
Columbia River Commercial Advisor Group Meeting

January 14, 2020

10:00a-12:30p

WDFW

5525 S. 11th St.

Ridgefield, WA 98642

Prepared by: Columbia River Joint Staff

**Columbia River Commercial Advisor Group Meeting
WDFW - Ridgefield, WA
10:00a – 12:30p January 14, 2020**

Agenda	
<ul style="list-style-type: none"> • Welcome and Introductions <ul style="list-style-type: none"> ○ Advisor Group members and Agency staff 	(5 minutes)
<ul style="list-style-type: none"> • Update on white sturgeon <ul style="list-style-type: none"> ○ Population status and trends ○ 2020 fishery discussion 	(30 minutes)
<ul style="list-style-type: none"> • Update on Eulachon smelt <ul style="list-style-type: none"> ○ Population trend ○ 2020 outlook 	(15 minutes)
<ul style="list-style-type: none"> • Summary of 2019 Fisheries 	(10 minutes)
<ul style="list-style-type: none"> • Ocean Conditions & Forecasts <ul style="list-style-type: none"> ○ 2020 forecast sheets ○ Preliminary 2020 spring/summer discussions 	(25 minutes)
<ul style="list-style-type: none"> • Break 	(10 minutes)
<ul style="list-style-type: none"> • Additional Topics <ul style="list-style-type: none"> ○ Feb 12 CRCAG meeting <ul style="list-style-type: none"> • Needed? • Topics for consideration ○ Other handouts <ul style="list-style-type: none"> • 2019 Returns – 2020 Expectations ○ Other/General discussion 	(<55 minutes)
<ul style="list-style-type: none"> • Future Meetings <ul style="list-style-type: none"> ○ CRCAG placeholder (February 12, 10-12p, Rainier City Hall) ○ North of Falcon #1, March 17, WDFW-Ridgefield, 10 am ○ North of Falcon #2, April 1, WDFW-Ridgefield, 10 am 	

Columbia River Commercial Advisory Group 2018-2020

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Lower Columbia River White Sturgeon Stock Assessment and Fishery Management 2019 Update

Summary Prepared by

**Joint Columbia River Management Staff
*Washington Department of Fish and Wildlife
Oregon Department of Fish and Wildlife***

January 14, 2019

Table 1. Dashboard of key status indicators for lower Columbia River white sturgeon, 2019. Colored circles indicate status relative to Conservation Plan metrics and/or recent trend.

Metric	N	Interpretation	Brief Summary
Abundance Trends 38" – 54" FL	168,204		Stable since 2018 but down from 2016 and 2017. However, trend in CPUE setline tagging fisheries is still upward overall.
Adult(>65" FL)	2019: 11,926 3-yr avg.: 9,484		2019 3-yr adult abundance average is above desired status level (threshold = 9,250 adults).
Population Structure	~52% juvenile		Low relative abundance of juvenile and sub-legal sized fish indicates population productivity issues; Below conservation status level (threshold = 60%)
Recruitment Index (CPN)	LCR: 0.33 WR: 1.42		Mixed results. Return to CPNs of <1 after strong 2017 in LCR; but 3 rd highest in LWR since monitoring began in 2010.
Fisheries	Estuary: 22,012 angler trips Total: 37,703 angler trips		Participation still down from pre-closure levels, but >10x higher than average effort when catch-and-release only. Overall participation increasing.

Abundance and CPUE Trends

Table 2. Estimated and projected abundance of 38–54 inch FL (96–137 cm) white sturgeon in the LCR from 2008–2019 based on mark-recapture surveys. Historic method is the number of fish present at the start of July (2008–2009) or May (2010–2012), while the setline method is the number of fish present at the start of the year. Preliminary estimates are italicized.

Year	Historic method estimate	Setline method		Harvest guideline
		Estimate (95% C.I.)	Projection	
2008	101,200	--	--	40,000
2009	95,000	--	--	40,000
2010	65,300	100,200	--	24,000
2011	72,800	80,500	77,000	17,000
2012	83,400	72,700	65,000	10,400
2013	--	114,200	74,300	10,105
2014	--	130,990 (75,500 – 186,480)	131,700	--
2015	--	143,890 (85,700 – 202,100)	138,200	--
2016	--	223,960 (118,300 – 329,600)	147,100	--
2017	--	199,830 (69,900 – 329,700)	237,900	6,235
2018	--	162,180 (93,400 – 230,950)	198,300	6,160
2019	--	168,200 (100,100-236,300)	<i>164,100</i>	6,160
2020	--		<i>148,800</i>	TBD

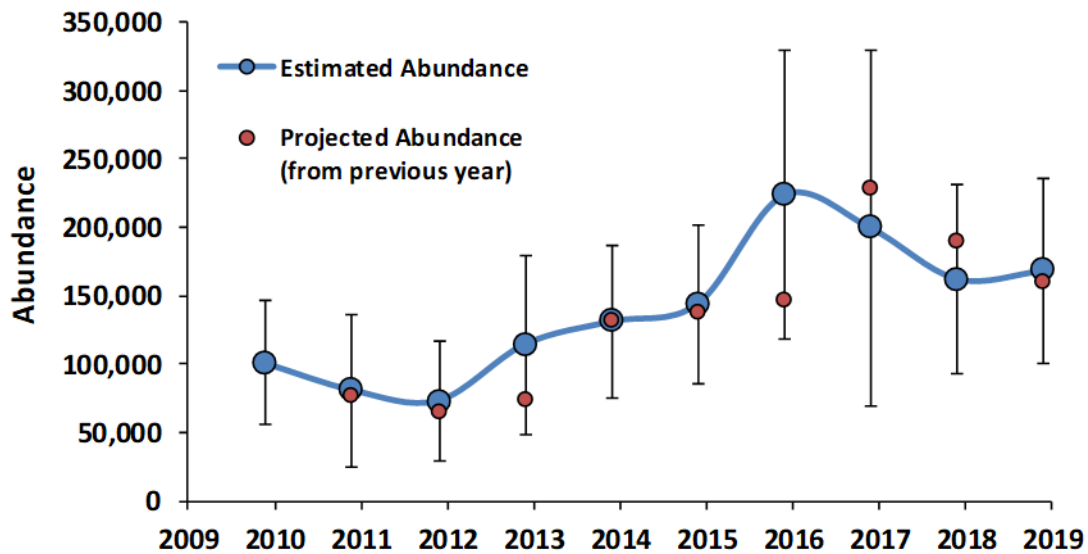


Figure 1. Estimated and projected abundance for 38" - 54" FL white sturgeon from the LCR, 2010 - 2019. Error bars represent 95% CI's for the estimated abundance.

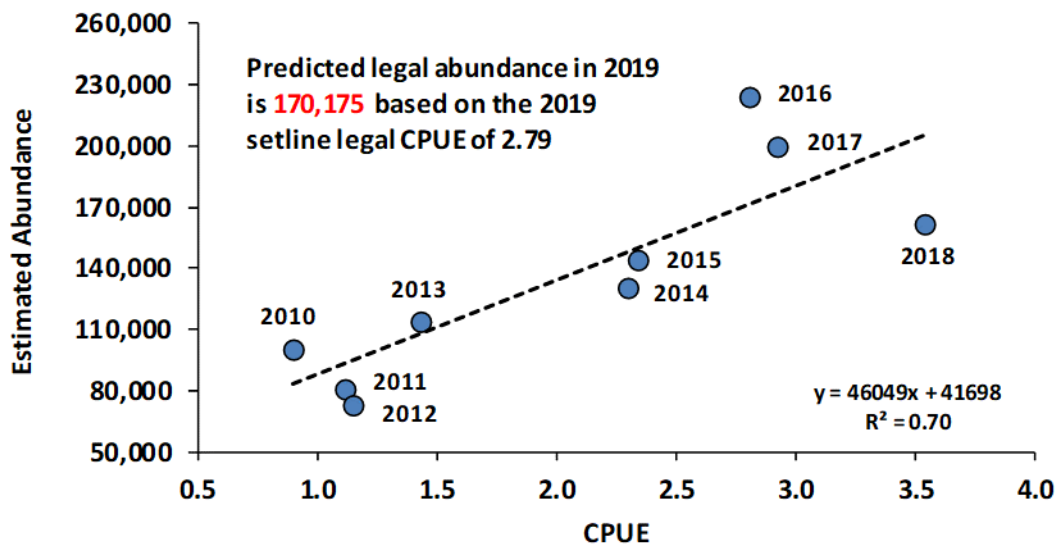


Figure 2. Relationship between annual estimated abundance and setline catch-per-set (CPUE) for 96-137 cm FL white sturgeon in the LCR, 2010-2018.

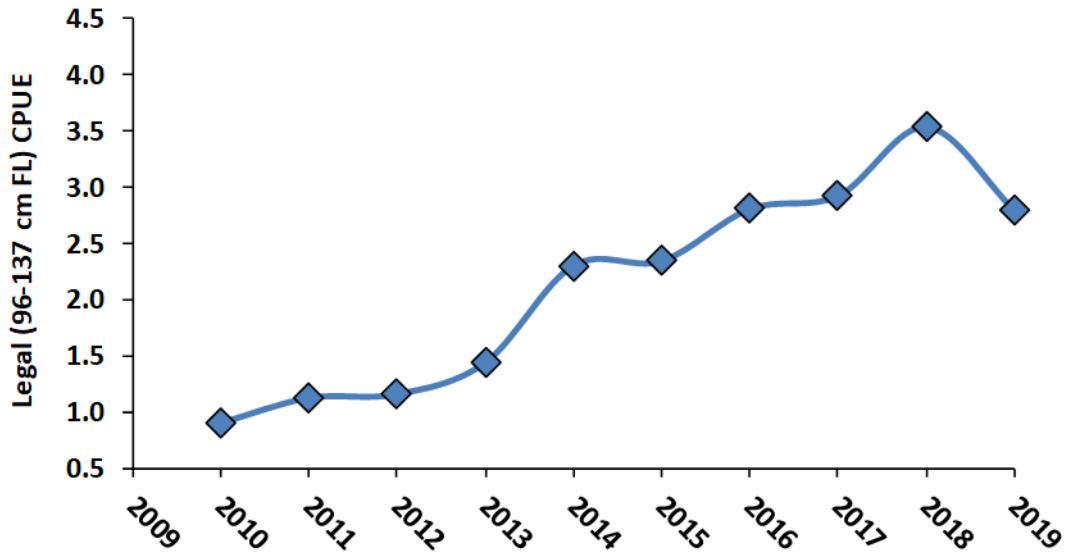


Figure 3. CPUE of 96–137 cm FL white sturgeon caught with setlines in the LCR, 2010–2019.

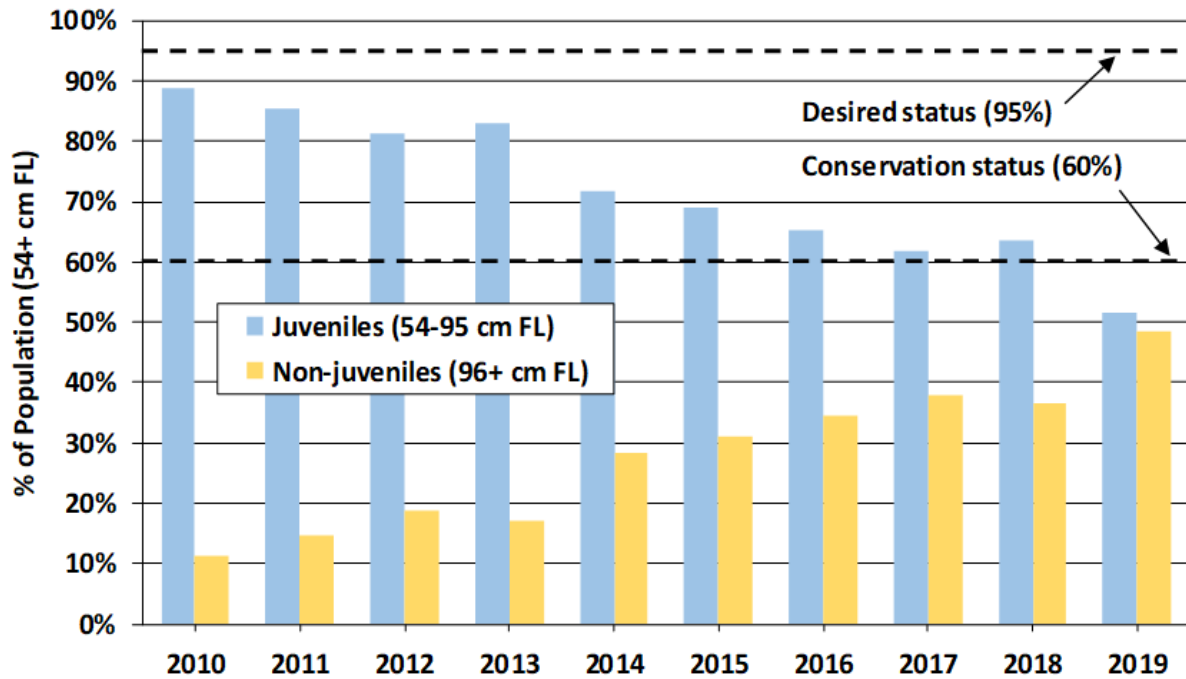


Figure 4. Annual proportion of juvenile and non-juvenile (sub-adults + adults) white sturgeon in the lower Columbia River, 2010–2019. Dashed horizontal line represents conservation status and desired status for juvenile white sturgeon.

