

## Columbia River 2020 Adult Returns and 2021 Expectations Revised Draft – January 13, 2021

	<b>2020 Results</b>	<b>2021 Expectations</b>
Willamette Spring Chinook	40,750 predicted adult return to CR (24% wild) 45,965 actual adult return (113% of forecast; 29% wild) 1,362 jack return (60% of 5-yr ave. 2,285) 45,527 adult return to Willamette R 33,888 adult/1,124 jack count at falls 5,033 return (4,859 adult) to Clackamas	~50,050 CR adult return +2,350 jacks 27% wild 36,540 hatchery adults +1,720 hatchery jacks 15,260 harvestable 4,640 to Clackamas
Sandy River	5,200 predicted adult CR return vs. 7,518 actual to CR	5,300 CR return
Cowlitz River	1,440 predicted adult CR return vs. 908 actual to CR	1,800 CR return
Kalama River	1,030 predicted adult CR return vs. 1,215 actual to CR	2,200 CR return
Lewis River	1,370 predicted adult CR return vs. 1,874 actual to CR	2,400 CR return
Wind River	2,000 predicted adult trib return vs. 2,076 actual to trib	1,200 to trib.
Drano (LWS)	4,600 predicted adult trib return vs. 3,850 actual to trib	3,900 to trib.
Klickitat	1,800 predicted adult trib return vs. 1,500 actual to trib	1,500 to trib.
Upriver Spring Chinook	81,700 predicted adult return 81,300 actual (~100% of forecast; 2 <sup>nd</sup> lowest since 1999) 7,953 BON jacks (<2019; 33% of 10-yr ave)	75,200 predicted 46% of 10-yr ave return; 2 <sup>nd</sup> lowest since 1999
Upper Columbia Summer Chinook	38,300 predicted adult return 65,494 actual (171% of forecast; highest since 2017) 8,874 BON jacks (68% of 10-yr ave) Adult mark rate ~65% @ BON	77,600 predicted 29,000 escapement goal (at CR mouth)
Sockeye	246,300 predicted return ~345,000 actual (140% of forecast; highest since 2016)	155,600 CR return 700 SR stock
Upriver Summer Steelhead	99,900 predicted return at BON 111,692 @ BON (114% of forecast; 49% of 10-yr (230K)	TBD
Bright Fall Chinook	324,760 predicted adult return Preliminary return ~127% of forecast	Continued improvement expected
Tule Fall Chinook	95,460 predicted adult return Preliminary return similar to forecast	TBD
Coho	140,190 predicted adult return Preliminary return >2X forecast	Jack return highest since 1977
Shad	6.0 million minimum run vs. 10-yr ave. of 3.3 million	Strong run expected
Smelt	Spawning-stock biomass estimate unavailable due to COVID-19 sampling restrictions.	Moderate return expected
White Sturgeon	Sampling affected by COVID-19 issues. Estimated abundance for 38-54 inch FL is 199,500.	38-54 inch FL abundance projected at 206K w/o harvest

