

Columbia Basin Partnership Task Force: Goals

Dr. Charlene Hurst, CRMU Lead, Fish Program
Michael Garrity, Energy, Water, and Major Projects Division
Manager, Habitat Program





Stage Setting

CBP Task Force Formation

2012 Situational Assessment found need for:

- Coherent, integrated, and efficient means of addressing complexities of salmon recovery; and
- Identifying common goals for measuring progress and success for salmon recovery.

To Address the Assessment, NOAA Fisheries convened the Columbia Basin Partnership (CBP) Task Force.

NOAA Fisheries formally solicited stakeholders and requested state and tribal representatives from sovereigns for the CBP; began in January 2017.



Columbia Basin Partnership

Purpose: to develop common and shared goals for all Columbia River Basin anadromous salmon and steelhead

- Facilitate achieving existing management, mitigation and recovery responsibilities
- Implement a more coherent, integrated, and efficient means of addressing the complexities of salmon recovery
- Convene a regional process engaging regional sovereigns and stakeholders





Qualitative Goals

Goal 1: Restore salmon and steelhead in the Columbia basin to healthy and harvestable levels

1-A. Prevent Declines

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

1-C. Achieve Broad Sense Recovery

Restore listed and unlisted salmon and steelhead to healthy and harvestable levels

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

1-E. Expand Diversity and Resiliency

Rebuild salmon and steelhead runs that are adaptive and resilient to climate change and other environmental perturbations.



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.

2-A. Ensure Sustainability

Manage harvest and fisheries at levels consistent with conserving natural salmon and steelhead populations

2-B. Optimize Harvest and Fishing Opportunity

Optimize fishery opportunity and harvest of healthy and natural and hatchery stocks based on availability.

2-C. Share Benefits

Realize all fishery obligations and share benefits among users



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.

3-A. Support natural Production

Utilize hatcheries to maintain, support, and restore natural production where appropriate.

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.

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.



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.

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.