Adult Abundance and CPUE Trends

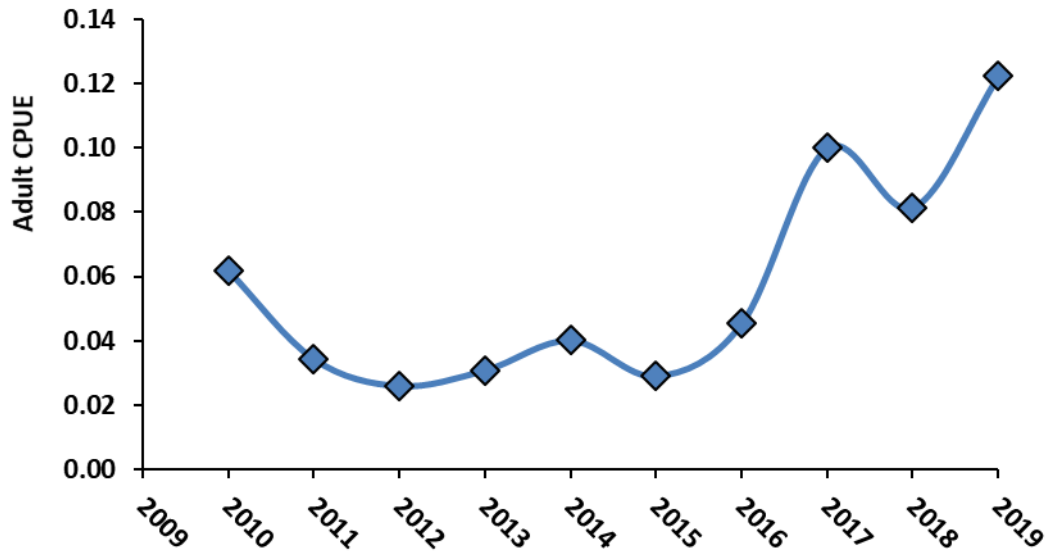


Figure 5. CPUE of adult (≥ 167 cm FL) white sturgeon in the LCR, 2010-2019.

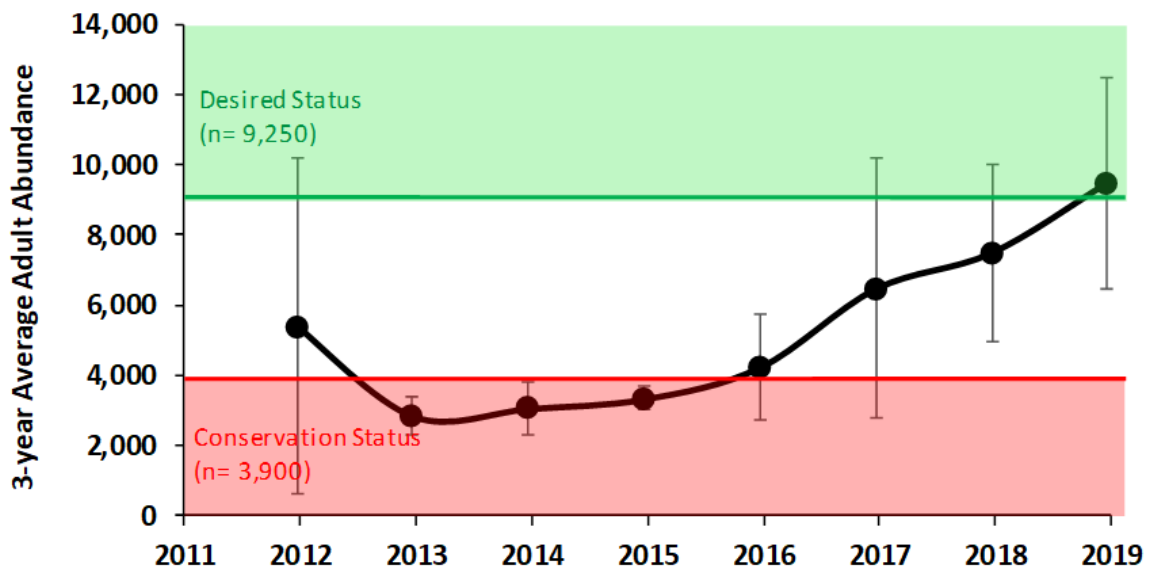


Figure 6. Three-year average estimated abundance for adult (≥ 167 cm FL) white sturgeon from the LCR, 2012–2019. Less than 3 years of data were available for 2010 and 2011 so no averages were calculated. Error bars represent 95% CI's for the estimated abundance.

Length Frequency Trend

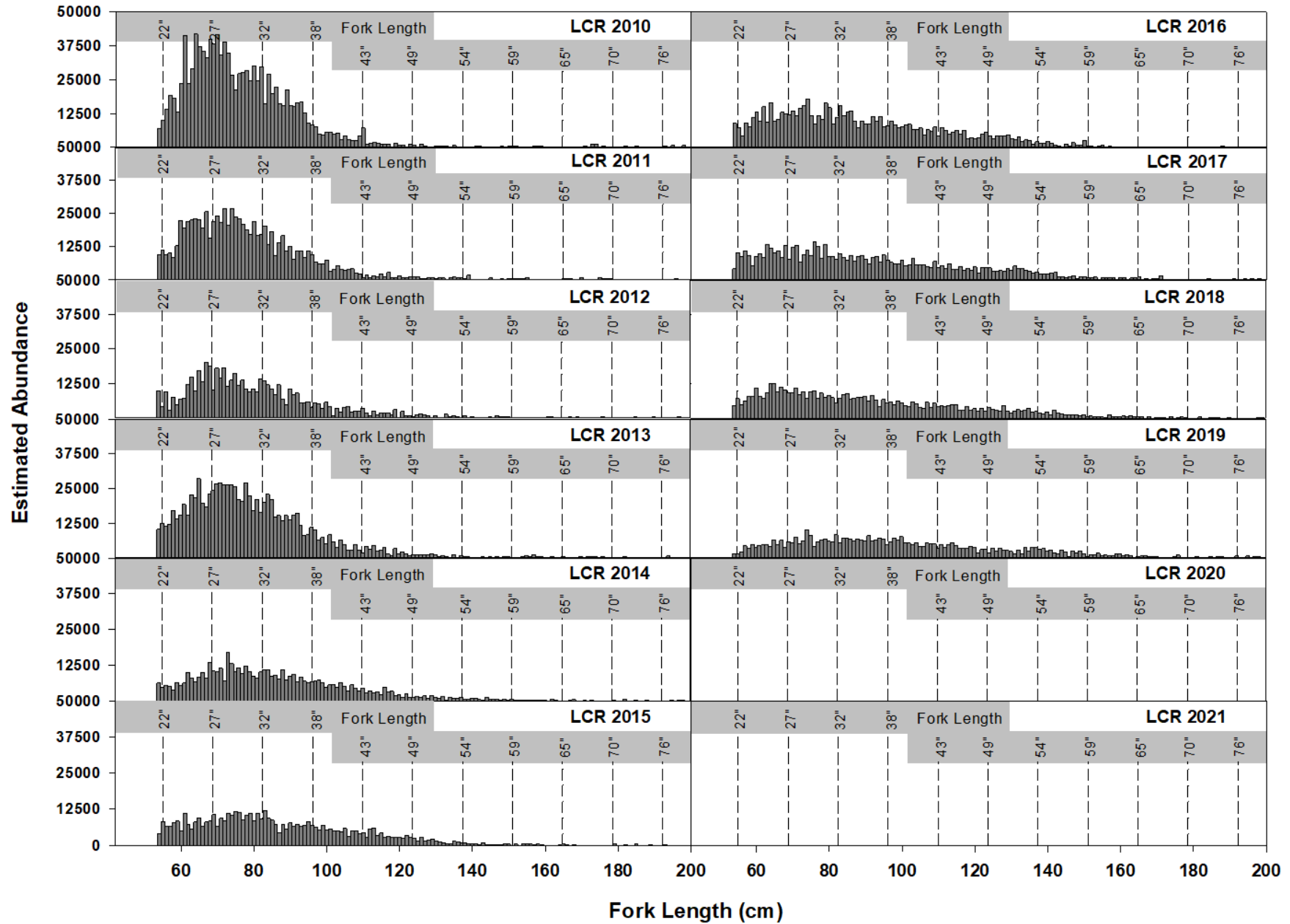
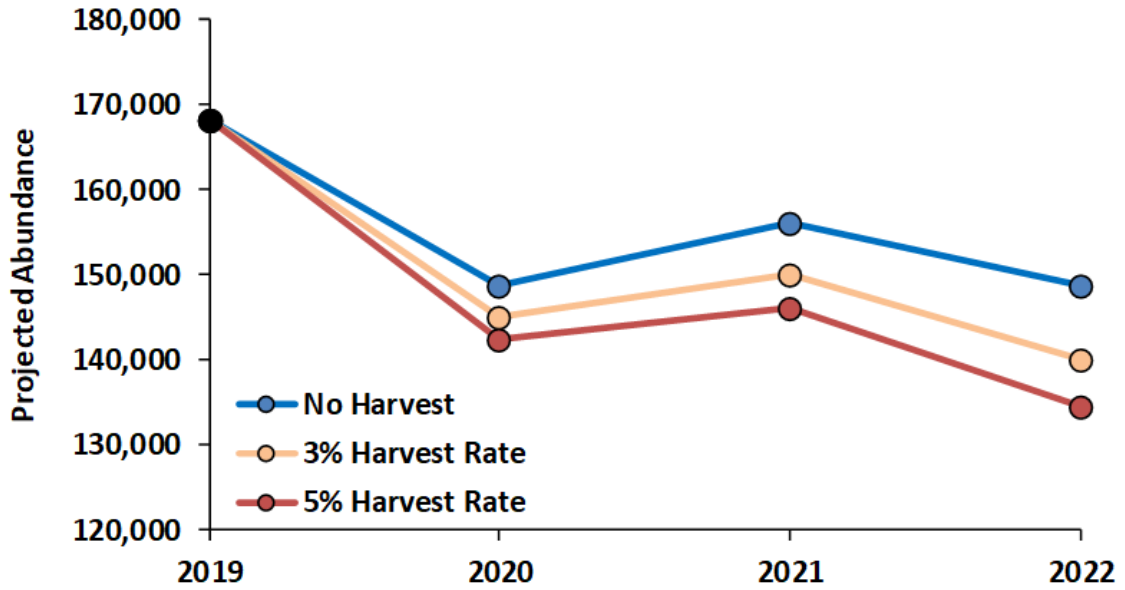


Figure 7. Estimated abundance of white sturgeon ≥ 54 cm FL in the LCR, 2010-2019.

Legal-size Abundance Forecasts

Figure 8 and Table 3. Projected abundance of 96–137cm FL white sturgeon in the LCR under various harvest rate scenarios.