## Recreational Fisheries

	2020 Results	2021 Expectations
<b>Oregon Tributary Spring Chinook</b>		
Lower Willamette River	Open 7 d/week under permanent regs 72,968 trips (3/2-7/5) 5,852 adults kept (1,852 rel; 76% mark rate)	Permanent regs likely
Clackamas River	2,309 trips <River Mill Dam (5/25-6/28) 0 adults kept (1 rel)	Permanent regs likely
Sandy River	~600 adults kept	Permanent regs likely
<b>Washington Tributary Spring Chinook</b>		
Cowlitz River	7 d/wk 1/1-2/29; closed 3/1-7/31	Season TBD
Kalama River	7 d/wk 1/1-7/31; 2 fish bag 1/1-2/29; 1 fish 3/1-7/31 ~300 adults kept	Permanent regs likely.
Lewis River	7 d/wk 1/1-2/29; closed 3/1-7/31	Permanent regs likely
<b>Columbia River Fisheries</b>		
Spring Season LCR	Chinook open: B10-I-5 Bridge; Jan-Feb; 7 d/wk; 2 Chinook bag Closed 3/1 due to low Cowlitz/Lewis forecasts Warrior Rock-BON: 3/1-3/26 (due to COVID-19) and May 5,7,9,13,15-17, 20 Bank only Beacon R to BON 2 fish/1 hatchery Chinook bag; SOK open 5/15 36,250 trips (lowest since 2000) 1,462 adult Chinook kept (1,218 rel) 1,129 STH kept (399 rel); 1,119 SOK kept (105 rel)	Season TBD
Spring Season BON to McN	Chinook open May 5,7,9,13,15-17, 20 Planned season (4/1-5/5) cancelled due to Covid-19 2 fish/1 hatchery Chinook bag 5,652 trips; 519 adult Chinook kept (159 rel)	Season TBD
Spring Season McN-OR/WA	Chinook open same as BON-McN 2 fish/1 hatchery Chinook bag 10 adult Chinook kept (3 rel)	Season TBD
Spring Season Snake River	Chinook open: Two sections; 2d/wk; 5/5-5/22 6,757 angler hours; 326 adult Chinook kept (59 rel)	Season TBD
Summer Season LCR	Chinook open 7/4-31 Tongue Pnt.- BON SOK/STH open 6/16-24 Megler Br - BON STH open 7/16-31 Tongue Pnt.- BON 2 fish/1 STH bag (hatchery Chinook/STH) 37,099 trips (similar to 5-yr ave.) 1,191 adult Chinook kept (1,504 rel) 2,069 SOK kept (2 <sup>nd</sup> highest)(373 rel) 1,996 STH kept (2,584 rel)	Season TBD at NOF

Summer Season BON-OR/WA border	Chinook open 7/4-31 SOK 6/16-24; STH open 6/16-24 and 7/16-31 2 fish/1 STH bag 2,628 trips; 5 adult Chinook, 49 SOK, 46 STH kept 6 adult Chinook, 237 SOK, 67 STH rel	Season TBD at NOF
