the CWA or State law. 33 USC §1341(d).

IDEQ provided the EPA with its draft CWA § 401 certification on April 29, 2019. The Shoshone-Bannock Tribes provided the EPA with their final CWA § 401 certification on May 9, 2019 (see Appendix D). On May 14, 2019, the Coeur d'Alene Tribe denied CWA § 401 certification for TAS waters within the Coeur d'Alene Reservation, requesting any future facilities discharging to those waters to seek individual permit coverage (see Appendix D). There are currently no known eligible facilities within the Coeur d'Alene Reservation, but if any future CAAP facilities plan to discharge to TAS waters within the Coeur d'Alene Reservation, they will not be eligible for coverage under IDG133000 and will need to apply for individual permit coverage.

IDEQ added conditions to its certification pertaining to the compliance schedule for Ace and Arraina hatcheries and the disposal of hazardous materials. The compliance schedule conditions were incorporated into the IDG131000 GP. Because appropriate storage and disposal of hazardous materials is important for all hatcheries, that condition (see Section III.8 of the Permit) applies to both aquaculture GPs. The Shoshone-Bannock Tribes requested to receive a mailed copy of the NOI for any future hatcheries located within the Fort Hall Reservation. As part of the new eNOI system, permittees are required to use, a copy will automatically be emailed to the applicable Tribe for IDG133000 and to IDEQ for IDG131000. The Shoshone-Bannock Tribes indicated this electronic process is an acceptable alternative to receiving a mailed paper copy (personal comm, 2019). After the public comments have been evaluated and addressed, the preliminary final permit will be sent to the state to begin the final certification process. If the state authorizes different or additional conditions as part of the certification, the permit may be changed to reflect these conditions.

G. Standard Permit Provisions

Sections VII., IX., and X. of the draft permit contain standard regulatory language that must be included in all NPDES permits. The standard regulatory language covers requirements such as monitoring, recording, and reporting requirements, compliance responsibilities, and other general requirements.

XI. References

EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. US Environmental Protection Agency, Office of Water, EPA/505/2-90-001.

<https://www3.epa.gov/npdes/pubs/owm0264.pdf>

IDEQ. 1997. Idaho Waste Management Guidelines for Aquaculture Operations.
http://www.deq.idaho.gov/media/488801-aquaculture_guidelines.pdf

Maule, A.G., A.L. Gannam, and J.W. Davis. 2007. Chemical contaminants in fish feeds used in federal salmonid hatcheries in the USA. *Chemosphere* 67: 1308 – 1315.

Appendix A – Development of Water Quality Based Effluent Limits and Determination of Final Effluent Limits

The EPA evaluated the potential discharges to determine compliance with Section 301(b)(1)(C) of the CWA and its implementing regulations at 40 CFR §122.44(d), which require permits to include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality. The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available waste load allocation. For pollutants with technology-based limits, the EPA must also determine if those limits are protective of the corresponding water quality criteria.

To determine a WQBEL, when necessary, the EPA uses the following approach.

1. Determine Appropriate Water Quality Criteria

Receiving waters in the State of Idaho must meet water quality criteria established by the State of Idaho in the Idaho State Water Quality Standards, IDAPA 58.01.02. If water quality criteria have been established by a Tribe and approved by the EPA, receiving waters in Indian Country must meet those applicable water quality criteria. For waters in Indian Country, where water quality criteria have not been approved by the EPA, the General Permit requires that receiving waters meet the quality criteria established by the State of Idaho, as such criteria will, at a minimum, be protective of downstream uses in State waters in accordance with 40 CFR §131.10. The EPA has also considered Coeur d'Alene Tribal water quality standards and believes the IDG133000 permit will be protective of those criteria.

The standards limit several pollutants of concern in aquaculture discharges, while indirectly addressing others, as described below. Since the permit is developed to cover approximately 25 dischargers to many different streams in Idaho, the EPA made the conservative and protective assumption that all the beneficial uses apply to all receiving waters; therefore, the EPA compared the standards for all the applicable uses and chose the most stringent to apply in the permit. For pollutants of concern in these GPs, the most sensitive beneficial use is generally the cold water aquatic life use, but salmonid spawning was also considered in the temperature analysis.

2. Develop Wasteload Allocations (WLAs)

A WLA may be developed to establish the allowable loading of each pollutant that may be discharged without causing or contributing to exceedances of water quality standards in receiving waters. WLAs can be established in three ways: mixing zone-based WLAs, TMDL-based WLAs, and end-of-pipe WLAs.

a. Mixing Zone-Based WLA

A mixing zone is an allocated impact zone where state water quality standards can be exceeded as long as acutely toxic conditions are prevented. It is a defined area or volume of

the receiving water adjacent to or surrounding a wastewater discharge where the receiving water, as a result of the discharge, may not meet all applicable water quality criteria. Mixing zones should be as small as practicable. A mixing zone is considered a place where wastewater mixes with receiving water and is based upon the dilution available and the assimilative capacity of the receiving water. When the State or a tribe authorizes a mixing zone for a discharge, the WLA is calculated based on the available dilution at the edge of the mixing zone, background concentrations of pollutants, and the water quality criteria. This General Permit does not allow for mixing zones, therefore, mixing zone based WLAs are not appropriate.

b. TMDL-Based WLA

Where the receiving water quality does not meet applicable water quality standards, a WLA may be based on a total maximum daily load (TMDL) determination by the State or appropriate tribal authority. A TMDL is the determination of the maximum amount of a pollutant or pollutant property, from point, nonpoint, and background sources, including a margin of safety, that can be discharged to a receiving water without exceeding applicable water quality criteria. Section 303(d) of the CWA requires development of TMDLs for water bodies that will not meet water quality standards, after technology-based limitations are imposed, to ensure that these waters will come into compliance with water quality standards. If there is a TMDL-based WLA for a hatchery, the Water Quality Based Effluent Limitations must be stringent enough to ensure that water quality standards are met and be consistent with any available TMDL WLA (40 CFR §122.44(d)(1)(vii)(B)).

3. Derive Water Quality Based Permit Limitations

After WLAs have been developed, the EPA applies the statistical permit limit derivation approach described in Chapter 5 of the Technical Support Document (TSD) for Water Quality Based Toxics Control, USEPA Office of Water (1991) (EPA/505/2-90-001) to establish maximum daily effluent limitations and average monthly effluent limitations. This approach takes into account effluent variability, sampling frequency, water quality standards, and the difference in time frames between the monthly average and the daily maximum limits. As described in Section D, below, WQBELs for total residual chlorine are included in the proposed General Permit.

A.1. WQBEL Evaluation for Pollutants with No Applicable WLA

This section evaluates the need for WQBELs for the pollutants of concern where there is no applicable TMDL WLA.

a. Settleable Solids and Total Suspended Solids (TSS)

Idaho Water Quality Standards require that sediment shall not exceed quantities which impair designated beneficial uses (IDAPA §58.01.02.200.08). Because the concentrations of TSS in the discharges will continue to be limited under the same technology-based limits as the 2007 GPs (see Table 4 of the Fact Sheet), and these concentrations have typically been used as the basis for WLAs for facilities discharging

to sediment-impaired waters, the EPA expects that the discharges will not cause nor contribute to exceedances of the State standards for turbidity or sediment. Therefore, no TSS WQBELs are necessary for these facilities.

In addition, suspended (and settleable) solid wastes generated in aquaculture facilities and fish processing facilities contain significant amounts of organic residues, which, if discharged, would cause or contribute to deposits of nutrient-rich, oxygen-demanding material at the points of discharge as well as to nutrient-enrichment of the water column. To address this issue, the EPA has applied narrative discharge prohibitions that include prohibiting (1) practices which allow accumulated solids to be discharged to waters of the United States (e.g., the removal of dam boards in raceways or ponds), and (2) sweeping, raking, or otherwise intentionally discharging accumulated solids from raceways or ponds to waters of the U.S.

b. Total Phosphorus (TP)

Idaho Water Quality Standards require that surface waters of the state shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses (IDAPA §58.01.02.200.06). The technology-based average monthly TP limits proposed in these permits are the same as those in the existing Cold Water GP and WLA GP. None of the facilities without a TMDL WLA discharge to receiving waters impaired for excess nutrients, therefore, the EPA expects that the discharges will not violate nor contribute to violations of the State standard regarding excess nutrients during the term of these permits. Therefore, no TP WQBELs are necessary for facilities who have not been given a WLA.

c. Drug, Pesticide, and Other Chemical Use

Except as identified in this appendix, the Idaho Water Quality Standards do not have criteria for drugs, pesticides, and other chemicals used at the facilities. However, the water quality standards require that toxic substances shall not be present in concentrations that impair designated beneficial uses (IDAPA58.01.02.200.02). The EPA applies this standard by: (1) prohibiting the discharge of any toxic substances, including drugs, pesticides, or other chemicals in concentrations that impair designated uses; (2) requiring procedures to be implemented to prevent the release of chemicals, disinfectants or cleaning agents to waters of the U.S.; and (3) by requiring all approved drugs and registered pesticides be used in accordance with applicable label directions (except as part of participation in Investigational New Animal Drug (INAD) studies or as prescribed by a veterinarian).

The U.S. Food and Drug Administration (FDA) Center for Veterinary Medicine regulates animal drugs under the Federal Food, Drug, and Cosmetic Act (FFDCA). Extensive toxicity studies are required prior to drug approval from the FDA; however, limited data on potential environmental effects are available for some medications that are currently authorized for investigational use; and limited data are available characterizing the ecological significance of releases of drugs and chemicals at aquaculture facilities in the U.S. The EPA recognizes the general

concerns with residual antibiotics and pesticides in the environment. In addition, chemicals can harm aquatic organisms in receiving waters, depending on the rates applied and the rate of breakdown of the product or of the active ingredient. The EPA developed a Biological Evaluation (BE) for these GPs that includes an ecological risk assessment of the drugs and chemicals likely to be discharged from IDG131000 facilities.

