STATEMENT OF BASIS FOR THE LEADVILLE NATIONAL FISH HATCHERY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES) PERMIT CO-0000582

July 2016

Purpose of this Statement of Basis

This statement of basis (SoB) is for the issuance of a NPDES permit to the U.S. Department of Interior, Fish and Wildlife Service, for the Leadville National Fish Hatchery (Leadville NFH). The Permit establishes discharge limitations for any discharge of water from the fish hatchery. The SoB explains the nature of the discharges, and the EPA's decisions for limiting the pollutants in the wastewater, as well as the regulatory and technical basis for these decisions.

EPA Region 8 is the permitting authority for Colorado federal facilities and provides implementation of federal and state environmental laws within Colorado.

Summary

On April 12, 2013, the EPA received a complete application from the U.S. DOI FWS requesting a NPDES permit for the Leadville NFH. The Leadville NFH (elevation 10,000 feet) is located approximately six miles SW of the town of Leadville, Colorado, and about 2 miles S-SW of the Dam for the Turquoise Reservoir.

The Leadville NFH was established in 1889 and has undergone many renovations since inception. Currently the Leadville NFH provides between 125,000 and 200,000 fish annually to support fishing in the Fryingpan-Arkansas drainage and throughout Colorado. The Hatchery also supports recovery of the four endangered fishes in the Colorado River.

All wastewater generated from the Hatchery comes through the facility system and raceways and ends in one of two effluent settling ponds (effluent pond 1 and 2). The discharge from these settling ponds discharges to an unnamed tributary to Hunt Gulch which flows into Lake Fork, a tributary to the Arkansas River.

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INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES) of permits, which is administered by the Environmental Protection Agency (EPA).

Fish hatching and rearing facilities can have a wide variety of rearing pond configurations including lined or unlined ponds, raceways, and circular ponds in which fish are held for culturing purposes. On a daily basis, facility operators give the fish a predetermined ration of pelletized fish food by hand feeding and/or mechanical means to promote growth. Once the fish attain the targeted size, they are released, harvested, or kept as brood stock.

The EPA has promulgated Effluent Guidelines for Concentrated Aquatic Animal Production (CAAP), or aquaculture (40 CFR Part 451). Facilities that use; flow-through, recirculating, or net pen systems, directly discharge, and produce at least 100,000 pounds of fish a year are required to meet the limitations required in Part 451.

BACKGROUND INFORMATION

Facility Information	
Applicant	U.S. DOI, Fish and Wildlife Service
Facility Name and Address	Leadville National Fish Hatchery 2846 Highway 300 Leadville, CO 80461
Contact at Facility	Mr. Ed Stege (Project Leader) (719) 486-0189
Responsible Official	Regional Director U.S. Fish and Wildlife Service P.O. Box 25486, Denver Federal Center Denver, Colorado 80225-0486
Type of Permit	Fish Hatchery-Federal (Renewal)
Type of Treatment	Settling
Facility location	Historic Hatchery Building 2846 Highway 300, Leadville, CO 80461 Lake County, Colorado Lat 39.225339, Long -106.392275 T9S R81W, Section 36, NE1/4
Outfall Location	Pond 1 Lat 39.224442° N Long -106.385445° W
Discharge Waterbody Name and Location	unnamed tributary to Hunt Gulch which flows into Lake Fork, a tributary of the Upper Arkansas River

Facility Description

Aerial Image – Leadville National Fish Hatchery

Leadville National Fish Hatchery, established in 1889, is the second oldest federally operated fish hatchery in existence today. Leadville National Fish Hatchery was created by Executive Order of President Benjamin Harrison for the purpose of increasing the supply of fish for inland waters. The Hatchery grounds occupy 3,072 acres near the city of Leadville, Colorado, at an elevation of 10,000 feet. The Hatchery's subalpine forest surroundings, with its cold, clean water supply provide the ideal location for trout production.[1]

Rock Creek was the original water supply for the Hatchery when it was established. In the past permit cycle in served as the back-up supply for fish production, providing high pressure water for the fire hydrants and water for Evergreen Lakes 1-6. However, in recent years due to decomposition of the pipeline from the Rock Creek water source, the Hatchery

[1] https://www.fws.gov/mountain-prairie/fisheries/leadville.php

has discontinued use of the Rock Creek water supply and plans to completely abandon the pipeline.