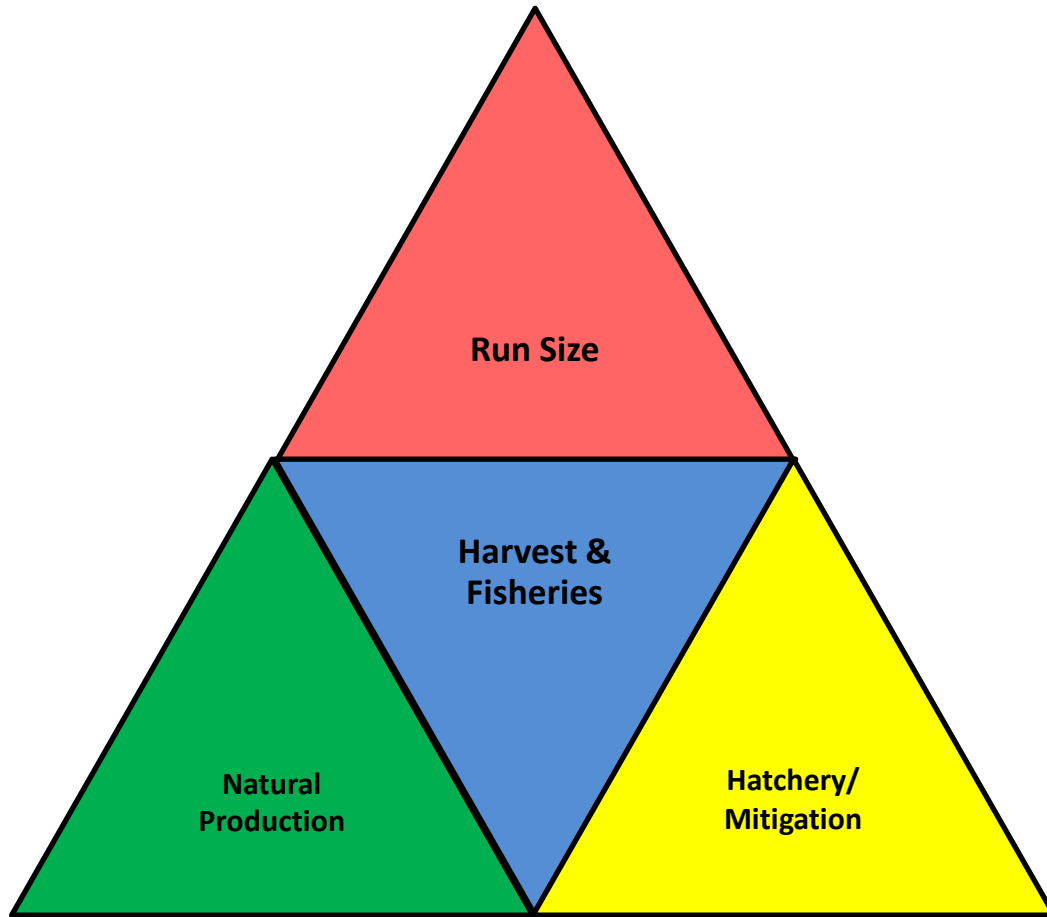
4-D. Ecosystem Goal

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 (e.g., lamprey).





Quantitative Goals



Natural Production Goals

Low range: Minimum average abundance necessary to ensure long-term survival of the population, stock, or species.

High range: reflect “healthy and harvestable” levels generally 3-5x’s greater than low-range, and 50% or less than historical average abundance estimates

Mid-range

- listed stocks: half-way between low- and high range goals
- Unlisted stocks: Number of natural-origin spawners that could effectively use available habitat and sustain high levels of harvest

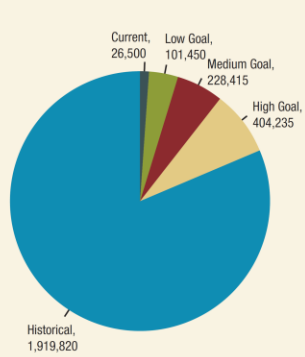


TABLE 8. Aggregate stock-specific abundance values for natural-origin escapement under current and historical conditions, and low, medium, and high goal ranges.

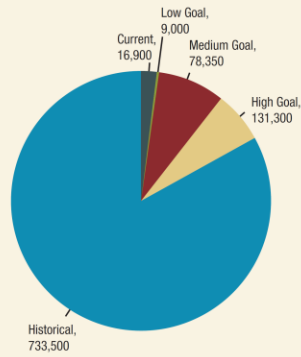
Stock	Current	Historical	Low goal	Med goal	High goal	High as % of historical
L Col R Spring Chinook	2,240	101,700	9,800	21,550	33,300	33%
L Col R Fall (tule) Chinook	12,329	169,700	28,050	54,100	82,000	48%
L Col R Late Fall (bright) Chinook	10,800	33,000	11,100	16,700	22,200	67%
L Col R Fall (bright) Chinook	11,000	0	11,000	11,000	11,000	-
L Col R Coho	31,524	301,900	67,925	129,550	191,400	63%
Col R Chum	11,762	461,300	16,500	33,000	49,500	11%
SW WA Winter Steelhead	3,252	19,100	4,650	5,850	6,950	36%
L Col R Winter Steelhead	5,989	41,900	19,000	27,900	36,400	87%
L Col R Summer Steelhead	10,594	61,200	21,100	29,800	38,100	62%
M Col R Spring Chinook	11,600	246,500	17,750	40,425	114,500	46%
M Col R Summer/Fall Chinook	11,500	17,000	4,000	13,000	16,000	94%
M Col R Coho	6,324	75,000	5,300	11,600	19,900	27%
M Col Sockeye	1,036	230,000	7,500	45,000	107,500	47%
M Col R Summer Steelhead	18,155	132,800	21,500	43,850	69,150	52%
U Col R Spring Chinook	1,430	259,450	11,500	19,840	30,135	12%
U Col R Summer Chinook	16,920	733,500	9,000	78,350	131,300	18%
U Col R Fall Chinook	92,400	680,000	9,200	62,215	87,835	13%
U Col R Coho	392	44,500	7,500	15,000	26,000	58%
U Col R Sockeye	40,850	1,800,000	31,500	580,000	1,235,000	69%
U Col R Summer Steelhead	1,480	1,121,400	7,500	31,000	47,000	4%
Snake R Spring/Summer Chinook	6,988	1,000,000	33,500	98,750	159,500	16%
Snake R Fall Chinook	8,360	500,000	4,200	10,780	23,360	5%
Snake R Coho	100	200,000	8,900	26,600	44,100	22%
Snake R Sockeye	100	84,000	5,500	15,750	26,000	31%
Snake R Summer Steelhead	28,000	600,000	22,500	75,000	131,500	22%
U Will R Spring Chinook	4,278	312,170	28,900	47,850	66,800	21%
U Will R Winter Steelhead	2,816	220,000	16,290	27,805	39,320	18%
Totals	352,119	9,446,120	441,165	1,572,265	2,845,750	30%