Year	No Harvest	3% Harvest Rate	5% Harvest Rate
2019	168,205	168,205	168,205
2020	148,787	144,920	142,400
2021	156,063	149,992	146,131
2022	148,761	140,048	134,612

Sub-yearling (Age-0) Production

Figure 9 and Table 4. (A) catch-per-net (CPN) and (B) recruitment index (E_p) values for age-0 white sturgeon from the Willamette River and the mainstem lower Columbia River, 2005-2019.

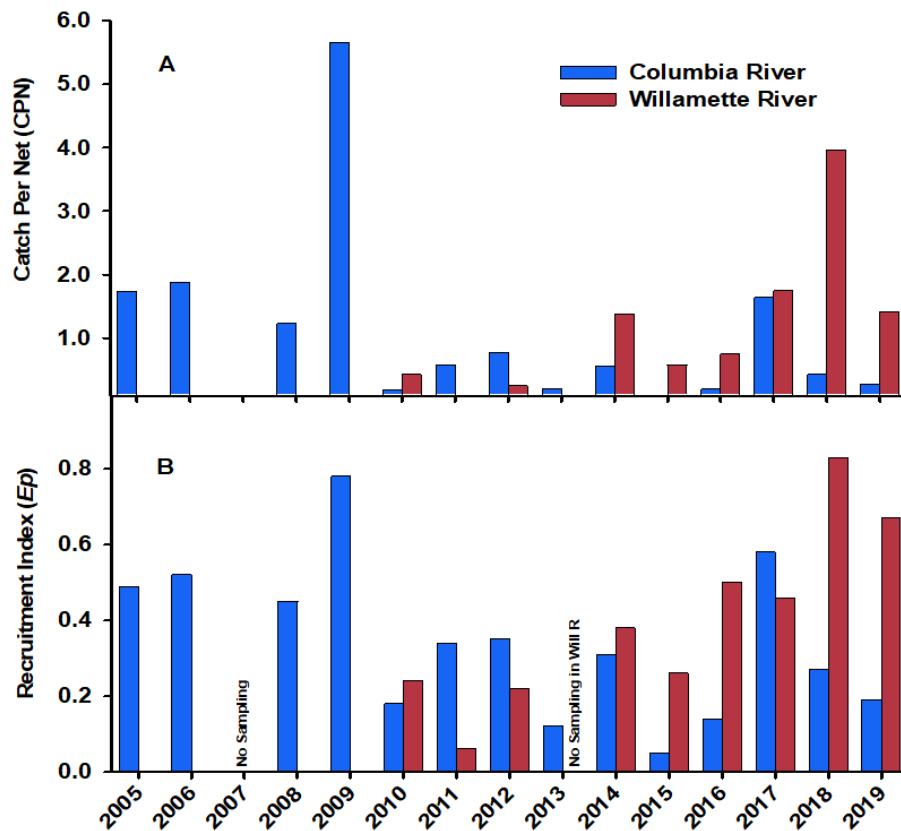


Table 4. CPN and proportion of positive sets (E_p) for YOY white sturgeon in the lower Columbia and Willamette rivers from 2004 - 2019.

Year	Lower Columbia R		Willamette R	
	CPN	E_p	CPN	E_p
2004	1.29	0.44		
2005	1.74	0.49		
2006	1.88	0.52		
2007	--	--		
2008	1.23	0.45		
2009	5.66	0.78		
2010	0.19	0.18	0.43	0.24
2011	0.58	0.34	0.06	0.06
2012	0.77	0.35	0.25	0.22
2013 ¹	0.21	0.12	--	--
2014	0.56	0.31	1.38	0.38
2015	0.06	0.05	0.58	0.26
2016	0.20	0.14	0.75	0.50
2017	1.64	0.58	1.75	0.46
2018	0.43	0.27	3.96	0.83
2019 ²	0.33	0.21	1.42	0.67

¹ Incomplete sampling year in both LCR and Willamette R.

² Preliminary assessments based on length frequency examinations.

Sea Lion Abundance and Predation

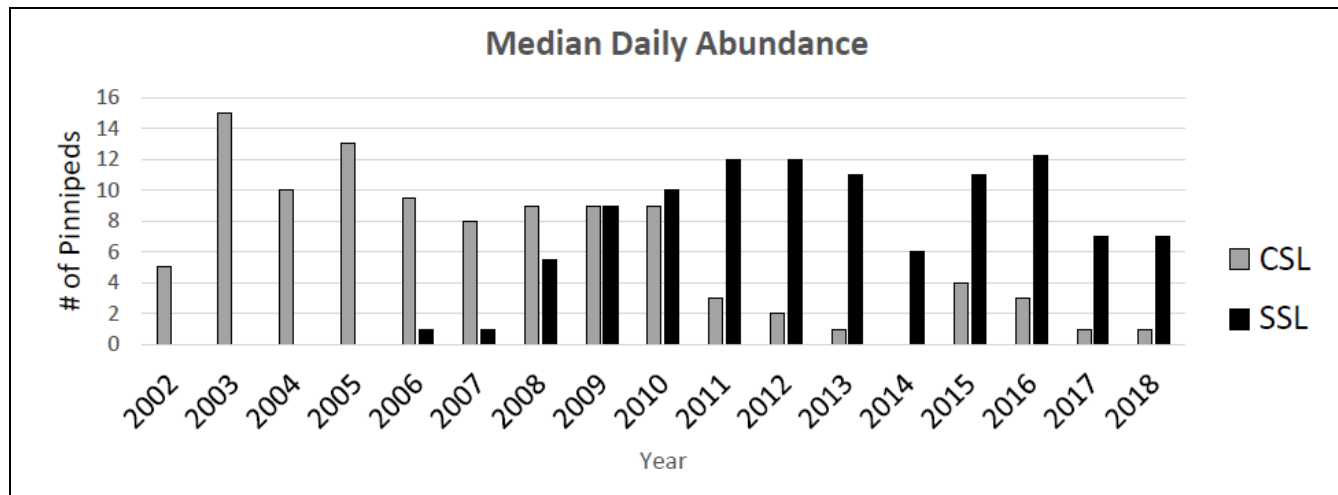


Figure 10. Abundance of California sea lions (CSL) and Steller sea lions (SSL) present at Bonneville Dam between January and the end of May 2002–2018. Figure from U.S. Army Corps of Engineers (USACE) 2018 draft report.

Table 5. Consumption of white sturgeon by CSL and SSL observed during USACE spring monitoring of the Bonneville Dam tailrace, 2005-2018. Adjusted estimates include a proportion of the total unidentified catch.

Year	Total hours observed	Observed sturgeon catch	Sturgeon catch per hour observed	Adjusted sturgeon catch estimate
2005	1,109	1	0.001	--
2006	3,650	265	0.073	413
2007	4,433	360	0.081	664
2008	5,131	606	0.118	1,139
2009	3,455	758	0.219	1,710
2010	3,609	1,100	0.305	2,172
2011	3,315	1,353	0.408	3,003
2012	3,404	1,342	0.394	2,498
2013	3,247	314	0.097	635
2014	2,947	79	0.027	146
2015	2,995	24	0.008	44
2016	1,974	30	0.015	90
2017	1,142	6	0.005	24
2018	1,410	46	0.033	148

Appendix

Historic Abundance, Harvest and Monitoring Data

Appendix Table 1. Annual recreational white sturgeon catch and harvest guidelines LCR, 1994–2019¹.

Year	Below Wauna ¹		Above Wauna ¹		Sum	Combined	
	Kept Catch	Guideline ²	Kept Catch	Guideline ³		Guideline	Percent
1994	15,578	N/A	17,893	N/A	33,500	N/A	
1995	29,714	N/A	15,423	N/A	45,100	N/A	
1996	27,694	N/A	15,068	N/A	42,800	N/A	
1997	24,511	N/A	13,646	N/A	38,200	53,840	71%
1998	30,303	N/A	11,293	N/A	41,600	53,840	77%
1999	29,238	N/A	10,561	N/A	39,800	40,000	100%
2000	24,267	N/A	16,238	N/A	40,500	40,000	101%
2001	21,619	N/A	19,597	N/A	41,200	39,500	104%
2002	26,234	N/A	12,045	N/A	38,300	38,300	100%
2003	18,367	19,200	13,565	12,800	31,932	32,000	100%
2004	15,050	16,000	10,519	12,800	25,569	28,800	89%
2005	17,911	17,783	11,891	11,560	29,802	29,343	102%
2006	15,726	16,000	8,545	12,800	24,271	28,800	84%
2007	19,131	16,274	10,675	13,852	29,806	30,126	99%
2008	13,614	13,143	7,959	12,387	21,573	25,530	85%
2009	13,109	15,529	4,599	11,430	17,708	26,959	66%
2010	6,491	9,600	4,831	4,835	11,322	14,435	78%
2011	6,117	6,800	2,908	3,410	9,025	10,210	88%
2012	4,466	4,160	1,859	2,080	6,325	6,240	101%
2013	4,559	4,042	1,942	2,021	6,501	6,240	107%
2014-16	0	0	0	0	0	0	N/A
2017	3,235	3,000	430	1,245	3,665	4,245	86%
2018	2,412	2,960	1,049	1,230	3,461	4,190	81%
2019	2,838	2,960	685	1,230	3,523	4,190	84%

¹ Recreational catch estimates for 1993-2002 are above and below the western tip of Puget Island (RM 38).

² The switch to a 45-inch min. (TL) size limit in 2004 required a 17% reduction in the base guideline.

³ Actual in-season guidelines were different than represented here. Beginning in 2010, the guideline for the area above Wauna does not include the Willamette guideline.

Appendix Table 2. Annual recreational white sturgeon catch and harvest guidelines in the lower Willamette River, 2003–2019.

Year	Estimated annual kept catch ¹	Baseline ²	Catch in excess of baseline ³	Guideline	Percent of Guideline
2003	1,142	1,225	0	N/A	
2004	4,099	1,225	2,874	N/A	
2005	2,327	1,225	1,102	N/A	
2006	3,348	1,225	2,123	N/A	
2007	6,555	1,225	5,330	N/A	
2008	9,148	1,225	7,923	N/A	
2009	7,346	1,225	6,121	N/A	
2010	3,529	735	2,794	2,865	98%
2011	2,690	520	2,170	2,030	107%
2012	1,535	520	1,015	1,248	81%
2013	1,410	520	890	1,213	73%
2014-16	0	0	0	0	N/A
2017	0	0	0	745	0%
2018	0	0	0	740	0%
2019	0	0	0	740	0%

¹ No sturgeon retention allowed during 2014-16. A retention fishery was considered but did not occur in 2017–2019.

² Baseline harvest levels for the lower Willamette River were based on average harvest during 1986-1996 (1,225 fish). The lower Willamette River baseline was decreased to 735 fish in 2010 and 520 fish in 2011 consistent with reductions in the overall harvest guideline. The baseline concept was eliminated in 2017.

³ During 2003-2009, harvest in excess of the baseline was applied to the above Wauna recreational harvest guideline. Beginning in 2010, a separate harvest guideline was established for the lower Willamette River.