The Hatchery currently has two water supplies; Turquoise Reservoir and a small spring source. The Hatchery is provided approximately 3000 GPM of water from Turquoise Reservoir via the Mt. Elbert Conduit, this water travels down a trunk line to a headbox where water can be directed into Lake 2 or the water treatment plant.

All water utilized for fish production travels through the water treatment plant where it is filtered to 10 microns and treated with UV light. The filtrate backwash is mechanically removed and is then directed into Lake 3, allowed to settle, and periodically discharged to the effluent ponds. The treated water used for fish production travels from the treatment plant to the hatchery building, display pond and concrete raceways.

If the Turquoise water is turned off (i.e. BOR main line inspections), the Hatchery can be operated by diverting water from Lake 1 through the water treatment plant. Otherwise, water from Lake 1 normally travels to Lake 2 and then to Lakes 3 or 4.

To meet the trout production demands, the Hatchery facilities have 16 raceways and 20 nursery tanks. Leadville NFH is currently rearing Snake River cutthroat trout, rainbow trout and greenback cutthroat trout to fill needs throughout Colorado and has altered configurations to meet Hatchery needs.

The Hatchery also has up to 50 GPM of spring water available. Spring water is collected and consolidated in a second water treatment building. It receives mechanical filtration and UV treatment and is for domestic use or as a backup for fish culture in the hatchery building. Excess spring water and backwash water runs through a pipeline to the effluent ponds. There is flow measurement at the spring source water treatment area.

Leadville NFH has provided between 125,000 and 200,000 fish annually to support fishing in the Fryingpan-Arkansas drainage and throughout Colorado. Leadville's efforts also support recovery of the four endangered fishes in the Colorado River.

Future planned modifications to the Hatchery include the renovation of the first set of raceways and the construction of a small building to be used for isolation of native species. These new facilities will not be connected into the main facility discharge due to concerns regarding whirling disease. The new isolation building will be connected to a septic tank and leach field.

Treatment Process

Since the discovery of whirling disease in 1995, the Hatchery has undergone numerous renovations. All earthen bottom ponds are no longer used for trout production due to contamination from whirling disease. To make up for lost production capacity eight new concrete raceways were built for trout rearing. A water treatment plant was also built in 2004 to further combat whirling disease. The plant houses two drum filters, two disc filters, and four UV radiators which remove any whirling disease from the water source. Since 2006, the Hatchery has been certified whirling disease free.

Filter backwash for the drum and disc filters is done mechanically and no chemicals are used to clean the membranes.

Flow calculations for the Hatchery are determined by combining flow readings from the water treatment plant, the spring water treatment house, and the parshall flume from Lake 3. This flow measurement accounts for all of the water used by the facility.

Chemicals Used

Fish tanks and raceways are broomed down weekly with plastic or stainless steel brushes to remove algae and to facilitate removal of fish waste.

Occasionally equipment/gear is disinfected using a chlorine bath. The neutralized "bath" water is not dumped into drains that lead to the discharge water. When the "bath" water is no longer needed for cleaning, the chlorine is neutralized with sodium thiosulfate and disposed of via the domestic waste septic system. There are two septic tanks and fields to handle domestic (restroom, household) wastewater.

The Hatchery uses salts and other approved aquaculture chemicals for the control of disease in the fish populations. Disease control chemicals (including some pesticides) and drugs approved for use in the aquaculture industry are regulated by the U.S. Food and Drug Administration (FDA) or under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Use of vaccines, bacterins, test kits, antitoxins, and immuno stimulants are under the scope of the U.S. Department of Agriculture. Pesticides are regulated by the EPA. These agencies have developed regulations for the use of these compounds.

