Oregon Department of Fish and Wildlife
Cedar Creek Hatchery
Management Framework
2023-2025

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ODFW Mission

To protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations.

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Photographs courtesy of Cedar Creek Staff and Nestucca Anglers

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I. Plan Objectives

This management framework serves as guidance for operations at Cedar Creek Hatchery and describes the working relationships among the many partners including the Nestucca Anglers, ODFW hatchery staff, ODFW North Coast Watershed District (NCWD) staff, Oregon State Police (OSP), and private landowners. This document summarizes Cedar Creek Hatchery's annual production goals and facility infrastructure and describes concepts for future facility enhancement. This document also highlights the private land located immediately downstream from the Gauldy Bridge on Three Rivers and the importance that this area provides as a seasonal sanctuary and resting area for broodstock.
Further, this document describes the important role of the Nestucca Anglers and private landowners as partners with Cedar Creek Hatchery and district staff in meeting Nestucca Basin fishery enhancement objectives. Partners will meet annually to discuss progress toward implementing this framework. Changes to the document will be an inclusive process and as dictated by adaptive management.

Management Purpose

Cedar Creek Hatchery is a vital part of the agency's north coast fishery portfolio, and along with support from Nestucca Anglers and private land partners, Cedar Creek Hatchery is now a flagship facility for fishery enhancement, public education and community engagement. The primary role of Cedar Creek Hatchery is to produce hatchery spring Chinook, fall Chinook, winter steelhead and summer steelhead to support harvest fisheries, primarily in the Nestucca River basin, but also spring Chinook in the Trask River of the Tillamook basin. As capacity allows, Cedar Creek Hatchery may also support hatchery production for other coastal streams and the lower Columbia River (e.g., coho). The facility is used for adult fish collection, egg incubation and juvenile fish rearing. Central to the hatchery's fish production mission is ensuring that: (1) production targets are met (number and quality) and contribute substantively to target fisheries; (2) operations are consistent with practices needed for maintaining a healthy watershed; (3) wild fish are managed and conserved according to ODFW plans and policies; (4) key constituent groups such as the Nestucca Anglers remain an active partner with ODFW; and (5) visitors are treated to educational opportunities and safe and well-maintained grounds.

Facility Background

Cedar Creek Hatchery is located 1.5 miles east of Hebo off Highway 22, adjacent to Three Rivers, a Nestucca River tributary. The facility has been continuously operated on its present site since 1914. The Hatchery was first purchased August 5, 1925 for $1,329, and was added to in 1951, 1958, 1969, 1972, 1978 and 2017. Total acres on site are 35.33. The rearing facilities include six raceways, four rectangular ponds, one two-acre pond, one half-acre pond, and three adult holding ponds. The hatchery water rights for Cedar Creek Hatchery are 19,936 gpm from Cedar Creek and 2,784 gpm from Three Rivers. The current condition of the rearing facilities range from poor to excellent. There is an adult collecting facility on Three Rivers, and a fish passage barrier on Cedar Creek.

Cedar Creek Hatchery is currently operated with 4 full-time employees (FTE) and is 100 percent state funded.

Recent upgrades at Cedar Creek Hatchery include a multimillion-dollar adult trapping facility, ladder and Obermeyer weir which were paid for with bond funds. This funding source also included new roofing on the office and storage buildings, as well as a new equipment lean-to. Past upgrades have included 4 new fish rearing raceways, 1 show pond, and improvements to pollution abatement system that will allow the hatchery to comply with DEQ standards set forth in the 300-J permit. Also, the Three Rivers pump station was completely overhauled. This project included the installation of two underground pumps, controlled by new VFD's to allow for optimum efficiency while running. These improvements will allow Cedar Creek Hatchery to utilize the 5 CFS (2,245 GPM) during the low water months to accommodate the increase in fish production. All these projects were funded by a mix of O.D.O.T, SAFE (Select Area Fisheries), and general funds.

A satellite facility, Rhoades Pond, is owned by ODFW and leased to the Nestucca Anglers. Rhoades Pond is currently the site of a Salmon-Trout Enhancement Program (STEP) fall Chinook production project lead by the Nestucca Anglers. Rhoades Pond is operated by Nestucca Anglers volunteers with assistance from Cedar Creek Hatchery and Tillamook District staff as necessary. Recently, the Nestucca Anglers with the assistance of the North Coast STEP, completed a series of restoration and infrastructure projects upgrading the Rhoades Pond facility to modern standards. A total of $118,942 in grants and $29,729 in match were acquired from 2012-16 to accomplish these projects.

II. Facility Production Goals

Fall Chinook

Nestucca River (47H) stock: Provide hatchery-produced fish to augment sport fisheries in the Nestucca Basin, as well as sport and commercial harvest in the ocean. The hatchery transfers approximately 105,000 juveniles to the Nestucca Anglers STEP project at Rhoades Pond, with a release goal of 100,000 smolts from the pond (all adipose fin-clipped).

Spring Chinook

Nestucca River (47H) stock: Release 230,000 hatchery spring Chinook salmon smolts (all adipose fin-clipped) in the Nestucca River basin with the primary goal of providing hatchery spring Chinook for sport harvest in the Nestucca basin, as well as commercial and sport harvest in the ocean.