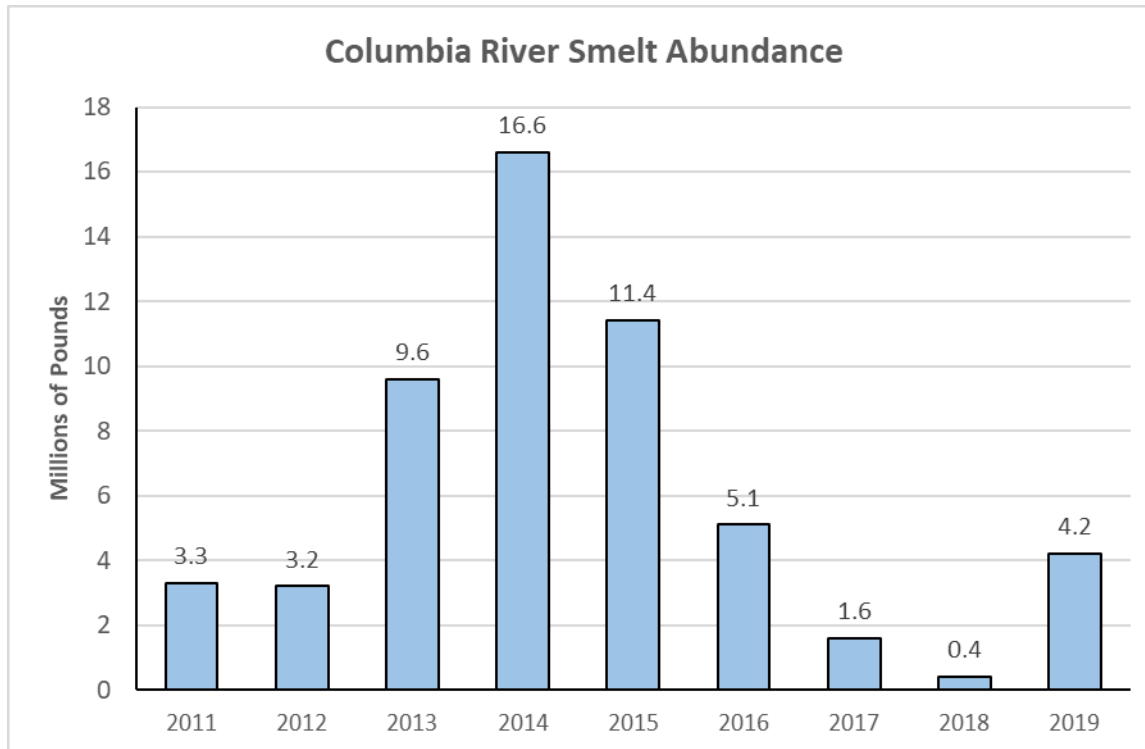
Appendix Table 3. Commercial catch of white sturgeon and harvest guidelines in the LCR, 1995-2019.

Year	Mainstem							Select Area			Grand Total	Guide-line	%
	Winter Sturgeon ¹	Winter Salmon	Summer	Early August	Late August	Late Fall	Total	Spring/Summer	Fall	Total			
1995	0			0	0	5,980	5,980	110	70	180	6,160	8,000	77%
1996	800			0	330	6,580	7,710	580	110	690	8,400	8,000	105%
1997	2,710			1,740	140	7,790	12,380	350	100	450	12,830	13,460	95%
1998	2,680			2,540	90	8,060	13,370	360	170	530	13,900	13,460	103%
1999	1,780			2,770	60	4,180	8,790	520	190	710	9,500	10,000	95%
2000	2,260			2,490	300	5,130	10,180	540	160	690	10,870	10,000	109%
2001	3,060			4,720	1,020	0	8,800	490	20	510	9,310	9,100	102%
2002	2,720			1,340	380	4,200	8,640	650	330	980	9,620	9,800	98%
2003	1,490	27		2,170	410	3,430	7,527	250	170	420	7,947	8,000	99%
2004	1,696	174	9	1,550	917	3,219	7,565	184	117	301	7,866	8,000	98%
2005	473	70	1,369	1,129	965	3,793	7,799	279	74	353	8,152	8,200	99%
2006	288	1,651	544	1,548	363	3,492	7,886	317	109	426	8,312	8,000	104%
2007	1,424	47	414	2,646	91	2,734	7,356	257	148	405	7,761	7,850	99%
2008	869	17	523	2,706	103	3,170	7,388	337	134	471	7,859	7,927	99%
2009	1,697	21	624	2,213	756	2,001	7,312	311	114	425	7,737	8,000	97%
2010	518	28	289	1,578	297	1,348	4,058	211	116	327	4,385	4,800	91%
2011	50	125	504	967	353	1,187	3,186	201	0	201	3,387	3,400	100%
2012	40	14	281	592	410	344	1,681	225	0	225	1,906	2,080	92%
2013	15	274	326	0	719	324	1,658	254	100	354	2,102	2,021	100%
2014	0	0	0	0	0	0	0	0	0	0	0	0	N/A
2015	0	0	0	0	0	0	0	0	0	0	0	0	N/A
2016	0	0	0	0	0	0	0	0	0	0	0	0	N/A
2017	0	0	0	0	485	239	724	266	237	503	1,227	1,245	99%
2018	0	0	0	0	413	0	413	296	117	413	826	1,230	67%
2019	0	0	0	0	509	0	509	479	212	691	1,200	1,230	98%

¹ Prior to 2003, values reflect all winter fisheries.

Columbia River Eulachon Smelt

- Abundance of spawning adult eulachon (spawning stock biomass (SSB)), back-calculated from annual eulachon larvae production estimates, has been estimated since 2011 for the Columbia River and tributaries.
- Total run-size is estimated from combined harvest and SSB estimates.
- Eulachon abundance increased steadily from 2011 to 2014, reaching a peak of 16.6 million pounds, followed by a decline through 2018, and an uptick in 2019:



- Ocean environmental conditions were favorable for marine survival during 2012-2013, poorer in 2014-2016, and improved somewhat in 2017-2018.
- Commercial and recreational fisheries were both closed to harvest in 2011-2013.
- Very conservative reduced Level-1 fisheries were reinstated in 2014 to collect biological and catch per effort data.
- The 2014–2018 commercial fisheries consisted of eight fishing periods annually over four weeks in the mainstem Columbia River.
- The Cowlitz River recreational fishery was open for five days in 2014 and two days in 2015) along with an opportunity in the Sandy River; and, one day in the Cowlitz River during 2016 and 2017. There was no recreational fishing opportunity in 2018.
- Due to the low 2019 forecast, all fisheries were closed in 2019.
- The 2020 return is expected to be moderate in size and similar in magnitude to the 2019 return.

Year	Total run size (pounds)	Harvest (pounds)							
		Commercial		Sport	Tribal	Combined			
		Mainstem	Tributary						
2011	3,300,000	0	1	0	1	0	1	N/A	0
2012	3,200,000	0	1	0	1	0	1	N/A	0
2013	9,600,000	0	1	0	1	0	1	7,470	7,470
2014	16,600,000	18,560		0	1	203,880		6,970	229,410
2015	11,400,000	16,550		0	1	290,770		10,400	317,720
2016	5,100,000	4,820		0	1	141,050		8,330	154,200
2017	1,600,000	5,090		0	1	540		1,900	7,530
2018	370,000	110		0	1	0	1	0	110
2019	4,205,000	0	1	0	1	0	1	23,660	23,660

^{1/} Closed to fishing.

- Preliminary plans for 2020 fisheries have not yet been discussed with NOAA Fisheries.

2019 Fisheries Summary (Preliminary)

2019 Lower Columbia River Recreational Fisheries Summary.															
Time Period	Area	Species Allowed	Days for Chinook	Salmonid Anglers	Adult Chin. Kept	Adult Chin. Rel'd	Jack Chin. Kept	Jack Chin. Rel.	Sthd Kept	Sthd Rel'd	Sockeye Kept	Sockeye Rel'd	Adult Coho Kept	Adult Coho Rel'd	Jack Coho Kept
Feb	Buoy 10 to I-5	ChS, StW		2,374	4	1	0	0	0	0	Closed	0	Closed	0	Closed
March	WR-BO	ChS, StW	31	10,626	317	76	0	3	0	18	Closed	0	Closed	0	Closed
April 1-10, 13-14, 20-21, 27-28	WR-BO	ChS, StW	16	19,691	1,356	240	0	12	4	4	Closed	0	Closed	0	Closed
May 16-31	TP-Bonn.	StS, ChS jacks	0	3,500	0	61	16	0	166	24	Closed	0	Closed	0	Closed
June 1-15	TP-Bonn.	StS, ChS jacks	0	3,218	0	102	16	6	424	126	Closed	91	Closed	0	Closed
ChS Totals	(February 1-June 15) 1/		47	39,409	1,677	480	32	21	594	172	0	91	0	0	0
June 16-21	Astoria Br-Bo	StS	0	5,271	0	281	0	14	834	239	Closed	80	Closed	0	Closed
July 1-31	Astoria Br-Bo	StS	0	14,485	0	211	0	50	1,394	1,862	Closed	79	Closed	0	Closed
ChR Totals	(June 16-July 31) 2/		0	19,756	0	492	0	64	2,228	2,101	0	159	0	0	0
Spring/Summer Totals				59,165	1,677	972	32	85	2,822	2,273	0	250	0	0	0
Aug	TP-BO	ChF, Co	31	35,554	4,616	198	392	86	Closed	335	Closed	0	85	74	17
Sep	TP-BO	ChF, Co	5	21,236	2,549	5,975	195	151	Closed	31	Closed	0	649	904	78
Oct	TP-BO	Co	0	1,865	0	564	0	11	Closed	0	Closed	0	312	97	13
ChF Totals	(August 1-October 31) 3/		36	58,655	7,165	6,737	587	248	0	366	0	0	1,046	1,075	108
LCR Spring Summer and Fall			83	117,820	8,842	7,709	619	333	2,822	2,639	0	250	1,046	1,075	108
OR Buoy 10	B10-TP	ChF, Co, StS	20	54,497	8,636	12,655	0	0	0	56	0	0	16,736	18,393	0
WN Buoy 10	B10-TP	ChF, Co, StS	20	22,480	2,638	2,621	0	0	0	0	0	0	6,039	5,960	0
Buoy 10 Total	(August 1- October 31) 4/		20	76,977	11,274	15,276	0	0	0	56	0	0	22,775	24,353	0
B10 and Mainstem Fall Totals				135,632	18,439	22,013	587	248	0	422	0	0	23,821	25,428	108
LCR and B10 Grand Totals				194,797	20,116	22,985	619	333	2,822	2,695	0	250	23,821	25,428	108

2019 Recreational Fisheries Upstream of Bonneville Dam - all data preliminary				
Fishery	Kept Adults	Released Adults	Chinook Season	General Area
Spring Chinook - BON - S/L	279	83	Apr 1-May 5; May 11-12	BON- Oregon/Washington border
Spring Chinook - Snake R.	326	49	2 sections; 1-2 d/week; May 11-27	LGO/Clarkston
Summer Chinook - BON-PRD	0	38	No season	BON - PRD
Summer Chinook - Above PRD+tribs	5,791	1,563	July 16 – October 15	PRD - CJD
Fall Chinook - BON to Hwy 395	3,363	390	August 1 – September 25	BON- Highway 395
Fall Chinook - Hanford Reach	11,822	313	August 16 – October 15	Hanford Reach Area

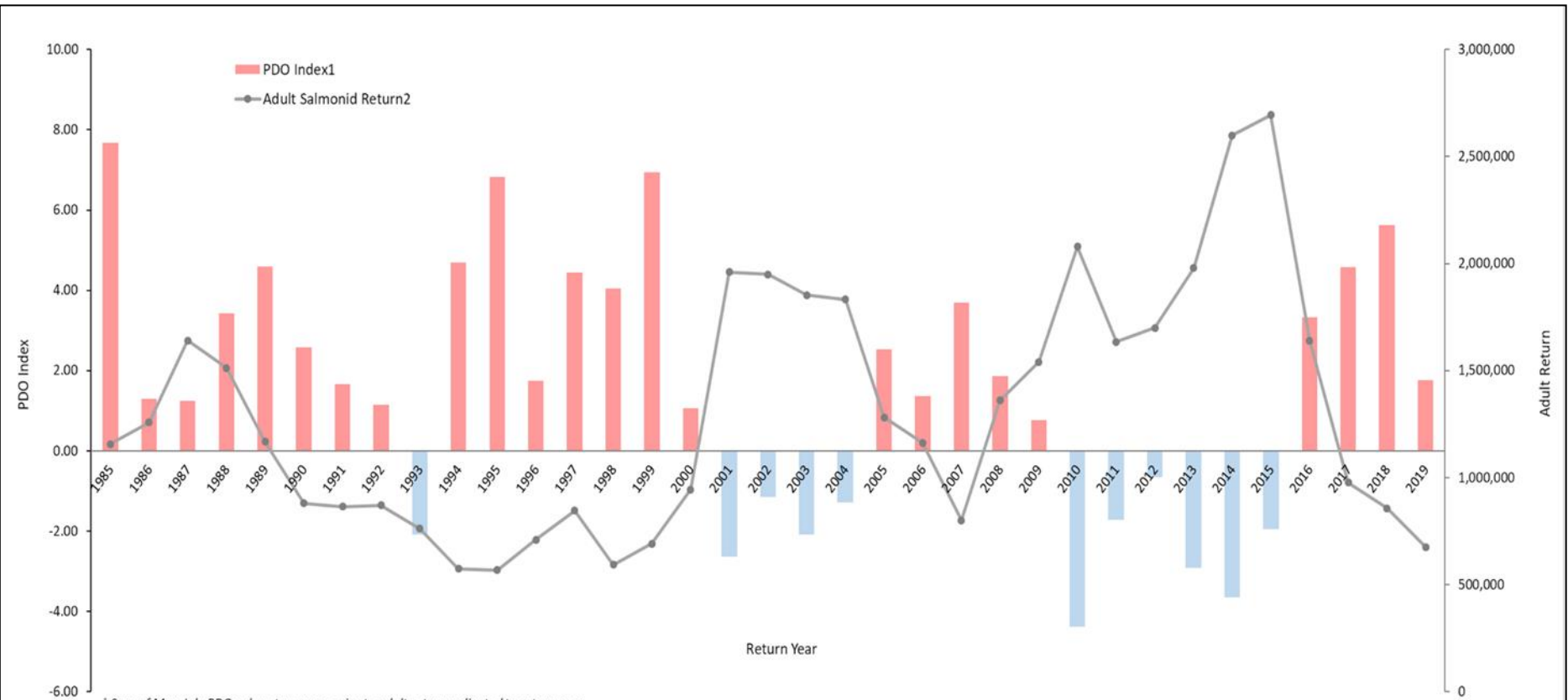
Lower Columbia River commercial landings, 2019