The requirement to utilize best management practices (BMPs) is being added to this Permit. BMPs will provide the EPA with information on Hatchery practices and will require the Hatchery to conform to any and all applicable regulations and dosage/usage requirements for drugs and chemicals. These chemicals, properly administered, are not expected to cause toxicity in Lake Fork. Specific monitoring for drugs and chemicals used at the Hatchery will not be required as there are no established or approved analytical methods for these compounds and dosing requirements are specified via the above mentioned methods.

Description of Receiving Water

Wastewater from the raceways, Lake 3 and the spring water overflow are captured in one of two effluent settling ponds (effluent pond 1 and 2). The discharge pipes from these settling

ponds join and discharge to a ditch to Hunt Gulch and into Lake Fork, a tributary of the Upper Arkansas River. The main stem of Lake Fork resides on private property.

Lake Fork and the Upper Arkansas River have been classified by the Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Commission, 5 CCR 1002-32, Regulation No. 32 Classifications and Numeric Standards for Arkansas River Basin as Agriculture, Aquatic Life Class 1, Recreation E and Water Supply.

CDPHE Water Quality Standards for the segment (COARU015) are provided in the Table 1 below.

Table 1. COARUA015 . All tributaries to the Arkansas River, including wetlands, from the source to immediately below the confluence with Brown's Creek, except for specific listings in segments 6 through 12b

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COARUA05	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	
Temporary Modification(s):	
Arsenic(chronic) = hybrid	
Expiration Date of 12/31/2021	
*chlorophyll a (mg/m^2)(chronic) = applies only above the facilities listed at 32.5(4).	
*Phosphorus(chronic) = applies only above the facilities listed at 32.5(4).	

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	chronic
D.O. (mg/L)	—	6.0
D.O. (spawning)	—	7.0
pH	6.5 - 9.0	—
chlorophyll a (mg/m^2)	—	150*
E. Coli (per 100 mL)	—	126
Inorganic (mg/L)		
	acute	chronic
Ammonia	TVS	TVS
Boron	—	0.75
Chloride	—	250
Chlorine	0.019	0.011
Cyanide	0.005	—
Nitrate	10	—
Nitrite	—	0.05
Phosphorus	—	0.11*
Sulfate	—	WS
Sulfide	—	0.002

Metals (ug/L)	acute	chronic
Aluminum	—	—
Arsenic	340	0.02(T)
Beryllium	—	—
Cadmium	TVS(tr)	TVS
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	—	WS
Iron	—	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Manganese	—	WS
Mercury	—	0.01(t)
Molybdenum	—	160(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	—	—
Zinc	TVS	TVS

INSPECTIONS

Since the 2008 issuance of this Permit, routine NPDES Enforcement inspections were performed at the Hatchery on July 2012 and September 2014. No deficiencies were noted in the Integrated Compliance Information System (ICIS) database.

MAJOR CHANGES FROM PREVIOUS PERMIT

Monitoring requirements for total residual chlorine, dissolved oxygen, temperature, nitrate, phosphorus, and ammonia monitoring are being added during this Permit issuance. Monitoring for these parameters is being implemented for use in determining baseline numbers for the Hatchery and to allow EPA to evaluate the need for effluent limits in the future. Monitoring for

total residual chlorine will only be required when the facility utilizes Chloramine-T for disease treatment. Nitrate, phosphorus and ammonia monitoring will only be required during the growing season months from July 1st to September 30th of each year.

With this permitting cycle, clarifications were made to the self-monitoring frequencies. Due to the consistent nature of the discharge and history of compliance the facility will be required to maintain quarterly frequencies for analyzed parameters. Frequencies for instantaneous sampling will be modified to provide monthly background data. Oil and grease requirements will remain in the Permit as a visual trigger due to the feed usage and by-products of fish feed.

