Northwest **Power** and **Conservation** Council

August 7, 2018

MEMORANDUM

TO: **Fish and Wildlife Committee Members**

FROM: **Tony Grover and Nancy Leonard**

SUBJECT: **Discussion on NOAA Columbia Basin Partnership Task Force's Provisional Goals**

BACKGROUND:

Presenter: Council members and staff involved with the Columbia Basin Partnership Task Force.

Summary: Staff will present the provisional vision statement, the 4 groups of qualitative goals, and quantitative goals developed for the 24 stocks based on the low, mid, and high range goals developed through the Columbia Basin Partnership Task Force (CBPTK) members and its five regional workgroups. Staff will also present information related to the questions posed by the committee during the July 2018 update (Attachment 1). The information that will be discussed with the Committee have been agreed to in principle by the CBPTF members who are also engaged in outreach to receive input on the content of CBP Task Force Member Outreach Package Summer 2018. Input received from the Council members will be shared with the CBPTF.

Relevance: Contributes to the 2014 Fish and Wildlife Program task for refining natural origin adult salmon and steelhead abundance quantitative objectives.

Background: The NOAA Fisheries' Marine Fisheries Advisory Committee's (MAFAC) Columbia Basin Partnership (CBP) Task Force met on June 19-20, 2018 and reached agreement, in principle, on the provisional goals and vision statement, and other elements included in the CBP Task Force Member Outreach Package Summer 2018. A subset of the CBP Task Force members will be providing an update on the Task Force's

progress to the MAFAC committee meeting on June 27, 2019 in Portland Oregon. The next meeting for the CBP Task Force is scheduled for October 2-3, 2018 in Portland Oregon, with a tentative webinar scheduled for August 22, 2018 to check-in on the outreach progress made by CBP members with their constituents.

The input received from CBP Task Force members' constituents during the June-October 2018 outreach period will be discussed during the October 2-3, 2018 Task Force meeting and will inform recommendations submitted to the MAFAC in January 2019. By the end of the October meeting the CBP Task Force members will finalize what elements they support moving forward as part of their Recommendations Report to MAFAC. This Recommendation Report may include a description of the Task Force process, related work products, provisional goals, vision statement, and description of a Phase 2 process to continue the Task Force's work in integrating the goals across species and to begin analyzing how these goals can be achieved.

The Columbia Basin Partnership Task Force is a task force organized under NOAA Fisheries' Marine Fisheries Advisory Committee. The CBP task force consists of 28 members and 1 ex-officio representing states, tribes, and diverse stakeholder groups. The CBP is focused on developing goals for 24 stocks. These stocks represent groupings of the recognized 331 salmon and steelhead populations in the Columbia Basin, consisting of the 214 extant, 117 extirpated, and 22 reintroduced populations. 186 of the extant populations are ESA listed. The CBP workgroups, comprised of the region's tribal, state and federal fish managers, and NOAA staff have been instrumental in drafting (see first link below) provisional low, medium and high potential goal ranges for natural and wild components of these 24 stocks, leveraging the objectives compiled in the Council's Fish Objective Mapping tool. The CBP Task Force has met 5 times during 2017 (January, April, June, September, and December) and 3 times in 2018 (February, April, and June). Two more meetings are currently scheduled during 2018, an August 22, 2018 webinar and an October 2-3, 2018 meeting in Portland, Oregon. The CBP Task Force Recommendations Report is anticipated to be submitted to MAFAC by the end of January 2019.

The Northwest Power and Conservation Council agreed to merge their efforts of refining Program salmon and steelhead quantitative goals with the NOAA'S Columbia Basin Partnership Task Force effort. The Council has been providing updates of the Task Force effort and progress through its Council meetings. The Council is currently engaged in its Program amendment process and looks forward to recommendations submitted by September 14, 2018 from state and federal fish and wildlife agencies and the region's Indian tribes, as well as other interested parties, about whether some or all of these provisional quantitative goals should be considered for amendment into the Program.

More Info:
Columbia Basin Partnership Task Force membership and meeting materials web-page
CBP Task Force Member Outreach Package Summer 2018 available here
Columbia River Basin Fish and Wildlife Program amendment process web-page.

Attachment 1: Summary material based on the Columbia Basin Partnership Task Force (CBPTF) Outreach Package Summer 2018, focusing on the topics touched upon during the July Committee meeting, will be presented by staff for discussion with committee members. The below information is included in this attachment:

A. CBPTF Draft Vision Statement

B. CBPTF Provisional Qualitative Goal 1
C. CBPTF Provisional Qualitative Goal 2
D. CBPTF Provisional Qualitative Goal 3
E. CBPTF Provisional Qualitative Goal 4

F. CBPTF Provisional Quantitative Goals – Aggregate Adult Run Size
G. CBPTF Provisional Quantitative Goals – Natural Production/Escapement
H. CBPTF Provisional Quantitative Goals – Harvest & Fisheries
I. CBPTF Provisional Quantitative Goals – Hatchery Production

J. CBPTF Timeline and Next Steps

A. CBPTF Draft Vision Statement *(06/20/18 version)*

A healthy Columbia River Basin ecosystem with thriving salmon and steelhead that are indicators of clean and abundant water, reliable and clean energy, a robust regional economy, and vibrant cultural and spiritual traditions, all interdependent and existing in harmony.

B. CBPTF Provisional Qualitative Goal 1

Natural Production

Goal 1. Restore salmon and steelhead in the Columbia Basin to healthy and harvestable/fishable levels.

[Add explanatory paragraph here. Include definition of "healthy" (i.e., implies that fish abundance, productivity, spatial structure and diversity are at high levels; addresses needs for dependent wildlife); address "fishable"; explain ESA recovery and broad-sense recovery, discuss time-frame issue – although some of these are long-term goals, strive to do them sooner (e.g., could achieve goal 1-Cb in a shorter timeframe, like 24 years, for some populations), take action as soon as practicable and move as fast as possible. Highlight the need for strategic prioritization in phase2, etc.]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
***1-A. Prevent Declines*: Reverse and prevent declines of both listed and unlisted salmon and steelhead.**	*a. Reverse and prevent declines of both listed and unlisted salmon and steelhead.*		
***1-B. Achieve ESA Delisting*: Recover ESA-listed salmon and steelhead to a point where they are no longer threatened or endangered.**	*a. Achieve ESA delisting for at least some salmon ESUs and steelhead DPSs.*	*b. Achieve ESA delisting for additional salmon ESUs and steelhead DPSs.*	*c. Achieve ESA delisting for all listed salmon and steelhead.*
***1-C. Achieve Broad Sense Recovery*: Restore listed and unlisted salmon and steelhead to healthy and harvestable levels.**	*a. Make significant, measurable progress toward broad sense recovery of all salmon and steelhead.*	*b. Achieve healthy and harvestable levels for some salmon and steelhead.*	*c. Achieve healthy and harvestable levels for all salmon and steelhead.*
***1–D. Expand Spatial and Temporal Range*: Rebuild spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within the historical range.**	*a. Make significant, measurable progress toward rebuilding spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including beginning to study, develop, and implement plans for restoring salmon and steelhead to currently inaccessible areas within their historical range.*	*b. Continue rebuilding spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within their historical range.*	*c. Complete rebuilding of spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within their historical range.*
***1-E. Expand Diversity and Resiliency*: Rebuild salmon and steelhead runs that are adaptive and resilient to climate change and other environmental perturbations.**	*a. Rebuild salmon and steelhead runs that are adaptive and resilient to climate change and other environmental perturbations.*	*b. Continue rebuilding adaptive and resilient salmon and steelhead runs and proactively and adaptively manage for a changing climate.*	*c. Ensure continued resiliency of salmon and steelhead runs and continue to adaptively manage for a changing climate.*

C. CBPTF Provisional Qualitative Goal 2

Harvest & Fishing Opportunity

Goal 2. Provide diverse, productive, and dependable tribal and non-tribal harvest and fishing opportunities for Columbia Basin salmon and steelhead in fresh and marine waters.

[Add explanatory paragraph – include explanation of "harvest," "fisheries" – also still need to work on consistency of usage within this document]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
2-A. <u>*Ensure Sustainability*</u>: Manage harvest and fisheries at levels consistent with conserving natural salmon and steelhead populations	*a. Ensure that fishery impacts on weak and listed stocks allow rebuilding of natural stocks and do not impede recovery.*	*b. Manage fisheries based on annual abundance to promote rebuilding of natural production and share the recovery burden.*	*c. Manage for optimum sustainable harvest and fishing opportunity as healthy stocks are restored.*
2-B. <u>*Optimize Harvest and Fishery Opportunity*</u>: Optimize fishery opportunity and harvest of healthy natural and hatchery stocks based on availability.	*a. Optimize fishery opportunity and access to harvestable surpluses of unlisted and hatchery stocks consistent with conservation.*	*b. Expand fishery opportunity concurrent with progress toward ESA delisting and broad sense recovery.*	*c. Fully realize harvest potential with increasing opportunity throughout the range of salmon and steelhead stocks.*
2-C. <u>*Share Benefits*</u>: Realize all fishery obligations and share benefits among users.	*a. Meet fishery obligations and share available harvest within the constraints imposed by conservation.*	*b. As constraints are reduced, move into focusing fisheries on sharing the benefits of increasing numbers of harvestable stocks.*	*c. Realize all fishery obligations and share benefits among users.*

D. CBPTF Provisional Qualitative Goal 3

Hatcheries / Mitigation

Goal 3. Produce hatchery salmon and steelhead to support conservation, mitigate for lost natural production, and support fisheries, in a manner that strategically aligns hatchery production with natural production recovery goals.

[Add explanatory paragraph, including explanation that supplementation is a tool. Also add supplementation to the definitions section. Mention broader uses of artificial production.]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
3-A. *Support Natural Production*: Utilize hatcheries to maintain, support and restore natural production where appropriate.	*a. As appropriate, continue to utilize hatcheries to maintain, support and restore at-risk populations, including those affected by climate change.*	*b. Use conservation hatchery strategies as needed to proactively address future threats, including climate change.*	*c. Achieve a future where conservation hatcheries are not necessary unless unforeseen natural events require an emergency response.*
3-B. *Mitigate for Lost Production and Support Fisheries*: Produce hatchery fish to support tribal treaty/trust responsibilities and meaningful fishery opportunities to mitigate for historical losses due to development and to enhance fisheries.	*a. Make progress in reducing reliance on hatchery production for mitigation consistent with improvements in natural production.*	*b. Consider changes in hatchery objectives and production levels as overall fishery opportunities are maintained through increased fish abundance.*	*c. Achieve a future where we rely less on hatchery production for mitigation and fishery enhancement only when natural production has increased.*
3-C. *Fish Protection*: Strategically align hatchery production with natural production recovery goals, consistent with tribal treaty/trust responsibilities, and with other legal and mitigation requirements.	*a. Continue to implement changes in hatchery practices and programs based on best available science (including, in some cases, changes in stocks or species produced) to minimize adverse effects of hatchery-origin salmon and steelhead on naturally produced salmon and steelhead.*	*b. Continue to refine hatchery production, strategies and practices based on assessments of effectiveness and technology advances to minimize hatchery impacts on natural salmon and steelhead.*	*c. Reduce long-term hatchery impacts by rebuilding abundance, productivity, diversity, and distribution of natural salmon and steelhead.*

E. CBPTF Provisional Qualitative Goal 4

Social, Cultural, Economic & Ecological	
	Goal 4. Make decisions within a broader context that reflects, and considers effects to, the full range of social, cultural, economic, and ecosystem values and diversity in the Columbia Basin. *[Add explanatory paragraph, including the concept of inter-generational equity and considerations for future generations]*
	4-A. *Social Goal:* Make decisions that reflect the social importance of salmon and steelhead to people throughout the Columbia Basin, recognizing the full range of social diversity and values that are present.
	4-B. *Cultural Goal:* Make decisions that reflect the cultural importance of salmon and steelhead to people throughout the Columbia Basin, recognizing the full range of cultural values that are present.
	4-C. *Economic Goal:* Make decisions that are based on the principle of equitable sharing of costs and benefits across economic sectors. Also, make decisions that recognize the great economic value of the Columbia River and its tributaries, and the importance of this natural capital as a major driver of the present and future economy for all in the Pacific Northwest.
	4-D. *Ecosystem Goal:* Make decisions that consider the role of salmon and steelhead in the ecosystem and that support a full range of ecological benefits, including the needs of dependent wildlife.