Trask River (34H) stock: Release 215,000 hatchery spring Chinook salmon smolts (all adipose fin-clipped) in the Trask River with the primary goal of providing hatchery spring Chinook salmon adults for sport harvest in Tillamook Bay and the Trask River, as well as commercial and sport harvest in the ocean.

Summer Steelhead

Siletz River (33H) stock (non-local stock): Collect sufficient eggs for both the 47H and 33H summer steelhead programs. For the 47H program, up to 33% of the eggs will come from stock 33H adults to maintain genetic diversity. 80,000 eggs are collected for the 33H summer steelhead program (for eventual release in the Siletz River) and are subsequently transferred off site (currently to Salmon River Hatchery) as eyed eggs.

Nestucca River (47H) stock (Siletz origin stock: (Eggs taken from adults returning to the Nestucca and mixed with 33H stock). Release 100,000 hatchery summer steelhead (all adipose fin-clipped and right maxillary clipped) for harvest in the Nestucca River and Wilson River basins.

Winter Steelhead

Nestucca River wild (47F) stock (local stock): Release 140,000 hatchery smolts to provide freshwater sport harvest opportunities in the Nestucca Basin. The program primarily utilizes angler caught wild steelhead adults from the Nestucca basin provided to the hatchery by volunteer anglers. Trap caught wild or F1 hatchery adult steelhead will also be used for broodstock if necessary to reach production goals.

Rainbow Trout

Roaring River 72 stock (non-local stock): Raise approximately 600 trophy rainbow trout in the hatchery show pond to supplement local lake fisheries and special fishing events. These fish also provide an attraction for hatchery visitors who want to observe and feed the fish.

III. Facility Objectives and Management

This section describes the current hatchery practices associated with anadromous fish production at Cedar Creek Hatchery. Because ODFW hatcheries are managed to optimize use of the hatchery rearing space, hatchery operations are dynamic and subject to annual change depending upon statewide program needs.

Existing Plans

The Fish Hatchery Management Policy, Fish Health Management Policy; and Hatchery Genetic Management Plans provide direction for brood collection, rearing, release, and health management strategies currently used at Cedar Creek Hatchery. The Native Fish Conservation Policy and the Coastal Multi-species Conservation and Management Plan (CMP) establishes the hatchery and wild fish management objectives that serve as the basis for management of salmon and steelhead in the North Coast Watershed District and elsewhere on the Oregon Coast between Cape Blanco and the Columbia River.

Collectively, ODFW's plans and policies establish six key objectives that comprise the management framework for hatchery operations and fish management at Cedar Creek Hatchery and the Nestucca Basin. These objectives are as follow:

1) Foster and sustain opportunities for sport, commercial, and tribal fishers consistent with the conservation of naturally produced native fish.
2) Contribute toward the sustainability of naturally produced native fish populations through the responsible use of hatcheries and hatchery-produced fish.
3) Maintain genetic resources of native fish populations spawned or reared in captivity.
4) Minimize adverse ecological impacts to watersheds caused by hatchery facilities and operations.
5) Restrict the introduction, amplification, or dissemination of disease agents in hatchery produced fish and in natural environments by controlling egg and fish movements and by prescribing a variety of preventative, therapeutic and disinfecting strategies to control the spread of disease agents in fish populations in the state.
6) Communicate effectively with other fish producers, managers and the public.

This following sections of this plan identify how Cedar Creek Hatchery contributes toward the six objectives identified above. Cedar Creek Hatchery places a particular emphasis on hatchery production to support fisheries, avoiding negative impacts to wild fish conservation, maintaining a healthy watershed, maintaining healthy fish, and working effectively with Nestucca Anglers.

Weir Operation

The weir and hatchery trap should be observed daily to monitor conditions, fish presence, and numbers of fish in the trap. Remove fish from the trap weekly or more frequently if large numbers are present.

May 15-Nov 30

Operate in the up position to prevent hatchery Chinook and hatchery steelhead upstream migration

During the ChS run temporary weir may be installed to control the number of fish in weir pool; alternatively trap and recycle surplus ChS (thru 7/31) and StS weekly (or more often if large numbers of fish); if recycling, do not allow a buildup of fish in the weir pool (>100) until after the close of spring Chinook angling, then utilize the pool to hold remaining fish for later collection; some adult ChS may go to food bank; retain brood on the hatchery over the summer as needed

Dates can be adjusted to when ChS first arrive in the spring and hatchery ChF run ends in the fall

Lower weir temporarily as needed to allow steelhead kelts to pass downstream if observed above the weir in the spring and monitor to minimize upstream passage of hatchery ChS/StS

Dec.1-Jan 31

Operate the weir in the down position to allow wild coho and late fall Chinook to pass.

Adjust dates if hatchery ChF are present or need to collect late StS for brood

Feb. 1- Apr 30

Preference is to operate in the down position, however, raise weir as needed to collect hatchery StW when fish are present in sufficient numbers. Remove fish from the trap weekly or more frequently to ensure minimal migration delay for wild steelhead passed upstream.

