

2021 Columbia River North of Falcon Meeting #2

April 1, 2021

Forecasts, conservation objectives, policy guidance, considerations

Upper Columbia Summer Chinook

- Pre-PFMC Forecast = 77,600 adults
- Considering the projected 2021 run size, OR and WA policy guidance regarding allocation of harvest impacts for 2021 commercial and recreational fisheries is not concurrent at this time. Oregon rule allocates non-treaty sharing downstream of Priest Rapids Dam as 80% recreational and 20% commercial. Washington Policy sharing is for 70% recreational and 30% commercial at the preseason forecasted abundance.
 - Therefore, staff is modeling fisheries at 70% recreational and 20% commercial with 10% unallocated.
- Current policy guidance regarding allowable commercial gears is not concurrent. Oregon rules do not allow use of gillnets for summer season mainstem commercial fisheries. At this time, no other gears are readily available to the commercial fleet, therefore no fishery is expected to occur.
- Improved 2021 run size should provide for recreational fishing opportunity in all areas.
- The first in-season run size update is typically not available until around July 1.

Sockeye

- 2021 Sockeye forecast is 155,600 adult fish and is 69% of the 10-yr average return.
- The allowable non-treaty impact rate is 1% (1,556 fish) for fisheries downstream of Hwy 395.

Upriver Summer Steelhead

- Forecast = 101,400 (Skamania + A-Index + B-Index)
 - A-Index = 89,200 (27,500 wild)
 - B-Index = 7,600 (1,000 wild)
- Non-treaty fisheries allowed 2% impact rate on both wild A-Index and wild B-Index.
- Given the poor expected return for upriver summer steelhead, in particular for wild B-index fish, recreational and commercial fisheries will be managed conservatively.

Fall Chinook Policy Guidance

- Policy: Current guidance is concurrent regarding allocation of the most constraining fall Chinook stock. Given the forecasted abundances, both states allow for no more than 70% of impacts be allocated to recreational fisheries and not less than 30% to commercial fisheries. Gillnets are allowed in Zones 4-5.
 - OR rule limits impacts for use in lower river alternative gear commercial fisheries to 2 percentage points of the commercial allocation.
 - To clarify, 2% of 30% translates to a maximum of 6.7% of the commercial allocation available for alternative gears.
- Policy: Current guidance for recreational Chinook fishery objectives is not concurrent. The Oregon policy provides the guidance shown below, while the WA policy does not provide any specific guidance on season structure:

- Buoy 10 to Tongue Point: August 1 through Labor Day (34 days; assuming Labor Day is September 3).
- Tongue Point to Warrior Rock: August 1 through September 7 as non-mark selective (non-MSF) and an additional week of mark-selective (MSF) September 8-14 (45 days).
- Warrior Rock to Bonneville Dam: August 1 through October 31 (92 days).
- If established objectives for mainstem recreational fisheries are predicted to be met, additional opportunity for mainstem commercial fisheries shall be provided.
- Adaptive management allows for some consideration of impact-neutral fishery modifications (i.e., MSF vs non-MSF regulations in recreational fisheries).

Lower Columbia River (LCR) Tule Fall Chinook

- Pre-PFMC forecast = 73,100 adult LRH
- Total ocean and Columbia River ER limit = 38%
- Current Columbia River HR target = 15%
- Most constraining fall Chinook stock in 2021 fisheries.
- Northern fishery inputs (i.e., Alaska, Canada) have not been updated yet but are expected to be available by PFMC#2.

Snake River Wild/Upriver Bright (URB) Fall Chinook

- Pre-PFMC forecast = 354,200 adult URB
- Based on the preseason URB and SRW forecasts, the allowed non-treaty URB harvest rate is $\leq 15\%$.
- Recent initial in-season run size updates (mid-September) have generally been below the final URB run size, averaging 80% of final for 2018-2020.