F. CBPTF Provisional Quantitative Goals – Aggregate Adult Run Size *(in development)*

Aggregate run size goals for adult returns to the Columbia River mouth are in development and will be consistent with the natural productions/escapement and harvest goals already developed by the CBPTF. The CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Table 4 on page 14 provides for this goal category the approximate current total Columbia River mouth return of salmon and steelhead based on 2008-2017 adult average returns to the mouth of the Columbia River, the minimum adult run size estimates for the Columbia River Basin produced by Chapman 1986 and cited by ISAB in its Density Dependence report (ISAB 2015-1) and estimated abundance in NPCC's 1987 Fish and Wildlife Program's historical salmon and steelhead run size estimates appendix.

		Current Abundance (2008-2017 averages)[a]				Historical Abundance	
Species		**Wild/Natl**	**Hatchery**	**Total**	**% Hat**	**ISAB 2015**	**NPPC 1986**
Chinook	Spring	58,400	233,600	292,000	80%	0.5 mil	1.4-2.3 mil
	Summer	30,100	45,200	75,300	60%	2.0 mil	2.7-4.6 mil
	Fall	376,500	376,500	753,000	50%	1.25 mil	1.3-2.3 mil
	Subtotal	*465,000*	*655,300*	*1,120,300*	*58%*	*3.75 mil*	*5.4-9.2 mil*
Sockeye		295,700	32,900	328,500	10%	2.25 mil	1.5-2.6 mil
Coho		40,900	368,100	409,000	90%	0.56 mil	1.0-1.8 mil
Chum		13,600	700	14,300	5%	0.45 mil	0.8-1.0 mil
Steelhead	Winter	8,200	8,200	16,500	50%	--	--
	Summer	79,200	317,000	396,200	80%	--	--
	Subtotal	*87,500*	*325,200*	*412,700*	*79%*	*0.45 mil*	*0.8-1.4 mil*
Total		**902,600**	**1,382,100**	**2,284,700**	**60%**	**7.46 mil**	**9.6-16.3 mil**

Note: Values in red are working approximations.

G. CBPTF provisional quantitative goals - Natural Production/Escapement

The natural production/ escapement to spawning grounds goal values developed for the 24 stocks are less than total Columbia River mouth adult returns due to harvest, other mortality sources, and straying in between the mouth and spawning ground locations.

The three-provisional goal range for natural production / escapement to spawning ground developed by the CBPTF are:

- Low range escapement abundance goal: represent the best scientific knowledge for the abundance necessary to avoid extinction or avoid being listed under ESA.
- Mid- range escapement abundance goal: are approximately half-way between the low-range goals and the high range goals.
- High range escapement abundance goal: reflect aspirational “healthy and harvestable” levels that might potentially be achieved with aggressive improvements in habitat and other conditions currently limiting stocks.

The quality of the data/information used to develop the natural production/escapement quantitative goals will be conveyed in the detailed documentation for each stock in the report being drafted for review by the CBPTF later this year.

ESA status of listed stocks in the below figures and are included for context.

Note that there are three groupings of populations that are not NOAA-Fisheries designated ESU/DPS: Columbia upriver (fall) coho, Mid Columbia (summer) sockeye, and Upper Columbia (summer) sockeye. These groupings are not true ESUs that have been designated by NOAA Fisheries. These are groupings of populations that managers identified for convenience while developing Columbia Basin Partnership Task Force products. The CBPTF will develop more accurate terminology for these groupings in final Task Force products. Under the Endangered Species Act, an **evolutionarily significant unit**—or ESU— is a Pacific salmon population or group of populations that is substantially reproductively isolated from other conspecific populations and that represents an important component of the evolutionary legacy of the species. The ESU policy (56 FR 58612) for Pacific salmon defines the criteria for identifying a Pacific salmon population as an ESU, which can be listed under the ESA.

The below figure is from the CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Figure 1 on page 4, and shows where the current 10-year mean escapement abundance fits relative to the low- to high- quantitative natural production/escapement goal range for each of the 24 stocks. The relative values are shown in this figure, the specific current 10-year mean abundance and quantitative goal values for the 24 stocks are in the below Natural Production/ Escapement Table. This figure is modified from the CBPTF original to highlight topics and depict ESA stocks.

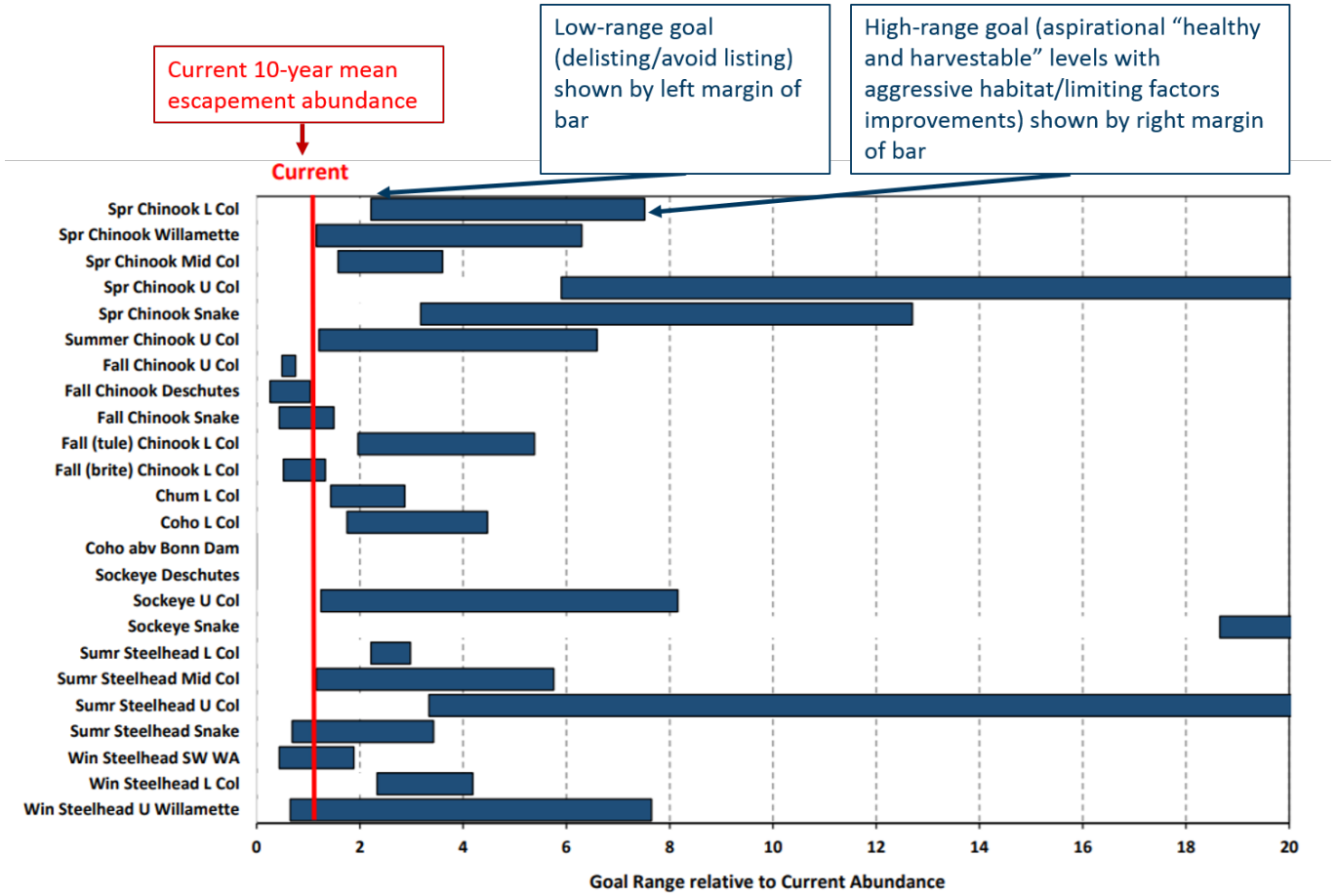


Figure 1. Aggregate abundance values for natural-origin escapements under current, historical (pre-development), and low, medium and high escapement goal ranges.

This Natural Production/Escapement Table is modified from the CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Table 1 on page 5 to show the ESA status..

Species	ESA status	ESU/DPS (run)	Current 10-yr mean natural escapement abundance	Historical natural escapement abundance	Low goal	Med goal	High goal	High goal as % of historic
All species	***Grand total of values:***		***531,394***	***8,841,957***	***611,425***	***1,410,098***	***2,950,904***	***33%***
Chinook	Threatened	Lower Columbia (spring)	4,431	101,700	9,800	21,550	33,300	33%
Chinook	Threatened	Upper Willamette (spring)	4,095	312,173	4,725	15,262	25,798	8%
Chinook	Not Listed	M Columbia Spr (spring)	*10,000*	*103,700*	*15,750*	*26,875*	*38,000*	35%
Chinook	Threatened	U Columbia Spr (spring)	1,090	259,432	6,433	16,968	25,452	10%
Chinook	Threatened	Snake Spr/Sum (spring / summer)	10,000	671,000 (1800s abundance)	31,750	79,375	127,000	19%
Chinook	Not Listed	U Columbia Sum/Fall (summer)	18,771	693,952	22,704	81,398	123,841	18%
Chinook	Not listed	U Columbia Sum/Fall (fall)	85,500	533,900	41,950	53,188	64,425	12%
Chinook	Not listed	Deschutes Sum/Fall (summer/fall)	15,400	17,000	4,000	13,000	16,000	94%
Chinook	Threatened	Snake Fall (fall – brights)	9,626	500,000	4,200	9,280	14,360	3%
Chinook	Threatened	L Columbia (fall – tules)	12,510	166,100	24,550	46,300	67,300	41%
Chinook	Threatened	L Columbia (fall – late brights)	11,593	33,000	6,000	9,200	15,400	47%
Chum	Threatened	Columbia (late fall)	11,178	900,000	16,050	24,075	32,100	4%

Species	ESA status	ESU/DPS (run)	Current 10-yr mean natural escapement abundance	Historical natural escapement abundance	Low goal	Med goal	High goal	High goal as % of historic
Coho	Threatened	L Columbia (fall-early & late)	31,401	288,200	54,900	98,150	140,400	49%
Coho	Not Listed *	Columbia upriver (fall) *		1,111,800				
Sockeye	Not Listed *	Mid Columbia (summer) *	5	50,000	1,000	3,000	5,000	10%
Sockeye	Not Listed *	U Columbia (summer) *	228,000	1,850,000	283,500	685,000	1,860,000	101%
Sockeye	endangered	Snake (summer)	134	150,000	2,500	5,750	9,000	6%
Steelhead	Threatened	L Columbia (winter)	8,570	58,000	20,000	27,900	35,900	62%
Steelhead	Threatened	L Columbia (summer)	2,100	7,600	4,650	5,500	6,250	82%
Steelhead	Threatened	Mid Columbia (summer)	18,155	132,800	21,000	62,750	104,500	79%
Steelhead	Threatened	U Columbia (summer)	2,011	577,500	6,713	29,252	43,878	8%
Steelhead	Threatened	Snake (summer)	30,500	172,200	21,000	62,750	104,500	61%
Steelhead	Not listed	SW Washington (winter)	11,200	41,900	4,900	13,200	21,100	50%
Steelhead	Threatened	U Willamette (winter)	5,150	110,000	3,350	21,375	39,400	36%

Note:
- the red text indicates placeholder values for work in progress by workgroups.
- the symbol '*' indicates ESU/DPS names that have not been formally defined by NOAA.

H. CBPTF provisional quantitative goals – Harvest & Fisheries

Fishery goals are defined based on exploitation or harvest rates for wild/natural fish Goals are identified as average values and ranges. Goal ranges reflect abundance-based annual harvest strategies as well as normal annual variation in fisheries.