Based on drug and chemical reporting by facilities since the 2007 GPs were issued, screening was conducted to identify chemicals that have the greatest likelihood of being present in hatchery effluent. The following chemicals were selected for the ecological risk assessment: potassium permanganate, povidone-iodine, formalin, and chloramine-T. The evaluation indicated that concentrations in the discharges were below toxicity concentrations and not likely to adversely affect all species evaluated: bull trout, chinook salmon, sockeye salmon, and steelhead.

Based on the analysis of annual reports, chlorine, Chloramine-T (which breaks down to chlorine), and copper are the only products potentially used at aquaculture facilities in Idaho that have a numeric water quality standard. The reasonable potential analysis for these products is discussed below. So that any changes in drug and chemical usage can be tracked, the EPA is retaining the annual reporting requirements for chemical usage. These data will be compared with any new toxicity data to determine whether further testing and/or limits are needed.

(1) Chlorine/ Chloramine-T

Some facilities use chlorine to disinfect and clean equipment and raceways, but the equipment and raceways are allowed to dry thoroughly prior to coming in contact with water that will be discharged, so it is not anticipated to be directly discharged in facility effluent.

Chloramine-T, which breaks down to chlorine, is used by some facilities to treat bacterial infections, and could be discharged with the wastewater. Therefore, there is reasonable potential for chlorine to cause or contribute to an exceedance of the water quality standard and the existing effluent limit based on meeting the water quality standard at the end of pipe will be continued. However, to be consistent with the approach in the TSD (EPA 1991), the WQBELs are an AML (9 ug/L) and a maximum daily limit (18 ug/L) instead of the previous limits of 11.0 ug/L and 19.0 ug/L, respectively. The effluent limit calculations are provided in Appendix B. The limits only apply when chlorine or Chloramine-T is being used and discharged to waters of the U.S. Therefore, the limits do not apply when chlorine is used for disinfection and is allowed to dry.

(2) Total Copper

Copper monitoring was required in the 2007 permit for facilities using copper sulfate or chelated copper compounds. Some of the samples collected indicated that when copper products are used, there is reasonable potential to exceed the water quality

standard. However, copper sulfate and chelated copper compounds were rarely used when the 2007 permit was issued and have since been discontinued in the Idaho aquaculture industry because of copper's toxicity and the use of more effective products. The draft permit contains a prohibition of discharges that contain copper sulfate or chelated copper compounds. Therefore, this is no longer a pollutant of concern for these discharges and there and the limit has been removed.

c. Polychlorinated Biphenyls (PCBs)

The current permit requires the BMP Plan to contain procedures to eliminate the release of PCBs from any known sources in the facility, including paint, caulk, or feed to waters of the U.S. PCBs belong to a broad family of man-made organic chemicals known as chlorinated hydrocarbons, which have been banned in the U.S. since 1979.

The requirement is being removed from the draft permit because it is no longer a pollutant of concern and is an unnecessary BMP. Raceways at most private aquaculture facilities in Idaho are concrete and not painted, and the state-owned and federal hatcheries are either concrete or concrete sealed with a specific epoxy for aquatic environments that is PCB free.

For feed, the 2007 GP fact sheet noted that Idaho fish feed manufacturers routinely test for PCBs and have never found them to be above detection levels of 100 µg/kg. Additionally, a 2007 study of fish feed in federal cold water hatcheries across the U.S. noted a decline in PCB over previously reported concentrations (Maule et al. 2007). Therefore, facility conditions in Idaho and overall feed trends indicate this BMP is not necessary.

d. Temperature

(1) Cold Water Facilities

In the 2007 GPs, effluent temperature data were evaluated for cold water facilities. Effluent temperatures from cold water facilities were not significantly different than temperatures measured in the source waters, which averaged 15°C. This finding is consistent with the EPA's findings in the *Technical Development Document for the Final Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category* (2004), which did not identify temperature as a pollutant of concern. Source waters for most facilities are natural spring flows which would have affected the temperature of the receiving waters even if the facilities were not there, by warming the receiving water in the winter and having a cooling effect in the summer. Based on this information, the EPA concluded temperature limits were not necessary for most discharges from cold water facilities in the absence of a TMDL WLA. However, there was uncertainty regarding discharges from offline settling basins (OLSBs) that are not mixed with other effluent prior to discharge. Therefore, monitoring was required for OLSBs at cold water facilities as part of the 2007 GP.

Of the facilities eligible for these permits, two have OLSBs that discharge without prior mixing (i.e., IDG131003 and IDG131004, which will both be re-assigned permit

numbers under IDG133000). A mass balance analysis was conducted using the 95th percentile of measured effluent temperatures and flows for each OLSB and mixing with 25 percent of the 7Q10 flow for each facility's receiving stream. Since receiving water temperature data are limited and neither water body is listed for temperature impairment, the analysis was done with two receiving water scenarios based on Idaho's numeric water quality criteria: 1) the salmonid spawning daily average criterion of 9 °C, and 2) the cold water aquatic life daily average criterion of 19 °C. In both scenarios, the change ranges from a maximum increase of 0.1 °C to a decrease of 0.2 °C (see Table A-1, below). Based on this analysis, and the intermittent nature of the OLSB discharges, the EPA has determined that there is no reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria, thus, no WQBELs are necessary for OLSB discharges from cold water facilities. Monitoring will be required for all facilities with either a WLA or downstream impairment.

Table A-1. Temperature reasonable potential analysis for OLSBs.

Facility No. IDG	Eff Temp (°C)	Eff Q (cfs)	7Q10 (cfs)	25% 7Q10 (cfs)	SS Criterion (°C)	Temp after mixing (°C)	CW Criterion (°C)	Temp after mixing (°C)
131003	12.9	4.96	645	161.3	9	9.1	19	18.8
131004	26.8	0.39	649	162.3	9	9.0	19	19.0

*Eff = effluent, Q = discharge, SS = salmonid spawning, CW = coldwater

(2) Warm Water Facilities

Both warm water facilities (i.e., Ace and Arraina) eligible for coverage under the IDG131000 GP discharge to Jacks Creek in the Bruneau watershed and use artisanal geothermal wells as their source water. IDEQ is working on a temperature TMDL for Jacks Creek but issuance has been delayed because IDEQ is also working on a Use Attainability Analysis (UAA) that may affect the applicable temperature criteria. The 2007 Aquaculture Addendum to the Jacks Creek TMDL for TSS, TP, and *E. coli* indicates that both facilities reuse 85 percent of the effluent and 15 percent is discharged during the irrigation season, which means much less effluent is going into Jacks Creek during the irrigation season (i.e., approximately mid-March to early November). The Ace facility is not currently operating and Arraina indicates it reuses 100 percent of its effluent during the irrigation season. During the non-irrigation season, Arraina discharges 100 percent of the effluent to the receiving water.

IDEQ has done some investigation in the Jacks Creek watershed to better understand its hydrology and temperature regime (personal communication with Brian Reese, IDEQ, December 14, 2018). Water rights information indicates the wells used by the hatcheries are two of approximately 55 geothermal wells in the watershed, which are largely used for agriculture and contribute to streamflow in perennial portions of Jacks Creek. A data review found very limited temperature data for Jacks Creek.

Facility flow data for the previous five years (i.e., 2012-2017) do not correlate with the minimal to zero irrigation season discharges to Jacks Creek cited in the TMDL and indicated by Arraina, respectively. A site visit to the Arraina facility on December 21,

2018, confirmed the monitoring location for that facility is prior to several irrigation withdrawals, and not representative of discharges to Jacks Creek. Since Ace is currently not operating, receiving water data are sparse, and available data for both facilities do not appear to have been collected in the appropriate location, continuous monitoring of the effluent and receiving water will be required during periods of discharge to Jacks Creek during the first two years of permit coverage (in case Ace becomes operational midway through the 5-year term of the GP). Year-round monitoring is proposed instead of the seasonal monitoring proposed for the cold water facilities because warm water discharges have the potential to have a greater disparity with receiving water temperatures during the winter. Coordination with IDEQ (*See* Sections VII.C. and VII.E.) and submission of the logger placement information in Appendix C should help ensure data are collected in an appropriate location.

e. Ammonia

Ammonia data collected from raceway and pond discharges at aquaculture facilities prior to the 2007 GP issuance indicated those discharges do not have the reasonable potential to exceed the Idaho ammonia water quality standard. However, there was uncertainty about the reasonable potential of the discharges from OLSBs, so the 2007 GP required ammonia monitoring for OLSBs and corresponding pH and temperature data in the receiving waters (because the Idaho standard is pH and temperature dependent). Based on the data collected from the offline settling basins (i.e. Dworshak and Kooskia hatcheries), the aquaculture facilities do not have the reasonable potential to exceed Idaho water quality standards for ammonia.

A.2. WQBEL Evaluation for Pollutants with WLAs

a. Applicable TMDLs

The regulations at 40 CFR §122.44(d)(1)(vii)(B) require that effluent limits be consistent with the assumptions and requirements of any available WLA for a discharge to a water body subject to an approved TMDL. The list of EPA-approved TMDLs with WLAs for facilities eligible for coverage under these permits are listed in Table A-2.

Note: This list only denotes TMDLs with applicable WLAs, as several of the watersheds have bacteria or other TMDLs that are not for pollutants of concern for hatcheries and contain no hatchery WLAs. The Big Lost River Temperature Addendum has WLAs for the two warm water facilities and is pending approval, but the document will be approved prior to permit issuance. The TMDLs can be accessed at http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/sba_tmdl_master_list.cfm.