Season	Fishing Period	Week Hours	Zones	Mesh Size	WSTGLimit ¹	Del.	Chinook	Coho	Sockeye	Pink	Chum	White Sturgeon
Spring	No season.	--	--	--	--	--	--	--	--	--	Prohibited	--
	<i>Spring Season Totals (and average number of deliveries):</i>						0	0	0	0	0	0
Summer	No season.	--	--	--	--	--	--	--	--	--	Prohibited	--
	<i>Summer Season Totals (and average number of deliveries):</i>						0	0	0	0	0	0
August	Aug 14, 9 PM–Aug 15, 6 AM	33	9	4-5	9"–9 3/4"	7	37	419	7	1	0	Prohibited 136
	Aug 19, 9 PM–Aug 20, 6 AM	34	9	4-5	9"–9 3/4"	7	51	1,493	18	—	0	Prohibited 110
	Aug 21, 9 PM–Aug 22, 6 AM	34	9	4-5	9"–9 3/4"	7	57	1,684	24	—	0	Prohibited 69
	Aug 26, 9 PM–Aug 27, 6 AM	35	9	4-5	9"–9 3/4"	7	63	2,866	157	—	0	Prohibited 194
	<i>August Season Totals (and average number of deliveries):</i>						52	6,462	206	1	0	0
Late-Fall	Sep 30, 6 AM - 6 PM	40	12	1-3	3-3/4" max tangle-net	Prohibited	37	347	689	—	0	Prohibited Prohibited
	Oct 2, 6 AM - 6 PM	40	12	1-3	3-3/4" max tangle-net	Prohibited	26	134	267	—	0	Prohibited Prohibited
	Oct 7, 6 AM - 6 PM	41	12	1-3	3-3/4" max tangle-net	Prohibited	22	48	215	—	0	Prohibited Prohibited
	Oct 8, 7 PM–Oct 9, 7 AM	41	12	4-5	9"–9 3/4"	Prohibited	12	1,686	14	—	0	Prohibited Prohibited
	Oct 9, 6 AM - 6 PM	41	12	1-3	3-3/4" max tangle-net	Prohibited	17	42	227	—	0	Prohibited Prohibited
	Oct 11, 6 AM - 6 PM	41	12	1-3	3-3/4" max tangle-net	Prohibited	15	32	200	—	0	Prohibited Prohibited
	Oct 14, 6 AM - 6 PM	42	12	1-3	3-3/4" max tangle-net	Prohibited	17	24	163	—	0	Prohibited Prohibited
	Oct 16, 6 AM - 6 PM	42	12	1-3	3-3/4" max tangle-net	Prohibited	13	15	166	—	0	Prohibited Prohibited
	Oct 18, 5 AM - 7 PM	42	14	1-3	3-3/4" max tangle-net	Prohibited	12	18	226	—	0	Prohibited Prohibited
	Oct 21, 5 AM - 7 PM	43	14	1-3	3-3/4" max tangle-net	Prohibited	11	8	138	—	0	Prohibited Prohibited
	Oct 23, 5 AM - 7 PM	43	14	1-3	3-3/4" max tangle-net	Prohibited	10	4	149	—	0	Prohibited Prohibited
Oct 25, 5 AM - 7 PM	43	14	1-3	3-3/4" max tangle-net	Prohibited	6	4	52	—	0	Prohibited Prohibited	
<i>Late-Fall Season Totals (and average number of deliveries):</i>						17	2,362	2,506	0	0	0	0
						<u>Ave.Del.</u>	<u>Chinook</u>	<u>Coho</u>	<u>Sockeye</u>	<u>Pink</u>	<u>Chum</u>	<u>White Sturgeon</u>
FALL TOTALS:						25	8,824	2,712	1	0	0	509
						<u>Chinook</u>	<u>Coho</u>	<u>Sockeye</u>	<u>Pink</u>	<u>Chum</u>	<u>White Sturgeon</u>	
2019 Grand Totals:						8,824	2,712	1	0	0	0	509

¹ A white sturgeon possession and sales limit applied during August mainstem fisheries (seven white sturgeon per vessel per week).

Ocean Conditions and Forecasts

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
PDO (Sum Dec-March)	19	6	3	13	7	21	12	17	14	9	5	1	16	4	2	8	10	22	20	18	11	15
PDO (Sum May-Sept)	10	4	6	5	11	17	16	18	12	14	2	9	7	3	1	8	20	22	21	15	13	19
ONI (Average Jan-June)	21	1	1	7	14	16	15	17	9	12	3	11	18	4	6	8	10	19	22	13	5	20
SST NDBC buoys (°C; May-Sept)	17	6	8	4	5	11	22	12	2	14	1	10	3	7	9	16	20	19	18	13	15	21
Upper 20 m T (°C; Nov-Mar)	21	11	8	10	6	15	16	13	12	5	1	9	18	4	3	7	2	22	20	19	14	17
Upper 20 m T (°C; May-Sept)	16	11	13	4	1	3	22	19	8	10	2	5	17	7	6	18	20	9	14	12	15	21
Deep temperature (°C; May-Sept)	22	6	8	4	1	10	12	16	11	5	2	7	14	9	3	15	21	19	13	18	20	17
Deep salinity (May-Sept)	21	3	11	4	5	18	19	12	7	1	2	16	20	15	14	13	22	17	9	8	6	10
Copepod richness anom. (no. species; May-Sept)	20	2	1	7	6	15	14	19	16	10	8	9	18	4	5	3	11	21	22	17	13	12
N. copepod biomass anom. (mg C m ⁻³ ; May-Sept)	20	15	11	12	4	17	14	21	16	13	7	10	9	1	3	5	6	18	22	19	8	2
S. copepod biomass anom. (mg C m ⁻³ ; May-Sept)	22	2	5	4	3	15	16	21	14	10	1	7	17	9	8	6	11	19	20	18	13	12
Biological transition (day of year)	19	11	6	7	8	15	12	20	14	3	1	2	17	4	9	5	10	21	21	18	13	15
Nearshore Ichthyoplankton (mg C 1,000 m ⁻³ ; Jan-Mar)	17	3	11	6	1	21	22	15	8	17	3	13	2	7	5	10	19	14	15	12	9	20
Nearshore & offshore Ichthyoplankton community index (PCO axis 1 scores; Jan-Mar)	11	6	5	9	8	13	16	20	1	14	3	12	15	4	2	7	10	18	21	22	17	19
Chinook salmon juvenile catches (no. km ⁻¹ ; June)	20	4	5	17	8	12	18	21	13	11	1	6	7	16	2	3	10	14	19	22	15	9
Coho salmon juvenile catches (no. km ⁻¹ ; June)	20	8	14	6	7	3	17	21	18	4	5	10	11	16	19	1	13	9	15	22	2	12
Mean of ranks	18.5	6.2	7.3	7.4	5.9	13.9	16.4	17.6	10.9	9.5	2.9	8.6	13.1	7.1	6.1	8.3	13.4	17.7	18.3	16.6	11.8	15.1
Rank of the mean rank	22	4	6	7	2	15	17	19	11	10	1	9	13	5	3	8	14	20	21	18	12	16



¹ Sum of May-July PDO values two years prior to adult return; adjusted to return year.

² Includes species returning as adults primarily two years after ocean entry (Chinook, Sockeye, and summer steelhead).

Figure X. Annual return of adult salmonids to the Columbia River mouth and corresponding PDO Index, 1985-2019. Positive (red) PDO represents relatively poor (warm) ocean conditions and negative (blue) PDO represents relatively good (cool) ocean conditions.

<i>Columbia River Adult Salmon Returns: Actual and Forecasted</i>				
		2019	2019	2020
		Forecast	Return	Forecast
Spring Chinook	Upriver Total *	99,300	73,101	81,700
	Upper Columbia	11,200	14,651	13,600
	<i>Upper Columbia natural-origin</i>	<i>2,100</i>	<i>1,668</i>	<i>2,300</i>
	Snake River Spring/Summer **	48,100	43,077	56,400
	<i>Snake River natural-origin **</i>	<i>8,200</i>	<i>7,480</i>	<i>9,600</i>
	Lower River Total	58,200	36,707	54,100
	Total Spring Chinook	157,500	109,808	135,800
	<u>Area-specific detail</u>			
	Willamette River	40,200	27,292	40,800
	Sandy River	5,500	3,260	5,200
	Select Areas ***	8,200	2,548	4,300
	Cowlitz River	1,300	1,563	1,400
	Kalama River	1,400	997	1,000
	Lewis River	1,600	1,047	1,400
	Wind River ***	2,800	1,598	2,000
	Drano Lake/Little White Salmon River ***	5,600	3,571	4,600
	Hood River ***	2,300	1,207	2,300
	Klickitat River ***	1,100	404	1,800
	Deschutes River ***	1,455	863	--
	John Day River ***	--	2,170	2,800
	Umatilla River ***	2,400	522	900
	Yakima River ***	3,000	1,756	2,800
Summer Chinook	Upper Columbia	36,340	34,619	38,300
Sockeye	Total Sockeye	94,400	63,222	246,300
	Wenatchee	18,300	7,900	39,400
	Okanogan	74,500	54,300	201,800
	Yakima	1,300	600	2,500
	Deschutes	100	200	300
	Snake River	200	****	2,300
* Upriver totals are developed by TAC for use in management of U.S. v. OR fisheries. Wild components are included in the stock total. Area-specific estimates for upriver tributaries detailed here are provided by other agencies/entities and may not sum to TAC's upriver abundance estimates.				
** 2019 return is based on standard TAC run reconstruction methodology.				
*** Return to tributary mouth.				
**** 2019 passage of sockeye at Lower Granite Dam was 81 fish but genetic analysis indicates most of these fish were Okanogan or Wenatchee stock.				
				12/12/2019

**COLUMBIA RIVER FALL CHINOOK
2019 PRELIMINARY RETURNS AND
OUTLOOK FOR 2020**

2019 Preliminary Returns

- Adult fall Chinook return was predicted to be 349,600 fish.
- Preliminary return is slightly above the forecast.
- Bright jack return appears to be improved over 2018. Tule jack return appears to be slightly improved over 2018.

2020 Outlook

- Bright stocks should be similar to the 2019 preliminary return.
- Tule stocks should be similar to the 2019 preliminary return.
- Ocean conditions between 2015 and 2019 were among the worst observed during the last 21 years and are likely continuing to have a strong influence on the fall Chinook return in 2020.

Columbia River Coho

- 2019 preliminary return is about 30% of the preseason forecast of 611,300.
- Coho jack return to the Columbia River is less than 50% of the recent three-year average.