Columbia River Coho

- Ocean abundance (pre-fishery) forecast = 1,590,000 adults
 - 1,014,000 early stock and 576,000 late stock
 - Total ocean and Columbia River ER limit = 30% on Lower River Natural (LCN) Coho
- Policy: LCN Coho impacts prioritized to Select Area fisheries, mainstem commercial Chinook fisheries, and commercial hatchery Coho fisheries (OR), followed by recreational fisheries, and then Coho-directed mainstem commercial fisheries (OR & WA).
- Policy: Current OR/WA policy guidance regarding allowable commercial gears is not concurrent. Oregon rules do not allow use of 6-inch gillnets for Coho-directed fisheries while WA policy does.

Modeling update (rationale/assumptions)

- Fall Chinook/Coho model runs incorporate the following:
 - FRAM output from PFMC#1 Alternative 1b
 - Alternative 1b exceeds LRH 38.0%
 - Alaska/Canada fishery inputs have not been updated and may result in reduced availability of LRH for in-river fisheries.
 - LRH: Modeling in-river with a 15% HR (~11% ER)
 - SRW: 15% SRW/URB HR
 - LCN Coho: ~11% ER (ocean + in-river)

- Staff weighed the input received from NOF #1, current policy guidelines, and conservation objectives to develop the updated model below (MR 2021-preseason NOF#2). This model provides improved opportunity compared to recent years and Chinook retention opportunity throughout the entire river from the mouth upstream to Hwy 395 Bridge in Pasco, WA.
- Primary objective: Allocation: no less than 30% for commercial fisheries and no more than 70% for recreational fisheries for the most constraining stock (LRH).
- Secondary objective: Recreational objectives described in the OR policy pertaining to area and season length for Chinook retention guided this modeling approach.
 - In order to achieve the Chinook retention season objective at Buoy 10 (open through Labor Day), some MSF is necessary due to LRH constraints.
 - MSF has been used in the past to achieve objective (2013-16).
 - Tongue Point-Warrior R. meets the intent of OR objectives using adaptive management to achieve an impact-neutral fishery approach compared to the full season (i.e., MSF vs non-MSF regulations).
 - Warrior R.-Bonneville Dam meets OR objectives.
 - Reserve Chinook mortalities to cover Coho-directed fisheries.
- Viable options must fit within the allowed impact rates for wild A-Index and wild B-Index steelhead.
- The following issues/options/comments were raised at NOF#1 meeting.
 - All
 - Present fall Chinook allocation shares as percent of allowed
 - Recreational
 - MSF/non-MSF for summer
 - Sport fishery should not be driven by OR Fall Recreational Objective rule
 - Support approach incorporated in NOF#1 Base Model
 - B10: Non-MSF as much as possible/late start to reduce LRH impacts/MSF on front end only/MSF after Labor Day
 - Tongue Point-Warrior Rock: Tongue Point-Puget Island restriction to enhance other fisheries/convert TP-Warrior Rock to non-MSF
 - Secure Chinook impacts for Coho fisheries/provide Coho catches/convert Coho to non-MSF upstream of the Lewis River
 - Non-target handle by fisheries
 - Support restricted steelhead regulations
 - Barbed hooks/hooksing mortality study
 - Commercial
 - Shift Chinook September 12-18 catch to August to reduce steelhead impacts
 - Chinook 3 days/week in August/Chinook 2 days/week in August
 - Fish large mesh in late fall downstream of Zone 4/5
 - Secure Chinook impacts for Coho fisheries
 - Coho tangle net 5 days/week/Coho tangle net in September in Zone 1/Coho tangle net consideration to allow monofilament and stringers/slackers
 - Model Coho 6-inch gillnet fishery
 - Contingency plan to harvest Coho if the run materializes
 - Alternative gear plan/WA Alternative Gear Advisory Board update
 - Summer commercial allocation at each state's policy level

Columbia River Fall Chinook Fishery Model Summary

Ocean Option: **Alt 1b** **26-Mar**
 Columbia River Model Option: **Model** **MR2021-Preseason NOF #2**