In addition to the above mentioned changes, best management practice requirements are being specified in the Permit.

A. Best Management Practices (BMP) Plan

40 CFR § 451 establishes effluent limitations for the Concentrated Aquatic Animal Production Point Source Category, which includes fish hatcheries. 40 CFR § 451 is not applicable to facilities that produce less than 100,000 pounds of aquatic animals per year, such as the Hatchery, which produces approximately 75,000 pounds per year. Permittees subject to 40 CFR § 451 do not have numeric TBELs but are required to develop a BMP Plan detailing how the permittee will address solids control, materials storage, structural maintenance, record-keeping, and training.

With this permit renewal the EPA has determined, based on best professional judgment (BPJ) that the 40 CFR § 451 ELGs appear to be an effective control for TSS and other pollutants associated with solids, and is applying BMP requirements to all federally regulated hatcheries. The requirements at 40 CFR § 451.11 for the BMP Plan are presented below.

1. Solids Control. The Permittee must:

    a. Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.
    b. 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 aquatic animals in the production system; in order to minimize the discharge of accumulated solids from settling ponds and basins and production systems.
    c. Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge in order to benefit the aquatic environment.

2. Materials Storage. The Permittee must:
    a. Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides or feed to waters of the U.S.
    b. Implement procedures for properly containing, cleaning, and disposing of any spilled material.

3. Structural maintenance. The Permittee must:
   a. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
   b. Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

4. Recordkeeping. The Permittee must:
   a. Maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals, in order to calculate representative feed conversion ratios.
   b. Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

5. Training. The Permittee must:
   a. Adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill, in order to ensure the proper clean-up and disposal of spilled material.
   b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

6. Drug and Chemical Management. The Permittee must:
   a. Only use drugs and chemicals deemed acceptable for use in waters that will or may be discharged to State waters in accordance with all applicable regulations, including, but not limited to requirements contained in the labeling of pesticide products approved under the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA), and dosage and usage requirements established by FDA and in strict accordance with the manufacturer's site-specific instructions.
   b. Document all drug and chemical use, including Investigational New Animal Drugs, in the BMP Plan, and include or reference the Standard Operating Procedures for their storage and usage. Additionally, records must be maintained on-site that include the date of the treatment, the number of fish treated, the drug used, dosage, duration, type of treatment (static bath or flow), disease treated, estimated concentration at discharge, and the method of disposal.

All documentation for the BMP plan is required to be maintained on-site and available for inspection.

PERMIT LIMITS

The Permit limits for the Leadville NFH are based on the facility operations and anticipated known discharge contaminants. The Hatchery produces a maximum of 200,000 fish equates to approximately 75,000 pounds of fish, therefore the ELG for fish production is not met by the Leadville NFH, however BMPs will be included to ensure proper operation and maintenance occurs.

The primary pollutants of concern in hatchery and rearing pond wastewater are the waste food and feces, as they affect water quality. Hatchery settling basin wastewaters typically contain resuspended organic solids generated when facilities clean the bottom of the rearing ponds using

a vacuum system or by sweeping to a bottom-drain system. The organic solids consist of fish food, fecal material, and other debris settled out from the facility's water source. The main chemical constituents of concern in the waste food and feces are primarily nitrogen and phosphorus. The pollutant loading in the effluent is characterized with total suspended solids (TSS) and settleable solids (SS) monitoring.

The EPA also considers the disease control chemicals used at these facilities as pollutants of concern. Fish hatching and rearing facilities use these chemicals to treat both internal and external fish diseases and to prevent the spread of disease at or between facilities.

All disease control chemicals must be used in accordance with label instructions. The Permit also prohibits the discharge of these chemicals in concentrations that would exceed federal or state water quality standards and requires facilities to use BMPs to minimize the concentration of these chemicals in the discharge. The requirement to monitor total residual chlorine (TRC) during the administration of Chloramine-T is being implemented to determine if residual chlorine, as a result of disease treatment, is reaching the receiving stream due to concerns regarding Chloramine-T usage.

