Oregon Coast Coho Conservation Plan
2023 Annual Report

The Oregon Coast Coho Conservation Plan (OCCCP) was adopted by the Oregon Fish and Wildlife Commission in March 2007. The plan serves as the State of Oregon's management plan for the Oregon Coast (OC) Coho Salmon Evolutionarily Significant Unit (ESU). The OC Coho Salmon ESU is comprised of 5 strata (North Coast, Mid-Coast, Mid-South Coast, Lakes, and Umpqua) and 21 independent OC Coho Salmon populations within these 5 strata.

ESU Status Summary

In 2023, the wild OC Coho Salmon spawner abundance estimate for the ESU was 153,006 fish, which is 119% of the previous 33-year average. Wild adult coho spawner abundance was above average in 12 of the 21 independent populations, including the South Umpqua population which had anomalously low spawner abundance in 2022. The juvenile coho abundance estimate for the ESU in 2023 (3.4 million parr) was similar to the long-term average.

Freshwater productivity continues to be a primary limiting factor in the ability of the ESU to reach the broad sense recovery goals identified in the OCCCP. State and federal agencies, tribes, and other non-governmental organizations are continuing to collaborate and focus efforts to develop and implement population-specific strategic action plans to address limiting factors. Given that freshwater production continues to be limiting, implementation of the Oregon Coast Coho Conservation Plan should continue.

Measurable Criteria

As mandated by Oregon's Native Fish Conservation Policy (OAR 635-007-0502 to 0509), measurable criteria were developed to evaluate progress towards reaching the desired status goals for each of the independent populations in six categories: (1) abundance, (2) persistence, (3) productivity, (4) distribution, (5) diversity, and (6) habitat. Using data and summaries from the Western Oregon Rearing Project (WORP) and the Oregon Adult Salmonid Inventory & Sampling (OASIS) Project, the results of each criterion's status for 2023 are summarized below. More information on these measurable criteria can be found at the ODFW Recovery Tracker website (https://nrimp.dfw.state.or.us/RecoveryTracker).

The OCCCP's targets for measurable criteria reflect broad sense goals for the ESU, not delisting goals under the federal Endangered Species Act (ESA). The OCCCP broad sense goals represent a future condition and performance of the OC Coho ESU that is significantly higher than a level at which the ESU would be considered a candidate for federal ESA-listing. The OCCCP describes the broad sense goals as ambitious goals that are expected to be reached over 50 years of sustained conservation actions including habitat protection, restoration, and enhancement.

Abundance
This criterion is intended to ensure adequate numbers of naturally produced spawners return from the ocean to guarantee the health of the population and provide economic, societal, and ecological benefits. Spawner abundance goals vary based on marine survival (extremely low, low, medium, or high). The naturally produced OC Coho Salmon spawner abundance estimate for the ESU decreased from 170,002 fish in 2022 to 153,006 fish in 2023. The 2023 spawner abundance estimate was 119% of the previous 33-year average (128,710). Abundance was above average in the North Coast, Mid-Coast, Umpqua, and Mid-South Coast strata and below average in the Lakes stratum. In the Umpqua stratum, abundance was above average in three of the four populations, including the South Umpqua population which had anomalously low abundance in 2022.

The ESU spawner abundance estimate was approximately 21% of the marine survival-specific OCCCP abundance goal representing broad sense recovery (the marine survival category for adult coho returning in 2023 was Medium in the Amendment 13 Harvest Management Matrix). At the population scale, estimated spawner abundance as a percentage of the broad sense recovery goal ranged from less than 5% for some populations to over 50% for others (details for each population are available at https://nrimp.dfw.state.or.us/RecoveryTracker).

Persistence
This criterion uses the forecast probability of persistence for each independent population based on results from population viability simulation models. This metric was assessed during plan development and 11 of the 21 independent populations passed the criteria. ODFW estimated persistence probability for each independent population using updated population viability simulation methods in the 2019 12-Year OCCCP Assessment. These estimates are not directly comparable to those in the original OCCP assessment (see 12-Year Assessment for details).

Productivity
The criterion for productivity is the annual estimate of naturally produced recruits per spawner (R/S) in each independent population and the ESU. This criterion was assessed during the 2019 12-Year OCCCP Assessment using an interim approach described in OCCCP, and none of the populations have yet achieved broad sense goals for productivity.

Although not directly used in the productivity metric, juvenile abundance information relative to spawners provides insight into freshwater productivity (the R/S productivity metric includes both freshwater and marine productivity, as the "recruits" are returning adult spawners). The 2023 juvenile abundance estimate from summer snorkel surveys conducted throughout the ESU was 3.4 million parr. This was similar to the long-term average for the project (see report here). Abundance estimates have varied between 2.6 and 4.9 million parr annually since 2000 after increasing from lows averaging 910,000 in 1998–1999. The juvenile abundance estimate for the Umpqua stratum in 2023 was the lowest since 1999, which aligns with low spawner abundance observed in 2022, particularly in the South Umpqua population.

