



## AGENDA ITEM SUMMARY

### BACKGROUND

From 2009 through 2015, the Oregon Department of Fish and Wildlife (department) was able to provide limited harvest opportunities for wild coho in selected coastal streams, depending on the performance of the runs. These fisheries have proven to be successful and popular, while meeting conservation and recovery needs for the wild coho populations.

Abundances of Oregon Coastal Natural (OCN) coho were low from 1996 to 2000, averaging 52,800 adults (Figure 1). The annual average ocean abundance for the next decade increased to 196,500 adults, and beginning in 2009, the department implemented wild coho fisheries in select coastal rivers. However, from 2015 through 2018, wild coho returns averaged 75,100 adults, and no open fishing seasons have occurred since 2015. Recently, the 2019 return was 107,600 fish and 2020 saw 110,000 fish returning, respectively. This increase in coho spawner abundance along with the 2021 forecast return of 125,000 fish allow for consideration of conservative wild coho in-basin harvest in select areas this year.

### PUBLIC INVOLVEMENT

ODFW staff asked for input on freshwater coho fisheries at the annual Ocean Salmon Industry Group meeting in February. No comments were received, though this meeting is primarily intended to discuss ocean fisheries. Staff also receives periodic phone and email contacts related to these fisheries. No other formal outreach was conducted. Public comment will be allowed at the August 6 Commission hearing.

### ISSUE 1

## REGULATIONS FOR WILD COHO FISHERIES IN COASTAL BAYS AND RIVERS

### ANALYSIS

Harvest fisheries on healthy populations of wild coho are identified as a desired management approach in the State of Oregon's Coastal Coho Conservation Plan (OCCCP), which was approved by the Commission in 2007. The Coastal Multi-Species Plan (CMP) adopted by the Commission in 2014 also provides guidance on the establishment of wild coho fisheries.

Annual approval from the National Marine Fisheries Service (NMFS) is required to conduct these fisheries, because Oregon Coast Natural (OCN) coho remain ESA-listed. One mechanism that ODFW can use to pursue this approval is via "Amendment 13" of the Pacific Fisheries Management Council's (PFMC) Fishery Management Plan. Amendment 13, often referred to as the OCN Harvest Matrix, provides harvest control rules for OCN coho. It also forms the basis of the NMFS Endangered Species Act (ESA) fisheries consultation standard for OCN coho. NMFS authorizes ESA impacts for coastal freshwater fisheries that, when combined with other fisheries, will not exceed those allowed under Amendment 13. For annual ocean fisheries, this limit is based upon the weakest performing of the three OCN population sub-aggregates, specifically, the North, North-Central, and the South-Central sub aggregate.

The PFMC’s Pacific Coast Salmon Management Plan, Amendment 13 (A-13) harvest matrix, compares parental escapement and predicted survival to determine an allowable harvest level. The North coast sub-aggregate had a total spawning escapement of 7,300 wild adult coho in 2018, the parent year for the 2021 return. This equates to 34% of the estimated escapement needed to fully seed high quality habitats and is rated as “low” in the A-13 matrix spawning category. The North-Central coast sub-aggregate had a spawning escapement of 22,000 wild adult coho in 2018, at 40% of full seeding (also rated “low”). However, the South-Central coast had a spawning escapement of 44,000 wild adult coho, achieving 88% of full seeding (rated “high”). The marine survival index is medium for all sub-aggregates, with a predicted marine survival of 7.7%.

Ocean fisheries must be managed to protect the weakest OCN sub-aggregate within the mix of stocks present in the fishery. However, once OCN coho have entered their natal streams, fishery management can be structured around the status of individual sub-aggregates and populations. For 2021, fishery impacts on populations in the North and North-Central sub-aggregates must not exceed 15% total exploitation rate, and impacts on populations in the South-Central sub-aggregate must not exceed 30% total exploitation rate. These rates encompass mortality in all fisheries.