May 1-May 15

Operate in the down position to allow steelhead kelts to pass downstream (and smolts). Adjust dates to raise the weir when ChS or StS begin to arrive.

Adult Collection

The adult trap for Cedar Creek Hatchery is located at Three Rivers just above the mouth of Cedar Creek. With the completion of the new Obermeyer weir, ladder and trap, the water source for the new trap is Three Rivers.

Cedar Creek Hatchery facilities include a Obermeyer weir across Three Rivers. The purpose of the weir is primarily to direct returning hatchery fish into the hatchery trap (or in the case of spring Chinook provide a barrier to create a holding area in the stream). The weir structure also helps to impound water for pumping water up to the hatchery. ODFW also has an obligation to provide passage for naturally produced fish migrating into upper Three Rivers. Therefore, operation of the weir system takes a balanced approach to the extent possible to provide upstream passage for wild fish at key times, while striving to be operated for the maximum collection of hatchery fish at other times. River conditions outside of ODFW's control can also dictate operation of the weir. Operation of the new weir will strive to provide both upstream passage of wild fish while maximizing collections of hatchery fish in the adult trap.

Fall Chinook:

Nestucca River (47H) stock: Adults arrive at the hatchery between October and December. Peak spawning occurs during November. Adults (hatchery and wild) used for broodstock are collected at the Three Rivers Trap adjacent to the hatchery and may also be collected by seining below the trap facility and on private land located below Gauldy Bridge on Three Rivers, or in the Nestucca River and Bay by authorized anglers. Nestucca Anglers and other volunteers often assist with broodstock collection and spawning activities. The annual program goal is 37 pairs (74 fish). No recycling of fall Chinook typically occurs. Wild fall Chinook not needed for broodstock are passed upstream of the hatchery weir to spawn naturally.

Fall Chinook harvest in the Nestucca River Basin is a mix of hatchery and wild fish. In 2016, total fall Chinook harvest in the Nestucca Basin approached 3,500 adults. Previous creel surveys have estimated that up to approximately 25% of the catch is composed of hatchery fish in some years.

Spring Chinook:

Nestucca River (47H) stock: Adults arrive at the hatchery between May and September. All spawning occurs during September. Adults for broodstock (nearly all hatchery fish) are collected at the Three Rivers Trap adjacent to the hatchery and may also be collected by seining below the trap facility and on private land located below Gauldy Bridge on Three Rivers. Seining involves the use of many volunteers including the Nestucca Anglers who regularly assist with this event. The annual collection goal is 100 pairs (200 fish). Additional adults may be collected as necessary to cover shortages resulting from, but not limited to, fecundity variation, early egg mortality, and positive disease tests, or for genetic purposes. Most unmarked adult spring Chinook are passed upstream of the hatchery weir to spawn naturally. A small portion of unmarked adults may be used for broodstock. Adult spring Chinook may be recycled if collected in the hatchery trap prior to the end of July. However, spring Chinook may be trapped in the river between the hatchery weir and a temporary weir so that they are not handled. The private land is managed to limit fishing pressure and thus to help maintain adequate numbers of adults for broodstock. This takes a close working relationship with Cedar Creek Hatchery and District personnel to meet this objective. Additional adults may be held in the main hatchery holding ponds over the summer. Surplus adults are collected to account for anticipated mortality during the summer holding period.

Spring Chinook harvest in the Nestucca River Basin consists entirely of hatchery fish (identified by adipose fin clip). In 2016, total spring Chinook harvest in the Nestucca Basin was approximately 2,200 adults.

Trask River (34H) stock: Adult collection (all hatchery fish) and spawning take place at Trask Hatchery. Eyed eggs or fry are transferred from Trask Hatchery to Cedar Creek Hatchery.

Summer steelhead:

Siletz River (33H) stock: Adult hatchery fish are collected at the Siletz Falls trapping site and held at Cedar Creek hatchery until spawning. Adults arrive at the collection site between May and December. Peak spawning occurs during February. The program collection goal is 50 pairs (100 fish).

Nestucca River (47H) stock: Adults arrive at the hatchery between May and December. Adults for brood stock (all hatchery fish) are collected at the Three Rivers Trap adjacent to the hatchery. Peak spawning occurs in late January or February. The program collection goal is 60 pairs (120 fish). Additional adults may be collected as necessary to cover shortages resulting from, but not limited to, fecundity variation, early egg mortality, or positive disease tests, or for genetic purposes. Summer steelhead not collected for broodstock are recycled back to the river to provide recreational harvest opportunity, typically through October. Surplus adult hatchery

steelhead are released to local lakes to provide fishing opportunity (and reduce the number of hatchery fish on spawning grounds) beginning in late October or November. No summer steelhead are intentionally passed upstream of the hatchery weir.

Summer steelhead harvest in the Nestucca River Basin is comprised entirely of hatchery fish. In 2016, total summer steelhead harvest in the Nestucca Basin was approximately 1,500 adults.