Within Population Distribution
The metric for this criterion is the percentage of random, spatially balanced surveys that have greater or equal to four wild adult coho spawners/mile for each independent population. Goals for this criterion depend on the marine survival category for returning spawners. In 2023, goals were met or exceeded in four populations, and three other populations were within 5% of their goal.

Juvenile occupancy of available rearing habitat is another indicator of within population distribution. Although juvenile occupancy is not one of the measurable criteria in the OCCCP, it is a criterion in the Decision Support System (DSS) used by the National Marine Fisheries Service (NMFS) to inform federal status reviews. In 2023, juvenile coho salmon site occupancy in summer snorkel surveys was 82%, which is similar to the long-term average for the ESU. One of the NMFS recovery criteria is to have ≥80% of available habitat occupied. At the ESU scale, site occupancy averaged 81% over the last 12 years.

Diversity
The metric for this criterion is the 100-year harmonic mean of spawner abundance (projected from a population viability model) for each independent population. This criterion was assessed during the 2019 12-Year OCCCP Plan Assessment using actual spawner abundance estimates from the contemporary period (1990-2019), and 13 of the 21 independent populations exceeded the threshold value of at least 1,200 naturally produced adult spawners.

Habitat Condition
This metric is defined as the amount of available high-quality habitat in each independent, non-lake population. High-quality habitat is defined as habitat that can produce 2,800 smolts/mile. The habitat condition criterion was assessed in the 2019 12-Year OCCCP Plan Assessment and the results indicated that the mileage of high-quality habitat remains low relative to the plan's broad sense goals in most populations. This was not unexpected given the deficit of HQH identified in the OCCCP and the protracted time periods required to restore landscape and geophysical processes and instream habitat. Even though restoration efforts have been ongoing, significant and continued investment in habitat restoration is needed to reach the broad sense recovery goals. Overall, freshwater productivity continues to be a primary limiting factor in the ability of the ESU to attain the broad sense recovery goals.

Conservation Plan Strategy Implementation
In 2023, ODFW continued to implement its commitments identified in the OCCCP. The status of those commitments is discussed below by action, as identified in the OCCCP.

Hatchery Management – This commitment was met and is being maintained.

Harvest Management – This commitment was met and is being maintained. Harvest impact rates to naturally produced OC Coho Salmon from fisheries continue to be managed through the PFMC's Salmon Fishery Management Plan and the use of Amendment 13 Harvest Management Matrix, found by NOAA-Fisheries to be consistent with the recovery of OC Coho Salmon. In

2023, the maximum allowed exploitation rate for North-Central stock component of Oregon Coast Natural (OCN) coho was 20.0%, and the preliminary postseason estimate was slightly higher at 20.8%. The maximum exploitation rate for the North and South-Central stock components was 30%, and the preliminary postseason estimates were lower than the limit at 17.2% and 17.6%, respectively.

Western Oregon Stream Restoration Program – This commitment is on-going. Budget constraints in previous years reduced the number of ODFW biologists supporting this program to two positions (North Coast and Umpqua). Recently, increased funding allowed ODFW to restore two positions (Mid-Coast and Mid-South Coast). These biologists provided a significant amount of support in coordinating, planning, and implementing priority actions to address limiting factors.

High priority habitat restoration projects that create OC Coho Salmon rearing habitat continue to be developed and implemented by various entities across the ESU. Priority is placed on projects with willing landowners in areas that are capable of supporting high quality rearing habitat. Technical assistance is being provided to local partners, and new restoration techniques for addressing key limiting factors are continually being explored. The Coast Coho Partnership has completed Strategic Action Plans (SAPs) for coho populations in the Siuslaw, Coos, and Nehalem watersheds, and SAPs are underway for coho populations in the Siletz, Tillamook, and Coquille watersheds. Two partnerships that developed SAPs (Siuslaw Coho Partnership and Coos Basin Coho Partnership) have been awarded funding through the Oregon Watershed Enhancement Board (OWEB) Focused Investment Partnership (FIP) grant program. The OWEB Investment Tracking Tool can be used to explore activities funded by OWEB grants in the OC Coho ESU. The Oregon Watershed Restoration Inventory provides more detailed information on completed restoration projects.

Implementation of the Private Forest Accord also continued in 2023, including development of the Private Forest Accord Grant Program, which will be capable of delivering nearly $15 million in conservation grants annually.

Habitat Protection – This commitment is on-going. ODFW staff continue to work collaboratively with state and federal permitting agencies to provide comments and alternatives to permitted habitat altering activities (e.g., fill and removals) that minimize or eliminate the loss of fish habitat.

Promote Beaver Dams and Associated Habitat – This commitment is on-going. In 2023, ODFW completed a Three-year Action Plan for Beaver-Modified Landscapes (link) that outlines the goals and strategies ODFW will implement over the next 36 months to advance the protection and restoration of beaver habitat and beaver-modified habitat in Oregon.

Research, Monitoring and Evaluation – This commitment is on-going. ODFW continues to conduct research, monitoring, and evaluation related to the OCCCP.

Conservation Plan Outreach – This commitment is on-going. ODFW has designated staff to coordinate with key partners on actions to address the objectives in the OCCCP.