Table A-2. Applicable TMDLs Approved by EPA.			
River or Watershed	Facilities	Pollutants	EPA Approval Year
American Falls Reservoir	2	Phosphorus	2012
Bear River	3	Phosphorus, sediment	2006, 2013
Big Lost River	2	Sediment, temperature	2004, 2011, 2019
Boise River (Lower)	2	Phosphorus, sediment	2000, 2015
Bruneau River	2	Phosphorus, sediment	2001, 2007
Lake Walcott	3	Phosphorus, sediment	2000, 2007
NF Payette/Cascade Reservoir	1	Phosphorus	1996, 1998
Pahsimeroi River	1	Sediment, temperature	2001, 2014
Portneuf River	1	Phosphorus, sediment	1999, 2001, 2010
Salmon River (Upper)	1	Temperature	2016

b. Deriving Limits from WLAs

A TMDL provides a WLA for each facility that discharges the regulated pollutant to a watershed addressed by the TMDL. The average monthly limits (AMLs) and the maximum daily limits (MDLs) were derived from the WLAs in the TMDLs listed above; the resulting limits for rearing facilities are listed in this appendix and Table 7 in the Fact Sheet.

In translating the WLAs into permit limits, the EPA followed the procedures in the TSD. The first step in developing limits is to determine the time frame over which the WLAs apply. In general, the period over which a criterion applies is based on the length of time the target organism can be exposed to the pollutant without adverse effect. For example, aquatic life criteria generally apply as one-hour averages (acute criteria) or four-day averages (chronic criteria). In the case of TP, the target organisms are aquatic vegetation which respond to prolonged high phosphorus concentrations with excess growth, which can interfere with food web dynamics and decrease oxygen levels enough to harm aquatic life. Acutely high TSS levels can interfere with respiration by fish and aquatic organisms and prolonged levels of elevated TSS can smother macroinvertebrate habitat and fish eggs, and add nutrient loading to the water column.

Most TSS WLAs are based on the TBEL, with some based on the receiving water target or the average effluent data, and they are expressed as an AML and MDL. The basis for the TP WLAs is more variable and ranges from the TBEL to effluent concentrations or a receiving water body target. Because TP is not a toxic pollutant and it affects beneficial uses by exposure at elevated concentrations over time, TP WLAs are commonly expressed

as a monthly average. The EPA has determined that applying the WLAs directly as monthly averages is the conservative approach and appropriate.

40 CFR §122.45(d) requires that unless impracticable, effluent limitations shall be stated as a MDL and an AML for continuous dischargers other than publicly owned treatment works (i.e., wastewater treatment plants). Additionally, 40 CFR §122.45(f) states that all pollutants must have limitations in terms of mass except if they cannot appropriately be expressed by mass (e.g., temperature, pH), or when applicable standards are expressed in other terms of measurement. Therefore, where a TMDL explicitly states that the TP target or WLA is to be applied as an average monthly limit, and the TMDL is interpreting the narrative criteria (which includes the appropriate averaging period to protect the beneficial use), the WQBEL will apply as an AML. Most applicable WLAs are expressed as a load, but if they are expressed as a concentration or other measurement for TP, TSS, or temperature, the WQBEL will be expressed in a unit consistent with the WLA. If the averaging period in the TMDL is unclear, the WLA is applied as an AML.

In most cases, the WQBEL will be expressed as an AML and MDL. The MDL is calculated by using Equation 1, below, or by consulting Table 5-3 of the TSD (EPA, 1991). The TSS and TP coefficient of variations (CVs) and multipliers from the 2007 GPs are summarized in Table A-3.

Equation 1:

$$(MDL) = \frac{(AML) \times \exp(z_{99} \sigma - .5\sigma^2)}{\exp(z_{95} \sigma_n - 0.5\sigma^2)}$$

- exp = base of natural logarithm (= 2.718281828. . .)
- σ = standard deviation
- σ_n^2 = $\ln ([CV^2/n] + 1)$
- σ^2 = $\ln ([CV^2] + 1)$
- CV = the coefficient of variation of the effluent (= σ/mean)
- n = number of samples in monitoring period
- z = z statistic
- z_m = z for percentile exceedance probability for the MDL
- z_a = z for percentile exceedance probability for the AML
- $z_{95\%}$ = 1.645, for 95th percentile occurrence probability
- $z_{99\%}$ = 2.326, for 99th percentile occurrence probability

Table A-3. Summary of CVs and multipliers for calculating the MDL from the AML.

	Coldwater	Ace	Arraina
TSS CV	0.537	0.77	0.56
TSS Multiplier	1.90	2.25	1.94
TP CV	0.289	0.60	0.44
TP Multiplier	1.48	2.01	1.74

c. Basis for Proposed Limits

This section is organized by subbasin/watershed and contains a TMDL summary, explanation of the applicable WLAs, the WQBELs based on the WLAs, a stringency comparison between the WQBELs and TBELs, and the final effluent limits.

i. American Falls Subbasin: Springfield and Crystal Springs hatcheries

The Springfield and Crystal Springs hatcheries discharge into tributaries that flow into the American Falls Reservoir. The Springfield Hatchery discharges to Boom Creek; the Crystal Springs Hatchery discharges to Crystal Springs Creek. The EPA approved a TP TMDL for American Falls Reservoir in August 2012 which contains TSS WLAs for both hatcheries.

The 2007 GP had average monthly (AML) and maximum daily effluent limits (MDL) for TSS, TP, and TN for Springfield Hatchery based on WLAs from a draft TMDL that was never finalized. Crystal Springs Hatchery was not included in the 2007 GP since the facility was not operating. Since that draft TMDL was not finalized, nor submitted to the EPA for approval, the Springfield Hatchery WLAs were erroneously applied in the 2007 GP. When the TMDL was finalized and approved by the EPA in 2012, there were no TSS or TN TMDLs for the reservoir, and the concentrations and flows used to calculate the TP WLAs were different than those used in the draft TMDL.

The WLAs in the 2012 TMDL for Springfield (IDG130038) and Crystal Springs (yet to be built) are based on historical ambient monitoring data and the water right for each facility. Since seasonal loading dynamics were not known for the hatcheries during TMDL development because Springfield was being renovated and Crystal Springs had not been completed, the 2012 TMDL contains annual WLAs for these facilities. The 2012 TMDL states that the WLAs are based on average discharge concentrations and not intended to require load reductions. The document states that the WLAs are intended to provide an annual limit not to be exceeded, while allowing for variable seasonal effluent limits in the NPDES permit.

(1) TN

Because the 2007 GP had a TN limit and monitoring for Springfield (based on the draft TMDL that was not finalized and ultimately changed), the facility has conducted TN monitoring since it resumed operations. All samples have met the effluent limit in the 2007 GP.

Based on the 2012 TMDL and IDEQ's determination that no TN TMDL is necessary, the TN limits and monitoring for Springfield Hatchery have been removed. These changes are allowed because they meet an exemption under CWA Section 402(o)(2) since a mistake was made in applying the WLAs from an unapproved TMDL. Additionally, the changes are consistent with CWA section 303(d)(4)(A) since they are based on the

approved TMDL, which determined no TN TMDL or WLA is required because the nutrient impairment in the American Falls Reservoir is associated with excess TP, and the TP TMDL will ensure water quality standards are attained.

(2) TSS

Instead of having a concentration-based TBEL, the previous TSS limit for the Springfield Hatchery was a load-based WQBEL because the draft TMDL had a TSS WLA for the hatchery. The 2012 TMDL does not have a sediment TMDL for American Falls Reservoir or the immediate receiving waters for the hatcheries. Therefore, the draft GP includes a TBEL of 5 mg/L for Springfield and Crystal Springs and removes the load limit for Springfield. This limit change is allowed because it meets a backsliding exemption under CWA Section 402(o)(2). Specifically, there was a mistake made in applying a load limit based on a WLA for the Springfield Hatchery in an unapproved TMDL.

(3) TP

Like with TN and TSS, the previous TP limit for the Springfield Hatchery was mistakenly based on a WLA from a draft TMDL that was modified before being finalized in 2012. The TP limit for the Springfield Hatchery in the unapproved 2007 WLA GP was 6.7 lbs/day AML and a MDL of 9.9 lbs/day. The EPA is revising the permit limits to be consistent with the assumptions and requirements of the WLA in the approved 2012 TMDL.

The WLAs in the 2012 TMDL are 1.63 tons/year for Springfield Hatchery and 0.78 tons/year for the Crystal Springs Hatchery. These WLAs are based on an average concentration of 0.033 mg/L and the water rights for the facilities (See Table 5-9 of the 2012 TMDL). The 2012 TMDL notes that the intent of the WLA is to provide discharge flexibility based on either monthly production or flow-based schedules, while still providing an annual limit for total load (See Page 104 of the 2012 TMDL).

The draft permit incorporates the annual WLAs directly into the effluent limits. The units are converted from tons to pounds to be consistent with other limits in these permits. To give both facilities seasonal flexibility while also protecting water quality, the draft permit includes an AML based on the American Falls tributary final water quality target of 0.05 mg/L and the water rights for each facility as shown in the equation below. The allowable load for any given month is greater than if the annual load is divided evenly across the year, but both facilities must also meet the annual limit.

Water right (cfs) * 5.0 mg/L * 5.4 (conversion factor) = lbs/day AML

Water right: Springfield = 50 cfs, Crystal Springs = 24 cfs

Table A-4. Effluent limits for hatcheries in the American Falls Subbasin.