MR2021-Preseason NOF #2

Management Guidelines		Goal/Guideline	SRW	Total URB		Non-Treaty Catch Sharing		
Harvest Rate	45.00%	45.0%	45.0%	45.0%	<i>model</i>			
Non-Treaty	15.00%	15.0%	15.0%	15.0%	33860			
Treaty	30.0%	30.0%	30.0%	30.0%	19050			
% of Harvestable Surplus		Total			52910			
Non-Treaty	50%	34%			53880			
Treaty	50%	35%						
McNary Escapement	60,000	171,600						
LRH Ocean/Inriver Exp. Rate	38%	39.3%						
Non-Treaty Wild B Index Steelhead	2%	<2%						
Treaty Total B Index Steelhead	13%	13%						
Upriver Coho to Bonneville Dam	50%	78%						
Lower Columbia Chum	5%	<5%						

SRW - IMPACTS			Brights - Mainstem		
	Impact	Percent	Mortalities	Percent	Harvest
Sport	9.38%	63%	50,400	67%	50,400
Comm	5.57%	37%	24,900	33%	24,900

LRH - Impacts			Chinook - Mainstem		
	Impact	Percent	Mortalities	Percent	Harvest
Sport	7.46%	70%	64,500	64%	64,500
Comm	3.26%	30%	35,200	36%	35,200

					Total	LRH	LRW	BPH	URB	LRB	PUB	SAB	SRW	LRH ER	SRW HR
Ocean Harvest					76,550	12,260	6,290	9,960	39,490	1,060	7,500				
Columbia River Run					569,740	72,130	19,650	46,050	359,200	9,990	62,240	500	10,900	10.72%	14.95%
Harvest Below Bonneville		2021 Fishery Description													
Zone 4-5 Wk 33. Aug 8-14		2 periods	Aug 9, 11	1,190	60	0	190	890	0	40	0	30	0.06%	0.25%	
Zone 4-5 Wk 34. Aug 15-21		2 periods	Aug 16, 18	3,850	390	0	1,010	2,150	30	270	0	70	0.32%	0.60%	
Zone 4-5 Wk 35. Aug 22-28		2 periods	Aug 23, 25	6,880	690	20	1,820	3,650	100	600	0	110	0.58%	1.02%	
Zone 4-5 Wk 36. Aug 29-Sep 4		<2 periods	Aug 30, Sep 1	10,200	1,000	0	2,610	4,950	220	1,420	0	150	0.95%	1.38%	
Zone 4-5 Wk 38. Sep 12-18		1 period	1 day	4,990	530	200	760	2,620	260	630	0	80	0.54%	0.73%	
Zone 4-5 Wk 39. Sep 19-25		1 period	1 day	3,120	230	140	390	1,790	130	440	0	50	0.24%	0.50%	
Zone 4-5 Wk 40. Sep 26-Oct 2		1 period	1 day	1,480	0	0	210	970	150	150	0	30	0.00%	0.27%	
Zone 4-5 Wk 41 October		1 period	1 day	1,480	0	0	210	970	150	150	0	30	0.00%	0.27%	
Oct Coho Tanglenet		3d/wk	Coho target	2,030	170	150	10	1,540	0	160	0	50	0.17%	0.43%	
Select Areas			Full Season	5,780	4,810	0	190	490	10	70	210	10	0.40%	0.14%	
Buoy 10 Kept + Morts	2 fish / 1 CHF	8/1-10 MSF; 8/11-9/6 nMSF; 9/7-12/31 Coho only		26,530	6,160	1,260	3,490	9,860	590	3,670	170	290	5.71%	2.70%	
TP to Lewis	2 fish / 1 CHF	8/1-9/9 nMSF; 9/10-12/31 Coho only		10,620	760	630	220	7,510	200	1,240	60	230	0.75%	2.09%	
Lewis to Bonn	2 fish / 1 CHF	8/1-10/31 nMSF; 11/1-12/31 Coho only		19,120	680	0	880	13,360	580	3,620	0	410	0.71%	3.72%	
Tributary Sport	MSF	Average season		3,860	2,510	1,340	0	0	0	0	0	0	0.29%	0.00%	
Lower River Total				99,820	17,990	3,760	11,990	50,750	2,410	12,470	440	1,530	10.72%	14.08%	
Bonneville Dam Passage				383,690			28,550	308,450		46,700			9,370		
Harvest Above Bonneville															
Z6 - Bonn to Hwy 395	2 fish / 1 CHF	8/1-12/31 nMSF		8,230			560	3,130		4,540			90	0.87%	
Treaty Comm. and C&S			Average season	141,130			12,280	107,760		21,100			3,270	30.00%	
Hanford Reach Sport			Average season	12,480				12,480					0		
McNary Dam Passage				171,640				171,640							
Lower Granite Dam Passage													6,065		
Escapement					54,130	15,890	15,720		7,580	21,050	60				
Hatchery					26,860		13,170			8,980	40				
Natural					27,270	15,890	2,550	171,640	7,580	12,070	20				
Hatchery Surplus					13,070		6,170			10			(1,160)		
Natural Surplus						8,508	1,250	111,640							