Collaborative work is ongoing to identify fishery goals (exploitation rates) consistent with restoration of healthy, productive natural stocks for abundance-based goal ranges with revised products to be reviewed during the October 2018 CBPTF meeting. Ongoing work will also estimate numbers of fish harvested corresponding to specific exploitation rate.

The three-provisional goal range for wild/natural fish in combined marine and freshwater fisheries for Columbia Basin salmon and steelhead stocks:

- Low-range fisheries goal: based on existing fisheries management frameworks for weak stocks and currently-healthy stocks.
- Mid-range fisheries goal: based on existing fisheries management framework for currently-healthy stocks. For currently weak or depleted stocks the goal value is an intermediate value between low and high range goals for these stocks.
- High-range fisheries goal: based on existing fisheries management framework for currently-healthy stocks. For currently weak or depleted stocks, the goal value is based on reasonably-realistic harvest rates expected to be sustainable by healthy abundance for these wild/natural stocks.

For reference purposes, the CBPTF also provided, based on the current management frameworks, the current exploitation/harvest rates per stock and the projected approximate increases in harvest rates based on the Provisional Natural Production/Escapement Abundance goals.

Harvest rate goals are not specifically identified for hatchery fish at this time.

Higher harvest rates may be achieved for hatchery-origin fish than can be achieved for natural-origin fish through fishery time, area or gear measures.

The below Harvest Table shows the current exploitation/harvest rates based on the existing management frameworks (green box) and expected increases under existing management frameworks with achievement of Provisional Natural Production/Escapement Abundance Goals (Blue box). The Provisional Fisheries Exploitation/Harvest Rate Goals are show as an average rate and the rate range for each stock in the 6 columns to the right (Black box). The below table is modified from the CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Table 2 on page 10, to depict ESA stocks, topics and stocks that are currently managed with an abundance-based management framework.

Application of existing management framework's exploitation/harvest rate to current wild fish abundance levels

Application of existing management framework's rate to Provisional Natural Productions/Escapement Goal levels

Provisional Fisheries Low- Mid- and High- Range Exploitation / Harvest Rate Goals

Stock	Current Exploitation Rates (wild/natural)						Increments (existing plans)			Low goal		Medium goal		High goal	
	Ocean	Fresh water	Total (avg)	Range	Related guidance	Guidance includes	@ low natl	@ med natl	@ high natl	Avg.	Range	Avg.	Range	Avg.	Range
Spr Chinook L Col ★	10%	8%	18%	10-40%			18%	18%	18%	18%	10-40%	27%	15-45%	35%	20-50%
Spr Chinook Willamette ★	8%	10%	18%	8-25%	<15%	/a Freshwater	18%	21%	23%	18%	8-25%	27%	15-40%	35%	20-50%
Spr Chinook Mid Col	--	11.6%	11.6%	5.5-17%	5.5-17%	/a Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Spr Chinook U Col ★	--	11.6%	11.6%	5.5-17%	5.5-17%	/a Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Spr Chinook Snake ★	--	11.6%	11.6%	5.5-17%	5.5-17%	/a Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Summer Chinook U Col	36%	24%	60%	40-80%	5.2-50%	/a Freshwater	60%	60%	60%	60%	40-80%	60%	40-80%	60%	40-80%
Fall Chinook U Col	36%	26%	62%	40-80%	21.5-45%	/a Freshwater	65%	65.0%	65%	65%	40-80%	65%	40-80%	65%	40-80%
Fall Chinook Deschutes	36%	17%	53%	30-70%	21.5-45%	/a Freshwater	55%	55%	55%	55%	30-70%	60%	30-70%	65%	30-70%
Fall Chinook Snake ★	33%	10%	43%	30-70%	21.5-45%	/a Freshwater	43%	46.6%	50%	43%	30-70%	47%	30-70%	50%	30-70%
Fall (tule) Chinook L Col ★	29%	9%	38%	30-41%	30-41%	/a All	41%	41%	41%	41%	30-41%	46%	30-55%	50%	30-70%
Fall (brite) Chinook L Col ★	38%	15%	53%	35-70%		/a	53%	53%	53%	53%	35-70%	53%	35-70%	53%	35-70%
Chum L Col ★	--	2%	2%	<5%	<5%	Freshwater	2%	3.5%	5%	2%	<5%	10%	5-15%	20%	10-30%
Coho L Col ★	10%	6%	16%	<10-30%	<10-30%	/a All	18%	23%	30%	18%	<10-30%	24%	10-40%	30%	10-50%
Coho abv Bonn Dam	10%	9%	19%	<10-35%	<10-30%	/a All < BON	21%	26%	33%	21%	<10-40%	30%	10-50%	40%	20-60%
Sockeye Deschutes	--	3.2%	3.2%	3-11%	6-8+%	/a Freshwater	3%	9%	12%	4%	3-11%	15%	10-30%	25%	10-40%
Sockeye U Col	--	6.3%	6.3%	6-11%	6-8+%	/a Freshwater	6%	9%	12%	7%	6-11%	15%	10-30%	25%	10-40%
Sockeye Snake ★	--	6.3%	6.3%	6-11%	6-8+%	/a Freshwater	6%	9%	12%	7%	6-11%	15%	10-30%	25%	10-40%
Sumr Steelhead L Col ★	--	<10%	10%	<10%	<10%	Freshwater	10%	10%	10%	10%	<10%	18%	10-25%	25%	10-40%
Sumr Steelhead Mid Col ★	--	7.5%	7.5%	15-22%	15-22%	/a Freshwater	8%	14.8%	22%	8%	15-22%	21%	15-30%	35%	20-50%
Sumr Steelhead U Col ★	--	13.9%	13.9%	20-34%	20-34%	/a Freshwater	20%	27%	34%	20%	20-34%	28%	20-40%	35%	20-50%
Sumr Steelhead Snake ★	--	18.9%	18.9%	15-22%	15-22%	/a Freshwater	19%	20.5%	22%	19%	15-22%	27%	20-40%	35%	20-50%
Win Steelhead SW WA ★	--	<10%	10%	<10%	<10%	Freshwater	10%	10%	10%	10%	<10%	18%	10-30%	25%	10-40%
Win Steelhead L Col ★	--	<10%	10%	<10%	<10%	Freshwater	10%	10%	10%	10%	<10%	18%	10-30%	25%	10-40%
Win Steelhead U Willamette	--	5%	5%	<20%	<20%	Freshwater	5%	5%	5%	5%	<20%	15%	10-30%	25%	10-40%

/a Abundance-based management framework

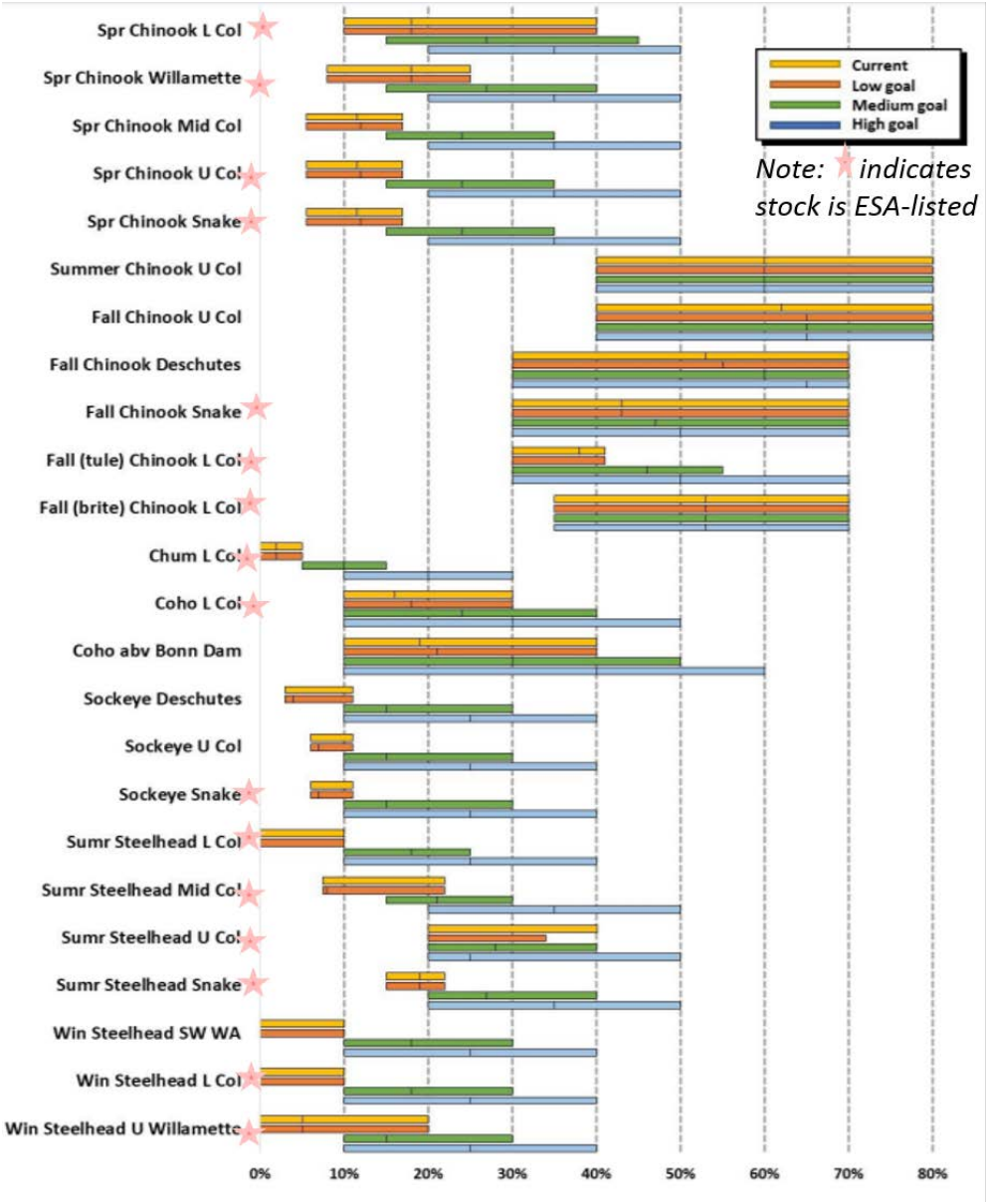
Note: ★ indicates the stock is ESA-listed

The figure to the right identifies provisional Fishery/Harvest goals that can be sustained by wild/natural stocks with restoration to higher levels of abundance and productivity. The CBPTF goals for fisheries go beyond the modest increments that can be expected under existing management frameworks due to natural abundance increases alone.