Facility	TSS AML (mg/L)	TSS MDL (mg/L)	TP AML (lbs/d)	TP Annual (lbs/yr)
Springfield	5	10	13.5	3,260

Facility	TSS AML (mg/L)	TSS MDL (mg/L)	TP AML (lbs/d)	TP Annual (lbs/yr)
Crystal Springs	5	10	6.48	1,560

ii. Bear River Subbasin: Grace, Black Canyon, and Soda Springs hatcheries

The 2006 Bear River Subbasin TMDL was approved by the EPA in June 2006. The TMDL concluded that none of the hatcheries contribute TSS or TP above target levels, and all hatcheries were given WLAs as described below. The WLAs were used as the basis for the effluent limits in the 2007 GP.

The 2013 Addendum to the Bear River TMDL was approved in September 2013. No changes were made to the hatchery WLAs. IDEQ has indicated it plans to revise the TP TMDL but no changes are anticipated to the hatchery WLAs. The limits for Bear River facilities are summarized in Table A-5.

(1) TSS

The TSS WLAs were based on the AML TBEL of 5 mg/L and do not change seasonally. The MDL is calculated using the AML and a multiplier of 1.90 as described in Section A.2.b. The TSS effluent limits are the same as in the 2007 GP.

(2) TP

Within the TMDL, annual TP WLAs were based on the maximum reported monthly concentrations and highest annual flows from the facilities. The annual load was distributed seasonally based on consultation with the hatcheries. The TP concentrations used to derive WLAs were 0.035 mg/L for Soda Springs Hatchery, 0.010 mg/L for Grace Hatchery, and 0.048 mg/L for Black Canyon Trout Farm, which are all less than the TBEL. Therefore, the WLAs are more stringent than the TBELs and will be the basis for the effluent limits. The WLAs are applied as AMLs, and the MDLs are calculated using a multiplier of 1.90 as described in Section A.2.b. The TP effluent limits are essentially the same as the 2007 GP, except for some slight adjustments for Grace to better align with the WLA, which was rounded from hundredths to tenths for the effluent limits in the 2007 GP.

Table A-5. Effluent limits for hatcheries in the Bear River Subbasin.

Facility	TSS AML (lbs/d)	TSS MDL (lbs/d)	TP AML (lbs/d)	TP MDL (lbs/d)
Black Canyon	539.0	1024.1	Jan 1 – Mar 31: 5.4 Apr 1 – Jun 30: 8.0 Jul 1 – Dec 31: 3.6	Jan 1 – Mar 31: 8.0 Apr 1 – Jun 30: 11.8 Jul 1 – Dec 31: 5.3
Grace	425.8	809.0	Jan 1 – Mar 31: 1.32 Apr 1 – Jun 30: 0.99 Jul 1 – Sep 30: 0.51 Oct 1 – Dec 31: 0.46	Jan 1 – Mar 31: 2.0 Apr 1 – Jun 30: 1.5 Jul 1 – Sep 30: 0.8 Oct 1 – Dec 31: 0.7
Soda Springs	475.8	904.0	Apr 1 – Sep 30: 2.05 Oct 1 – Mar 31: 4.6	Apr 1 – Sep 30: 3.0 Oct 1 – Mar 31: 6.8

iii. Big Lost River Subbasin: Mackay and Lost River hatcheries

The 2004 TMDL for the Big Lost River Subbasin was approved August 2004. The document contains TSS and temperature TMDLs for Warm Springs Creek, which is the receiving water for the Mackay and Lost River hatcheries. The TSS WLAs have not been revised since the approval of the 2004 TMDL, but the temperature WLAs were revised in the 2011 TMDL Addendum (approved December 2011) and again in the 2017 TMDL Addendum (approved May 2019). The limits for Big Lost River facilities are summarized in Table A-6.

(1) TSS

The TMDL set a WLA of a MDL of 5 mg/L TSS during pond cleaning and loading and a daily average of 2 mg/L TSS and settleable solids. These WLAs were intended to be more stringent than the TBELs in the 1999 Aquaculture GP because of solids deposits in the receiving water. Settleable solids had a TBEL in the 1999 Aquaculture GP that was removed in the 2007 GP because the EPA determined that compliance with the TSS limits ensures that settleable solids are only discharged in trace amounts and having both limits is duplicative. However, presumably because they were mentioned in the TMDL, the settleable solids limits were maintained in the 2007 GP for the Mackay and Lost River hatcheries. Both Big Lost River facilities have met all TSS and settleable solids limits since the 2007 GP was issued. The draft permit includes revisions to make compliance more straightforward.

The settleable solids limits will be removed to be consistent with other facilities since this requirement is duplicative of the TSS limit. The TSS limits will be streamlined into one limit (vs cleaning and non-cleaning) corresponding to the daily average TMDL WLA because it is most comparable to the sampling, which is representative of the facilities' discharges. Similar to the 2007 GP, sampling in these GPs is required to be done over a day and composited, with at least 25 percent of the samples being collected during raceway or quiescent zone cleaning. Therefore, only one sample is collected and analyzed, instead of a cleaning-only sample and operations without cleaning sample as the separate limits imply. Using the concentration-based WLAs, the AML will be set based on the 2 mg/L average value and the MDL will be set on the 5 mg/L maximum value. These changes are as stringent than the 2007 GP and are more stringent than the TBEL. The TSS WQBELs will be applied as concentration limits consistent with the TMDL WLAs.

(2) Temperature

The 2017 Temperature TMDL Addendum contains WLAs that account for natural conditions since both hatcheries are spring fed, and the springs are undeveloped upstream of the facilities. The WLAs are based on an allowable 0.15 °C increase from each facility relative to influent temperatures. The allowable daily average and maximum values differ slightly depending on if the influent temperatures exceed the salmonid spawning criteria of 9 °C daily average or 13 °C daily maximum. The temperature limits are less stringent than the 2007 GP. Backsliding of the effluent limits is allowed consistent with CWA

Section 303(d)(4) because the limits are based on WLAs from the most recently approved TMDL and the TMDL was written to ensure water quality standards are attained.

Table A-6. Effluent limits for hatcheries in the Big Lost River Subbasin.

Facility	TSS AML (mg/L)	TSS MDL (mg/L)	TP AML (mg/L)	TP MDL (mg/L)	Temperature AML September 1 – July 15	Temperature MDL September 1 – July 15
Lost River	2 ¹	5	0.10	0.16	Influent ≤ 9°C: 9°C	Influent ≤ 13°C: 13°C
Mackay					Influent >9°C: 0.15°C Δ	Influent >13°C: 0.15°C Δ

¹Permittee will be in compliance if the reported concentration is at or below the method detection limit of 5 mg/L

iv. Bruneau River Subbasin: Ace and Arraina hatcheries

The 2001 Jacks Creek TMDL was approved in March 2001 and contains TP, TSS, and bacteria TMDLs for Jacks Creek, the receiving water for the Ace and Arraina hatcheries. Because hatcheries are not a source of bacteria, hatchery WLAs were only established for TP and TSS. The Jacks Creek TMDL was modified in 2007 and approved in November 2007. It included revised hatchery TP and TSS WLAs. Jacks Creek remains impaired for temperature, and as discussed previously, the TMDL is under development by IDEQ.

The WLAs in the 2007 TMDL are based on water quality concentration targets of 15.0 mg/L for TSS and 0.2 mg/L for TP and reported facility discharges of 2.7 cfs for Ace and 4.4 cfs for Arraina. The concentrations are more stringent than the TBELs (see Table 4 of Fact Sheet), so the WLAs will be used to set the effluent limits. The TMDL states that 85 percent of effluent is reused for cropland irrigation and therefore never reaches Jacks Creek. The 2007 TMDL provides a recommended WLA for each facility based on 15 percent of the annual WLA (*See* Table 5 of 2007 TMDL). To be consistent with the TMDL, the effluent limits are revised to match the WLAs in the 2007 TMDL. Table A-7, below shows the revised limits with the 2007 GP limits in parentheses.

Prior to the TMDL, both facilities had compliance issues at least 50 percent of the time with both TP and TSS limits. Compliance with the 2007 GP has been much better: Ace has had no TP exceedances and one TSS exceedance (n=32), and Arraina has had one TP exceedance and two TSS exceedances (n=38). However, relative to the proposed revised limits, the only Ace samples that met it are those collected after it stopped operating in mid-2015. During a site visit to Arraina on December 21, 2018, the facility owner indicated the hatchery has been operating well under its capacity for some time. Based on DMR data since 2007, production likely decreased in early 2015 because there is a notable and sustained decrease in TP and TSS loads starting then. Seven of nine TP samples collected at Arraina since the first quarter of 2015 meet the revised limit, and five of nine TP samples meet the revised limit. This indicates that Arraina is capable of meeting the limit sometimes when production is down, but that neither facility can consistently meet the TP and TSS limits, particularly while operating at normal production levels.

Additionally, reported discharges at the facilities do not show a sharp decline during the irrigation season corresponding to the 85 percent irrigation season water reuse discussed in the TMDL. The former sampling regime at Ace is unknown but the December 21, 2018 site visit to Arraina indicated the sampling location is not representative of the facility's discharge as it is prior to several irrigation withdrawals. The Arraina property owner stated that the irrigation season is generally March 15 to November 10, and 100 percent of effluent is reused then but that all of it is discharged outside the irrigation season. The TMDL WLAs are not broken out seasonally and are expressed as a load that must be met all year. However, even if the annual loads were broken out seasonally for when effluent is discharged during the non-irrigation season, that is approximately 34 percent of the year (~125 days), meaning the facilities would still need a substantial reduction in loading if the revised limits were only applicable during periods of discharge. Given the magnitude of the decrease in loading required by the TMDL WLAs and that the facilities cannot consistently meet the new limits, both facilities will be given a compliance schedule for TSS and TP (*see* Section VII.A.).