Pre-season Coho catch and impact summary

FRAM Run: bc-Coho2112b

Catch Summary						
Fishery	Total Catch/Mort	Unmarked Catch/Mortality			Marked Kept Catch	
		Early	Late	Total	Early	Late
Mainstem	43,066	4,965	336	5,301	10,902	22,551
Youngs Bay	28,970	489	-	489	28,480	-
Blind/Knappa	15,265	659	-	659	14,605	-
Tongue Point	15,966	600	-	600	15,366	-
Deep River	8,700	-	127	127	-	8,573
LCR Sport Catch	8,600	521	361	882	3,179	4,539
B10 Catch	93,906	11,098	225	11,323	64,483	18,100
Ocean Catch	289,690	31,568	2,126	33,694	133,400	122,596
Sum	504,162	49,901	3,175	53,076	270,414	176,359
Exploitation Rates						
Fishery		Unmarked			Marked	
		Early	Late	Total	Early	Late
Lower Mainstem		0.77%	1.12%	0.92%	1.14%	4.00%
Upper Mainstem		0.14%	0.14%	0.14%	0.69%	0.08%
Select Areas		0.06%	0.05%	0.06%	9.80%	1.55%
B10 Sport		2.59%	0.81%	1.82%	10.81%	3.27%
LCR Sport		0.12%	1.31%	0.63%	0.53%	0.82%
Ocean		7.37%	7.70%	7.51%	22.36%	22.18%
Sum		11.05%	11.13%	11.08%	45.33%	31.90%

Recreational Breakout

Mainstem

- Summer Chinook
 - Astoria-Megler Bridge to Bonneville Dam: June 16 through ~July 5, 2 fish, MSF
 - Bonneville Dam to Hwy 395 at Pasco: June 16 through July 31, 2 fish, MSF
- Sockeye
 - Astoria-Megler Bridge to Hwy 395 at Pasco: June 16 start, 1 fish as part of the adult salmonid daily limit
- Fall Chinook
 - Modelling assumes:
 - Standard 2 fish limit, 1 Chinook non-MSF unless stated otherwise in the table below. Coho retention fisheries remain open post-Chinook retention fisheries.
 - Buoy 10: Utilizes some MSF to achieve OR Chinook objective.
 - Tongue Point-Warrior Rock: Utilize adaptive management to achieve an impact-neutral option which converts MSF days to non-MSF days. This approach reduces

the number of open Chinook retention days during September 8-14 by 5 MSF days. In the past, anglers have complained about this MSF which has averaged ~40% mark rate.

- Tongue Point-West Puget Island: Reducing/closing fishery does not meet OR objective and adds complexity to regulations. Modification does not provide any meaningful LRH savings.
 - Above Bonneville Dam: OR rules do not define a Chinook retention season objective for this fishery. This fishery is typically managed in-season.
- LRH modifications at PFMC#2 may necessitate in-river reduction.
 - The majority of in-river harvest on LRH occurs in Buoy 10.
 - Other recreational fisheries have relatively few LRH impacts, including the area between Tongue Point and the western point of Puget Island.