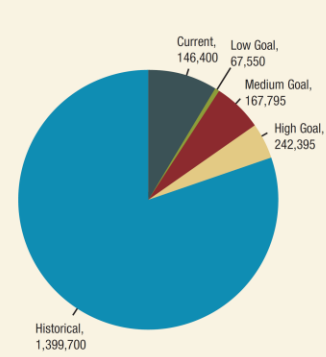
SPRING CHINOOK



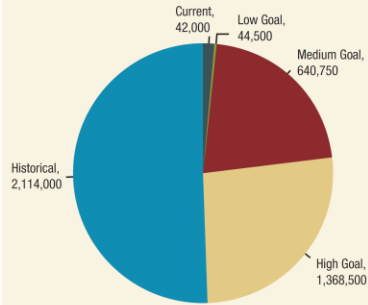
SUMMER CHINOOK



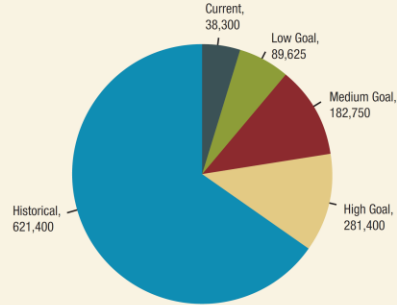
FALL CHINOOK



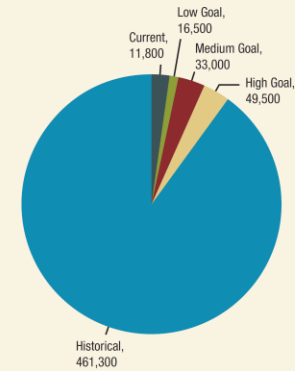
SOCKEYE



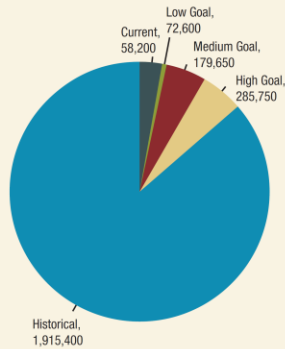
COHO



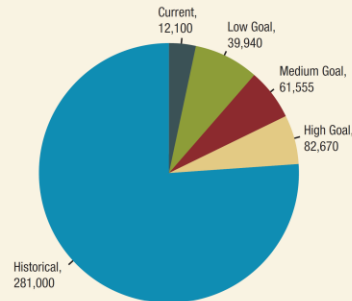
CHUM



SUMMER STEELHEAD



WINTER STEELHEAD



Anticipated Hatchery Production

TABLE 9. Current and anticipated hatchery juvenile production and adult returns to the Columbia River of hatchery-origin salmon and steelhead.

Species	Current Production (Avg.)				Anticipated production	
	Yearlings	Subyearlings	Total	Adult returns	Total	Adult returns
Spring Chinook	31,870,500	2,055,000	33,925,500	217,100	47,402,500	301,800
Summer Chinook	3,102,000	1,184,000	4,286,000	45,000	14,400,000	140,000
Fall Chinook	900,000	62,366,500	63,266,500	456,300	73,956,500	564,300
Chum	0	770,000	770,000	300	770,000	300
Coho	20,350,000	508,600	20,858,600	374,000	21,239,000	377,600
Sockeye	900,000	4,500,000	5,400,000	34,070	15,100,000	101,300
Winter Steelhead	1,604,000	0	1,604,000	28,000	1,604,000	28,000
Summer Steel-head	12,780,300	1,350,000	14,130,300	344,700	15,645,000	365,000
Total	71,506,800	72,734,100	144,240,900	1,499,470	190,117,000	1,878,300

- Potential increases of ~30% relative to current
- Largest increases proposed for UCR sockeye and summer Chinook