Winter steelhead:

Nestucca River wild (47W) stock: Wild Adults for brood stock are collected by angling from the Nestucca River and Three Rivers by authorized anglers including the Nestucca Anglers from December to April. Participants contribute thousands of hours annually to support this program. Some hatchery and wild adults may be collected in the adult trap as needed. The program collection goal is 75 pairs (150 fish). Additional fish from either stock may be collected and held as necessary to cover shortages resulting from, but not limited to, fecundity variations, early egg mortality, or positive disease tests, or for genetic purposes.

Winter steelhead harvest in the Nestucca River Basin is comprised of only hatchery fish (i.e., adipose fin clipped) from 47H or 47W stocks. In the 2015-16 return year, total winter steelhead harvest in the Nestucca Basin was approximately 3,000 adults.

Broodstock Selection and Spawning

Oregon's Native Fish Conservation Policy and Hatchery Genetic Management Plans outline broodstock selection and spawning protocols for some fish stocks.

A goal of the broodstock collection for each species is to collect brood throughout each run in a way that represents the population (based on run timing, age structure, etc.). Eggs/juveniles produced should be representative of the population also (by retaining eggs/fish from groups spawned throughout the run for each species).

Fall Chinook:

Fall Chinook broodstock is to be collected from throughout the run. Fish can be collected by authorized anglers or at the hatchery trap. Brood should be collected from September through at least November. Spawning should be initiated when fish begin to ripen up and continue periodically at least through November. Jacks are to be included in the broodstock (up to 5%). Eggs for the program are to be retained from each spawning group in roughly equal proportions.

Spring Chinook:

Spring Chinook broodstock is to be collected from throughout the run to best represent the entire population. Fish may be collected periodically over the spring/summer (May-August) and held at the hatchery. Additional brood may be collected from Three Rivers below the weir, or

on private lands, through the month of September. Spawning can be initiated around late August/ early September and should continue weekly through September. Jacks need to be incorporated in the brood (up to 5%). Eggs for the program are to be retained from each spawning group in roughly equal proportions.

Summer Steelhead:
Collect fish for broodstock periodically throughout the spring, summer, and fall to represent the entire run. Multiple spawnings should occur as the fish ripen to ensure all portions of the run are incorporated. Retain eggs across all spawning in similar proportions. Incorporate stock 33 eggs as indicated in the production schedule and HGMP.

Winter Steelhead:
Winter steelhead broodstock is to be collected from throughout the run (Dec-Apr). Fish can be collected by authorized anglers or at the hatchery trap. Spawning should be done periodically through the winter/spring as fish ripen. The goal is to utilize 100% wild adults for this program. Hatchery fish may be spawned for backup purposes but should only be retained the case of a shortage of wild fish. Continue to collect and spawn wild adult steelhead until the egg production goal is reached (wild x wild crosses). Limit the number of F1 x wild crosses to only when necessary.

Recycling

Summer Steelhead

Recycle surplus summer steelhead adults from May to October. Beginning November 1 surplus adults should be stocked in local lakes or used for stream enrichment

Winter steelhead

Recycle surplus hatchery winter steelhead throughout the run. Only bright fish in good condition should be recycled to the river fishery. Ripe females may be stripped of eggs and recycled in the river. Ripe or darker males and unstripped ripe females should be stocked in local lakes or used for stream enrichment.

Spring Chinook

Recycle spring Chinook not retained for brood from May-July. Spring Chinook may also be donated to a food bank provided the run size is sufficient to meet broodstock needs and fish are being recycled through the fishery also.

If the temporary weir is installed in Three Rivers, periodically open the weir to allow sufficient fish to hold below the weir for broodstock, while maintaining most fish downstream in the open fishing area. Recycle spring Chinook surplus to broodstock needs from the new trap. The temporary weir should be opened/removed after the end of July to allow fish to accumulate in the pool below the hatchery weir for later

collection. Surplus spring Chinook may be recycled from the old hatchery trap through July or donated to a food bank.

Fall Chinook

Unless otherwise coordinated with the district, retain all hatchery fall Chinook for broodstock and do not recycle. Surplus fall Chinook may be donated to a food bank or used for stream enrichment. Pass wild fall Chinook not utilized for broodstock upstream of the hatchery weir.

Coho

Pass all wild coho upstream of the hatchery weir. Hatchery coho captured may be donated to a food bank, used for stream enrichment, or disposed of in a landfill.

Sockeye

Any sockeye collected at the hatchery are to be killed and disposed of in a landfill.

Rearing and Release Strategies

Rearing and release strategies are designed to optimize fish health and survival and limit the amount of ecological interactions occurring between hatchery and naturally produced fish. Fish are reared to sufficient size that smoltification occurs within nearly the entire population, which will reduce the retention time during downstream migration. Rearing on parent river water, or acclimation to parent or release site river water, is used to ensure strong homing to the hatchery, thus reducing the stray rate to natural populations. Various release strategies are used to ensure that fish migrate from the hatchery with least amount of interaction with native populations. The specific rearing and release strategies used at this hatchery are outlined below.