Tule Stocks

LRH – Lower River Hatchery stock

BPH – Bonneville Pool Hatchery stock

Bright Stocks

URB – Upriver Bright stock

PUB – Pool Upriver Bright stock

LRB – Lower River Bright stock

LRW – Lower River Wild stock

SAB – Select Area Bright stock

December 13, 2019

*Washington Department of Fish and Wildlife
Oregon Department of Fish and Wildlife*

Ground Rules

1. Focus on the task at hand – *Stick to the agenda*
2. One person at a time to speak – *Stand name tag upright, or raise hand*
3. Allow for a balance of speaking time – *respect time limits*
4. Be respectful of others
 - Be tough on issues and questions, not on people and organizations
 - No personal attacks
 - Listen
5. Keep side conversations to a minimum
6. Mute phone
7. Be a conduit – *share information*



April 2010

Operating Protocols and Guidelines for Advisory Groups

This program receives Federal assistance from the U.S. Fish and Wildlife Service. Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the U.S. Department of the Interior and its bureaus prohibit discrimination on the bases of race, color, national origin, age, disability and sex (in educational programs). If you believe that you have been discriminated against in any program, activity or facility, please contact the WDFW, ADA Coordinator at 600 Capitol Way North, Olympia WA 98501 or write to:

U.S. Fish and Wildlife Service
Civil Rights Coordinator for Public Access
4401 N. Fairfax Drive
Mail Stop: WSFR-4020
Arlington, VA 22203



Washington Department of Fish and Wildlife

Director's Message

Welcome and thank you for your participation on one of Washington Department of Fish and Wildlife's (Department) advisory groups. We understand that you are a volunteer, choosing to donate your time and energy to help us perform our mission of sound stewardship of fish and wildlife.

I am hopeful this brochure will help you understand your appointment, responsibilities, and the processes in communicating with the Department.

Many items may not be applicable to your specific group; however, I am hopeful that the information provided will better assist you in understanding the variety of roles and purposes of the various groups and the processes of state government in general.

Specific questions or comments on any of this material should be directed to the lead agency contact for your group.

The Department's use of volunteer groups is fundamental in encouraging the use of citizen talent and interest in the affairs of the state, and in keeping government responsive. We welcome the partnership and thank you for your commitment.

Sincerely,



Phil Anderson
Director

Notes

You Are Important to the Department

Advisory groups may be created by the Governor, the Legislature, or individual agencies. The Department has formally established and appointed members to, a variety of advisory groups through statutory or agency authority and discretion. The primary purpose of these groups is to advise the Department on current and emerging issues associated with fish and wildlife conservation and management. Members appointed to the Department's advisory groups assume certain responsibilities described in this document **in addition** to those that may be specific or unique to an individual advisory group.

Unless specifically authorized, advisory groups do not have the authority to enforce policy or create rules, but their analysis and recommendations can play an important role in furthering the effective operation of state government.

Agency Roles and Responsibilities

- Clearly define the advisory group's role.
- Provide the Department's mission and goals statement.
- Provide timely opportunities for advisors to counsel the agency on policy and provide timely communication on emerging issues.
- Schedule meetings in consultation with advisors and provide meeting places. Scheduling should take into account the volunteer nature of advisory group members—choosing times and locations that are most convenient and scheduling as far in advance as possible.
- Provide background and other briefing material.
- Facilitate meetings and conference calls as needed.
- Develop meeting agendas.
- Be respectful of the views of others and carefully consider the views of the advisors.
- Communicate the advisors' comments, views, and perspectives to agency leadership prior to decision-making.
- Provide feedback regarding how the Department uses advisors' input.

Giving the Department Your Input

Advisor Roles and Responsibilities

- Provide advice to the Department on agency proposed regulations, policies, and management plans for species, ecosystems, or Department lands. Such advice should consider:
 - 1) conservation of fish and wildlife resources;
 - 2) the effect on local economies and social structures;
 - 3) the views of various constituent groups;
 - 4) potential conflicts among user groups using a specific fish or wildlife resource; and
 - 5) enforcement issues and the need for additional enforcement resources.
- Communicate stakeholder opinions, attitudes, and needs to the agency.
- Identify areas of concern and recommend change.
- Members are responsible for understanding their group's roles and responsibilities.
- Advisors should keep up-to-date on issues and regulations affecting their focus areas.
- Attend public workshops or forums established by the Department such as the North of Falcon process or regional meetings addressing fish or wildlife issues such as herd management plans, watchable wildlife, or local fishing issues.
- Keep the Department advised of current trends and developments.
- Provide advice regarding enforcement and regulatory compliance issues.
- Assist the Department in developing communication strategies and communicating with members of the public regarding the issues that come before the advisory group.
- Be respectful and carefully consider the views of others.
- Attend advisory group meetings or advise the Department of absences. Requests to have an alternate attend should be coordinated with the Department in advance, and may not always be accommodated.

Role of Advisory Groups

Washington Department of Fish and Wildlife Groups/Boards (origin of group: legislative, Director's request, or informal)

FISH / Intergovernmental Resource Management

Anadromous and Marine Resources Sportfishing Advisory Group (**Director**)
 Aquatic Invertebrate Import Advisory Committee (**Director, WAC 220.77.040**)
 Ballast Water Working Group (**WAC 220.150.010**)
 Coastal Dungeness Crab Advisory Group (**Director**)
 Columbia River Commercial Advisory Group (**Director, Joint with Oregon**)
 Columbia River Recreational Advisory Group (**Director, Joint with Oregon**)
 Columbia River Salmon and Steelhead Recreational Anglers Board (**RCW 77.12.716**)
 Distant Waters Advisory Group (**Ad Hoc**)
 Grays Harbor Salmon Advisory Group (**Director**)
 Inland Fish Policy Advisory Group (**Director**)
 Puget Sound Commercial Dungeness Crab Advisory Group (**Director**)
 Puget Sound Commercial Salmon Advisory Group (**Ad Hoc**)
 Puget Sound Commercial Shrimp Advisory Group (**Director**)
 Puget Sound Oyster Reserve Lands Advisory Committee (**RCW 77.60.150**)
 Puget Sound Recreational Dungeness Crab and Shrimp Advisory Group (**Director**)
 Puget Sound Recreational Fisheries Enhancement Oversight Committee (**RCW 77.105.160**)
 Puget Sound Recreational Coastal Bottomfish and Halibut Advisory Group (**Ad Hoc**)
 Puget Sound Rockfish Advisory Group (**Director**)
 Regional Fisheries Enhancement Group Advisory Board (**RCW 77.95.110**)
 Sardine Advisory Group (**Ad Hoc**)
 Sea Urchin / Sea Cucumber Advisory Group (**Ad Hoc**)
 Steelhead and Cutthroat Policy Advisory Group (**Director**)
 Upper Columbia Recreational Advisory Group (**Ad Hoc**)
 Willapa Bay Oyster Reserve Lands Advisory Committee (**RCW 77.60.150**)
 Willapa Bay Salmon Advisory Board (**Director**)

WILDLIFE PROGRAM:

Game Management Advisory Council (**Director**)
 Lands Management Advisory Council (**Director**)
 Migratory Waterfowl Art Committee (**RCW 77.12.680**)
 Upland Game Advisory Council (**Ad Hoc**)
 Waterfowl Advisory Group (**Director**)
 Wildlife Area Citizen Advisory Groups*
 Wildlife Diversity Advisory Council (**Director**)
 Wolf Working Group (**Director**)

ENFORCEMENT PROGRAM:

Enforcement Advisory Group (**Director**)
 Master Hunter Advisory Group (**Director**)
 Shooting Range Citizen Advisory Group (**Ad Hoc**)

OTHER:

Commission's Advisory Committee for Persons with Disabilities (**Commission**)
 License Dealer Advisory Group (**Licensing**)

*Diverse ad hoc groups dedicated to specific wildlife areas across the state

Role of Advisory Groups

STATE OF WASHINGTON DEPARTMENT OF FISH AND WILDLIFE APPLICATION FOR APPOINTMENT TO A DEPARTMENT ADVISORY BOARD	
NAME OF BOARD OR GROUP YOU WOULD LIKE TO BE CONSIDERED FOR:	
Name:	
Address:	
City:	
State/Zip:	
County:	Are you a citizen of the United States: Yes No
Business Phone:	Home Phone:
Education:	
Current Employment:	
Licenses Held:	
References:	
1.	
2.	
3.	
Please attach a current resume/biography with application.	

What you need to know

ADVISING THE AGENCY

- Advisory group members are selected to represent a broad range of interests. The Department is seeking the advice from individual members recognizing that members may have different views on key issues of concern. It is important for the Department to understand and consider different perspectives before making a decision. Thus, in many instances the Department gains more value from understanding the range of perspectives than from a majority opinion.
- Consensus recommendations have utility when they represent the full range of stakeholder views.
- Recommendations on major policy issues to the Department should include discussion of alternate viewpoints.
- All ideas should be expressed in clear, concise language; Department staff will assist with the written record.
- Proposed solutions and/or recommendations should be viable and cost-effective.

COMPOSITION

Unless provided otherwise by statute or the Director, advisory groups shall consist of a sufficient number of members, generally less than 20, to carry out the objectives and duties of the advisory group. In selecting members, the Department shall seek an advisory group composition that recognizes differences in management and conservation perspectives and is considerate of the value of diversity and geographical representation.

NOMINATION SOLICITATIONS

Announcements will be distributed widely and will be specific about the duties and responsibilities. Nominations must be accompanied by adequate information on the amount and kinds of experience that qualify the nominee for the particular position. Nominations should be received on or before a deadline identified by the Department.

Most Department Advisory Group Coordinators use recruitment notices tied to specific open application periods. Announcements seeking advisory group nominations are broadly distributed and have a specific deadline for submission. During an announced period for applying, you may send a letter of interest, along with your resume and letters of support, to:

Director's Office
 Washington Department of Fish and Wildlife
 600 Capital Way North
 Olympia, Washington 98501-1091

CHAIRPERSON OR STAFF COORDINATOR

For each advisory group, the Department will designate a staff person who will be responsible for organizing and conducting meetings. In some cases, as specified by the Department or state statute, an advisory group will elect a chairperson. The chairperson will be elected by majority vote of the advisory group members at a scheduled meeting provided a quorum of more than one half of the appointed members is present. Advisory groups that establish a chair position will conduct their meetings in accordance with Robert's Rule of Order.

EXTERNAL COMMUNICATION

- Advisory groups are created to provide input and feedback to the Department, and are not created for the purpose of influencing other entities.
- An advisory group shall not communicate its positions and opinions to entities outside the Department without notifying the Director or their designee.
- A Department advisory group should not meet with outside entities unless it has received prior approval by the Director or their designee.
- Nothing prevents an individual advisor from expressing their views as a private citizen.

COMPENSATION

Advisors are responsible for their own travel and meal expenses unless otherwise expressly provided.

THE NEWS MEDIA

- Treat all contacts with the media as external communications; the advisory group should not interact with the media but individual members are free to express their own views.
- If you do not know the answer to a question from the media or are unsure about an issue, feel free to refer the matter to your Department contact.
- Keep in mind that the comments you make in public may also have to be made in a court of law. Do not risk your personal integrity or that of another by thoughtless or unwarranted remarks.

QUORUM

If this applies to your group, and a quorum is not present, any business transaction is null and void.

TERMS

Advisory group members shall be appointed by the Department for a specific term generally not to exceed three years, and may be reappointed at the Department's discretion. In most cases terms will be based on a calendar year.

TERMINATION OF MEMBERS

- An advisory group member may be terminated at the Department's discretion if he/she is absent from two or more meetings in any 12-month period, violates the provisions of the operating protocols, or is unable to fulfill their responsibilities as an advisory group member.
- Advisory group members are expected to conduct themselves in a professional manner and be respectful of others. Abusive language or other types of unprofessional conduct are sufficient grounds for termination.

OPEN PUBLIC MEETINGS ACT PUBLIC RECORDS AND PUBLIC ACCESS

Open Public Meetings Act (RCW 42.30)

The Open Public Meetings Act (OPMA) applies to almost all state agency multi-member boards and commissions. Generally the OPMA requires that the multi-member board give public notice of a proposed meeting and allow the public to attend the meeting. Pursuant to the OPMA, the public may attend and witness the meeting, but unless required by another provision, the OPMA does not provide the public a right to speak at or otherwise actively participate in the meeting.