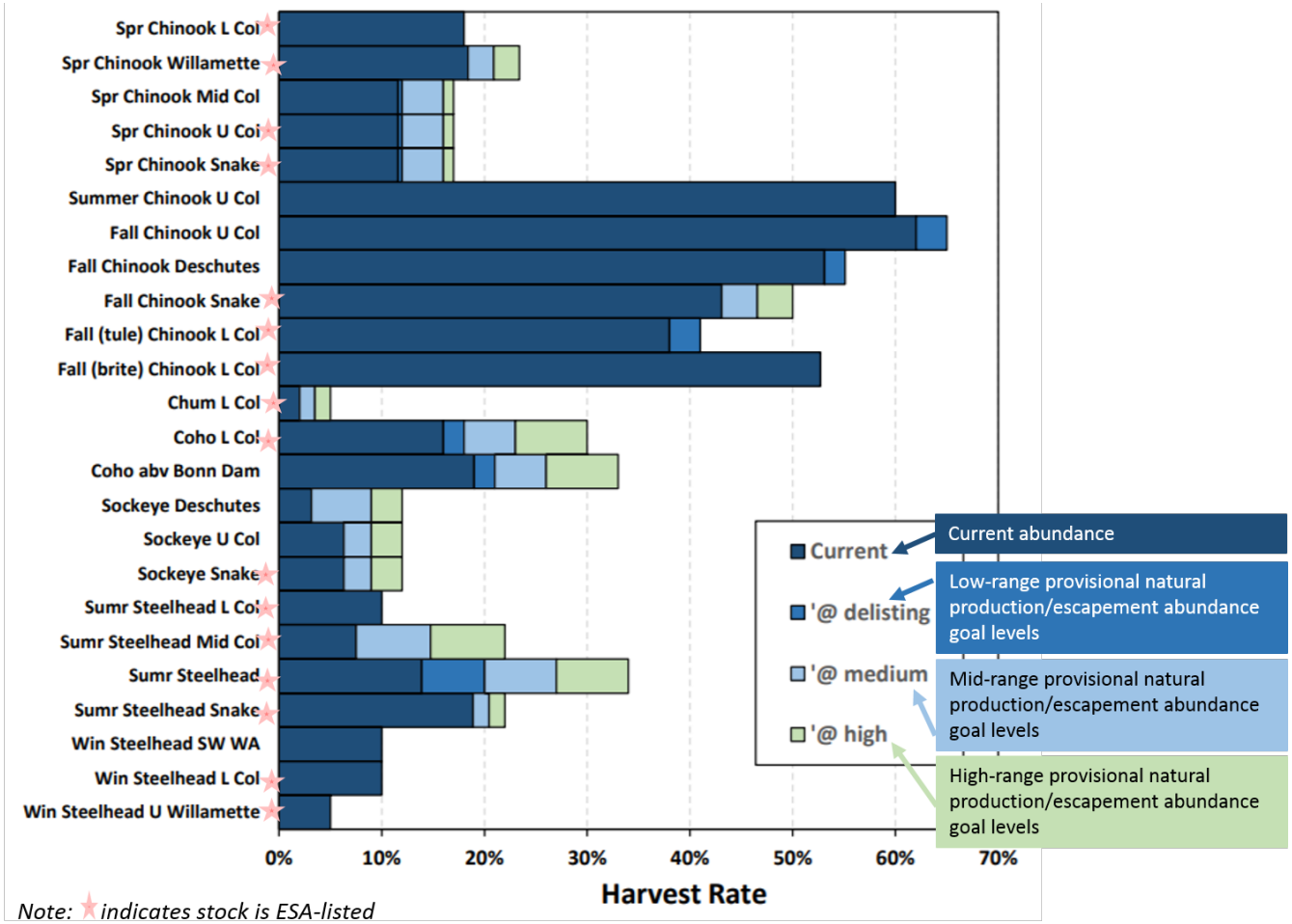
This figure to the right illustrates how the low-, mid-, and high- Provisional Fishery Exploitation/Harvest Rate Goal ranges compare to the current exploitation/harvest rates. This is modified from CBPTF Outreach file - CBP Quantitative Goals Methodology Summary' Figure 3 on page 9, and reflects the rates shown in the above Harvest table under 'Low Goal – Medium Goal – High Goal (black box).

As illustrated in the figure to the right and in the above harvest table, the current harvest rate and the provisional low-goal harvest rate range align, although some low-goal harvest rate averages (vertical line within the orange colored bars) are slightly higher than the current average rate (vertical bar in the yellow colored bars). The harvest rate average and range are also shown for the medium goal range (green bar) and the high goal range (blue bar).

This figure is modified from the CBPTF figure to depict ESA listed stocks.



The below figure illustrates how the current harvest rate may change under existing management frameworks if the increased fish abundance levels (low-, mid-, high- goals) developed for the Provisional Natural Production/Escapement Abundance Goal levels are attained. Relatively modest increases occur because existing management frameworks were generally not designed to include healthy stock levels This is modified from CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Figure 2 on page 12 and reflects the rates shown in the above Harvest Table under 'current exploitation' (green box) and ' increment' (blue box). The below figure is modified from the CBPTF original figure to highlight topics and depict ESA stocks.



Note: ★ indicates stock is ESA-listed

I. CBPTF provisional quantitative goals - Hatchery Production

Current hatchery production goals are defined in different fashions for conservation and mitigation programs throughout the basin. Some programs define goals based on adult returns. However, goals for many programs are identified solely in terms of juvenile production.

For the quantitative Hatchery Production goal category, the CBPTF documented in the below Hatchery Table from the CBPTF Outreach file - CBP Quantitative Goals Methodology Summary's Table 3 on page 13:

- Current hatchery production levels:
  - Current juvenile (yearling and subyearlings) production levels from all existing programs. For context, the CBPTF also included the recent average numbers of hatchery adult returning to the Columbia River mouth by stock.

- New Production:
  - *Planned hatchery production levels*: planned / in-development additional hatchery juvenile productions defined in existing processes and plans (e.g., John Day Mitigation). Corresponding adult returns also provided as defined or inferred from current program return rates.
  - *Additional hatchery production needs*: additional or reduced hatchery juvenile production needs to address specific purposes identified by Task Force members (e.g., currently blocked historical anadromous production areas). Corresponding adult returns also provided as defined or inferred from current program return rates.

The below table is modified from the CBPTF original to highlight table sections and depict ESA listed stocks.

Current juvenile hatchery production

Recent hatchery adult returns to the Columbia River mouth

New Production:
-Planned/in-development
-Additional needs

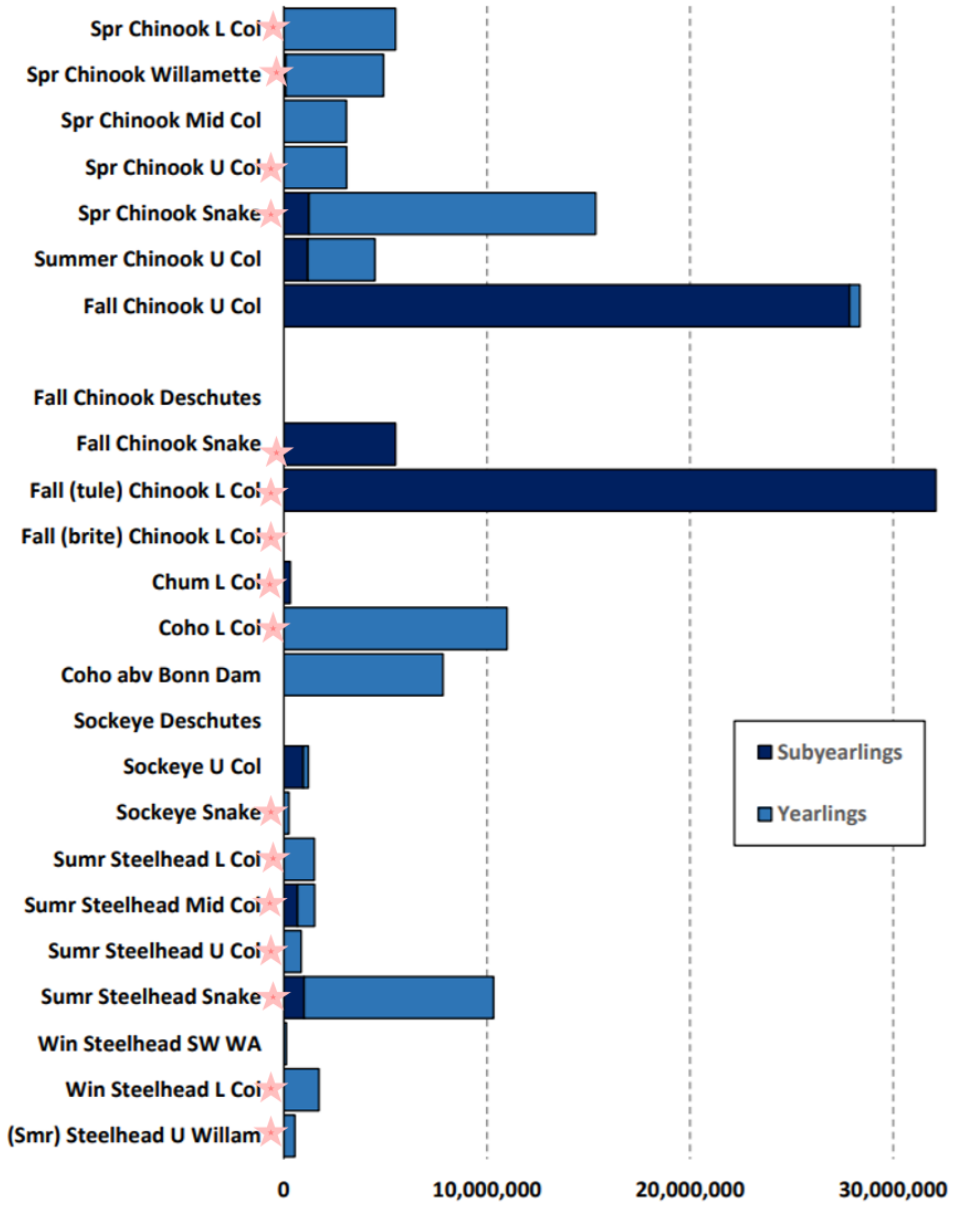
Evolutionarily Significant Unit or Distinct Population Segment		Run Type	Fishery Management Unit	Current production (avg.)			Col R	New production	
				Yearlings	Subyearlings	Total	Adults	Total	Col R Adults
Chinook	L Columbia ★	Spring	Lower River Spring	5,500,000	0	5,500,000	13,800	--	--
Chinook	U Willamette ★	Spring	Willamette Spring	4,800,000	100,000	4,900,000	48,506	--	--
Chinook	M Columbia Spr	Spring	Upriver Spring	3,080,000	0	3,080,000	54,674	--	--
Chinook	U Columbia Spr ★	Spring	Upriver Spring	3,090,000	0	3,090,000	19,422	0.7-13.5 mil	4,400-85,000
Chinook	Snake Spr/Sum ★	Spring/Summer	Upriver Spring	14,120,000	1,230,000	15,350,000	85,555	--	--
Chinook	U Columbia Sum/Fall	Summer	Upper Columbia Summer	3,310,000	1,180,000	4,490,000	45,151	0.9-18 mil	53,000-220,000
Chinook	U Columbia Sum/Fall	Fall	Upriver Bright (URB)	500,000	27,850,000	28,350,000	223,553	~11 mil	~45,000
								0.3-5.4 mil	2,000-40,000
Chinook	Deschutes Sum/Fall	Summer/Fall	Upriver Bright (URB)	0	0	0	0	--	--
Chinook	Snake Fall ★	Fall (brights)	Snake River Bright (SRB)	0	5,500,000	5,500,000	42,893	--	--
Chinook	L Columbia ★	Fall (tules)	Lower River Hatchery (LRH)	0	32,100,000	32,100,000	82,568	--	--
Chinook	L Columbia ★	Fall (late brights)	Lower River Wild (LRW)	0	0	0	0	--	--
Chum	Columbia ★	Late Fall	Chum	0	320,000	320,000	289	--	--
Coho	L Columbia ★	Fall (early & late)	Lower Columbia Coho	10,990,000	0	10,990,000	246,829	--	--
Coho	(Columbia upriver)	Fall	Upriver Coho	7,830,000	0	7,830,000	137,731	--	--
Sockeye	(Mid Columbia)	Summer	Mid Columbia Sockeye				95	--	--
Sockeye	(U Columbia)	Summer	U Columbia Sockeye	250,000	950,000	1,200,000	32,701	--	--
Sockeye	Snake ★	Summer	Snake Sockeye	250,000	0	250,000	1,096	--	--
Steelhead	L Columbia ★	Summer	L Col summer run	1,505,000	0	1,505,000	50,400	--	--
Steelhead	Mid Columbia ★	Summer	Summer A run	840,000	670,000	1,510,000	58,000	--	--
Steelhead	U Columbia ★	Summer	Summer A run	860,000	0	860,000	24,000	0.9-3.9 mil	25,000-110,000
Steelhead	Snake ★	Summer	Summer A & B runs	9,330,000	1,000,000	10,330,000	160,000	--	--
Steelhead	SW Washington	Winter	Winter run	120,000	0	120,000	1,500	--	--
Steelhead	L Columbia ★	Winter	Winter run	1,720,000	0	1,720,000	4,000	--	--
Steelhead	U Willamette ★	Winter	(Summer run only)	550,000	0	550,000	16,000	--	--
				68,645,000	**70,900,000**	**139,545,000**	**1,348,764**	**13.8-51.8**	**86,000-274,000**

Note: Values in red are working approximations.