This Permit will require the facility to maintain a Chemical Operational Log, including chemical, dosage, duration, method of application, amount used, type of treatment (static bath or flow) estimated concentration at discharge and method of disposal information.

Based upon the operation information provided by the applicant, changes to CDPHE Water Quality Standards, and information on the processes associated with hatchery operation; the pollutants in the discharge from the Leadville NFH that are likely to be of potential water quality concern are total suspended solids (TSS), dissolved oxygen (D.O.), pH, ammonia, nitrogen, and phosphorus loading. BMPs will be utilized to assist with management of Disease Control Chemicals.

Monitoring for nitrogen, phosphorus, ammonia, dissolved oxygen and temperature will be required with this Permit issuance to determine if there is reasonable potential to exceed State water quality standards and the need for permit limitations in the next permit cycle.

Effluent Limitations - Outfall 001.

Effluent Limitations - Outfall 001 a/			
	Effluent Limitation		
Effluent Characteristic	30-Day Average	7-Day Average	Daily Maximum
Flow, mgd b/	Report	N/A	Report
Total Suspended Solids (TSS), mg/L c/	20	N/A	30
Total Suspended Solids (TSS), lbs/day c/	480	N/A	720
Oil and Grease (O&G), mg/L	N/A	N/A	10
Temperature, °C d/	Report	N/A	Report
Dissolved Oxygen (DO), mg/L	Report	N/A	Report
Total Residual Chlorine, mg/L e/	Report	N/A	Report
Total Ammonia Nitrogen (as N), mg/L f/ g/	Report	N/A	Report

Receiving water pH, units g/	Report	N/A	Report
Receiving water Temperature, °C g/	Report	N/A	Report
Total Nitrogen (N), mg/L e/	Report	N/A	Report
Total Phosphorus (P), mg/L e/	Report	N/A	Report
The pH of the effluent shall not be less than 6.5 or greater than 9.0 at any time.			

a/ See Definitions, Part 1.1., for definition of terms.
b/ Flow shall be based on the combined flow measurements from Turquoise Reservoir at the water treatment plant, the effluent flow from Lake 3 at the parshall flume weir, and the flow measurements from the water treatment house at the natural spring.
c/ The sample for TSS shall be a flow weighted composite sample taken from effluent settling pond 1 and effluent sampling pond 2.
d/ The sampling frequency for temperature, at a minimum, must be at least 3 equally spaced measurements throughout the day.
e/ Total residual chlorine monitoring will be required during application periods of Chloramine-T dosing for disease control to determine if reasonable potential exists for chlorine limitations.
f/ Monitoring for ammonia, nitrogen and phosphorus shall be performed only during the high production season of July through September.
g/ Receiving water temperature and pH must be taken concurrently with discharge.

Only commercially produced fish feed shall be used (no unprocessed offal or other animal byproduct). No sanitary wastes shall be introduced into this discharge.

MONITORING REQUIREMENTS

Self-Monitoring Requirements - Outfall 001

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O.

Effluent Characteristic	Frequency	Sample Type a/
Total Flow, mgd b/	Monthly	Instantaneous
Total Suspended Solids (TSS), mg/L c/	Quarterly	Composite
Oil and Grease (O&G), mg/L d/	Monthly	Visual
pH, units	Monthly	Grab
Temperature, °C e/	Daily	Recorder
Dissolved Oxygen (DO), mg/L	Monthly	Grab
Total Residual Chlorine, mg/L f/	During Chlor-T usage	Grab
Total Ammonia Nitrogen (as N), mg/L g/ h/	Quarterly	Grab
Receiving water pH, units f/	Quarterly	Grab
Receiving water Temperature, °C f/	Quarterly	Grab
Total Nitrogen (N), mg/L f/ g/	Quarterly	Grab
Total Phosphorus (P), mg/L f/ g/	Quarterly	Grab