Whether the OPMA applies to an advisory group and thus requires meetings be noticed and open to the public, depends on the nature of the advisory group. The Department staff coordinator will assist each advisory group in understanding whether the OPMA applies as a matter of law. Nevertheless, the Department encourages members of all advisory groups to conduct their business in an open, transparent manner, consistent with the intent of the act.

Public Records Act (RCW 42.56)

The Public Records Act (PRA) provides public access to "public records" created by state and local governments. "Public records" generally includes any writing containing information relating to the conduct of government created or held by a state or local government. The public may inspect or obtain copies of most public records by filing a public disclosure request with the agency.

In the Department's view, all materials and communications associated with advisory groups are public, and subject to public disclosure requests. The Department will respond to all disclosure requests for any materials provided by Department staff and records of any communications that have included Department staff. The Department cannot be responsible for communications and materials that it has not been aware of; consequently advisors are encouraged to always include Department staff in all their exchange of materials or communications between advisors in their group.

Reasonable Accommodation for Disabilities

Reasonable accommodation of persons with disabilities will be arranged.

2019 Adult Returns and 2020 Expectations Columbia River Updated Draft – January 13, 2020

	2019 Results	2020 Expectations
Willamette Spring Chinook	40,200 predicted adult return to CR (20% wild) 27,292 actual adult return (68% of forecast; 34% wild) 2,022 jack return (recent 5-year average 2,048) 28,772 return to Willamette R (26,759 adult) 18,883 adult/1,734 jack count at falls 2,489 adult return to Clackamas	40,750 CR adult return 2,680 jacks 33,000 hatchery adults 10,000 harvestable 24% wild adults 2,980 to Clackamas
Sandy River	5,500 predicted adult CR return vs. 3,260 actual to CR	5,200 CR return
Cowlitz River	1,340 predicted adult CR return vs. 1,563 actual to CR	1,440 CR return
Kalama River	1,440 predicted adult CR return vs. 997 actual to CR	1,030 CR return
Lewis River	1,550 predicted adult CR return vs. 1,047 actual to CR	1,370 CR return
Wind River	2,800 predicted adult trib return vs. 1,598 actual to trib	2,000 to trib.
Drano (LWS)	5,600 predicted adult trib return vs. 3,571 actual to trib	4,600 to trib.
Klickitat	1,100 predicted adult trib return vs. 404 actual to trib	1,800 to trib.
Upriver Spring Chinook	99,300 predicted adult return 73,101 actual return (74% of forecast; lowest since 1999) 9,092 BON jacks (improved from 2018; 29% of recent 10-yr ave)	81,700 predicted 43% of recent 10-year ave return
Upper Columbia Summer Chinook	36,345 predicted adult return 34,619 actual return (95% of forecast; lowest since 2000) 6,521 BON jacks (44% of recent 10-yr ave) Adult mark rate ~76% @ BON	38,300 predicted 29,000 escapement goal (at CR mouth)
Sockeye	94,400 predicted return 63,223 actual return (67% of forecast)	246,300 CR return 2,300 SR stock
Upriver Summer Steelhead	126,950 predicted return at BON 75,600 at BON (60% of forecast; 27% of 10-yr (282K))	TBD
Bright Fall Chinook	246,180 predicted adult return Prelim. return ~113% of forecast 2019 jack count at BON (44.4K) highest since 2016	Return may be improved from 2019 actual
Tule Fall Chinook	103,510 predicted adult return Prelim. return ~76% of forecast; jacks higher than 2019	Less than recent 10-year average
Coho	611,300 predicted adult return Prelim. return well below forecast ($\leq 1/3^{\text{rd}}$)	Jack return <50% of 3-yr ave
Shad	7.7 million run (record) vs. 10-yr ave of 2.5 million	Strong run expected
Smelt	Estimated return (4.2 M lbs based on spawning stock biomass) exceeded expectations; 66% of 2011-18 ave	Similar to 2019 return
White Sturgeon	Abundance down 30% for juveniles (54-95 cm FL), up 11% for sub-adults, and up 95% for adults vs. 2018; YOY recruitment mixed (LCR fifth lowest; LWR above average)	38-54 inch fish projected to decrease; adults projected to increase

Recreational Fisheries

	2019 Results	2020 Expectations
Oregon Tributary Spring Chinook		
Lower Willamette River	Open 7 d/week under permanent regs 62,525 trips (3/4-6/16) 4,459 adults kept (1,743 rel; 72% mark rate)	Permanent regulations likely
Clackamas River	1,956 trips <River Mill Dam (4/29-6/30) 0 adults kept (6 rel)	Permanent regulations likely
Sandy River	~200 adults kept	Permanent regulations likely
Washington Tributary Spring Chinook		
Cowlitz River	7 d/wk 1/1-2/28; closed 3/1-7/31	Closure likely. Forecast ~ = broodstock need
Kalama River	7 d/wk 1/1-7/31; 2 fish bag 1/1-2/28; 1 fish 3/1-7/31 1,000 adults kept	Modified fisheries likely. Potential harvestable fish
Lewis River	7 d/wk 1/1-2/28; closed 3/1-7/31	Closure likely. Forecast < broodstock need
Columbia River Fisheries		
Spring Season LCR	Spring 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: 3/1-4/10, 4/13-14, 4/20-21, 4/27-28 Bank only Beacon R to BON 2 fish/1 hatchery Chinook bag 39,409 trips (lowest since 2000) 1,677 adult Chinook kept (480 rel) 594 STH kept (172 rel); 91 SOK rel	Season TBD LCR escapement concerns
Spring Season BON to McN	Spring Chinook open: 4/1-5/5 and 5/11-12 2 fish/1 hatchery Chinook bag 2,458 trips; 274 adult Chinook kept (81 rel)	Season TBD
Spring Season McN-OR/WA	Spring Chinook open: 4/1-5/5 and 5/11-12 2 fish/1 hatchery Chinook bag 5 adult Chinook kept (2 rel)	Season TBD
Spring Season Snake River	Spring Chinook open: Two sections; 1-2d/wk; 5/11-5/27 6,050 angler hours; 326 adult Chinook kept (49 rel)	Season TBD
Summer Season LCR	Astoria Bridge to BON (6/15-7/31) Chinook/SOK closed all season (no harvestable surplus) STH open; 2 fish bag thru 6/30; 1 thereafter 19,756 trips (lowest since 1998) 492 adult Chinook/159 SOK rel 2,228 STH kept (2,101 rel)	Season TBD at NOF

Summer Season	BON to McN (6/15-7/31) Chinook/SOK closed all season (no harvestable surplus) STH open; 2 fish bag thru 6/30; 1 thereafter 837 trips; 38 adult Chinook/3 SOK rel 40 STH kept (0 rel) Hwy 395 to PRD: No Fishery Upstream of PRD (7/16-10/15; includes tribs): 13,353 trips; 5,791 adults kept; 1,563 rel	Season TBD at NOF
Fall Season Buoy 10	Open 8/1-12/31 Chinook open 8/1-20 (2 fish/1 Chinook bag) Coho open 8/1-12/31 (2 fish bag) STH retention closed Aug-Sep, 1 STH bag when open 76,977 trips; 11,274 Chinook kept (15,276 rel) 22,775 Coho kept (24,353 rel) SRW HR w/in preseason expectations; LRH exceeded	Season TBD at NOF
Fall Season LCR Sport TP/RP - BON	Tongue/Rocky Pnt.-BON: Open to hatchery Coho 8/1-9/25 and 10/18-12/31 One salmonid bag when Chinook open; 2 fish thereafter STH retention closed Aug-Oct, 1 STH bag when open West Puget Isl.- Warrior R: Chinook open 8/1-27 Warrior R. to BON: Chinook open 8/1-9/5 58,675 trips (lowest since 1996) 7,165 adult Chinook kept (lowest since 1998; 6,737 rel) 1,046 Coho kept (1,075 rel); 0 STH kept (366 rel) SRW HR w/in preseason expectations; LRH exceeded	Season TBD at NOF
Fall Season BON - McNary	Chinook and Coho open 8/1 – 9/25; one salmonid bag BON Pool open for hatchery Coho 10/18-31; 2 fish bag STH retention closed Aug-Dec BON-TD; Sep-Dec in JD 11,621 trips; 3,351 Chinook kept (390 rel) 729 Coho kept (182 rel) SRW HR exceeded preseason expectations	Season TBD at NOF
Fall Season McNary-Hwy 395	Chinook, Coho, and STH open 8/1 – 9/25; one salmonid bag 300 trips; 12 Chinook kept	Season TBD at NOF
Fall Season Hanford Reach	Fall Chinook open 8/16-10/15; 6 fish/2 adult Chinook thru 9/19; 6 fish/1 adult thereafter 30,700 trips; 11,822 adults and 1,327 jack Chinook kept; 313 adult Chinook rel; 56 Coho kept; STH closed	TBD
Sturgeon LCR B10-BON	Below Wauna: 2,960 fish guideline; 44-50" FL; 2 PM closure 11 retention days (5/13-6/5) 22,000 trips; 2,838 kept (96% of guideline) Above Wauna: 1,230 fish guideline; 44-50" FL 5 retention days (9/21, 9/28, 10/12, 10/19, and 10/24) 12,100 trips; 685 kept (56% of guideline)	2020 season and guidelines TBD
Sturgeon BON-McNary	BO Pool: 1/1-4/12; 448 kept (90% of guideline) TD Pool: 1/1-1/6; 79 kept (59% of guideline) JD Pool: 1/1-4/2; 129 kept (123% of guideline)	Reopen 1/1/2020 Guidelines TBD
Shad	LCR: 17,068 trips; 186,280 kept in LCR LWR: 8,302 trips (5/6-6/16); 41,900 kept	Large population No changes to fishery
Smelt	No retention seasons	TBD