Table A-7. Effluent limits for hatcheries in the Bruneau River Subbasin.

Facility	TSS AML (lbs/d)	TSS MDL (lbs/d)	TP AML (lbs/d)	TP MDL (lbs/d)
Ace	32.81 (218.7)	73.82 (614.5)	0.44 (2.9)	0.88 (6.2)
Arraina	53.46 (356.4)	103.71 (1001.5)	0.72 (4.8)	1.25 (10.2)

Note: Limits from the 2007 GP are shown in parentheses.

v. Cascade Reservoir Subbasin: McCall Hatchery

There are two TMDLs for Cascade Reservoir: Phase 1 and Phase 2. Both TMDLs are for TP. Phase I, which was approved May 1996, focused on the initial nutrient reduction goal and implementation strategy for Cascade Reservoir and impaired tributaries. Phase II, which was approved April 1999, focused on Cascade Reservoir and included an additional evaluation of the TP reduction goals and alternatives, with a subwatershed-specific implementation plan. Both phases include a WLA for McCall Hatchery. However, no associated effluent limit was included in the 2007 GPs or other previous Idaho aquaculture GPs.

(1) TP

The TP WLA of 218 kg/yr is equivalent to 480.6 lbs/year, which is approximately 1.32 lbs/day and according to the TMDL, less than 1 percent of the watershed load. The WLA was based on a discharge flow of 20 cfs and the average annual TP load after the hatchery made operational and management changes in 1994. This WLA is incorporated directly into the permit as an annual load of 480.6 lbs/year. In addition, the draft permit includes an AML as described below.

If the concentration is back-calculated from the daily load using 20 cfs, the TP concentration needed to meet that load is 0.012 mg/L, which is much less than the 0.025

mg/L target set for Cascade Reservoir. Both TMDLs and the 5-Year TMDL Review IDEQ completed in 2009 state that the hatchery is attaining its WLA and no additional reductions are necessary. When DMR data from 2008 through 2017 were examined, the daily load for 6 of 30 sampling events exceeds 1.32 lbs/day. However, net concentrations at the McCall Hatchery have been in a consistent range mostly less than 0.05 mg/L going back to 2007 with an average TP concentration of 0.008 mg/L. Personal communication with IDEQ indicates operations and production goals have been steady at the hatchery since the 1996 TMDL (Byrne 2018).

Since both TMDLs and the 5-Year TMDL Review stated the hatchery is meeting the WLA and the intent was not to require reductions, a concentration-based average monthly limit is proposed based on the long-term average (LTA) net TP concentration of the hatchery's effluent. This will provide the hatchery some flexibility since its monthly effluent loads fluctuate based on hatchery activities, but is also consistent with the intent of the WLA by requiring the hatchery to maintain its average effluent quality but not requiring a loading reduction. The LTA is 0.008 mg/L TP and the CV is 1.029. Using this information and the recommended approach in the TSD to ensure the limit is attained 95 percent of the time, the AML is 0.02 mg/L TP. Currently the facility monitors discharge monthly and TP semiannually because of its size, but TP monitoring will be required quarterly to better assess compliance. Although this is the first time the WLA will be used as the basis for the hatchery's TP effluent limit, because it is based on the current effluent quality it is anticipated that the hatchery will be in compliance with the new effluent limit; therefore, a compliance schedule is not necessary. The effluent limits for McCall Hatchery are summarized in Table A-8.

Table A-8. Effluent limits for McCall Hatchery in the Cascade Reservoir Subbasin.

Facility	TSS AML (mg/L)	TSS MDL (mg/L)	TP AML (mg/L)	Annual Limit (lbs/year)
McCall	5 mg/L	10 mg/L	0.02	480.6

vi. Lake Walcott Subbasin: American Falls and Upper and Lower Fall Creek hatcheries

The TSS and TP WLAs for both Falls Creek hatcheries are contained in the Fall Creek TMDL Addendum. The TSS and TP WLAs for the American Falls Hatchery are contained in the Rueger Springs TMDL Addendum. Both addendums were approved in March 2007 and are the most recent applicable TMDLs in the Lake Walcott Subbasin. The addendums revised the hatchery WLAs and associated TMDLs contained in the Lake Walcott TMDL (approved June 2000). The TSS and TP effluent limits for American Falls, Upper Fall Creek, and Lower Fall Creek hatcheries in the 2007 GP reflect the WLAs in the 2007 Fall Creek TMDL Addendum and 2007 Rueger Springs TMDL Addendum. Since no changes were made to the applicable TBELs or TMDLs since the 2007 GP, the same TSS and TP AMLs and MDLs will apply to facilities in the Lake Walcott Subbasin. The effluent limits are summarized in Table A-9.

Table A-9. Effluent limits for hatcheries in the Lake Walcott Subbasin.

Facility	TSS AML (lbs/d)	TSS MDL (lbs/d)	TP AML (lbs/d)	TP MDL (lbs/d)
American Falls	534.6	1015.7	8.6	12.7
Upper Fall Creek	577.8	1097.8	6.7	9.9
Lower Fall Creek	672.3	1277.4	4.0	5.9

vii. Lower Boise River Subbasin: Nampa Hatchery

The 1999 Lower Boise TMDL was approved in January 2000. The TMDL contained a TSS WLA for the Nampa Hatchery which discharges to a tributary to the Lower Boise River. The Lower Boise River TMDL Addendum was approved in June 2008; there was no change to the WLA for the Nampa Hatchery. The Lower Boise TP TMDL Addendum was approved in December 2015 and contains a TP WLA for the Nampa Hatchery.

(1) TSS

The 1999 TMDL and 2008 addendum contain a WLA for the Nampa Hatchery to follow its permit. Both documents reference the instantaneous maximum limit of 15 mg/L that was in the 1999 Aquaculture GP as being adequate to meet the needs of the TMDL. The instantaneous limit was removed in the 2007 GP for being redundant with the MDL of 10 mg/L. The TSS limits are the same in the draft permit as in the 2007 permit.

(2) TP

The 2015 TMDL addendum assigns a WLA of 16.2 lbs/day for the Nampa Hatchery. The TMDL states that the WLA are to be expressed as AMLs. The WLAs are based on a year-round concentration of 0.1 mg/L, which matches the TBEL. Therefore, the WLA is at least as stringent as the TBEL and will be applied as the effluent limit. Because the TMDL explicitly states the WLA is intended to be applied as a monthly average, the TP effluent limits will only be applied as AMLs. All effluent limits are shown in Table A-10.

Table A-10. Effluent limits for hatcheries in the Lower Boise River Subbasin.

Facility	TSS AML (lbs/d)	TSS MDL (lbs/d)	TP AML (lbs/d)	TP MDL (lbs/d)
Nampa	5	10	16.2 lbs/d	--

viii. Pahsimeroi River Subbasin: Pahsimeroi Hatchery

The Pahsimeroi River TMDL, which was approved December 2001, contains TSS and temperature TMDLs for the Pahsimeroi River. The hatchery was determined not to be a source of temperature and was given no temperature WLA, but it did receive a TSS WLA. In April 2014, the Pahsimeroi River TMDL Addendum was approved, and it contains TSS, temperature, and bacteria TMDLs for the Pahsimeroi River. No new or revised WLAs were given to the Pahsimeroi Hatchery in the addendum, and the document referenced the WLA discussion in the 2001 TMDL.

The 2001 TMDL states there will be no change in the WLA for the Pahsimeroi Hatchery (relative to the 1999 permit) and no net increase in effluent concentrations. At that time, the permit had a TSS AML of 5 mg/L, MDL of 10 mg/L, and an instantaneous maximum

of 15 mg/L. There was also an average monthly settleable solids limit of 0.1 mL/L. Effluent limits will be based on the current TBELs (see Table 4 of the Fact Sheet). Although the 2007 GP removed the instantaneous maximum TSS and average monthly settleable solids TBELs, as discussed previously, the removal of these does not make the permit less stringent as they were redundant requirements to have with the narrative prohibitions and TSS AMLs and MDLs.

ix. Portneuf River Subbasin: Batise Springs and Papoose Springs hatcheries

The 1999 Portneuf River TMDL and subsequent addendum were approved as a package on April 2001. The documents contained a combination of TSS, TP, and Total Inorganic Nitrogen TMDLs for the Portneuf River and numerous tributaries in the basin, as well as WLAs for Batise Springs and Papoose Springs hatcheries. The effluent limits for facilities in the Portneuf River Subbasin in the 2007 GP were based on the 2001 TMDL Addendum. Those WLAs were superseded by the 2010 Portneuf River TMDL Revision and Addendum, which was approved September 2010, and changed the TSS WLA from concentration-based to load-based, revised the averaging period for the WLAs from annually to monthly, and removed the nitrogen WLAs. The 2010 TMDL contains WLAs for Batise Springs and Papoose Springs hatcheries. At that time, Papoose Springs had terminated permit coverage but was anticipated to reopen. Recent discussions with the facility's owner indicate the facility never reopened and has no plans to reopen as a commercial hatchery. Therefore, the permit status for Papoose Springs will remain as terminated and only the WLAs for Batise Springs and associated effluent limits are discussed below. If Papoose Springs decides to reopen and needs permit coverage, IDG131000 would have to be modified to incorporate the associated WLAs, or the facility would need to apply for an individual permit. The effluent limits are summarized in Table A-11.

(1) TSS

The TSS WLA for Batise Springs was based on the AML TBEL of 5 mg/L and a median discharge of 31.1 cfs. Since the WLA is essentially equivalent to the applicable TBEL, it will be applied in these permits as an AML. The MDL will be based on the AML and the cold water multiplier in Table 4 of the Fact Sheet.