Fall Chinook:

Nestucca River (47H) Stock: Rear 105,000 fish to size of 350 fish/pound; transfer to Rhoades Pond STEP facility (operated by the Nestucca Anglers) in mid-April and release at 10 fish/pound (non-acclimated) off-station into Nestucca River (70,000) and Three Rivers (30,000) during mid-August to mid-September. All fish are adipose clipped prior to release. Approximately 200 volunteers participate in this annual fin clipping event hosted by the Nestucca Anglers. Any fry or fingerlings in excess of production needs are to be released into standing bodies of water without natural coho production, or euthanized.

The CMP sets a basin-wide pHOS (proportion hatchery-origin spawners in the wild) for fall Chinook at ≤10%. Indications are that pHOS objectives are being met.

Spring Chinook:

Nestucca River (47H) Stock: Rear 130,000 smolts to a size of 12 fish/pound and release into the Nestucca River (adipose fin clip only). Rear 45,000 smolts to a size of 12 fish/pound for release

into Beaver Creek (adipose and right maxillary clips). Rear 30,000 smolts to a size of 12 fish/pound and release into the Little Nestucca River (adipose and left maxillary clips). Rear 25,000 smolts to a size of 12 fish/pound and release into Three Rivers (adipose fin clipped and coded wire tagged). All release sites are located in the Nestucca Basin.

Trask River (34H) Stock: Receive 250,000 eyed eggs from Trask Hatchery. Rear 215,000 smolts to a size of 12 fish/pound for release into Trask River. All fish are fin clipped prior to release. In addition to adipose fin clips, 50,000 are marked with RV (right ventral) and 30,000 receive coded-wire tags.

The CMP sets a basin-wide pHOS for spring Chinook at ≤30%. Monitoring is ongoing to determine pHOS rates for the Nestucca basin and returns of Trask stock fish to the Nestucca basin.

Summer Steelhead:

Siletz River (33H) Stock: Egg program only; Eyed eggs are transferred to Salmon River Hatchery for final grow out and released into the Siletz River.

Nestucca River (47H) Stock: Rear 90,000 fish to size of 6 fish/pound and release off-station to the Nestucca River (20,000), Three Rivers (30,000), and South Fork Wilson River (40,000) during early April. All fish are fin clipped prior to release.
Rear 10,000 fish to a size of 6 fish/pound for transfer to Hughey Creek Acclimation Site in early April for acclimation and release into the Wilson River in mid-April. All fish are fin clipped prior to release.

The CMP did not establish a pHOS specifically for summer steelhead in the Nestucca Basin. See the winter steelhead section for further description.

Winter Steelhead:

Nestucca River Wild (47F) Stock: Rear 90,000 fish to 7 fish/pound for release into the Nestucca River. All fish are fin clipped (adipose fin clip) prior to release.

Rear 50,000 fish to 7 fish/pound for release into Three Rivers. All fish are fin clipped (adipose fin clip) prior to release.

The CMP sets a basin-wide pHOS for steelhead at ≤30%. Monitoring is ongoing to determine pHOS rates for the Nestucca Basin

STEP: Provide eggs for STEP educational purposes as determined annually.

Environmental Monitoring:

Environmental monitoring is conducted at ODFW facilities to ensure these facilities meet the requirements of the National Pollution Discharge Elimination Permit administered by the Oregon

Department of Environmental Quality. It is also used in managing fish health. On a short-term basis, monitoring helps identify when changes to hatchery practices are required. Long-term monitoring provides the ability to quantify water quality impacts resulting from changes in the watershed (e.g., logging, road building and urbanization). The following environmental parameters are currently monitored at all ODFW hatcheries:

- Total Suspended Solids (TSS) – measured quarterly during the month of heaviest production. Two composite samples are collected each week, one during normal operations and one during cleaning. Some facilities may take more samples because of multiple outfalls.
- Settleable Solids (SS) – measured quarterly during the month of heaviest production. Two composite samples are collected, one during normal operations and one during cleaning. Some facilities may take more samples because of multiple outfalls.
- pH – measured quarterly when settleable solids are measured.
- Dissolved Oxygen (DO) – measured only when conditions warrant (e.g., periods of low flows and high temperatures).
- Air Temperatures – maximum and minimum temperatures are recorded daily at some stations, but there are no special monitoring requirements.
- Flow Logs – Flows are measured weekly or when water volumes through the hatchery ponds are altered for hatchery management activities (i.e., ponding of fish, splitting of fish lots, fish releases, etc.).

Fish Health Management Programs - All Stocks

ODFW has adopted a Fish Health Management Policy that describes measures that minimize the impact of fish diseases on the state's fish resources. The primary objective of fish health management programs at ODFW hatcheries is to produce healthy smolts that will contribute to the fishery and return sufficient numbers of adults to continue propagation of the stocks and provide supplementation if desired. Equally important is to prevent the introduction, amplification or spread of fish pathogens that might negatively affect the health of both hatchery and naturally reproducing stocks.