**Table 1.** Amendment 13 OCN harvest matrix. Bolded values represent 2021 criteria.

Parental Escapement (y – 3)	Marine Survival Index (model-predicted <sup>1</sup> )			
	Extremely Low	Low	Medium	High
	<2%	2% – 4.5%	>4.5% – 8%	>8%
High (>75%)	≤8%	≤15%	<b>≤30%</b>	≤45%
Medium (>50 – ≤75%)	≤8%	≤15%	≤20%	≤38
Low (>19 – ≤50%)	≤8%	≤15%	<b>≤15%</b>	≤25%
Very Low (>4/mi – ≤19%)	≤8%	≤11%	≤11%	≤11%
Critical (≤4 spawners/mi)		0 – 8%		

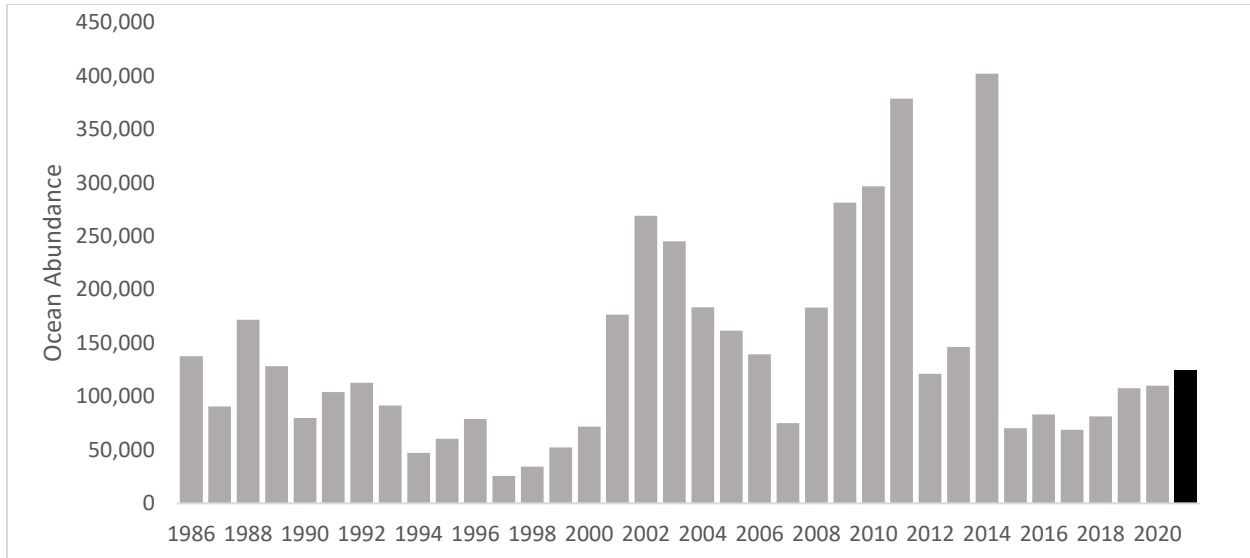
<sup>1</sup> Model incorporates biologic and oceanographic factors to predict marine survival of adult coho.

Retention of wild coho in some Oregon coastal rivers was allowed on a limited basis from 2009-2015 but has not been allowed since 2015. This is primarily due to the recent period of reduced abundance the stock has experienced, resulting from poor ocean conditions. From 2019-2020, OCN abundance increased, and the forecast for 2021 indicates continued improvement. Further, while many 2020 measures of ocean conditions remained mediocre, relative to long-term patterns, they indicated improved conditions relative to 2016-2019. Field observations of large numbers of coho jacks in 2020 in rivers and large body size for returning 2020 adult coho support expectations for improved abundance in 2021. The high jack counts are consistent with improved cohort survival for the 2021 adult return. The larger body size for adults is consistent with improved foraging conditions off the Oregon coast in 2020.

The projected ocean abundance for 2021 (125,000 fish) is less than many of the large returns observed during the period from 2008 to 2014; however, it is similar to 2012 and 2013, years in which limited wild coho fisheries were successfully conducted. Staff is proposing a precautionary approach to re-initiating opportunities for wild coho fisheries in 2021.

Beyond the obvious need to protect and recover this listed stock, there are two main reasons for this precaution. First, while abundance is improving, it is still not as large as the more robust returns observed in most years from 2001-2014. Second, because no fisheries have been conducted since

2015, there is some uncertainty in how fisheries will perform, compared to prior years. From 2009-2015, some level of fisheries occurred each year. This relatively consistent approach allowed managers to become familiar with the behavior of the fisheries over time. While it is unlikely that public response, angling effort, or fishing success will be substantially different, the proposed fisheries are purposely conservative and limited in scope in recognition that they have not occurred for several years.