Summer Season Hwy 395 - PRD	Chinook open 7/4-7/31 SOK 6/16-7/31; STH closed 2 fish (hatchery Chinook) 11,054 trips; 135 adult Chinook, 6,262 SOK kept 240 Chinook, 7 SOK, 32 STH released	Season TBD at NOF
Summer Season Upstream of PRD	Chinook open with MSF regs in various locations (including trips), 7/16-10/15 39,420 trips; 4,742 adult Chinook kept; 1,772 rel	Season TBD at NOF
Fall Season Buoy 10	Chinook open 8/14-27, 9/5-6, 9/11-13, 9/19+ 1 fish bag 8/31-9/4; 2 fish/1 CHF 9/5-19; 2 fish/2 CHF 10/1+ Coho open 8/14-12/31 STH retention closed Aug-Oct; 1 STH bag when open 72,443 trips (similar to 2018-2019) 14,633 Chinook kept (5,360 rel) 7,064 Coho kept (7,252 rel) SRW HR w/in and LRH higher than preseason expectations	Season TBD at NOF
Fall Season LCR Sport TP/RP - BON	Chinook and Coho open: Tongue Pnt. - W. Puget Isl. (WPI): 8/14-27, 9/11-13, 9/19+ WPI-Warrior R.: 8/1-31, TP-Warrior: 9/11-13, 9/19+ Warrior R.-BON: 3 d/wk 8/7-9/6, then 9/11-13, 9/19+ 1 fish bag 8/1-9/13; 2 fish/1 CHF 9/19-30, 2 fish/2 CHF 10/1+ STH retention closed Aug-Oct; 1 STH bag when open 90,413 trips (Aug-Oct; highest since 2017) 19,677 adult Chinook kept (752 rel) 1,537 Coho kept (775 rel); 0 STH kept (385 wild rel) SRW HR w/in and LRH higher than preseason expectation	Season TBD at NOF
Fall Season BON - McNary	Chinook and Coho open 8/1 – 9/8, 9/11-13, 9/19+; same bag limit as below BON STH closed Aug-Oct BON/TD Pools; Sep-Oct JD/McN Pools 22,293 trips Aug-Nov 25; 5,759 adult Chinook kept (343 rel) 1,004 Coho kept (215 rel); 55 STH kept (275 rel H+W) SRW HR exceeded preseason expectations	Season TBD at NOF
Fall Season McNary-Hwy 395	Same season as JD-McN 390 trips; 16 Chinook kept	Season TBD at NOF
Fall Season Hanford Reach	Fall Chinook open 8/16-10/31; 6 fish/2 adults 39,028 trips; 14,651 adults and 1,398 jack Chinook kept; 133 Coho kept; 185 SOK, 128 STH released 24% increase in harvest from 2019 fishery	TBD
Sturgeon LCR B10-BON	Below Wauna: 2,750 fish guideline; No fishery occurred Above Wauna: 1,140 fish guideline; 44-50-inches FL 5 retention days (9/12, 9/19, 9/26, 9/29, 10/3) 9,196 trips; 843 kept (74% of guideline) Lower Willamette 690 fish guideline; 44-50-inches FL 2 retention days (6/20 and 6/27) 5,091 trips; 167 kept (24% of guideline)	2021 season and guidelines TBD