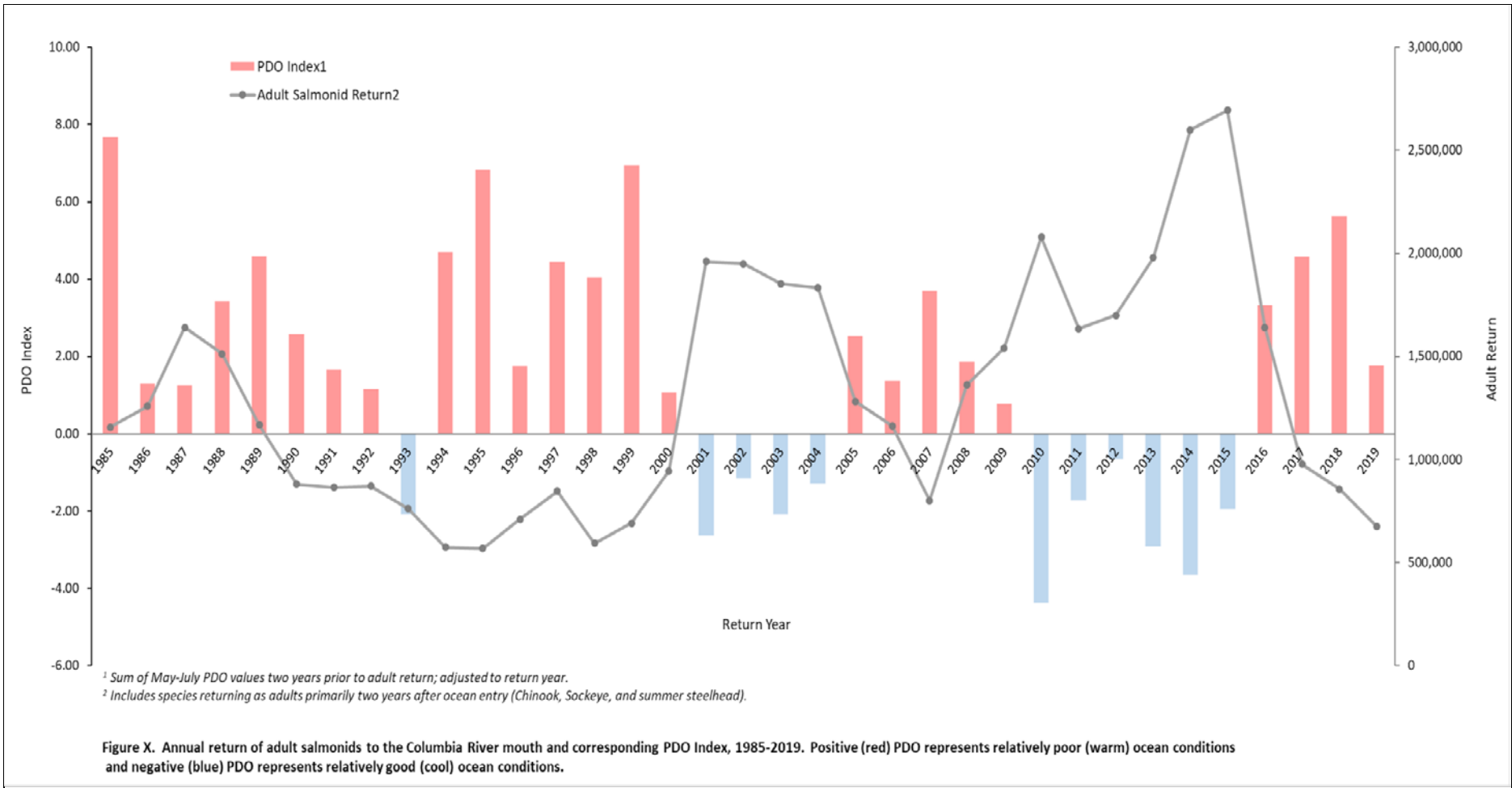
Commercial Fisheries

	2019 Results	2020 Expectations
Columbia River Fisheries		
Winter/Spring	No fishery	TBD
Summer	No fishery	TBD
August (Early Fall)	Aug 14 – 27, 4 periods; 9 hrs each Zones 4-5; 9" min mesh 37-63 deliveries per period 6,462 CHF; 206 Coho; 509 WSTG	TBD
Late Fall	Eleven tangle net periods (Sep 30-Oct 25) 6-37 del/period 2,495 hatchery Coho and 677 CHF One Z4-5 large mesh period (Oct 8-9; 12 del 1,686 CHF and 14 Coho landed	TBD
Seine	No fishery	TBD
Shad	2S fishery open 5/10-6/20 (perm regs) 2,315 shad landed	Area 2S fishery
Smelt	No fishery	TBD
Select Area Fisheries		
Winter/Spring	Below average season (33% of 5-year ave) Winter – 697 Chinook; 20 WSTG Spring – 2,159 Chinook; 381 WSTG	~4,300 Select Area-origin predicted vs 2,548 actual in 2019 Season TBD (likely similar to 2019)
Summer	Below average season (10% of 5-year ave) 4 th year for summer seasons in TP/SC/BS/KS 284 Chinook; 78 WSTG	Season TBD (structure expected to be similar to 2019)
Fall	Below average season 3,371 Chinook (23% of 5-year ave) 19,144 Coho (34% of 5-year ave) 212 WSTG	Season TBD (structure expected to be similar to 2019)

NOAA ocean condition scorecard for outmigrating salmon with ratings from 1 (best) to 22 (worst). The years shown correspond to the years the smolts entered the ocean.

	Year																					
<i>Ecosystem Indicators</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
PDO (Sum Dec-March)	19	6	3	13	7	21	12	17	14	9	5	1	16	4	2	8	10	22	20	18	11	15
PDO (Sum May-Sept)	10	4	6	5	11	17	16	18	12	14	2	9	7	3	1	8	20	22	21	15	13	19
ONI (Average Jan-June)	21	1	1	7	14	16	15	17	9	12	3	11	18	4	6	8	10	19	22	13	5	20
SST NDBC buoys (°C; May-Sept)	17	6	8	4	5	11	22	12	2	14	1	10	3	7	9	16	20	19	18	13	15	21
Upper 20 m T (°C; Nov-Mar)	21	11	8	10	6	15	16	13	12	5	1	9	18	4	3	7	2	22	20	19	14	17
Upper 20 m T (°C; May-Sept)	16	11	13	4	1	3	22	19	8	10	2	5	17	7	6	18	20	9	14	12	15	21
Deep temperature (°C; May-Sept)	22	6	8	4	1	10	12	16	11	5	2	7	14	9	3	15	21	19	13	18	20	17
Deep salinity (May-Sept)	21	3	11	4	5	18	19	12	7	1	2	16	20	15	14	13	22	17	9	8	6	10
Copepod richness anom. (no. species; May-Sept)	20	2	1	7	6	15	14	19	16	10	8	9	18	4	5	3	11	21	22	17	13	12
N. copepod biomass anom. (mg C m ⁻³ ; May-Sept)	20	15	11	12	4	17	14	21	16	13	7	10	9	1	3	5	6	18	22	19	8	2
S. copepod biomass anom. (mg C m ⁻³ ; May-Sept)	22	2	5	4	3	15	16	21	14	10	1	7	17	9	8	6	11	19	20	18	13	12
Biological transition (day of year)	19	11	6	7	8	15	12	20	14	3	1	2	17	4	9	5	10	21	21	18	13	15
Nearshore Ichthyoplankton (mg C 1,000 m ⁻³ ; Jan-Mar)	17	3	11	6	1	21	22	15	8	17	3	13	2	7	5	10	19	14	15	12	9	20
Nearshore & offshore Ichthyoplankton community index (PCO axis 1 scores; Jan-Mar)	11	6	5	9	8	13	16	20	1	14	3	12	15	4	2	7	10	18	21	22	17	19
Chinook salmon juvenile catches (no. km ⁻¹ ; June)	20	4	5	17	8	12	18	21	13	11	1	6	7	16	2	3	10	14	19	22	15	9
Coho salmon juvenile catches (no. km ⁻¹ ; June)	20	8	14	6	7	3	17	21	18	4	5	10	11	16	19	1	13	9	15	22	2	12
Mean of ranks	18.5	6.2	7.3	7.4	5.9	13.9	16.4	17.6	10.9	9.5	2.9	8.6	13.1	7.1	6.1	8.3	13.4	17.7	18.3	16.6	11.8	15.1
Rank of the mean rank	22	4	6	7	2	15	17	19	11	10	1	9	13	5	3	8	14	20	21	18	12	16

*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.



2020 Columbia River Process Schedule (Preliminary Draft – Dates are Tentative)

Dec 6, 2019	Oregon Fish and Wildlife Commission • Harvest Reform update	ODFW HQ Salem, OR
Dec 13-14, 2019	Washington Fish and Wildlife Commission • CR Policy update C-3602	Holiday Inn & Suites Bellingham, WA
Dec 17, 2019 1-4p	NSIA Annual Meeting • 2019 results and 2020 expectations	ODFW Clackamas, OR
Jan 14, 2020 10a-2p	Columbia River Commercial Advisor Group Meeting • Sturgeon, smelt, 2020 forecasts, Harvest Reform, etc.	WDFW Ridgefield, WA
Jan 14, 2020 4p-6p	Columbia River Recreational Advisor Group Meeting • Sturgeon, smelt, 2020 forecasts	WDFW Ridgefield, WA
Jan 15, 2020	Policy Review Committee (potentially)	TBD
Jan 16, 2020 7-8:30p	Select Area Commercial Fisheries Meeting • 2019 results; 2020 season structure discussion	Best Western Astoria, OR
Jan 16-18, 2020	Washington Fish and Wildlife Commission • TBD	WDFW Olympia, WA
Jan 17, 2020	Oregon Fish and Wildlife Commission • TBD	ODFW HQ Salem, OR
Jan 28, 2020 10a	CR Compact/Joint State Hearing • Zone 6 sport stg, Treaty, smelt	Teleconference
Feb 5, 2020	Policy Review Committee (potentially)	TBD
Feb 7, 2020	Oregon Fish and Wildlife Commission • Lower Columbia River White Sturgeon - Briefing	TBD Tigard, OR
Feb 6-8	Washington Fish and Wildlife Commission • Sturgeon stock status update	WDFW Olympia, WA
Feb 11 10a	CR Compact • Select Area commercial, Treaty?	Teleconference
Feb 11 4-6:30 p	Columbia River Recreational Advisor Group Meeting • Spring/Summer Chinook	ODFW Clackamas, OR
Feb 12 10a-12p	Columbia River Commercial Advisor Group Meeting • Placeholder meeting	Rainier City Hall Rainier, OR
Feb 19 10a	CR Joint State Hearing • Recreational spring Chinook	Shilo Inn Portland Airport
See Ocean Calendar for NoF planning process		

2020 Ocean Fishery Process Schedule (Preliminary Draft – Dates are Tentative)

Feb 27	Ocean Salmon Industry Group <ul style="list-style-type: none"> • 2020 forecasts • Initial discussions of 2020 season options 	Hallmark Newport, OR
Feb 28	WDFW Public Meeting <ul style="list-style-type: none"> • 2020 forecasts and fishing opportunities 	Olympia, WA
Mar 3-9	Pacific Fishery Management Council (PFMC) <ul style="list-style-type: none"> • Adopt initial 2020 ocean salmon options for public review 	Double Tree One Doubletree Dr. Rohnert Park, CA
Mar 16	North of Falcon #1 (Public Meetings) <ul style="list-style-type: none"> • Puget Sound • Willapa Bay • Grays Harbor • Ocean areas north of Cape Falcon, OR 	Olympia, WA
Mar 17	2020 Columbia R North of Falcon #1	WDFW Ridgefield, WA
March 18-20 (TBD)	Northeast of McNary – North of Falcon	Tri-Cities, Wenatchee, Clarkston (TBD)
Mar 23	PFMC Public Options Hearings <ul style="list-style-type: none"> • Public input on 2020 season options 	Westport, WA Coos Bay, OR
Apr 1	2020 Columbia R North of Falcon #2	WDFW Ridgefield, WA
Apr 3-10	Pacific Fishery Management Council (PFMC) <ul style="list-style-type: none"> • Adopt 2020 ocean salmon fishery regulations 	Hilton 301 W. Sixth St. Vancouver, WA
Apr 17	Oregon Fish and Wildlife Commission <ul style="list-style-type: none"> • Adopt state water ocean salmon fishery regulations 	TBD

2020 Washington Lower Columbia River Tributary Forecasts and Management Recommendations

Table 1. Below Bonneville Dam summary of tributary forecasts, hatchery needs, and expected fishery harvest.

	Cowlitz River	Kalama River	Lewis River
Total forecast return to tributary mouth	1,390	1,000	1,330
Natural-origin fish forecast component	20	40	20
Hatchery fish forecast component	1,370	960	1,310
Total hatchery escapement need	1,337	600	1,380
Deep River Net Pen program	na	200	na
On-station program	1,337	400	1,380
Upper river recovery program*	If fish available	na	If fish available
SRKW** prey enhancement	If fish available	If fish available	If fish available
Escapement need at tributary mouth***	1,530	690	1,560
Harvestable surplus	(140)	240	(220)

*Fish are trucked and released above dams for population recovery

**Southern Resident Killer Whale

***Includes fish spawning downriver from hatchery

Cowlitz River

- Hatchery program release numbers for years affecting the spring 2020 return were at or near goals with no apparent disease issues or other anomalies expected to affect survival.
- Standard tributary spring Chinook fishery rules: harvest allowed in Lower and Upper Cowlitz for entire season (January 1-July 31), daily limit of 6 hatchery fish, 2 may be adults
 - Recommended rules for 2020:
 - Lower and Upper Cowlitz River, Lake Scanewa and Cispus River: closed beginning March 1 until further notice.

Kalama River

- Standard tributary spring Chinook fishery rules: Current permanent rules allow for daily limit of 6 hatchery fish, 2 may be adults for entire season (January 1-July 31)
 - Recommended rules for 2020:
 - Kalama River below Kalama Falls: Effective March 1 until further notice: daily limit 6, up to 1 adult may be retained.

Lewis River

- Hatchery program release numbers for years affecting the spring 2020 return averaged about 40% of the goal.
 - Changes in release strategies (i.e., smolt sizes and times of release) have been implemented and are being evaluated.
- Standard tributary spring Chinook fishery rules: harvest allowed below Merwin Dam January 1-April 30, daily limit of 6 hatchery fish, 1 may be an adult; closed May 1 – July 31
 - Recommended rules for 2020:
 - Lewis River below Merwin Dam: closed beginning March 1 until further notice.