**Figure 1.** Pre-fishery ocean abundance of OCN coho by year (2021 forecasted).

Staff is proposing harvest fisheries in only four river systems for 2021. These are Tillamook Bay (includes lower portions of bay tributary rivers), Nestucca River and Bay, Siletz River and Bay and Coos River and Bay. Each of these areas have supported harvest opportunities in past years and open areas proposed within each basin are the same as in prior years.

In Tillamook Bay, past seasons have generally been two days per week, Friday and Saturday, for a total of 22 fishing days. Bag limits were one adult wild coho for the season. The 2021 proposal is also for two open days per week, but the proposed days are Wednesday and Saturday, and the total number of proposed days is nine. The shift to having one of the open days be a weekday is expected to reduce angler effort, as effort is typically higher on the weekends. There will also likely be some reduction in effort, due to the open days being non-consecutive. Unlike in past seasons, the proposed open days for Tillamook Bay will also directly overlap with those for the Nestucca River and Bay, which will reduce the likelihood of anglers participating sequentially in both areas within the same week. Finally, the seasonal bag limit of one adult wild coho will be aggregated with the Nestucca River and Bay; anglers will only be allowed one adult coho from both rivers for the season, and not one from each.

In the Nestucca River and Bay, past seasons have generally been two days per week, Sunday and Monday, for a total of 22 fishing days. Bag limits were one adult wild coho for the season. For reasons described above, the 2021 proposed season dates and bag limits are the same as for Tillamook Bay. Wednesday and Saturday weekly open days in both areas would occur for a total of nine days from September 15 through October 13.

Past seasons were variable in the Siletz River and Bay. Seasons were open seven days per week during open periods, which ranged from 37 up to 91 days in length. Bag limits in recent years were one adult wild coho per day and two for the season, though one season with a one fish per day and five fish for the season limit occurred. Recent seasons were open for 77 days. The 2021 proposal

is for a bag limit of one adult wild coho for the season, and a season length of 31 days (September 15-October 15).

Past seasons were variable in the Coos River and Bay as well. Seasons were open seven days per week during open periods, which ranged from 18 to 77 days in length. Bag limits in recent years were one adult wild coho per day and two for the season, though three seasons with a one fish per day and five fish for the season limit occurred. Recent seasons were open for 77 days. The 2021 proposal is for a bag limit of one adult coho per day and two for the season, with an open period of 31 days (September 15-October 15).

Permanent rules limit the coastwide seasonal bag limit for wild adult coho to no more than five fish across all open areas in the NW and SW Zones. This includes wild coho fisheries in three coastal lakes that are open under permanent rules. Harvest in any of the proposed open areas will count against that coastwide seasonal total limit of five adult wild coho.

In past years, harvest fisheries also occurred intermittently in the following rivers and creeks: Nehalem, Yaquina, Beaver Creek, Alsea, Siuslaw, Umpqua, Coquille and Floras Creek/New River. Staff are not proposing fisheries in these areas for 2021 for the following reasons:

Harvest rates in the Nehalem River are relatively modest; therefore, a large abundance is not necessary to support a manageable fishing opportunity. However, 2021 projected spawning escapement is less than what would fully seed all high quality habitat in the basin. While achieving this seeding level is not a required factor in considering fisheries, given staff's desire to be very precautionary in proposing fisheries for 2021, staff felt that it would be most appropriate for 2021 to focus re-initiation of fisheries in areas where full seeding of high quality habitat was expected to be met or exceeded. Staff is also not proposing fisheries in the Yaquina, Alsea, or Siuslaw rivers, which are also projected to be below the full seeding of high quality habitat. Past harvest rates in the Alsea and Siuslaw rivers have also been higher than in many other basins and staff determined that the projected abundance in these areas was likely insufficient to support a manageable fishing opportunity for 2021.

There are no full seeding objectives for Beaver Creek or Floras Creek/New River, but given that these are relatively small populations, staff is not proposing fisheries in these locations for 2021.

The projected escapement to the Umpqua River Basin is nearly sufficient to fully seed high quality habitat. Like the other South-Central populations, the allowable ESA impact rate for the Umpqua River is more than sufficient to support a fishery, while remaining well under the ESA limit. Umpqua River harvest rates are also relatively modest, so the projected abundance could support a manageable fishing opportunity in 2021. However, due to continued concerns over the status of the coho population in the South Umpqua River, and the fact that the majority of coho harvest occurs in the estuary where populations from all Umpqua River tributaries are mixed, staff is proposing to leave wild coho retention closed for 2021, in order to protect the South Umpqua River population.