a/ See Definitions, Part 1.1., for definition of terms.
b/ Flow measurements of effluent volume shall be made by reading the metered incoming water from Turquoise Reservoir at the water treatment plant, adding in the measured effluent flow from Lake 3, and adding the weir measurement from the natural spring. The average flow rate (in million gallons per day) during the reporting period and the maximum flow rate observed (in mgd) shall be reported.
c/ The sample for TSS shall be a flow weighted composite sample taken from effluent settling pond 1 and effluent sampling pond 2. This combined flow shall then be used to determine and report TSS data for the facility.
d/ If a sheen is observed a grab sample must be taken and analyzed immediately for Oil and Grease.
e/ Temperature shall be recorded daily with a minimum of at least 3 equally spaced measurements throughout the day.
f/ The Total residual chlorine monitoring will be required during application periods of Chloramine-T dosing for disease control.
g/ Monitoring for ammonia, nitrogen and phosphorus shall be performed only during the high production season of July through September.
h/ Receiving water temperature and pH must be taken concurrently with Ammonia sample.

REPORTING REQUIREMENTS

With the authorization date of the Permit, the Permittee must electronically report DMRs using NetDMR, which can be accessed from the internet at:

https://netdmr.zendesk.com/home

Electronic submissions by permittees must be completed in the NetDMR system no later than the 28th day of the month following the completed reporting period. All electronic submissions will require the Permittee to electronically sign and certify all submissions in accordance with the requirements of Part 4.7 of the Permit ("Signatory Requirements").

INSPECTION REQUIREMENTS

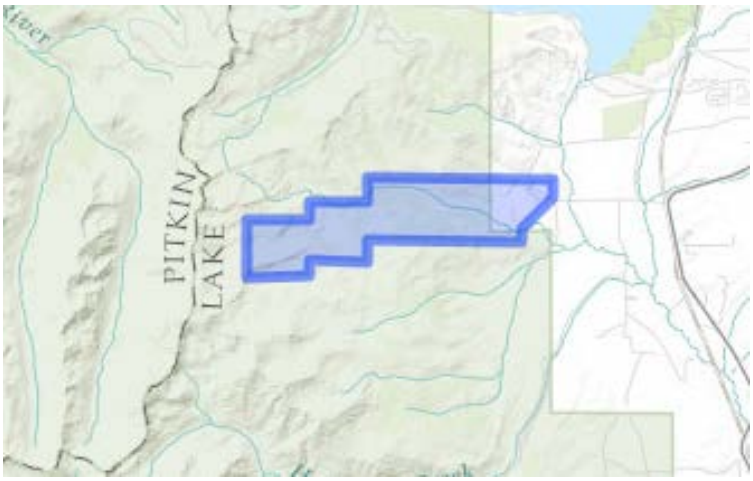
The Leadville NFH was previously required to perform weekly inspections of their effluent ponds. This requirement was modified to monthly on request of the Hatchery due to the high altitude and impacts of snowfall which create access issues for the facility. Due to the consistent nature of the discharges and the compliance history the facility, the Hatchery is required to inspect the effluent pond outfalls on a quarterly basis, unless otherwise modified in writing by the EPA. Hatchery inspections at the water treatment plants will be maintained at weekly. The permittee shall maintain a notebook recording all information obtained during the weekly and monthly inspections.

ENDANGERED SPECIES CONSIDERATIONS

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, "listed" species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS as critical ("critical habitat"). See 16 U.S.C. § 1536(a)(2), 50 C.F.R. Part 402. When a Federal agency's action "may affect" a protected species, that agency is required to consult with the FWS, depending upon the

endangered species, threatened species, or designated critical habitat that may be affected by the action (50 C.F.R. § 402.14(a)).