(2) TP

The 2001 TMDL Addendum had a TP WLA for Batise Springs based on a water quality target of 0.07 mg/L with annual allocations at two flow regimes (i.e., 38.7 cfs and 41.3 cfs). The AML in the 2007 GP was calculated based on the flow of 41.3 cfs and was set equal to 13.0 lb/d. The WLA from the 2010 TMDL cited the effluent limit in the 2007 GP as the basis for the WLA. Since the TMDL target of 0.07 mg/L is more stringent than the TBEL, the effluent limit will be based on the WLA and will be the same as the 2007 GP. The MDL will be revised based on the updated cold water multiplier in Table 4 of the Fact Sheet.

(3) Total Inorganic Nitrogen

Because the 2010 TMDL Revision and Addendum has no nitrogen WLAs, the nitrogen limits that were in the 2007 GP will be removed and there will be no nitrogen effluent limits or monitoring for Batise Springs. The removal of nitrogen limits is less stringent than the 2007 GP. Backsliding is allowed since the changes are based on WLAs from the most recently approved TMDL and the TMDL was written to ensure water quality standards are attained.

Table A-11. Effluent limits for Batise Springs Hatchery in the Portneuf River Subbasin.

Facility	TSS AML (lbs/d)	TSS MDL (lbs/d)	TP AML (lbs/d)	TP MDL (lbs/d)
Batise Springs	838.2	1592.6	13.0	19.2

x. Upper Salmon River Subbasin: Sawtooth Hatchery

The Upper Salmon River TMDL, which was approved in March 2003, contained a sediment TMDL for Challis Creek, which is not a hatchery receiving water, so there were no hatchery WLAs in that document. The 2016 Addendum to the Upper Salmon Subbasin TMDL was approved by the EPA on December 2016. The document contains a temperature TMDL for the Salmon River in a reach downstream of the Sawtooth Hatchery. There is no WLA for Sawtooth Hatchery because it does not discharge to a temperature-impaired assessment unit and is not expected to be a source of thermal loading to the temperature-listed segments in the TMDL.

Appendix B - Calculation of Total Residual Chlorine Limits

B.1. Method of Calculating Water Quality Based Effluent Limits

In developing water quality-based effluent limits (WQBELs), EPA Region 10 relies on methods from the Technical Support Document for Water Quality Based Toxics Control (TSD) [EPA/505/2-90-001] to determine specific limits. The TSD requires the following steps to determine specific limitations.

A. *Deriving a Wasteload Allocation (WLA) from the applicable water quality criterion*

The WLA is expressed as a single level of effluent water quality necessary to provide protection against acute or chronic adverse effects in the receiving water. When no dilution is allowed, the WLA is set equal to the applicable water quality criterion. Since no mixing zone is being proposed, the WLA is equal to the water quality criterion. For total residual chlorine, the chronic aquatic life criterion is 11 µg/L and the acute aquatic life criterion is 19 µg/L.

B. *Calculating long-term average concentration needed to meet the water quality criteria*

The long-term average discharge concentration (LTA) necessary to protect the WLA is determined by multiplying the WLA by a factor (less than 1) to account for effluent variability.

WLA multipliers are determined based on a coefficient of variation (CV) and on a specified probability of occurrence. The CV is a measure of the relative variability of a set of data; and in this case, because there is no data, the CV was set equal to 0.6 (the default value recommended by the TSD).

C. *Calculating WQBELs using the most limiting (the lowest) LTA*

Average monthly effluent limitations (AMLs) and maximum daily effluent limitations (MDLs) are calculated by multiplying the most limiting LTA times a multiplier that accounts for averaging periods and maximum exceedance frequencies of the effluent limitations, and the effluent monitoring frequency. The CV was set equal to 0.6. The CV value is recommended by the TSD as a default value for situations where facility-specific data are not available, and the sampling frequency was set at 4 because it is the minimum n value recommended by the TSD when the chronic LTA is limiting. Following EPA Region 10 permitting policy, a 99th percentile occurrence probability was used to determine the MDL multiplier and a 95th percentile occurrence probability was used to determine the AML multiplier.

The equations and calculations are provided below.

Reasonable Potential Analysis (RPA) and Water Quality Effluent Limit (WQBEL) Calculations

Facility Name	Aquaculture Facilities			
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	19.	--
	Aquatic Life Criteria, µg/L	Chronic	11.	--
	Human Health Water and Organism, µg/L		--	--
	Human Health, Organism Only, µg/L		--	--
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute	--	--
		Chronic	--	--
	Carcinogen (Y/N), Human Health Criteria Only		--	--
Percent River Flow Default Value = 25%	Aquatic Life - Acute	1Q10	0%	--
	Aquatic Life - Chronic	7Q10 or 4B3	0%	--
	Human Health - Non-Carcinogen and Chronic Ammonia	30B3 or 30Q10	0%	--
	Human Health - Carcinogen	30Q5	0%	--
		Harmonic Mean	0%	--
Calculated Dilution Factors (DF) (or enter Modeled DFs)	Aquatic Life - Acute	1Q10	1.0	--
	Aquatic Life - Chronic	7Q10 or 4B3	1.0	--
	Human Health - Non-Carcinogen and Chronic Ammonia	30B3 or 30Q10	1.0	--
	Human Health - Carcinogen	30Q5	1.0	--
		Harmonic Mean	1.0	--

Aquatic Life Effluent Limit Calculations

Number of Compliance Samples Expected per month (n)		4	
n used to calculate AML (if chronic is limiting then use min=4 or for ammonia min=30)		4	--
LTA Coeff. Var. (CV), decimal (Use CV of data set or default = 0.6)		0.600	--
Permit Limit Coeff. Var. (CV), decimal (Use CV from data set or default = 0.6)		0.600	--
Acute WLA, ug/L	$C_d = (Acute\ Criteria \times MZ_a) - C_u \times (MZ_a - 1)$	Acute	19.0 --
Chronic WLA, ug/L	$C_d = (Chronic\ Criteria \times MZ_c) - C_u \times (MZ_c - 1)$	Chronic	11.0 --
Long Term Ave (LTA), ug/L (99 th % occurrence prob.)	WLA _c x exp(0.5σ ² -zσ), Acute	99%	6.1 --
	WLA _a x exp(0.5σ ² -zσ); ammonia n=30, Chronic	99%	5.8 --
Limiting LTA, ug/L	used as basis for limits calculation		5.8 --
Applicable Metals Criteria Translator (metals limits as total recoverable)			
Average Monthly Limit (AML), ug/L, where % occurrence prob =	95%	9	--
Maximum Daily Limit (MDL), ug/L, where % occurrence prob =	99%	18	--
Average Monthly Limit (AML), mg/L		0.009	--
Maximum Daily Limit (MDL), mg/L		0.018	--
Average Monthly Limit (AML), lb/day		--	--
Maximum Daily Limit (MDL), lb/day		--	--

Appendix C – Temperature Monitoring Information

Note: Your regional IDEQ Surface Water Manager must approve of the receiving water location.

Facility Name: _____ Date: _____

NPDES ID: IDG13 _____ Receiving Water: _____

Influent Temperature Logger Location (Lat/Long): _____

Is the influent monitoring location representative of all influent? Y/N

Source of Influent (spring(s), well(s)): _____

Effluent Temperature Logger Location (Lat/Long): _____

Is the effluent monitoring location representative of all effluent going to the receiving water? Y/N

Receiving Water Temperature Logger Location (Lat/Long): _____

Is the receiving water location upstream of the area of influence for the Outfall(s)? Y/N

Any other information that would be helpful for EPA/IDEQ regarding temperature monitoring and why you believe the proposed sampling locations are representative.

Appendix D – 401 Certifications



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, ID 83706 • (208) 373-0502
www.deq.idaho.gov

Brad Little, Governor
John H. Tippets, Director

October 16, 2019

Mr. Daniel Opalski, Director
U.S. EPA, Region 10
Office of Water and Watersheds
NPDES Permits Unit (OWW-191)
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

RE: Aquaculture Facilities in Idaho General Permit IDG131000

Dear Mr. Opalski:

The Idaho Department of Environmental Quality (DEQ) has reviewed the U.S. Environmental Protection Agency's final NPDES permit for the above-referenced General Permit, which was received September 23, 2019. Comments received during the public comment period did not result in significant modifications to the draft certification. The final 401 certification (attached) includes conditions necessary to comply with Idaho's Water Quality Standards and other state and federal laws intended to protect water quality.

Thank you for your time and consideration. If you have any questions or concerns, please direct your questions to Loren Moore by email (loren.moore@deq.idaho.gov) or at (208) 373-0158.

Sincerely,

A handwritten signature in blue ink that reads "Mary Anne Nelson".

Mary Anne Nelson, PhD
Surface and Wastewater Division Administrator
Idaho Department of Environmental Quality

MAN:LM:lf

Enclosed: Final 401 Certification for Aquaculture Facilities in Idaho General Permit

cc: Susan Poulosom, USEPA Region 10
Lisa Kusnierz, USEPA Region 10
Jason Pappani, DEQ Surface Water Program Manager
Mark Cecchini-Beaver, Idaho Attorney General's Office
DEQ Regional Administrators



Idaho Department of Environmental Quality Final §401 Water Quality Certification

October 16, 2019

NPDES Permit Number(s): Aquaculture Facilities in Idaho General Permit IDG131000, Excluding Facilities Discharging into the Upper Snake-Rock Subbasin

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

The Aquaculture General Permit (GP) provides permit coverage for concentrated aquatic animal production facilities. This permit covers fish rearing aquaculture facilities in the state of Idaho, including hatcheries, fish farms, or other facilities that contain, grow, or hold cold and warm water fish species. Facilities and discharges that are not authorized under this GP include the following:

- 1) Facilities discharging into the Upper Snake-Rock Subbasin are not covered.
- 2) Facilities intending to use pollutant trading to meet effluent limits. Currently no trading is proposed or authorized under the Aquaculture GP. DEQ guidance states that public pollutant trading should undergo a public review period. Any facility seeking to utilize this approach to meet effluent limits must apply for individual permit coverage.
- 3) Discharges that do not consist solely of process effluent from aquaculture facilities (e.g., in combination with domestic wastewater) prior to being discharged.
- 4) Discharges from aquaculture facilities where the GP does not adequately address the environmental concerns associated with the discharge, as determined by the EPA at the time a discharger seeks coverage under the GP.
- 5) Discharges to land or to publicly owned treatment works.