Sturgeon BON-McNary	BO Pool: 1/1-2/13; 431 kept (86% of guideline) TD Pool: 1/1-2/17; 205 kept (152% of guideline) JD Pool: 1/1-3/9; 102 kept (97% of guideline)	Reopened 1/1/2021. BO Pool closed 1/7 TD Pool closed 1/5
Shad	LCR: 17,846 trips; 138,247 kept in LCR LWR: 6,012 trips (5/4-6/14); 30,428 kept	Large population No changes to fishery
Smelt	Two day retention season in Cowlitz R. 35,000 lbs landed.	TBD

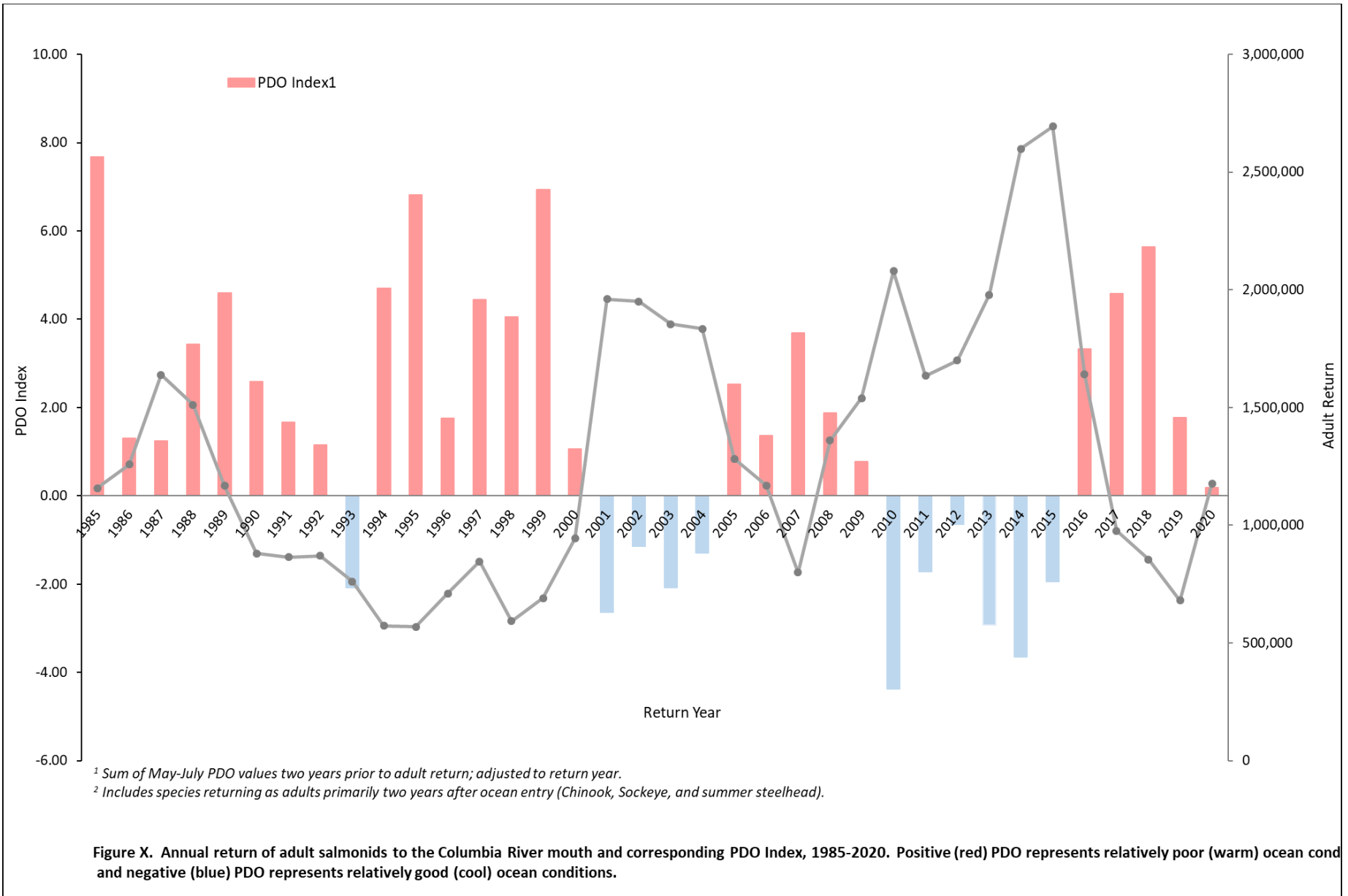
## Commercial Fisheries

	2020 Results	2021 Expectations
<b>Columbia River Fisheries</b>		
Winter/Spring	No fishery	TBD
Summer	No fishery	TBD
August (Early Fall)	Aug 10–27, 6 periods; 9 hrs each Zones 4-5; 9-inch min. mesh 25-81 deliveries per period 16,612 CHF, 348 Coho, 406 WSTG	TBD
Late Fall	Fourteen tangle net periods (Sep 30-Oct 30) 0-25 deliveries/period 4,974 hat. Coho (~32% jacks) & 911 CHF Nine Z4-5 periods (Sep 15-Oct 22) 3-71 del/period 16,102 CHF, 2,465 Coho, 161 WSTG	TBD
Seine	No fishery	TBD
Shad	2S fishery open 5/10-6/20 (perm regs) 0 shad landed	Area 2S fishery
Smelt	8 periods; Feb 3-27, 10,255 lbs landed Highest CPUE since 2015	TBD
<b>Select Area Fisheries</b>		
Winter/Spring	Below ave. season (28%/26% of 5/10-yr ave.) Winter – 474 Chinook; 217 WSTG Spring – 1,938 Chinook; 219 WSTG	~6,260 Select Area-origin predicted vs 3,714 actual in 2020 Season TBD (likely similar to 2020)
Summer	Below ave. season (67%/80% of 5/10-yr ave.) 1,775 Chinook; 111 WSTG	Season TBD
Fall	Mixed season (CHF below ave. and COH ave.) 3,017 Chinook (29%/18% of 5/10-yr ave.) 43,500 Coho (165%/93% of 5/10-yr ave.) ~15% Coho jacks WSTG retention closed	Season TBD (structure expected to be similar to 2020)