The U. S. Fish and Wildlife Information for Planning and Conservation (IPaC) website program was utilized to determine federally-Listed Endangered, Threatened, Proposed and Candidate Species for the Leadville NFH. The IPaC Trust Resource Report findings are provided below for the Hatchery site. The designated area utilized was taken directly from the IPaC system and covers the entire National Fish Hatchery site acreage of 6,140.69 acres.



Species	**Scientific Name**	**Status**
Greenback Cutthroat Trout	*Oncorhynchus clarki stomias*	T
Uncompahgre Fritillary Butterfly	*Boloria acrocnema*	E
Canada Lynx	*Lynx canadensis*	T

Symbols/Acronyms:

T = Threatened
E = Endangered
P = Proposed
C = Candidate
NLAA = Not Likely to Adversely Affect
LAA = Likely to Adversely Affect

Conclusion

The EPA has established permit limits protective of the downstream uses specified by Colorado Water Quality Standards. Based on the information provided by the U.S FWS Leadville Fish Hatchery and the U.S. FWS IPaC system, the EPA has made the determination that the Leadville NFH is *not likely to adversely* affect listed T&E species. The EPA has provided this information to the Colorado U.S. FWS regional office for concurrence and considers its obligations under Section 7 complete with the final consultation and determination.

Concurrence from the U.S. FWS was received September 29, 2016.

NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The U.S. National Park Service (U.S. NPS) National Register of Historic Places Focus Database was utilized to determine and evaluate resources of concern in the Leadville National Fish Hatchery location.

The National Register of Historic Places (NHRP) is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the U.S. NPS NHRP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

The information provided by the U.S. NPS website provided the information below regarding the Leadville NFH.

Title:	Leadville National Fish Hatchery
National Register Information System ID:	80000908
Areas Of Significance:	ECONOMICS CONSERVATION ARCHITECTURE
Resource Type:	BUILDING
Asset ID:	e96fafa6-e441-4a54-99b8-d9648093f6f4

Based upon the information provided by the U.S. NPS database, the EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources due to this Permit issuance and Hatchery discharge related activities from Outfall 001.

MISCELLANEOUS

The effective date of the Permit and the Permit expiration date will be determined upon issuance of the Permit. The intention is to issue the Permit for a period not to exceed 5 years.

Permit drafted by VelRey Lozano, Environmental Scientist, 8WP-CWW, May 26, 2015.
Permit reviewed by Robert Shankland, SEE, 8WP-CWW, June 6, 2016.
Permit updated by VelRey Lozano, Environmental Scientist, 8WP-CWW, July 19, 2016.
Permit reviewed by Craig Jorgenson, SEE, 8WP-CWW, September 2, 2016.
Permit updated by VelRey Lozano, Environmental Scientist, 8WP-CWW, September 12, 2016.
Permit finalized by VelRey Lozano, Environmental Scientist, 8WP-CWW, December 28, 2016

RESPONSE TO COMMENTS

Comments received from Colorado Department of Health and Environment:

The permit sets the temperature sampling frequency as "quarterly" and the sample type as "grab". However, this sampling frequency and sample type does not adequately implement the temperature basic standards found in 31.16. In order to demonstrate compliance with the weekly

average temperature ("WAT") as defined in 31.5(50), the sampling frequency should be at least 3 equally spaced measurements throughout the day if the sample type is grab. The preferred sampling frequency is "continuous" and the preferred sample type is "recorder".

EPA response:

The permit monitoring and reporting requirements for temperature were modified to reflect the CDPHE temperature and sampling frequencies which will meet water quality standard requirements.

Comments received data program:

The self-monitoring frequency is unclear. Sampling frequency and reporting frequencies need to be clear to properly establish and code DMR reporting frequencies and submittal frequencies.

EPA response:

Self-monitoring requirements were re-evaluated and updated to more clearly identify required sampling parameters, monitoring frequencies, and reporting frequencies.