Note: ★ indicates the stock is ESA-listed

The figure to the right shows the current total juvenile hatchery production by stock.

This figure is modified from CBPTF Outreach file - CBP Quantitative Goals Methodology Summary Figure 4 on page 12 to depict the ESA listed stocks.



NOAA Columbia Basin Partnership Task Force's Provisional Salmon and Steelhead Goals

Tony Grover, Fish and Wildlife Division Director
Nancy Leonard, Monitoring, Evaluation and Reporting Manager

August 14, 2018
Fish and Wildlife Committee

Discussion Outline

1. Columbia Basin Partnership Task Force (Task Force)
2. Detailed Review of Provisional Vision and Goals
3. Task Force Timeline
4. FW Program amendment and Task Force
5. Specific Input Sought by Task Force

Purpose: NOAA Columbia Basin Partnership (CBP) Task Force

- Common and shared goals for all Columbia River Basin anadromous salmon and steelhead
  - to facilitate achieving existing management, mitigation and recovery responsibilities
  - implement a more coherent, integrated, and efficient means of addressing the complexities of salmon recovery
  - developed through a NOAA fisheries convened regional process engaging regional sovereigns and stakeholders

Outcomes: NOAA Columbia Basin Partnership (CBP) Task Force

- Goals that address both conservation and harvest/fishing aspirations.
- Goals that are understandable and consider various users of Columbia Basin resources.
- Quantitative adult abundance goals for both listed and non-listed stocks.
- Better coordination, more effective use of resources, and alignment of strategic priorities.
- Enhanced relationships, trust, and knowledge.

Provisional Products Overview:

NOAA Columbia Basin Partnership (CBP) Task Force

Draft Vision Statement

Provisional Qualitative Goals

- Natural Production
- Hatchery / Mitigation
- Harvest / Fisheries
- Social, Cultural, Economic, and Ecological

Provisional Quantitative Goals for 24 Stock Units

Low, Medium, High - continuum of numbers reflecting aspiration for progressive improvements considering ESA requirements, habitat constraints, future protentional, density dependence, cultural needs, fishing interest, mitigation responsibilities, sustainability.

- Natural Production
  Escapement to spawning sites
- Hatchery / Mitigation
- Harvest / Fisheries

Aggregated Run Sizes to the Basin
(considers Natural Production, Hatchery/Mitigation, Harvest/Fisheries)

Working Quantitative Goals for Populations within Stock Units

- Natural Production
  Escapement to spawning sites
- Hatchery / Mitigation
- Harvest / Fisheries

Provisional Products: NOAA Columbia Basin Partnership (CBP) Task Force

The following tables and figures are in the packet memo attachment.

Questions to Consider

- Do we understand what these goals represent?
- Do we support the Task Force recommending these goals?
- Do we support the Task Force continuing its work (Phase 2)?
- Would we like more information?

DRAFT VISION STATEMENT

A healthy Columbia River Basin ecosystem with

thriving salmon and steelhead that are indicators of clean and abundant water, reliable and clean energy, a robust regional economy, and vibrant cultural and spiritual traditions, all interdependent and existing in harmony.

PROVISIONAL QUALITATIVE GOALS

Describe the desired outcomes CBP Task Force members hope to achieve within selected timeframes which guide development of the quantitative goals

Natural Production

Goal 1. Restore salmon and steelhead in the Columbia Basin to healthy and harvestable/fishable levels.

[Add explanatory paragraph here. Include definition of "healthy" (i.e., implies that fish abundance, productivity, spatial structure and diversity are at high levels; addresses needs for dependent wildlife); address "fishable"; explain ESA recovery and broad-sense recovery, discuss time-frame issue – although some of these are long-term goals, strive to do them sooner (e.g., could achieve goal 1-Cb in a shorter timeframe, like 24 years, for some populations), take action as soon as practicable and move as fast as possible. Highlight the need for strategic prioritization in phase2, etc.]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
1-A. *Prevent Declines*: Reverse and prevent declines of both listed and unlisted salmon and steelhead.	*a. Reverse and prevent declines of both listed and unlisted salmon and steelhead.*		
1-B. *Achieve ESA Delisting*: Recover ESA-listed salmon and steelhead to a point where they are no longer threatened or endangered.	*a. Achieve ESA delisting for at least some salmon ESUs and steelhead DPSs.*	*b. Achieve ESA delisting for additional salmon ESUs and steelhead DPSs.*	*c. Achieve ESA delisting for all listed salmon and steelhead.*
1-C. *Achieve Broad Sense Recovery*: Restore listed and unlisted salmon and steelhead to healthy and harvestable levels.	*a. Make significant, measurable progress toward broad sense recovery of all salmon and steelhead.*	*b. Achieve healthy and harvestable levels for some salmon and steelhead.*	*c. Achieve healthy and harvestable levels for all salmon and steelhead.*
1–D. *Expand Spatial and Temporal Range*: Rebuild spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within the historical range.	*a. Make significant, measurable progress toward rebuilding spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including beginning to study, develop, and implement plans for restoring salmon and steelhead to currently inaccessible areas within their historical range.*	*b. Continue rebuilding spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within their historical range.*	*c. Complete rebuilding of spatial distribution and run timing of salmon and steelhead at local and basinwide scales, including in currently inaccessible areas within their historical range.*
1-E. *Expand Diversity and Resiliency*: Rebuild salmon and steelhead runs that are adaptive and resilient to climate change and other environmental perturbations.	*a. Rebuild salmon and steelhead runs that are adaptive and resilient to climate change and other environmental perturbations.*	*b. Continue rebuilding adaptive and resilient salmon and steelhead runs and proactively and adaptively manage for a changing climate.*	*c. Ensure continued resiliency of salmon and steelhead runs and continue to adaptively manage for a changing climate.*

Harvest & Fishing Opportunity

Goal 2. Provide diverse, productive, and dependable tribal and non-tribal harvest and fishing opportunities for Columbia Basin salmon and steelhead in fresh and marine waters.

[Add explanatory paragraph – include explanation of "harvest," "fisheries" – also still need to work on consistency of usage within this document]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
2-A. *Ensure Sustainability*: Manage harvest and fisheries at levels consistent with conserving natural salmon and steelhead populations	*a. Ensure that fishery impacts on weak and listed stocks allow rebuilding of natural stocks and do not impede recovery.*	*b. Manage fisheries based on annual abundance to promote rebuilding of natural production and share the recovery burden.*	*c. Manage for optimum sustainable harvest and fishing opportunity as healthy stocks are restored.*
2-B. *Optimize Harvest and Fishery Opportunity*: Optimize fishery opportunity and harvest of healthy natural and hatchery stocks based on availability.	*a. Optimize fishery opportunity and access to harvestable surpluses of unlisted and hatchery stocks consistent with conservation.*	*b. Expand fishery opportunity concurrent with progress toward ESA delisting and broad sense recovery.*	*c. Fully realize harvest potential with increasing opportunity throughout the range of salmon and steelhead stocks.*
2-C. *Share Benefits*: Realize all fishery obligations and share benefits among users.	*a. Meet fishery obligations and share available harvest within the constraints imposed by conservation.*	*b. As constraints are reduced, move into focusing fisheries on sharing the benefits of increasing numbers of harvestable stocks.*	*c. Realize all fishery obligations and share benefits among users.*

Hatcheries / Mitigation

Goal 3. Produce hatchery salmon and steelhead to support conservation, mitigate for lost natural production, and support fisheries, in a manner that strategically aligns hatchery production with natural production recovery goals.

[Add explanatory paragraph, including explanation that supplementation is a tool. Also add supplementation to the definitions section. Mention broader uses of artificial production.]

Subgoals	*Within 25 years*	*Within 50 years*	*Within 100 years*
3-A. *Support Natural Production*: Utilize hatcheries to maintain, support and restore natural production where appropriate.	*a. As appropriate, continue to utilize hatcheries to maintain, support and restore at-risk populations, including those affected by climate change.*	*b. Use conservation hatchery strategies as needed to proactively address future threats, including climate change.*	*c. Achieve a future where conservation hatcheries are not necessary unless unforeseen natural events require an emergency response.*
3-B. *Mitigate for Lost Production and Support Fisheries*: Produce hatchery fish to support tribal treaty/trust responsibilities and meaningful fishery opportunities to mitigate for historical losses due to development and to enhance fisheries.	*a. Make progress in reducing reliance on hatchery production for mitigation consistent with improvements in natural production.*	*b. Consider changes in hatchery objectives and production levels as overall fishery opportunities are maintained through increased fish abundance.*	*c. Achieve a future where we rely less on hatchery production for mitigation and fishery enhancement only when natural production has increased.*
3-C. *Fish Protection*: Strategically align hatchery production with natural production recovery goals, consistent with tribal treaty/trust responsibilities, and with other legal and mitigation requirements.	*a. Continue to implement changes in hatchery practices and programs based on best available science (including, in some cases, changes in stocks or species produced) to minimize adverse effects of hatchery-origin salmon and steelhead on naturally produced salmon and steelhead.*	*b. Continue to refine hatchery production, strategies and practices based on assessments of effectiveness and technology advances to minimize hatchery impacts on natural salmon and steelhead.*	*c. Reduce long-term hatchery impacts by rebuilding abundance, productivity, diversity, and distribution of natural salmon and steelhead.*

Social, Cultural, Economic & Ecological	
	Goal 4. Make decisions within a broader context that reflects, and considers effects to, the full range of social, cultural, economic, and ecosystem values and diversity in the Columbia Basin.
	[Add explanatory paragraph, including the concept of inter-generational equity and considerations for future generations]
	4-A. *Social Goal:* Make decisions that reflect the social importance of salmon and steelhead to people throughout the Columbia Basin, recognizing the full range of social diversity and values that are present.
	4-B. *Cultural Goal:* Make decisions that reflect the cultural importance of salmon and steelhead to people throughout the Columbia Basin, recognizing the full range of cultural values that are present.
	4-C. *Economic Goal:* Make decisions that are based on the principle of equitable sharing of costs and benefits across economic sectors. Also, make decisions that recognize the great economic value of the Columbia River and its tributaries, and the importance of this natural capital as a major driver of the present and future economy for all in the Pacific Northwest.
	4-D. *Ecosystem Goal:* Make decisions that consider the role of salmon and steelhead in the ecosystem and that support a full range of ecological benefits, including the needs of dependent wildlife.

PROVISIONAL QUANTITATIVE GOALS

AGGREGATE ADULT RUN SIZE

HARVEST & FISHERIES

NATURAL PRODUCTION

HATCHERY PRODUCTION

Describe the low, medium, and high ranges that reflect a continuum aspiration for progressive improvements to be achieved over an extended time period.

Take into account factors such as ESA delisting requirements, habitat constraints, habitat production potential, density dependence, cultural needs of tribes, fishing interests and sustainability, mitigation responsibilities.

PROVISIONAL QUANTITATIVE GOALS
AGGREGATE RUN SIZES

CBPTF Provisional Quantitative Goals
Aggregate Adult Run Size to Columbia River Mouth
(in development)

Species		Current Abundance (2008-2017 averages)[a] Wild/Natl	Hatchery	Total	% Hat	Historical Abundance ISAB 2015	NPPC 1986
Chinook	Spring	58,400	233,600	292,000	80%	0.5 mil	1.4-2.3 mil
	Summer	30,100	45,200	75,300	60%	2.0 mil	2.7-4.6 mil
	Fall	376,500	376,500	753,000	50%	1.25 mil	1.3-2.3 mil
	Subtotal	*465,000*	*655,300*	*1,120,300*	*58%*	*3.75 mil*	*5.4-9.2 mil*
Sockeye		295,700	32,900	328,500	10%	2.25 mil	1.5-2.6 mil
Coho		40,900	368,100	409,000	90%	0.56 mil	1.0-1.8 mil
Chum		13,600	700	14,300	5%	0.45 mil	0.8-1.0 mil
Steelhead	Winter	8,200	8,200	16,500	50%	--	--
	Summer	79,200	317,000	396,200	80%	--	--
	Subtotal	*87,500*	*325,200*	*412,700*	*79%*	*0.45 mil*	*0.8-1.4 mil*
Total		**902,600**	**1,382,100**	**2,284,700**	**60%**	**7.46 mil**	**9.6-16.3 mil**

Note:
- *red text indicates approximations*
- *values under the ISAB 2015 column are Chapman 1986 minimum run size estimates cited in ISAB 2015-1 report*

PROVISIONAL QUANTITATIVE GOALS NATURAL PRODUCTION / ESCAPEMENT TO SPAWNING GROUND

CBPTF Provisional Quantitative Goals
Natural Production / Escapement to Spawning Sites

Low range escapement abundance goal

- represent the best scientific knowledge for the abundance necessary to avoid extinction or avoid being listed under ESA.