- 6) Discharges to waters that constitute an outstanding national resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ employs a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

Aquaculture facilities discharge pollutants attributed to fish waste, feed, drug and chemical residuals that maintain and restore animal health, as well as chemical residuals related to cleaning products and water quality enhancers.

The pollutants of concern associated with aquaculture facilities include: five-day biochemical oxygen demand (BOD₅), biological wastes, floating and submerged matter, total suspended solids (TSS), settleable solids, nutrients (phosphorus and nitrogen), ammonia, chlorine, temperature, and therapeutic drugs and chemicals. Aquaculture facilities are not considered sources of pathogens (*Escherichia coli*) which affect human health.

Numeric effluent limits have been developed for the discharge of TSS, TP, and total residual chlorine at all covered facilities. Temperature limits are required for facilities discharging into a water body that has a thermal impairment and temperature monitoring is required for all aquaculture facilities. Numeric effluent limits are not proposed for BOD₅, biological wastes, floating and submerged matter, settleable solids, ammonia, and therapeutic drugs and chemicals.

However, the permit does include narrative effluent limitations that require development and implementation of a Best Management Practices (BMP) plan and that prohibit the following:

- (1) Discharge of untreated cleaning wastewater (e.g., obtained from a vacuum or standpipe bottom drain system or rearing/holding unit disinfection) is prohibited;
- (2) Discharge of any toxic substances, including drugs, pesticides, disinfectants, or other chemicals in concentrations that impair designated uses are prohibited;
- (3) Discharge of copper sulfate and chelated copper compounds to waters of the U.S. is prohibited;
- (4) Discharge of floating, suspended or submerged matter, including solids, foam, fish guts, blood or dead fish, in amounts causing nuisance or objectionable conditions or that may impair designated beneficial uses in the receiving water is prohibited;
- (5) Removal of dam boards in raceways or ponds which allow accumulated solids in excess of the limits to be discharged to waters of the U.S. is prohibited;
- (6) Sweeping, raking, or otherwise intentionally discharging accumulated solids from raceways or ponds to waters of the U.S. is prohibited; and
- (7) Containing, growing, or holding fish within an Off-line Settling Basin is prohibited; this prohibition does not apply to basins or ponds where fish are used as part of the waste treatment system.

Receiving Water Body Level of Protection

All waters in Idaho that receive discharges authorized under the Aquaculture GP will receive, at minimum, Tier I antidegradation protection because Idaho's antidegradation policy applies to all state waters. Water bodies that fully support their aquatic life or recreational uses are considered *high quality waters* and will receive Tier II antidegradation protection, in addition to Tier I protection. In addition to these uses, all waters of the state are protected for agriculture and industrial water supply, wildlife habitat, and aesthetics (IDAPA 01.02.100).

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs), it is possible for a water body to be designated as an ORW during the life of this permit. Because of this potential, this antidegradation review will also assess whether the permit complies with the ORW requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, the most recent EPA-approved Integrated Report, available on Idaho DEQ's website, is to be used:
<http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/>.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a Total Maximum Daily Load (TMDL) has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as “impaired”, for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. However, an impaired water body will receive Tier II protection for its aquatic life uses if the following conditions are met: (1) the aquatic life impairment is due to dissolved oxygen, pH, or temperature and (2) the biological or aquatic habitat parameters show a healthy, balanced biological community (IDAPA 58.01.02.052.05.c.i).

DEQ’s webpage also has a link to the state’s map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format:

<http://www.deq.idaho.gov/assistance-resources/maps-data/>.

Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, please contact your nearest DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEQ regional and state office contacts.

Regional and State Office	Address	Phone Number	Email
Boise	1145 N. Orchard St., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d’Alene	2110 Ironwood Parkway, Coeur d’Alene 83814	208-769-1422	thomas.herron@deq.idaho.gov
Idaho Falls	900 N. Skyline Dr., Suite B, Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 F St., Lewiston 83501	208-799-4370	sujata.connell@deq.idaho.gov
Pocatello	444 Hospital Way, #300, Pocatello 83201	208-236-6160	lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Avenue West, Suite 110, Twin Falls 83301	208-736-2190	sean.woodhead@deq.idaho.gov
State Office	1410 North Hilton St., Boise 83706	208-373-0502	loren.moore@deq.idaho.gov

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing and designated uses and the level of water quality necessary to protect existing and designated uses shall be maintained and protected. In order to protect and maintain existing and designated beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations (WLAs) for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL. A permit with effluent limitations consistent with TMDL wasteload allocations will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier I antidegradation requirements.

DEQ is in the process of revising the Upper Snake-Rock TMDL. The revision may result in changes to the existing WLAs for facilities subject to that TMDL. Therefore, facilities with WLAs in the Upper Snake-Rock Subbasin will not be eligible for coverage under this GP. However, facilities with wasteload allocations in the Upper Snake-Rock Subbasin will retain permit coverage under the 2007 Aquaculture GP (IDG-130000), which EPA has administratively extended.

The water quality-based effluent limitations and requirements contained in the Aquaculture GP, coupled with the conditions set for this in this certification, are designed to ensure compliance with the narrative and numeric criteria in Idaho WQS. As a condition of the general permit special conditions (Part VI.A & B), applicants will be required to develop and implement a Quality Assurance Plan (QAP) to properly operate and maintain the facility and a BMP Plan to minimize or eliminate the generation and potential release of pollutants from the facility to waters of the United States. Covered facilities must certify that both the QAP and BMP Plan have been developed and are being implemented.

All facilities covered under the Aquaculture GP must implement Best Management Practices (BMPs) to minimize the discharge of pollutants. BMPs for pond and flow-through systems focus on increased settling time and reducing sediment disturbance. Recirculating production systems continuously treat a portion of facility flow before it is returned to the system. EPA has included narrative discharge prohibitions in this general permit to address the discharge of solid wastes and organic residues which could contribute oxygen-demanding materials and nutrients into Idaho's water bodies. Furthermore, covered facilities are required to manage nutrient inputs into aquaculture systems and to ensure the proper storage and use of drugs and chemicals.

To ensure discharges from covered facilities do not violate Idaho's general surface water quality criteria, the permit expressly prohibits the discharge of floating, suspended or submerged matter in amounts causing nuisance or objectionable conditions or that may impair designated beneficial uses; the deliberate discharge of accumulated solids from ponds and raceways in excess of effluent limits; copper sulfate and chelated copper compounds; and untreated cleaning wastewater. Additionally, permittees must utilize drugs and registered pesticides in accordance with label directions. The discharge of toxic substances (cleaning chemicals, drugs, and pesticides) is prohibited in concentrations that impair designated uses.

The effluent limitations, monitoring requirements, BMP and QAP requirements, and associated obligations contained in the Aquaculture Facilities Permit, coupled with the conditions in this certification, ensure compliance with the narrative and numeric criteria in the WQS. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses

and is in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high quality waters and are provided Tier II protection in addition to Tier I protection. Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development. For general permits, DEQ conducts an antidegradation review, including any Tier II analysis, at the time at which general permits are certified (IDAPA 58.01.02.052.03).

For a new permit, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit (IDAPA 58.01.02.052.03).

Facilities operating prior to July 1, 2011 seeking coverage under this general permit are considered existing discharges under IDAPA 58.01.02.010.37. If the facility has not increased the discharge for which it is seeking coverage under this general permit from operations prior to July 1, 2011, then the discharge will not cause significant degradation to the receiving water (IDAPA 58.01.02.052.03) and no further Tier II antidegradation analysis is necessary. The following hatcheries discharge to a Tier II, fully supporting water body: American Falls (IDG130031), McCall (IDG131005), Sawtooth (IDG131010), and Rapid River (IDG131009). The Upper (IDG130078) and Lower Fall Creek (IDG130085) hatcheries discharge into AU ID17040209SK007_02 & 03, which is unassessed in the current Integrated Report; however, downstream segments in the Snake River (Rock Creek to Raft River) are fully supporting both aquatic life and contact recreation beneficial uses and so DEQ will also provide Tier II protection for Fall Creek.

The current aquaculture general permits require hatcheries to report any planned operational changes that would result in alterations to the facility discharge in their annual reporting. None of the facilities covered under the current general permits, including those discharging to Tier II waters, provided EPA notice of modification since July 1, 2011. Therefore DEQ has reasonable assurance that these existing facilities or discharges in Tier II waters are not causing degradation because the facility has not changed operation of the discharge activity from July 1, 2011 onward.

As stated previously, aquaculture facilities are not considered significant sources of pathogenic *E. coli* bacteria strains and will not negatively impact the human health designated uses in Idaho's water bodies.

Based upon the limits set in the permit, and the terms and conditions of this certification, DEQ believes that the discharge from covered aquaculture facilities is not likely to cause adverse changes in water quality and has concluded that as long as permittees operate consistent with the terms of the NPDES discharge permit and the requirements set forth in this certification, there is reasonable assurance that existing and designated beneficial uses will be protected and maintained and there will be no lowering of water quality in any high quality waters (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.08).

Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). As mentioned previously, no water bodies in Idaho have been designated as ORWs.

As a condition of this certification, DEQ is requiring any applicant proposing to discharge to an ORW, should one become designated during the term of this permit, to obtain an individual IPDES permit from DEQ. This condition will ensure compliance with Idaho's antidegradation provisions concerning ORWs.

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Compliance Schedule

Pursuant to IDAPA 58.01.02.400.03, DEQ may authorize compliance schedules for water quality-based effluent limits issued in the permit for the first time. Ace and Arraina hatcheries cannot immediately achieve compliance with the effluent limits for TSS or TP; therefore, DEQ authorizes a compliance schedule with interim effluent limits (Table 2) set forth below. This compliance schedule provides the permittee a reasonable amount of time to achieve the final effluent limits specified in the GP. At the same time, the schedule ensures that compliance with final water quality-based effluent limits is accomplished as soon as possible.

Table 2. TSS & TP: Interim Limits for Ace and Arraina Hatcheries.

Facility	Parameter	Units	Average Monthly Limit	Maximum Daily Limit
Ace	TSS	lbs/day	218.7	614.5
	TP	lbs/day	2.9	6.2
Arraina	TSS	lbs/day	356.4	1001.5
	TP	lbs/day	4.8	10.2

A five (5) year compliance schedule is authorized for new TP and TSS effluent limits defined in the *Jacks Creek Total Maximum Daily Load* (DEQ 2007) and implemented in the current general permit. In the interim, Ace and Arraina hatcheries must comply with existing effluent limits and perform the tasks outlined in Table 3 below. The compliance schedule and annual reporting requirements will allow for the collection of site specific data to produce a more accurate assessment of treatment performance in the Bruneau Subbasin for these constituents.

Table 3. Tasks required under the Schedule of Compliance for TP and TSS.

Task No.	Completion Date	Activity
1	Six (6) months from the Authorization Date of the Permit (EDP)	Submit to DEQ a facility Monitoring Plan (inclusive of the Quality Assurance Plan, Permit VI.A) which will include monitoring for upstream and downstream conditions. The plan must be approved by the DEQ Boise Regional office.
2	EDP + one (1) year and annually thereafter for the term of the permit	Submit to DEQ an Annual Progress Report detailing the facilities progress toward achieving final effluent limits. (see Permit section VI.C)
3	EDP + five (5) years	Achieve compliance with final effluent limits (Permit Part IV.C, Table 3).

Best Management Practices

Best management practices must be designed, implemented, and maintained by the permittee to fully protect and maintain the beneficial uses of waters of the United States and to prevent exceedances of the state water quality standards (IDAPA 58.01.02.200; 33 U.S.C. § 1311).

Outstanding Resource Waters

Any permittee proposing to discharge to an outstanding resource water will not be covered under this General Permit (Permit Part I.E.8) and is required to apply for an individual IPDES permit from DEQ (IDAPA 58.01.02.052.09).

Hazardous and Deleterious Material Storage

Hazardous and deleterious materials must not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of state waters unless adequate measures and controls are provided to ensure that those materials will not enter state waters as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third party activities (IDAPA 58.01.02.800).

Other Conditions

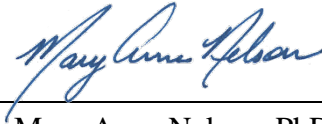
Pursuant to 33 U.S.C. § 1341, this certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, significant changes to the Aquaculture Facilities General Permit, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the “Rules of Administrative

Procedure before the Board of Environmental Quality” (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Loren Moore, DEQ State Office, at (208) 373-0158 or via email at loren.moore@deq.idaho.gov.



Mary Anne Nelson, PhD
Surface and Wastewater Division Administrator
DEQ State Office



Shoshone-Bannock Tribes

TRIBAL WATER RESOURCES DEPARTMENT

P.O. Box 306
Fort Hall, Idaho 83203

Phone: 208-239-4580
Fax: 208-239-4592

May 9, 2019

Dan D. Opalski, Director
Water Division
Attn: OWW-191
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: Shoshone-Bannock Tribes' Final CWA §401 Decision on National Pollutant Discharge Elimination System (NPDES) Permit Number: IDG13100, General Permit for Aquaculture Facilities Discharging into the Upper Snake-Rock Subbasin.

Dear Mr. Opalski:

The Shoshone-Bannock Tribes completed its review of the proposed final NPDES general permit IDG131000, General Permit Aquaculture Facilities Discharging into the Upper Snake-Rock Subbasin. This review was conducted in response to the request from the U.S. Environmental Protection Agency to certify pursuant to Section 401 of the Clean Water Act (CWA) that there is reasonable assurance that the NPDES general permit will not violate applicable provisions of CWA Sections 301, 302, 303, 306, or 307 on lands within the Fort Hall Reservation.

The Shoshone-Bannock Tribes conditioned 401 Certification is enclosed with conditions.

If you have questions or would like to discuss this decision, please contact me at (208) 239-4580 or Candon Tanaka of my staff at (208) 239-4582.

Sincerely,

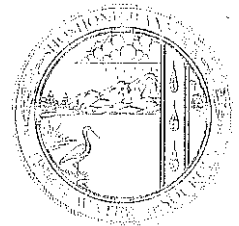


Spence Ward
Tribal Water Engineer

Cc: Lisa Kusnierz, USEPA-10
TWRC
file



**Shoshone-Bannock Tribes
Water Resources Department
Final § 401 Water Quality Certification**



May 9, 2019

NPDES General Permit Number: IDG131000 –General Permit for Aquaculture Facilities in Idaho Excluding Facilities Discharging into the Upper Snake-Rock Subbasin.

Pursuant to the provisions of Section 401 (a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC Section 1341 (a)(1), the Shoshone-Bannock Tribes, Water Resources Department (SBT-WRD) has authority to review National Pollution Discharge Elimination System (NPDES) permits and issue a water quality certification decision.

SBT-WRD certifies that if the applicant complies with the terms and conditions imposed by the permit number along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharges will comply with the applicable requirements of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, including the Shoshone-Bannock Tribes Water Quality Standards.

**CONDITIONS THAT ARE NECESSARY TO ASSURE COMPLIANCE WITH
WATER QUALITY STANDARDS**

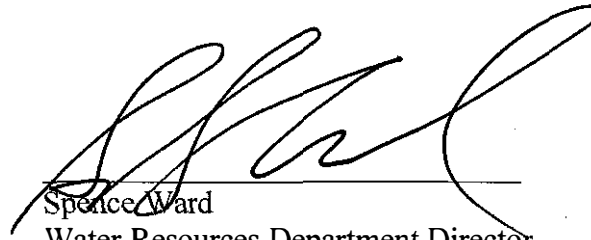
Each operator within the Fort Hall Reservation shall submit a signed hard copy of the Notice of Intent (NOI) to the Shoshone-Bannock Tribes Water Resources Department at the same time it is submitted to the Environmental Protection Agency (EPA).

The Notice of Intent and the acknowledgement of receipt of the NOI shall be submitted to:

Shoshone-Bannock Tribes
Attn: Water Resources Department
PO Box 306 Pima Drive
Fort Hall, ID 83203
Phone: (208) 239-4582
Fax: (208) 239-4592

This certification is conditioned upon the requirement that any material modifications to the above referenced permit or permitted activities shall be provided to SBT-WRD for review to determine compliance with the Shoshone-Bannock Tribes Water Quality Standards and if necessary, provide additional certification pursuant to Clean Water Act Section 401.

Questions or comments regarding the actions taken in this certification should be directed to Candon Tanaka, SBT-WRD, at (208) 239-4582 or ctanaka@sbtribes.com.



Spence Ward
Water Resources Department Director



COEUR D'ALENE TRIBE

850 A STREET
P.O. BOX 408
PLUMMER, IDAHO 83851
(208) 686-1800 • Fax (208) 686-1182

REFERENCE:

May 14th, 2019

Daniel Opalski
Director, Office of Water and Watersheds
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 155
Seattle, WA 98101

Re: Coeur d'Alene Tribe Section 401 Water Quality Certification for Aquaculture Facilities in Idaho Excluding Facilities Discharging Into the Upper Snake-Rock Subbasin, NPDES Permit No. IDG13100

Dear Mr. Opalski

The Coeur d'Alene Tribe Water Resource Program completed its review of the Preliminary Draft National Pollutant Discharge Elimination System (NPDES) for Aquaculture Facilities in Idaho Excluding Facilities Discharging into the Upper Snake-Rock Subbasin, NPDES Permit No. IDG13100 provided to us by the U.S. Environmental Protection Agency (EPA) on February 28th 2019

Currently there are no known aquaculture facilities adjacent to or discharging into Coeur d'Alene Tribal TAS approved waters. The Coeur d'Alene Tribe Water Resource Program denies without prejudice water quality certification for all activities authorized by this Draft NPDES permit for Aquaculture Facilities In Idaho Excluding Facilities Discharging into the Upper Snake-Rock Subbasin on TAS approved waters of the Coeur d'Alene Reservation. If an aquaculture facility proposes to discharge to Coeur d'Alene Tribe TAS approved waters an individual NPDES permit and subsequent Clean Water Act 401 certification will be required by the Coeur d'Alene Tribe.

Thank you for your attention to this matter. We look forward to working with the EPA if any aquaculture facilities choose to apply for discharge permits into TAS approved waters of the Coeur d'Alene Tribe Reservation.

Sincerely,

A handwritten signature in blue ink that reads "Scott Fields".

Scott Fields
Water Resource Program Manager
Coeur d'Alene Tribe

CC: Lisa Kusnierz, USEPA Boise Field Office
Allan Moomaw, USEPA WA Operations office