ODFW has implemented both disease control and disease prevention programs at all of its facilities to achieve these objectives. These programs include the following standard elements:

Disease Control (Reactive)

- Perform necropsies of diseased and dead fish to diagnose the cause of loss.
- Prescribe appropriate treatments and remedies to disease. This includes recommending modifications in fish culture practices, when appropriate, to alleviate disease-contributing factors.
- Apply a disease control policy as stated in the Oregon Administrative Rules which dictates how specific disease problems will be addressed and what restrictions may be placed on movements of diseased stocks.
- Conduct applied research on new and existing techniques to control disease epizootics.

Disease Prevention (Proactive)

- Routinely remove dead fish from each rearing container and notify ODFW Fish Pathology if losses are increasing. Monthly mortality records are submitted to Fish Pathology from each hatchery.
- Routinely perform examinations of live fish to assess health status and detect problems before they progress to clinical disease or mortality.
- Implement disease preventative strategies in all aspects of fish culture to produce a quality fish. This includes prescribing the optimal nutritional needs and environmental conditions in the hatchery rearing container based on historical disease events. It also involves the use of vaccines in order to avoid a disease problem.
- Use a disease prevention policy that restricts the introduction of stocks into a facility. This will help avoid new disease problems and fish pathogens not previously found at the site.
- Use sanitation and biosecurity measures procedures that prevent introduction of pathogens into and/or within a facility.
- Conduct applied research on new and existing disease prevention techniques.
- Utilize pond management strategies (e.g., Density Index and Flow Index guidelines) to help optimize the quality of the aquatic environment and minimize fish stress that can be
- Conducive to infectious and noninfectious diseases. For example, a Density Index is used to estimate the maximum number of fish that can occupy a rearing unit based on the rearing unit's size. A Flow Index is used to estimate the rearing unit's carrying capacity based on water flows.

Fish Health Activities at Cedar Creek Hatchery:

Health Monitoring

- All fish are given a health inspection no longer than 6 weeks before fish are released or transferred. This exam may be in conjunction with the routine monthly visit.
- Monthly health monitoring examinations of healthy and clinically diseased fish are conducted on each fish lot at the hatchery. More frequent monitoring is often necessary from April through August.
- Examinations for Myxobolus cerebralis, agent of whirling disease, are conducted routinely (every 3 years) on 60 fish held for a minimum of 180 days at the facility.
- At spawning, a minimum of 60 ovarian fluids and 60 kidney/spleen/pyloric caeca (based on a minimum sampling at the 5% incidence level) are examined for viral pathogens from each lot with the exception of wild stocks that are released after spawning. If pre - spawning mortality is above normal, necropsies are conducted on dead adult fish for bacteria, parasites and other causes of death.
- Whenever abnormal behavior is reported or observed, or mortality exceeds 0.1% per day over five consecutive days in any rearing container, the fish pathologist will examine the affected fish, make a diagnosis and recommend the appropriate remedial or preventative measures.
- Reporting and control of specific fish pathogens are conducted in accordance with the Fish Health Management Policy. Results from each examination mentioned above are reported on the ODFW Fish Health or Virus Examination forms.

Fish and Egg Movements

- Movements of fish and eggs are conducted in accordance with the Fish Health Management Policy.

Therapeutic and Prophylactic Treatments

- Adult spring Chinook may be injected with antibiotics for the control of bacterial diseases.
- At spawning, eggs are water-hardened in iodophor for disinfection.
- Juvenile fish are administered antibiotics orally as needed for the control of bacterial infections.
- Formalin is dispensed into water for control of parasites and fungus on eggs, juveniles and adult salmon. Hydrogen peroxide is also used as an alternative. Treatments are administered according to labeling guidelines. Treatment dosage and exposure time varies with species, life-stage and condition being treated.
- Only approved or permitted therapeutic agents are used for treatments:
  - ☐ FDA labeled and approved for use on food fish
  - ☐ Allowed by the FDA as an Investigational New Animal Drug
  - ☐ Obtained by extra-label prescription from a veterinarian
  - ☐ Allowed by the FDA as low regulatory priority or deferred regulatory status
  - ☐ Approved by the FDA through USFWS for fish listed under the federal Endangered Species Act.

Sanitation

- All eggs brought to the facility are surface-disinfected or water-hardened in buffered iodophor.
- Disinfection footbaths (or other means of disinfection) are provided at the incubation facility's entrance and exit areas while embryos are incubating in the facility.
- All equipment (e.g., nets, tanks, rain gear, boots, etc.) is disinfected with iodophor between uses with different fish/egg lots or different rearing containers.
- Dead fish are disposed of promptly and in a manner that prevents introduction of disease agents to the waters of the state.
- Rearing units are cleaned on a regular basis.
- Fish transport trucks are disinfected between the hauling of different fish lots.
- Rearing units are sanitized after removing fish and before introducing a new fish stock either by thorough cleaning and use of a disinfectant or by cleaning and leaving dry for an extended time.
- Different lots of fish/eggs are physically segregated from each other by separate ponds, incubator units and water supplies. Some of the incubators have sheet-metal splash guards to decrease cross contamination between incubator stacks.

Agency Communication

Annual Fish Production Meetings: ODFW conducts meetings throughout the state to set annual fish production goals for all public hatcheries in Oregon. These meetings involve the

participation of ODFW research, management and fish culture staff as well as representatives from applicable federal agencies and tribes.