Mid- range escapement abundance goal

- are approximately half-way between the low-range goals and the high range goals.

High range escapement abundance goal

- reflect aspirational “healthy and harvestable” levels that might potentially be achieved with aggressive improvements in habitat and other conditions currently limiting stocks.

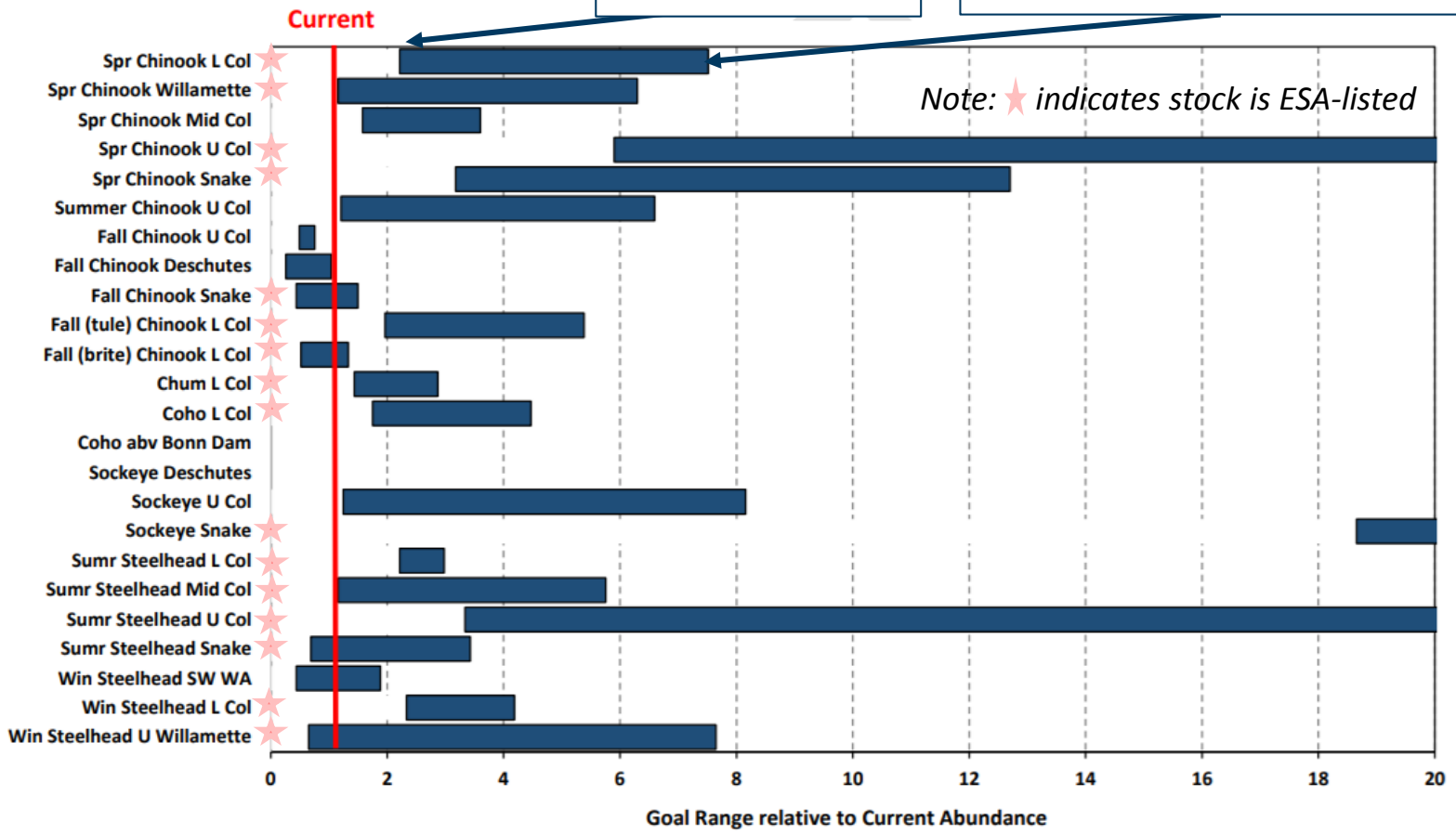
CBPTF Provisional Quantitative Goals
Natural Production / Escapement to Spawning Sites

Compares current escapement abundance to provisional goal ranges for escapement

Current 10-year mean escapement abundance

Low-range goal (delisting/avoid listing) shown by left margin of bar

High-range goal (aspirational "healthy and harvestable" levels with aggressive habitat/limiting factors improvements) shown by right margin of bar



Northwest P
Conservatio

CBPTF Provisional Quantitative Goals
Natural Production / Escapement to Spawning Sites

Species	ESA status	ESU/DPS (run)	Current 10-yr mean natural escapement abundance	Historical natural escapement abundance	Low goal	Med goal	High goal	High goal as % of historic
Chinook	Threatened (Th)	Lower Columbia (spring)	4,431	101,700	9,800	21,550	33,300	33%
Chinook	(Th)	Upper Willamette (spring)	4,095	312,173	4,725	15,262	25,798	8%
Chinook	Not Listed	M Columbia Spr (spring)	10,000	103,700	15,750	26,875	38,000	35%
Chinook	(Th)	U Columbia Spr (spring)	1,090	259,432	6,433	16,968	25,452	10%
Chinook	(Th)	Snake Spr/Sum (spring / summer)	10,000	671,000 (1800s abundance)	31,750	79,375	127,000	19%
Chinook	Not Listed	U Columbia Sum/Fall (summer)	18,771	693,952	22,704	81,398	123,841	18%
Chinook	Not listed	U Columbia Sum/Fall (fall)	85,500	533,900	41,950	53,188	64,425	12%
Chinook	Not listed	Deschutes Sum/Fall (summer/fall)	15,400	17,000	4,000	13,000	16,000	94%
Chinook	(Th)	Snake Fall (fall – brights)	9,626	500,000	4,200	9,280	14,360	3%
Chinook	(Th)	L Columbia (fall – tules)	12,510	166,100	24,550	46,300	67,300	41%
Chinook	(Th)	L Columbia (fall – late brights)	11,593	33,000	6,000	9,200	15,400	47%

Note: - See packet for population level goal values within each stock

- Red numbers are placeholder values for work in progress

CBPTF Provisional Quantitative Goals
Natural Production / Escapement to Spawning Sites

Species	ESA status	ESU/DPS (run) and *other organization grouping**	Current 10-yr mean natural escapement abundance	Historical natural escapement abundance	Low goal	Med goal	High goal	High goal as % of historic
Chum	Threatened (Th)	Columbia (late fall)	11,178	900,000	16,050	24,075	32,100	4%
Coho	Th	L Columbia (fall- early & late)	31,401	288,200	54,900	98,150	140,400	49%
Coho	Not Listed *	*Columbia upriver (fall) **		1,111,800				
Sockeye	Not Listed *	*Mid Columbia(summer)**	5	50,000	1,000	3,000	5,000	10%
Sockeye	Not Listed *	*U Columbia (summer)**	228,000	1,850,000	283,500	685,000	1,860,000	101%
Sockeye	Endangered (En)	Snake (summer)	134	150,000	2,500	5,750	9,000	6%

Note: - See packet for population level goal values within each stock

- Red numbers are placeholder values for work in progress

- '' indicates groupings of populations that managers identified for convenience while developing Columbia Basin Partnership Task Force products. These are not ESUs designated by NOAA Fisheries.*

CBPTF Provisional Quantitative Goals
Natural Production / Escapement to Spawning Sites

Species	ESA status	ESU/DPS (run)	Current 10-yr mean natural escapement abundance	Historical natural escapement abundance	Low goal	Med goal	High goal	High goal as % of historic
Steelhead	Threatened (Th)	L Columbia (winter)	8,570	58,000	20,000	27,900	35,900	62%
Steelhead	Th	L Columbia (summer)	2,100	7,600	4,650	5,500	6,250	82%
Steelhead	Th	Mid Columbia (summer)	18,155	132,800	21,000	62,750	104,500	79%
Steelhead	Th	U Columbia (summer)	2,011	577,500	6,713	29,252	43,878	8%
Steelhead	Th	Snake (summer)	30,500	172,200	21,000	62,750	104,500	61%
Steelhead	Not listed	SW Washington (winter)	11,200	41,900	4,900	13,200	21,100	50%
Steelhead	Th	U Willamette (winter)	5,150	110,000	3,350	21,375	39,400	36%
All species combined		Grand total of values:	531,394	8,841,957	611,425	1,410,098	2,950,904	33%

Note: - See packet for population level goal values within each stock

- Red numbers are placeholder values for work in progress

PROVISIONAL QUANTITATIVE GOALS
HARVEST / FISHERIES

CBPTF Provisional Quantitative Goals Harvest/Fisheries

Low-range fisheries goal

- based on existing fisheries management frameworks for weak stocks and currently-healthy stocks.

Mid-range fisheries goal

- currently-healthy stocks, based on existing fisheries management framework.
- currently weak/depleted stocks, an intermediate value between low and high range goals.

High-range fisheries goal

- currently-healthy stocks, based on existing fisheries management framework.
- currently weak/depleted stocks, based on reasonably-realistic sustainable harvest rates healthy abundance for natural stocks.

CBPTF Provisional Quantitative Goals
Harvest/Fisheries

Application of existing management framework's exploitation/harvest rate to current wild fish abundance levels

Application of existing management framework's rate to Provisional Natural Productions/Escapement Goal levels

Provisional Fisheries Low- Mid- and High- Range Exploitation / Harvest Rate Goals