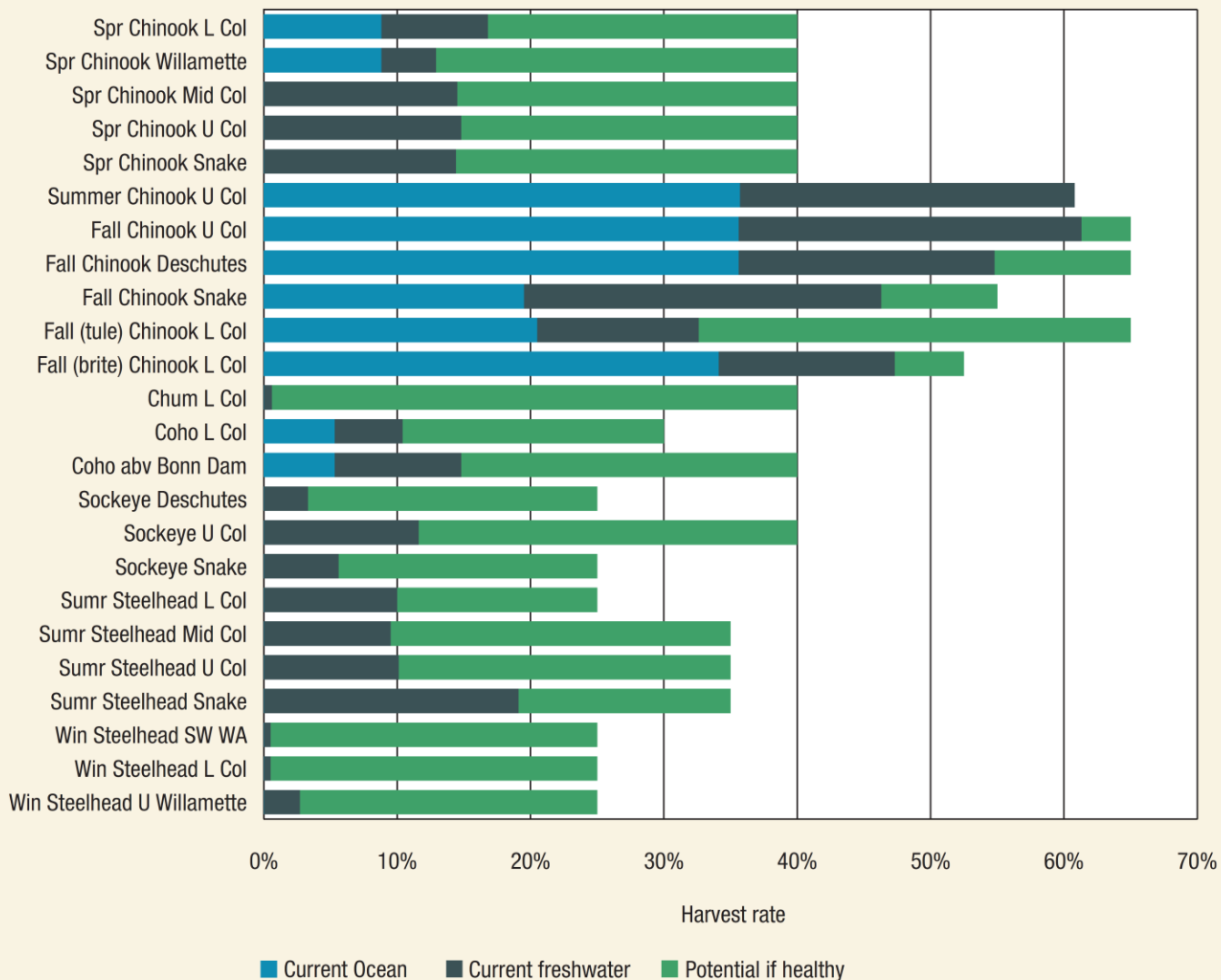
Current and Potential Harvest

TABLE 10. Current (recent 10-year average) harvest of Columbia Basin salmon and steelhead in freshwater (Col basin) and ocean fisheries and potential harvest at high natural production goals and anticipated hatchery production levels. (See Table 9 for more detail on anticipated hatchery production levels).

Stock	Harvest (current)			Harvest (at high goal)		
	Col basin	Ocean	Total	Col basin	Ocean	Total
Chinook	429,800	426,150	855,950	1,280,400	707,600	1,988,000
Spring	88,800	7,400	96,200	619,800	34,300	654,100
Summer	31,100	41,500	72,600	153,000	207,000	360,000
Fall	309,900	377,250	687,150	507,600	466,300	973,900
Chum	80	0	80	41,000	0	41,000
Coho	134,800	95,100	229,900	336,900	121,700	458,600
Sockeye	42,082	0	42,082	1,217,600	0	1,217,600
Steelhead	222,300	0	222,300	521,200	0	521,200
Winter	19,700	0	19,700	59,000	0	59,000
Summer	202,600	0	202,600	462,200	0	462,200
Totals	829,062	521,250	1,350,312	3,397,100	829,300	4,226,400



FIGURE 10. Current average harvest rates of natural-origin fish by stock in ocean and freshwater fisheries, and potential increases that may be sustainable upon restoration to healthy levels consistent with high-range natural production goals.