NOF #2 Base	Chinook Retention	Coho Retention	Steelhead Retention	Daily Bag	CHF Kept	CHF Rel Morts	LRH ER%	URB HR%	URB Share %
Buoy 10	8/1-10 MSF; 8/11-9/6 nMSF	8/1-12/31	Closed 8/1-10/31	2 fish/1 CHF 8/1-9/6; 3 hatchery Coho 9/7-12/31	23,788	2,742	5.71%	2.70%	29%
Tongue Pnt. - Warrior R.	8/1-9/9 nMSF			2 fish/1 CHF 8/1-9/9; 2 hatchery Coho 9/10-12/31	9,475	1,145	0.75%	2.09%	22%
Warrior R. - Bonneville	8/1-10/31 nMSF			2 fish/1 CHF 8/1-10/31; 2 hatchery Coho 11/1-12/31	18,965	155	0.71%	3.72%	40%
Zone 6 + McN - Hwy 395	8/1-12/31 nMSF			1 fish 8/1-31; closed 9/1-12/31	2 fish/1 CHF 8/1-12/31; Hatchery Coho <HR Bridge	7,984	246	-	0.87%

- Coho:
 - Buoy 10, MSF: 2 fish bag Aug. 1-Sept. 6, 3 fish bag beginning Sept. 7
 - Tongue Point-Warrior Rock, MSF: 2 fish bag beginning Aug. 1
 - Warrior Rock-Bonneville Dam, MSF: 2 fish bag beginning Aug. 1
 - Above Bonneville Dam, MSF downstream of Hood River Bridge only: 2 fish bag beginning Aug. 1
 - No consideration for non-MSF fisheries during pre-season planning process, and no consideration for a change in-season for Buoy 10.
 - In-season consideration of an increased daily bag limit will be based on ocean/Buoy 10 catches to assess run strength and other in-season fishery information such as cumulative catch/impacts and handle of non-target stocks.

- Steelhead

Columbia River mainstem and tributary summer steelhead regulation summary for the 2021-22 season.													
Water Body	June 16-June 30	July	August	September	October	November	December	Jan-March	Comments				
Columbia River mainstem													
Below I-5 Bridge	Daily limit 1	Daily limit 1	Closed to retention			Perm. Regs (Daily limit 2)		Coho fishing expected to remain open if/when Chinook is closed during the fall.					
I5-Bridge to Bonneville Dam		Daily limit 1	Closed to retention										
Bonneville Dam to The Dalles Dam		Daily limit 1	Closed to retention										
The Dalles Dam to John Day Dam		Daily limit 1	Closed to retention										
John Day Dam to McNary Dam		Daily limit 1	Closed to retention										
McNary Dam to Hwy 395 bridge in Pasco		Daily limit 1	Closed to retention										
Hwy 395 bridge in Pasco to Priest Rapids Dam		Perm. Regs (Closed to angling for steelhead)								Dependent upon actual UCR and RSH returns.			
Columbia River tributaries													
Cowlitz/Lewis/Kalama WA tributary lower reaches	Daily limit 1	Closed to retention	Daily limit 1							Lower tributary reaches restricted.			
Wind/White Salmon/Klickitat WA tributary lower reaches	Closed to angling for steelhead									Lower reaches restricted. Closure improved enforceability.			
Drano Lake	Closed to angling for steelhead									Closure improved enforceability.			
Deschutes River (OR) mouth bubble	Perm. Regs - closed to angling (7/15-9/15)			Defaults to MS CR							Combination of old perm. regulations (Herman/Eagle Cr. Closures, new permanent regulations, 2020 TAS), and intended 2021 MS regulations by pool which affect these tribs.		
Eagle Cr. (OR) mouth bubble				Defaults to MS CR									
Herman Cr. (OR) Lagoon				Perm. Regs (closed to angling)			Perm. Regs (closed to angling)						
Herman Cr. (OR) mouth to RR bridge				Daily limit 1									
Eagle Cr. (OR) RR bridge to hatchery deadline	Closed to retention												
Deschutes River (OR) lower reach (below Moody Rapids)				Closed to retention									
John Day R (downstream of Tumwater Falls)				Closed to retention									
Snake River													
Mouth upstream to Couse Creek boat ramp	Closed by e-rule			TBD e-rule published by Sept 1			Managed By E-reg. Proposed limits may change to be concurrent with						
Couse Creek boat ramp upstream to WA/OR/ID stateline	Closed by e-rule			TBD e-rule published by Sept 1			Limits may change to be concurrent with Idaho.						
Permanent regulations													
NOF regulations													
A/B-Index SSTH catch accounting													

- Other
 - Barbless hooks are required for 2021.