Stock	Current Exploitation Rates (wild/natural)							Increments (existing plans)			Low goal		Medium goal		High goal	
	Ocean	Fresh water	Total (avg)	Range	Related guidance		Guidance includes	@ low natl	@ med natl	@ high natl	Avg.	Range	Avg.	Range	Avg.	Range
Spr Chinook L Col ★	10%	8%	18%	10-40%				18%	18%	18%	18%	10-40%	27%	15-45%	35%	20-50%
Spr Chinook Willamette ★	8%	10%	18%	8-25%	<15%	/a	Freshwater	18%	21%	23%	18%	8-25%	27%	15-40%	35%	20-50%
Spr Chinook Mid Col	--	11.6%	11.6%	5.5-17%	5.5-17%	/a	Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Spr Chinook U Col ★	--	11.6%	11.6%	5.5-17%	5.5-17%	/a	Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Spr Chinook Snake ★	--	11.6%	11.6%	5.5-17%	5.5-17%	/a	Freshwater	12%	16%	17%	12%	5.5-17%	24%	25-35%	35%	20-50%
Summer Chinook U Col	36%	24%	60%	40-80%	5.2-50%	/a	Freshwater	60%	60%	60%	60%	40-80%	60%	40-80%	60%	40-80%
Fall Chinook U Col	36%	26%	62%	40-80%	21.5-45%	/a	Freshwater	65%	65.0%	65%	65%	40-80%	65%	40-80%	65%	40-80%
Fall Chinook Deschutes	36%	17%	53%	30-70%	21.5-45%	/a	Freshwater	55%	55%	55%	55%	30-70%	60%	30-70%	65%	30-70%
Fall Chinook Snake ★	33%	10%	43%	30-70%	21.5-45%	/a	Freshwater	43%	46.6%	50%	43%	30-70%	47%	30-70%	50%	30-70%
Fall (tule) Chinook L Col ★	29%	9%	38%	30-41%	30-41%	/a	All	41%	41%	41%	41%	30-41%	46%	30-55%	50%	30-70%
Fall (brite) Chinook L Col ★	38%	15%	53%	35-70%		/a		53%	53%	53%	53%	35-70%	53%	35-70%	53%	35-70%
Chum L Col ★	--	2%	2%	<5%	<5%		Freshwater	2%	3.5%	5%	2%	<5%	10%	5-15%	20%	10-30%
Coho L Col ★	10%	6%	16%	<10-30%	<10-30%	/a	All	18%	23%	30%	18%	<10-30%	24%	10-40%	30%	10-50%
Coho abv Bonn Dam	10%	9%	19%	<10-35%	<10-30%	/a	All < BON	21%	26%	33%	21%	<10-40%	30%	10-50%	40%	20-60%
Sockeye Deschutes	--	3.2%	3.2%	3-11%	6-8+%	/a	Freshwater	3%	9%	12%	4%	3-11%	15%	10-30%	25%	10-40%
Sockeye U Col	--	6.3%	6.3%	6-11%	6-8+%	/a	Freshwater	6%	9%	12%	7%	6-11%	15%	10-30%	25%	10-40%
Sockeye Snake ★	--	6.3%	6.3%	6-11%	6-8+%	/a	Freshwater	6%	9%	12%	7%	6-11%	15%	10-30%	25%	10-40%
Sumr Steelhead L Col ★	--	<10%	10%	<10%	<10%		Freshwater	10%	10%	10%	10%	<10%	18%	10-25%	25%	10-40%
Sumr Steelhead Mid Col ★	--	7.5%	7.5%	15-22%	15-22%	/a	Freshwater	8%	14.8%	22%	8%	15-22%	21%	15-30%	35%	20-50%
Sumr Steelhead U Col ★	--	13.9%	13.9%	20-34%	20-34%	/a	Freshwater	20%	27%	34%	20%	20-34%	28%	20-40%	35%	20-50%
Sumr Steelhead Snake ★	--	18.9%	18.9%	15-22%	15-22%	/a	Freshwater	19%	20.5%	22%	19%	15-22%	27%	20-40%	35%	20-50%
Win Steelhead SW WA ★	--	<10%	10%	<10%	<10%		Freshwater	10%	10%	10%	10%	<10%	18%	10-30%	25%	10-40%
Win Steelhead L Col ★	--	<10%	10%	<10%	<10%		Freshwater	10%	10%	10%	10%	<10%	18%	10-30%	25%	10-40%
Win Steelhead U Willamette	--	5%	5%	<20%	<20%		Freshwater	5%	5%	5%	5%	<20%	15%	10-30%	25%	10-40%

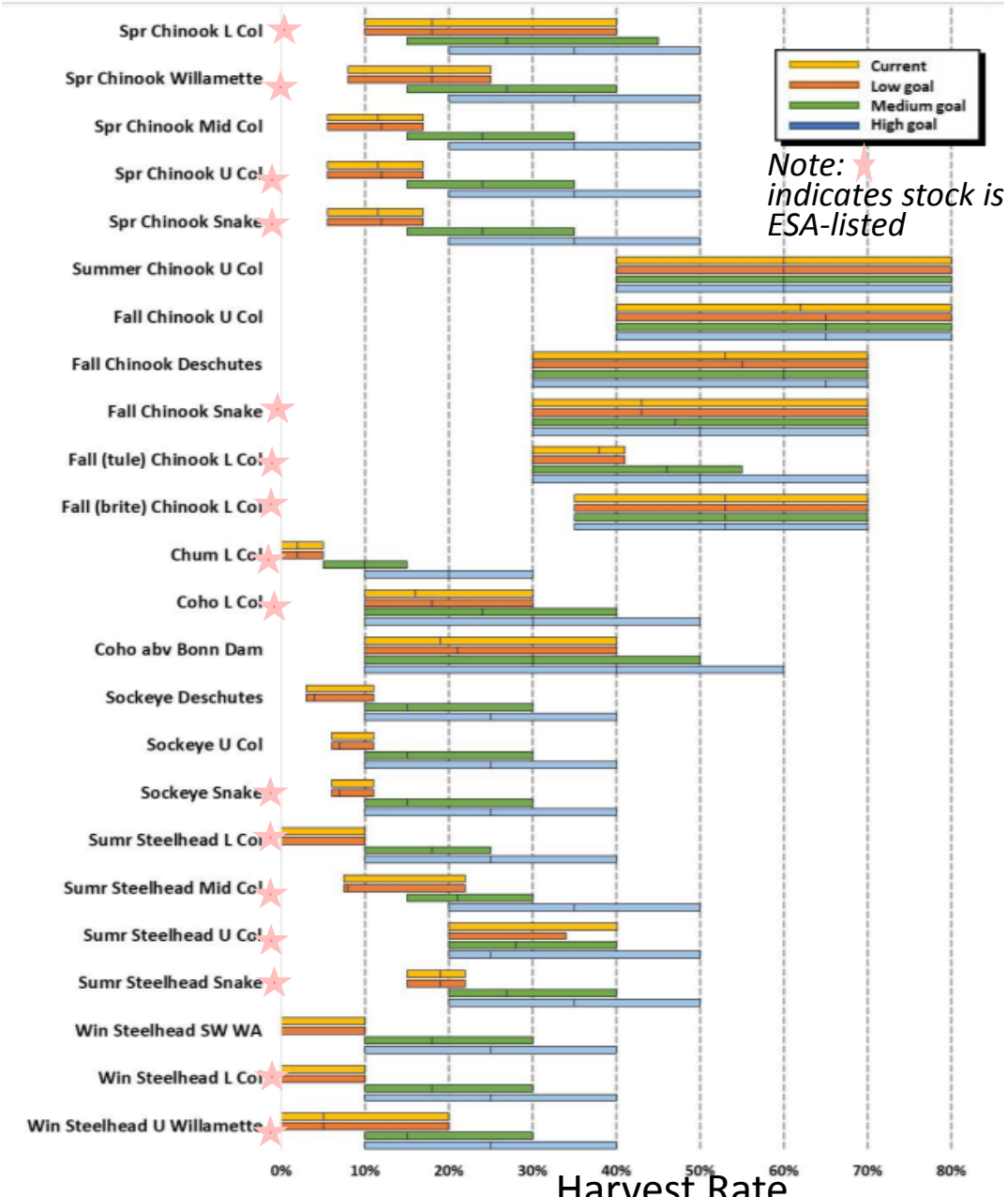
/a Abundance-based management framework

Note: ★ indicates the stock is ESA-listed

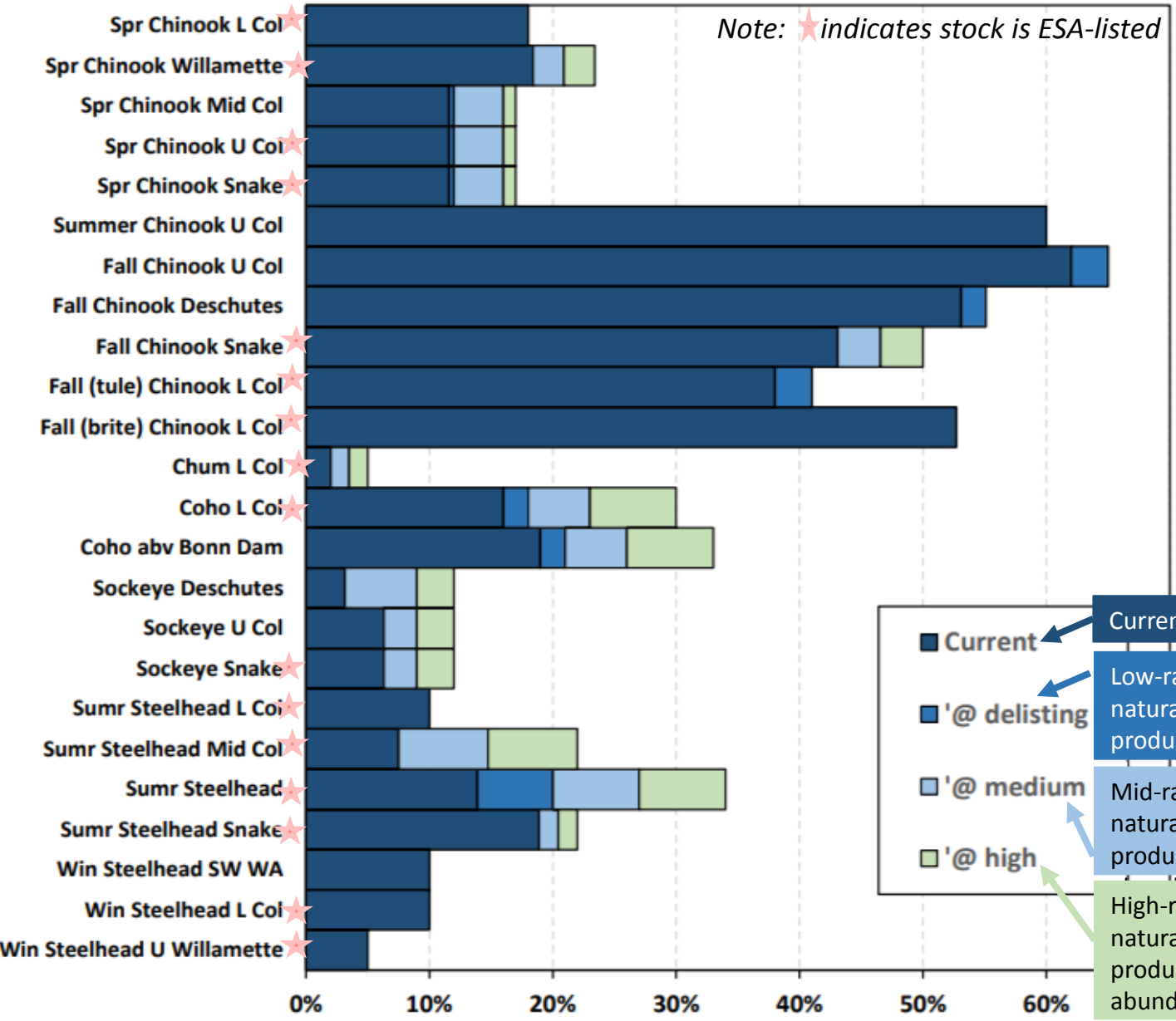
CBPTF Provisional Quantitative Goals
Harvest/Fisheries

Compares the provisional harvest rate goal ranges to current harvest rates.

The provisional harvest rate goal depicts harvest that can be sustained by natural-origin fish stocks when restored to higher levels of abundance of productivity (greater than under existing rates).



CBPTF Provisional Quantitative Goals
Harvest/Fisheries



Depicts how harvest rates would change based on achieving provisional natural production goal abundance ranges

Current abundance

Low-range provisional natural production/escapement

Mid-range provisional natural production/escapement

High-range provisional natural production/escapement abundance goal levels

PROVISIONAL QUANTITATIVE GOALS
HATCHERY PRODUCTION

CBPTF Provisional Quantitative Goals
Hatchery Production

Current hatchery production levels

- Current juvenile production levels from existing programs.
- Recent average hatchery adult returning to the Columbia River mouth by stock.