The projected escapement to the Coquille River is well over what is needed to fully seed high quality habitat and to support a manageable fishing opportunity. However, because of the depressed status of co-occurring Coquille fall-run Chinook, staff is not proposing a coho fishery for 2021. The Coquille River will be closed to all salmon fishing during the fall season (July 1 through December 31) in order to maximize protection of the Chinook population.

In assessing estimated catch for the proposed 2021 fisheries, staff examined harvest rates and abundances from past fishery years, including adjustments needed to account for differences in bag limits and open dates over time. Harvest rates were applied to projected 2021 population

abundances to project expected catch. These result in projected fishing impacts that are well below the population-specific ESA limits. The balance of remaining impacts provides a buffer for uncertainty in the catch estimate and the realized run size. This buffer is particularly large in the case of the Coos River system where the proposed fishery, when added to impacts in ocean fisheries, is projected to result in a total exploitation rate of 15.4% (6.1% in-river) out of an allowable maximum of 30% (Table 2). Across all basins with harvest fisheries, total harvest of wild coho is projected to be 1,046 fish. The projected maximum impact in areas subject to the maximum of 15% total exploitation rate is 12.2% in the Siletz River and Bay, with 2.9% of that occurring in the river fishery. The projected total exploitation rates for Tillamook Bay and the Nestucca River and Bay areas are 11.4% and 11.3%, respectively (2.1% and 1.9% in-river, respectively). Unfished populations have a higher buffer, with 5.7% remaining impacts in North and North-Central populations without in-river fisheries, and 20.7% remaining impacts in South-Central populations without in-river fisheries.

**Table 2.** Projected 2021 in-river harvest, exploitation rates (in-river and total), and spawning escapement for populations with proposed wild coho fisheries.

Population	Projected Harvest	In-river ER	Total ER (allowable)	Spawning Escapement
Tillamook	75	2.1%	11.4% (15%)	4,158
Nestucca	75	1.9%	11.3% (15%)	4,650
Siletz	158	2.9%	12.2% (15%)	5,855
Coos	738	6.1%	15.4% (30%)	11,290

The proposed fisheries are precautionary in nature but provide some fishing opportunity in rivers that traditionally have limited opportunity for harvest of coho. As previously stated, this is consistent with past and existing policies. Moreover, providing such opportunities, when appropriate, is an important tool to encourage engagement of local stakeholders in the importance of salmon recovery in their areas. Even when very limited, such opportunities are generally treasured by the angling public, particularly those who reside in coastal areas. Staff recommends that harvest fisheries for wild coho be implemented in the areas shown in Table 3.

**Table 3.** Proposed wild coho season and bag limits for 2021.

	<b>Open Areas</b>	<b>Season Dates</b>	<b>Daily/Seasonal Limit</b>
Tillamook Bay	Bay and rivers up to Hwy 101 bridges on Miami, Kilchis, Wilson, and Trask rivers, and Burton Bridge on the Tillamook River	Wed. and Sat. only, Sep 15-Oct 13	Adult wild coho: 1 in aggregate for the season Jack wild coho: 1 per day, no season limit
Nestucca River and Bay	Bay and river up to Cloverdale Bridge		
Siletz River and Bay	Open areas consistent with open areas (by date) in permanent fall Chinook rules	Sep 15-Oct 15	Adult wild coho: 1 for the season Jack wild coho: 1 per day, no season limit
Coos River and Bay	Bay and rivers up to EF/WF Millicoma confluence, and S. Coos up to Dellwood.	Sep 15-Oct 15	Adult wild coho: 1 per day, 2 for the season Jack wild coho: 1 per day, no season limit

Permanent rules limit the coastwide seasonal bag limit for adult coho to no more than five fish across all open areas in the NW and SW Zones.

**OPTIONS**

1. Adopt staff recommendation as proposed in Attachment 3.
2. Modify staff recommendation for one or more items
3. Status quo

**STAFF RECOMMENDATION**

1. Option 1.

**DRAFT MOTION:**

I move to adopt the OARs for NW and SW Zone regulations as proposed in Attachment 3.

**EFFECTIVE DATE:** September 15, 2021