Tributary

- See “Region 5 Tributary Salmon and Steelhead Proposals”.

Commercial Breakout

Fall Chinook

- Chinook modelling assumes:
 - Zone 4/5 with 9-inch mesh in August
 - Zone 4/5 with 8-inch mesh in September/October
 - Standard Select Area season
 - Enhanced Coho tangle net periods/time.
- LRH modifications at PFM#2 may necessitate in-river reduction.
 - LRH impacts in Zone 4/5 largely occur in August and mid-September and decrease in late September as in-river abundance declines.
- Sturgeon
 - Current allocations result in 615 white sturgeon available for mainstem fisheries with weekly limits and will be allowed in August and possibly September.

2021 Commercial Fishery Options								
Option	Fall Chinook Target	Total Chinook	August Chinook	LRH ER	URB morts	HR	B-Index STHD	Total LRH HR
Comm #1	8d Aug Z45, 4d Sep Z45, 1d Oct Z45	40,840	19,850	3.17%	20,070	5.59%	6.8	14.92%
Comm #2 *	9d Aug Z45, 3d Sep Z45, 1d Oct Z45	42,860	25,850	3.28%	21,130	5.89%	6.3	15.07%
Comm #3	10d Aug Z45, 3d Sept Z45, 1d Oct Z45	41,700	23,830	3.25%	20,530	5.72%	6.3	15.03%
Comm #4 *	8d Aug Z45, 3d Sept Z45	41,320	23,920	3.42%	19,920	5.55%	6.0	15.27%
Comm #5 *	~7-8d Aug Z45, 3d Sept Z45, 1d Oct Z45	41,000	22,120	3.26%	20,020	5.57%	6.0	15.03%

Notes:
 All options include standard full-season SAFE fishery
 Coho-target Fishery Tangle net: 15 days, 3d/wk, Week of Sep 26 - Oct 29. Included in B-Index morts above
 Coho Harvest/Mort 112,000
 * Tangle Net Chinook scalar doubled

Coho

- Tangle net
 - Modifications being considered for 2021
 - Lengthen hours per period and means there will be additional dark fishing time. This does not affect release mortality rates.
 - Earlier start date around the last week of September provides additional time when Coho abundance is higher and river temperature is expected to be similar. Some fishing periods have occurred in late September during the 2019 and 2020 fisheries.
 - Other modifications that could alter mortality rate assumptions are not being considered.
 - Monofilament gear demonstrated a higher mortality rate during research test fisheries.

- Use of stringers may increase handling time. Unknown impact on release mortality.
- Enhanced Coho tangle net fisheries for 2021 are modeled and incorporate higher catches/impacts than standard approach.
 - 3 days/week (Mon, Wed, Fri) start Sept. 27 (15 periods), 4am-10pm, Zone 1-3
 - Increased modeled catch and impacts
 - Continue use of voluntary logbooks
- In-season contingency plan: if a strong Coho run materializes, then additional Coho-directed fisheries may be considered for October (in addition to fisheries included in this preseason model).
 - Any additional Coho-directed fisheries would also need Chinook and steelhead impacts and availability would be assessed in-season.
 - Fisheries for potential consideration:
 - 6-inch gillnet Coho-target if staff receives further guidance allowing for consideration of this gear, or
 - Alternative gear (beach seine, purse seine, pound net; MSF)
 - Alternative approach: Reserve steelhead impacts for these fisheries during preseason planning.
 - This approach would require revisions to the modeling presented here which use all of the available steelhead and most of the available URB impacts.

*Oregon/Washington Departments of Fish and Wildlife
April 1, 2021*