New Production

- *Planned hatchery production levels*: planned / in-development additional hatchery juvenile productions
- *Additional hatchery production*: hatchery juvenile production needs to address specific purposes identified by Task Force members

CBPTF Provisional Quantitative Goals
Hatchery Production

Current juvenile hatchery production

Recent hatchery adult returns to the Columbia River mouth

New Production:
-Planned/in-development
-Additional needs

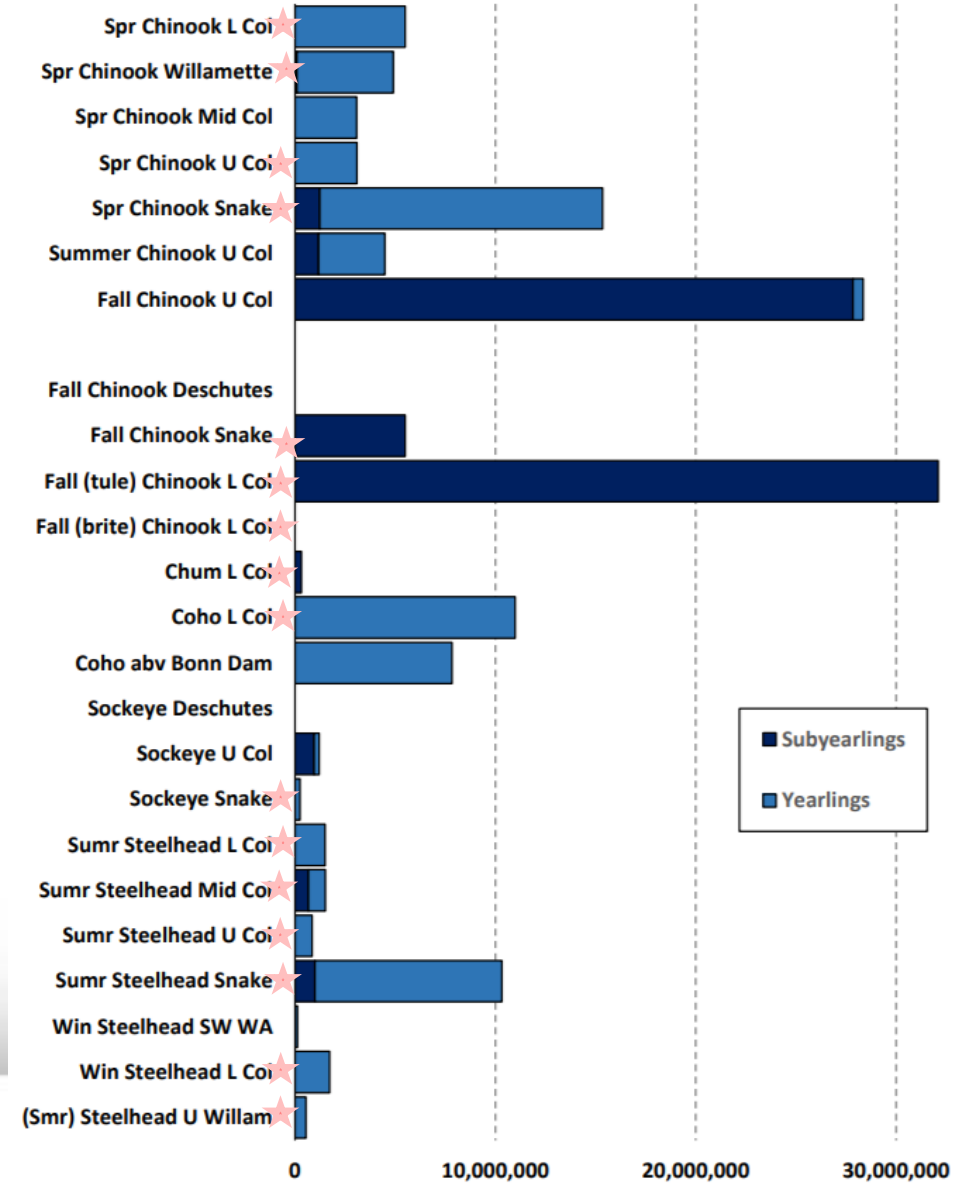
Evolutionarily Significant Unit or Distinct Population Segment		Run Type	Fishery Management Unit	Current production (avg.)			Col R Adults	New production	
				Yearlings	Subyearlings	Total		Total	Col R Adults
Chinook	L Columbia ★	Spring	Lower River Spring	5,500,000	0	5,500,000	13,800	--	--
Chinook	U Willamette ★	Spring	Willamette Spring	4,800,000	100,000	4,900,000	48,506	--	--
Chinook	M Columbia Spr	Spring	Upriver Spring	3,080,000	0	3,080,000	54,674	--	--
Chinook	U Columbia Spr ★	Spring	Upriver Spring	3,090,000	0	3,090,000	19,422	0.7-13.5 mil	4,400-85,000
Chinook	Snake Spr/Sum ★	Spring/Summer	Upriver Spring	14,120,000	1,230,000	15,350,000	85,555	--	--
Chinook	U Columbia Sum/Fall	Summer	Upper Columbia Summer	3,310,000	1,180,000	4,490,000	45,151	0.9-18 mil	53,000-220,000
Chinook	U Columbia Sum/Fall	Fall	Upriver Bright (URB)	500,000	27,850,000	28,350,000	223,553	~11 mil	~45,000
								0.3-5.4 mil	2,000-40,000
Chinook	Deschutes Sum/Fall	Summer/Fall	Upriver Bright (URB)	0	0	0	0	--	--
Chinook	Snake Fall ★	Fall (brights)	Snake River Bright (SRB)	0	5,500,000	5,500,000	42,893	--	--
Chinook	L Columbia ★	Fall (tules)	Lower River Hatchery (LRH)	0	32,100,000	32,100,000	82,568	--	--
Chinook	L Columbia ★	Fall (late brights)	Lower River Wild (LRW)	0	0	0	0	--	--
Chum	Columbia ★	Late Fall	Chum	0	320,000	320,000	289	--	--
Coho	L Columbia ★	Fall (early & late)	Lower Columbia Coho	10,990,000	0	10,990,000	246,829	--	--
Coho	(Columbia upriver)	Fall	Upriver Coho	7,830,000	0	7,830,000	137,731	--	--
Sockeye	(Mid Columbia)	Summer	Mid Columbia Sockeye				95	--	--
Sockeye	(U Columbia)	Summer	U Columbia Sockeye	250,000	950,000	1,200,000	32,701	--	--
Sockeye	Snake ★	Summer	Snake Sockeye	250,000	0	250,000	1,096	--	--
Steelhead	L Columbia ★	Summer	L Col summer run	1,505,000	0	1,505,000	50,400	--	--
Steelhead	Mid Columbia ★	Summer	Summer A run	840,000	670,000	1,510,000	58,000	--	--
Steelhead	U Columbia ★	Summer	Summer A run	860,000	0	860,000	24,000	0.9-3.9 mil	25,000-110,000
Steelhead	Snake ★	Summer	Summer A & B runs	9,330,000	1,000,000	10,330,000	160,000	--	--
Steelhead	SW Washington	Winter	Winter run	120,000	0	120,000	1,500	--	--
Steelhead	L Columbia ★	Winter	Winter run	1,720,000	0	1,720,000	4,000	--	--
Steelhead	U Willamette ★	Winter	(Summer run only)	550,000	0	550,000	16,000	--	--
				68,645,000	**70,900,000**	**139,545,000**	**1,348,764**	**13.8-51.8**	**86,000-274,000**

Note: Values in red are working approximations.

Note: ★ indicates the stock is ESA-listed

CBPTF Provisional Quantitative Goals
Hatchery Production

Current total juvenile hatchery production by salmon and steelhead stock.



Northwest Power and Conservation Council

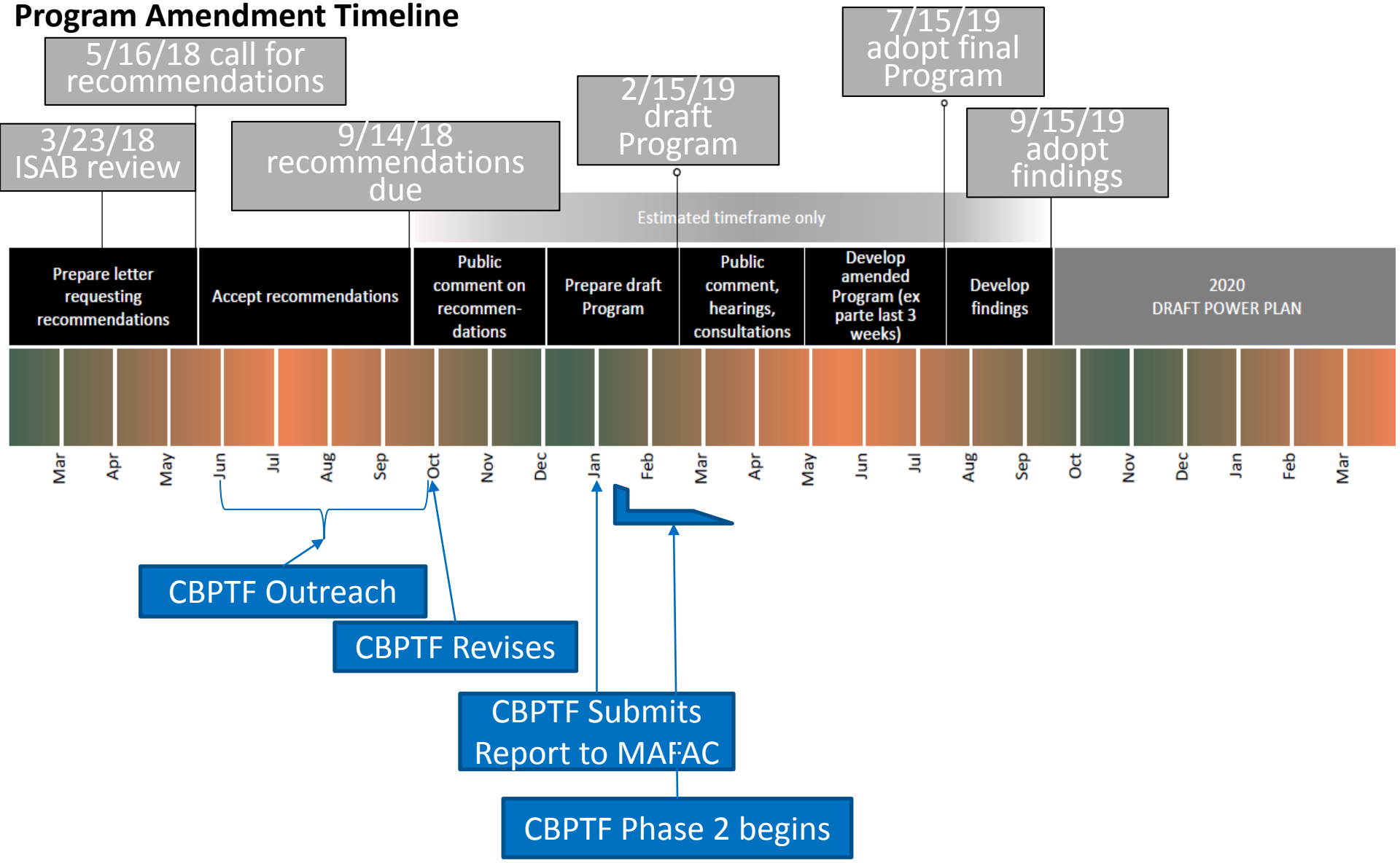
Timeline: NOAA Columbia Basin Partnership Task Force (CBPTF)

Background meetings	CBPTF meetings	Update to MAFAC meetings	Phase 2 CBPTF
Workshop Feb 17 2016			
Workshop May 4 2016			
Workshop June 7 2016			
	Jan 24 - 25, 2017	March 20, 2017	
	April 18 - 19, 2017		
	June 27 - 28, 2017		
	Sept 26 - 27, 2017	Nov. 28, 2017	
	Dec 5 - 6, 2017		
	Feb 20 - 21, 2018		
	April 18 - 19, 2018		
We are here	June 19 - 20, 2018	June 27, 2017	
	Outreach Period		
	Aug 22, 2018 (*Tentative*)		
	Oct 2- 3, 2018	**Jan 2019 submit report for review**	**2019 – dates to be determined**

CBPTF – Columbia Basin Partnership Task Force
MAFAC - Marine Advisory Fisheries Committee

FW Program and the CBPTF Task Force Goals

Program Amendment Timeline



Discussion on Input Sought by Task Force

- Do we understand the Task Force provisional goals and what they represent?
- Do we support the Task Force recommending these provisional goals to MAFAC and NOAA Fisheries? If not, why not?
- Do we support the Task Force continuing its work to further explore and refine these provisional goals (Phase 2)?
- Would we like more information?
- Would we like to keep up to date on Task Force activities?