**NOAA ocean condition scorecard for outmigrating salmon with ratings from 1 (best) to 23 (worst). The years shown correspond to the years the smolts entered the ocean.**

Ecosystem Indicators	Year																						
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
PDO (Sum Dec-March)	20	6	3	14	7	22	13	18	15	10	5	1	17	4	2	8	11	23	21	19	12	16	9
PDO (Sum May-Sept)	11	4	6	5	12	18	17	19	13	15	2	10	7	3	1	8	21	23	22	16	14	20	9
ONI (Average Jan-June)	22	1	1	7	14	16	15	18	8	12	3	11	19	4	6	8	10	20	23	13	5	21	17
SST NDBC buoys (°C; May-Sept)	18	6	8	4	5	12	23	13	2	15	1	11	3	7	9	17	21	20	19	14	16	22	10
Upper 20 m T (°C; Nov-Mar)	22	12	9	11	7	16	17	14	13	6	1	10	19	5	4	8	3	23	21	20	15	18	2
Upper 20 m T (°C; May-Sept)	15	10	12	4	1	3	23	19	8	9	2	5	16	7	6	17	21	18	13	11	14	22	20
Deep temperature (°C; May-Sept)	22	6	8	4	1	10	12	16	11	5	2	7	14	9	3	15	21	20	13	18	19	17	23
Deep salinity (May-Sept)	22	3	11	4	5	18	19	12	7	1	2	16	20	14	15	13	23	17	9	8	6	10	21
Copepod richness anom. (no. species; May-Sept)	21	2	1	8	7	16	15	20	17	11	9	10	19	4	6	3	12	22	23	18	14	13	5
N. copepod biomass anom. (mg C m <sup>-3</sup> ; May-Sept)	21	16	12	13	5	18	15	22	17	14	8	11	10	2	4	6	7	19	23	20	9	3	1
S. copepod biomass anom. (mg C m <sup>-3</sup> ; May-Sept)	23	2	5	4	3	15	17	22	14	11	1	7	18	10	8	6	12	20	21	19	13	16	9
Biological transition (day of year)	20	11	10	4	9	16	15	21	14	5	1	2	18	6	12	7	7	22	22	19	17	13	3
Nearshore Ichthyoplankton Log(mg C 1,000 m <sup>-3</sup> ; Jan-Mar)	18	3	12	6	1	22	23	16	9	18	3	14	2	8	5	11	20	15	16	13	10	21	7
Nearshore & offshore Ichthyoplankton community index (PCO axis 1 scores; Jan-Mar)	11	6	5	8	10	13	17	21	1	14	3	12	15	4	2	7	9	19	22	23	18	20	16
Chinook salmon juvenile catches (no. km <sup>-1</sup> ; June)	20	4	5	17	8	12	18	21	13	11	1	6	7	16	2	3	10	14	19	22	15	9	NA
Coho salmon juvenile catches (no. km <sup>-1</sup> ; June)	20	8	14	6	7	3	17	21	18	4	5	10	11	16	19	1	13	9	15	22	2	12	NA
Mean of ranks	19.1	6.3	7.6	7.4	6.4	14.4	17.3	18.3	11.3	10.1	3.1	8.9	13.4	7.4	6.5	8.6	13.8	19.0	18.9	17.2	12.4	15.8	10.9
Rank of the mean rank	23	2	7	5	3	16	19	20	12	10	1	9	14	5	4	8	15	22	21	18	13	17	11
<i>Ecosystem Indicators not included in the mean of ranks or statistical analyses</i>																							
Physical Spring Trans. UI based (day of year)	3	7	22	19	4	14	17	23	14	1	6	2	9	12	20	10	21	11	5	18	12	14	8
Physical Spring Trans. Hydrographic (day of year)	22	3	13	8	5	12	15	23	6	9	1	9	19	3	11	2	17	7	18	20	15	14	20
Upwelling Anomaly (April-May)	11	3	19	7	10	16	14	23	11	5	8	9	17	19	17	13	21	1	2	22	6	4	14
Length of Upwelling Season UI based (days)	6	2	21	13	1	15	11	23	5	3	9	3	17	20	17	16	22	12	8	14	7	10	19
Copepod Community Index (MDS axis 1 scores; May-Sept)	22	3	5	8	2	17	15	21	18	10	1	7	14	9	6	4	12	20	23	19	13	16	11