IV. Salmon Trout Enhancement Programs (STEP)

Cedar Creek Hatchery and STEP volunteers are integral to the success of the North Coast STEP program. Current STEP commitments are as follows:

Nestucca Anglers fall chinook rearing project at Rhoades Pond.

1. Volunteers rear 100,000 fall chinook smolts for release into the Nestucca River basin
2. Volunteers assist hatchery staff in collecting adults
3. Cedar Creek Hatchery staff hold and spawn adults
4. Cedar Creek Hatchery staff incubate and start fry on feed
5. Fish transferred to Rhoades Pond for rearing, with Nestucca Anglers taking primary responsibility for rearing, marking, and general fish culture related tasks.

Educational programs

1. Classroom Incubator Program
2. Eggs provided to schools for classroom teaching units –currently use steelhead eggs, number varies yearly with school/teacher involvement.
3. Educational kiosks/signage at hatchery

Wild winter steelhead broodstock collection program

1. Authorized anglers collect adults and deliver to hatchery
2. Cedar Creek Hatchery staff: spawn, incubate, and rear the fish to smolt.

Stream Enrichment Program

1. Cedar Creek Hatchery provides ChS, ChF, StW, and/or StS carcasses
2. USFS, watershed councils, schools, and other volunteers participate

V. Facilities Infrastructure Improvements

15-17 Biennial Initiatives

An extensive renovation of the facility began this biennium with the design and construction of 4 new rearing raceways, a show pond, the start-up rehabilitation of the water line abatement system, and the purchase of a micron filter for the hatch-house. Rehabilitation of one of the houses got started and should be completed in 2018.

17-19 Biennial Initiatives

A new roof and a new paint job on house #4 in 2018. This will complete the full rehabilitation of

this residence. (To date, all but the roof on the house is completed)
Pond 13 & 14 rehabilitation will begin sometime in 2019.
Hatch-house extension and new filtration system installation will get started and should be completed in 2019.
Old house at entrance of facility to be demolished. (Complete)
New pumping station at Three Rivers to be fully functional. (Complete)
Failing Cedar Creek weir to be replaced. (Completed by Nestucca Anglers)

19-21 Biennial Initiatives

Rehabilitation of water line abatement system is scheduled to be completed in 2020. (Complete)
Installation of new roof to sand filter building is scheduled for 2020. (Completed)
Full rehabilitation of pond 13 & 14 is scheduled for 2020.
Three Rivers weir replacement (Completed)
Develop a Standard Operating Procedures manual for the facility (Complete)

23-25 Biennial Initiatives

Installation of fence and gate to limit access to the adult ladder, trap and weir.
Rehabilitation of pond 13 & 14
Develop a Standard Operating Procedures manual for the ladder, trap and weir.

STEP Program Initiatives.

Volunteers from Nestucca Anglers, other organizations, and the general public have been an integral part of hatchery operations for many years, but especially so over the last couple of decades as reductions in hatchery staff have occurred. Volunteers assist hatchery and district staff with a wide range of projects, including but not limited to broodstock collection, spawning, stream enrichment, pond cleaning, general hatchery maintenance, and construction projects. In addition to the above activities and the operation of the Rhoades Pond project, Nestucca Anglers are a valuable resource for input into a variety of fish management issues (such as angling regulations and enforcement) specific to the Nestucca basin.

ODFW values the partnership between the agency, Nestucca Anglers, and private landowners and desires to see that relationship continue on into the future. With limited staff and ongoing funding challenges, the need for volunteer assistance will not diminish. In addition to continuing to assist with activities described above, future assistance from Nestucca Anglers is needed to address the following:

1. Address Rhoades Pond intake- the stream channel is forming an island and gradually shifting the main channel away from the pond intake. Restoration of the river channel to the intake side of the stream is needed to ensure water flow to the pond is maintained and sufficient for fish production. (Completed 2022)

2. Transition of hatchery winter steelhead stocks- ODFW has phased out the "Alsea" stock (47H) hatchery winter steelhead program and replaced it with additional Nestucca wild broodstock beginning with the 2018 brood. Input from the Nestucca Anglers (as well as other groups and members of the public) was integral in making the decision to terminate the 47H program and expand the 47F production. Part of the adult broodstock collection for the 47F program involves the collection of wild steelhead from Three Rivers in order to maintain or bolster fishery opportunity in Three Rivers prior to making the switch in stocks. Nestucca Anglers' participation in broodstock collection will be an important part of this strategy.

3. Monitoring of Three Rivers- ODFW continues to evaluate the effectiveness of angling regulation changes (gear restrictions, youth only) as part of efforts to reduce illegal and/or unethical angling in Three Rivers. Additionally, hatchery staff (in coordination with Oregon State Police) continues to work on enforcement tools to assist with this effort. Participation and input from Nestucca Anglers will continue to assist with these ongoing efforts.

Cedar Creek Hatchery – Annual Volunteer Projects

As needed, Cedar Creek Hatchery staff will develop a list of projects every year that can be completed by volunteers. These projects will focus on measures that will assist the hatchery in meeting its goals and objectives.