\*Note: this table is easier to interpret if printed in color. Green represents more favorable indicators. Yellow is intermediate and Red indicates unfavorable. If printed in black and white red will appear very dark.



## 2021 Columbia River Process Schedule (Preliminary Draft – Dates are Tentative)

Dec 16, 2020 1-3p	NSIA Annual Meeting • 2020 results and 2021 expectations	<b>All meetings will be held via teleconference or other virtual platform</b>
Jan 13, 2021 10a-12:30p	Columbia River Commercial Advisor Group Meeting • Sturgeon, smelt, 2021 forecasts, 2020 Fall review, etc.	
Jan 13, 2021 4p-6:30p	Columbia River Recreational Advisor Group Meeting • Sturgeon, smelt, 2021 forecasts, 2020 fall review, etc.	
Jan 14, 2021 7-8:30p	Select Area Commercial Fisheries Meeting • 2020 results; 2021 season structure discussion	
Jan 26, 2021 10a	CR Compact/Joint State Hearing • Research smelt, Treaty, Zone 6 sport stg	
Jan 29, 2021	Washington Fish and Wildlife Commission • Lower Columbia River White Sturgeon - Briefing	
Feb 10, 2021 10a-1p	Columbia River Commercial Advisor Group Meeting • Placeholder meeting	
Feb 10, 2021 4-6:30p	Columbia River Recreational Advisor Group Meeting • Spring/Summer Chinook	
Feb 12, 2021	Oregon Fish and Wildlife Commission • Lower Columbia River White Sturgeon - Briefing	
Feb 16, 2021 10a	CR Compact • Select Area commercial, Treaty?	
Feb 23, 2021 10a	CR Joint State Hearing • Recreational spring Chinook	
<i>See Ocean Calendar for NoF planning process</i>		

## 2021 Ocean Fishery Process Schedule (Preliminary Draft – Dates are Tentative)

Feb 25	Ocean Salmon Industry Group <ul style="list-style-type: none"> <li>• 2021 forecasts</li> <li>• Initial discussions of 2021 season options</li> </ul>	<b>Locations/Times TBD; teleconference or virtual likely</b>
Late Feb	WDFW Public Meeting <ul style="list-style-type: none"> <li>• 2021 forecasts and fishing opportunities</li> </ul>	
Mar 3-10	Pacific Fishery Management Council (PFMC) <ul style="list-style-type: none"> <li>• Adopt initial 2021 ocean salmon options for public review</li> </ul>	
Mid-March	North of Falcon #1 (Public Meetings) <ul style="list-style-type: none"> <li>• Puget Sound</li> <li>• Willapa Bay</li> <li>• Grays Harbor</li> <li>• Ocean areas north of Cape Falcon, OR</li> </ul>	
Mar 17	2021 Columbia R North of Falcon #1	
TBD	Northeast of McNary – North of Falcon	
Mar 23 (WA) Mar 24 (OR)	PFMC Public Options Hearings <ul style="list-style-type: none"> <li>• Public input on 2021 season options</li> </ul>	
Apr 1	2021 Columbia R North of Falcon #2	
Apr 6-13	Pacific Fishery Management Council (PFMC) <ul style="list-style-type: none"> <li>• Adopt 2021 ocean salmon fishery regulations</li> </ul>	
Apr 23	Oregon Fish and Wildlife Commission <ul style="list-style-type: none"> <li>• Adopt state water ocean salmon fishery regulations</li> </ul>	