VI. Nestucca Anglers

Nestucca Anglers is all about fish and their habitat. Nestucca Anglers began in 1999 when a small group of dedicated volunteers received Oregon Department of Fish and Wildlife (ODFW) approval for a Salmon-Trout Enhancement Program (STEP) project to raise fall Chinook for the Nestucca River basin at a disused facility called Rhoades Pond. A $50,000 grant and many volunteer hours later, the STEP project was underway and raising 100,000 fall Chinook a year for release into the Nestucca River and Three Rivers. The returning fish have been providing additional angling opportunity since the first jack salmon arrived in 2001.

Nestucca Anglers continue the STEP program at Rhoades Pond raising 100,000 fall Chinook to release size each year. Members participate in everything from collection of adult fish in the rivers for broodstock through rearing, clipping, and release of the smolts. Not all members fish, but they share an interest in healthy rivers and healthy fish.

Nestucca Angler members have a continuing commitment to the original goals of stream enhancement, education and angling opportunity. Encouraged by the success of their current programs, they continue to seek new ways to further these basic goals. Nestucca Anglers make the most of the financial support, which come from grants and contributions from the public, by leveraging it with the work of our dedicated volunteers.

VII. Private Land Partnership

The quarter mile of private land below the Gauldy Bridge on Three Rivers, currently owned by Mr. Gary Stover, plays a critical role in providing a seasonal sanctuary and resting area for potential Cedar Creek Hatchery broodstock. This Landowner has partnered with ODFW and Cedar Creek Hatchery in providing limited fishing pressure on this property and will continue to allow access for surveys and broodstock collection. Without this resting area and this unique partnership between private land and ODFW, the ability to collect hatchery broodstock could be compromised in some years. Reduced availability to broodstock in Three Rivers, could be one factor that leads ODFW to implement in-season angling restrictions in Three Rivers or the Nestucca Basin to ensure broodstock needs are met. The Landowner is committed to the Cedar Creek Hatchery Management Framework Plan and a strong working relationship with ODFW and OSP.

VIII. Communication among Partners

Communication about Cedar Creek Hatchery programs to the Nestucca Anglers, private landowners, other volunteer groups, and the general public is accomplished through a variety of methods. Direct contact (for example by phone or email) is often used to solicit input or assistance with a variety of matters. This is most often utilized with Nestucca Anglers or other partners with whom ODFW has frequent correspondence. Public meetings are a tool used as needed to discuss particular issues. In some cases, workgroups made of various interests and the public are created (for example in the development of the CMP) to discuss issues and inform managers when making decisions. In the case of Nestucca Anglers, direct lines of communication are preferred.

The communication goal is to keep partners apprised of issues and activities that may pertain to them. When there is an issue that involves or affects Nestucca Anglers or the private landowner downstream of Gauldy Bridge, ODFW will discuss the issue with them to create the best outcome. Likewise, the Nestucca Anglers and the private landowner downstream of Gauldy Bridge will keep ODFW apprised of concerns or issues that come to their attention. This will allow all parties to be on the same page and convey the same message to the public. In direct coordination with ODFW, Nestucca Anglers will utilize their Facebook page to deliver ODFW messages concerning Nestucca River angling to the public. If there is a delicate topic that needs further discussion and input from all partners, the post can be created and approved by all partners prior to posting.

IX. Law Enforcement

ODFW District staff will continue to regularly meet with OSP Fish and Wildlife Division staff to coordinate law enforcement needs in the basin. Areas of concern include protection of broodstock, compliance with angling deadlines, gear restrictions, anti-snagging, vandalism,

littering, trespass, and habitat protection. ODFW will also coordinate annually with OSP to discuss enforcement priorities and action plans for the area through the Cooperative Enforcement Program. Nestucca Anglers and private landowners will continue to share enforcement concerns with ODFW and OSP.

X. Signatures

The parties below agree to implement the Cedar Creek Hatchery Management Framework in good faith and in accordance with other applicable statutes, rules, plans, policies, and organizational bylaws applicable to their respective organizations. Foremost in this framework is the tenet that parties will communicate in good faith and keep partners apprised of actions and activities that affect the sustainability of healthy recreational fisheries in Three Rivers and the Nestucca Basin. Although the Framework does not have a sunset date, it is expected that the parties will meet annually to discuss implementation and meet periodically (e.g., 5 years? For comprehensive review and adaptive management.

Michael Harrington
ODFW Fish Division Administrator

Date: 5/3/2024

Ron Byrd
Nestucca Anglers – Board President

Date: 5-25-24

Gary Stover
Private Landowner

Date: 5/25/24

Appendix 1: ODFW Organizational Structure

Cedar Creek Organizational Chart

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North Coast Watershed District Organizational Chart

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Mike Sinnott
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Appendix 2: Nestucca Anglers Organizational Chart

President

- Board of Directors (6 members)
  - Subcommittees
    - Facebook
    - Property Maintenance
    - Equipment Maintenance
    - Fall Chinook Spawning and Transport to Rhoades Pond
    - Vacuum Crew
    - Special Projects
    - Emergency Response
    - Clipping Party
    - Feeders