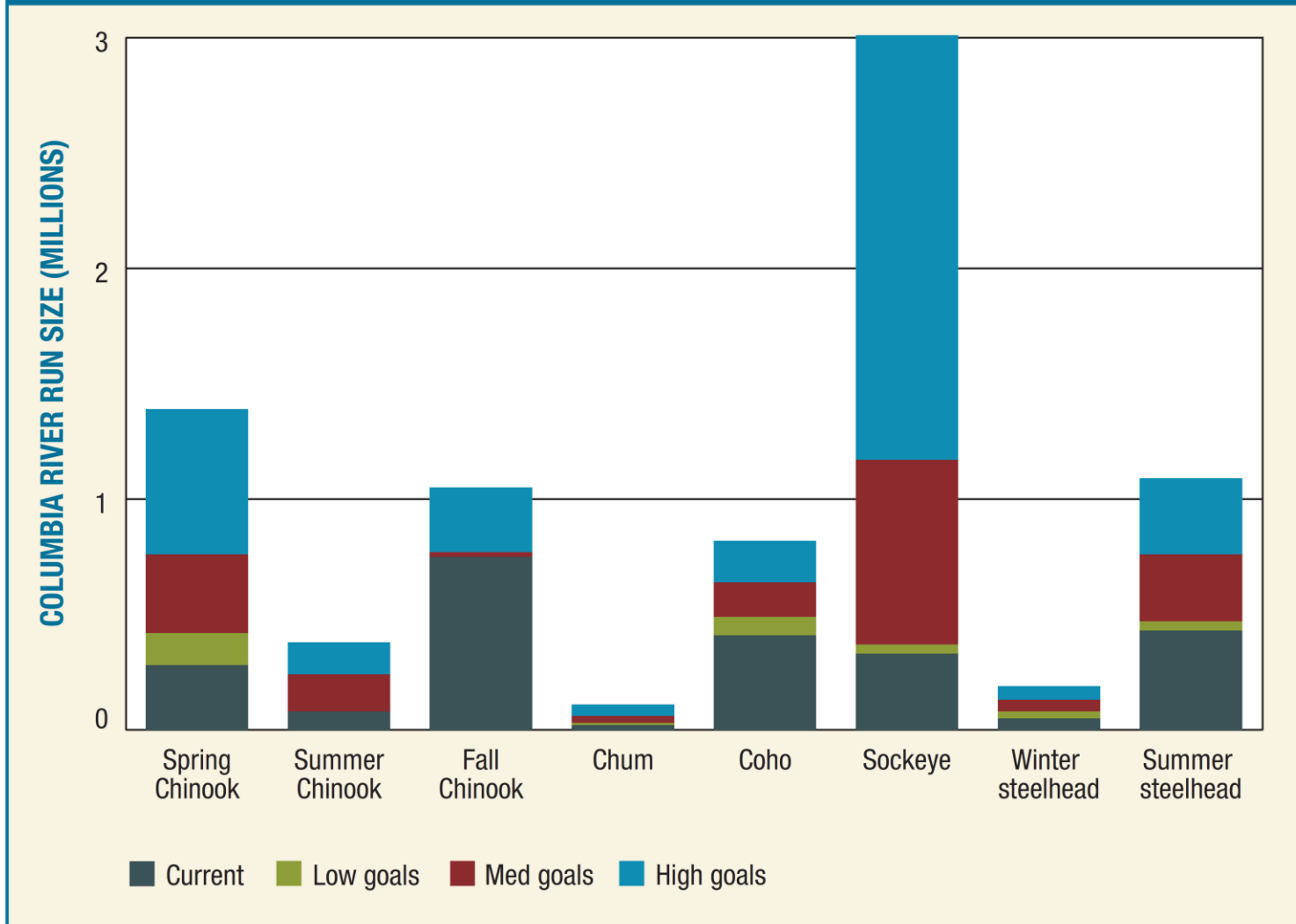
Columbia River Mouth Run Size

TABLE 11. Columbia River mouth run sizes for salmon and steelhead at low and high natural production goals in conjunction with anticipated hatchery production and potential harvest relative to current numbers.

	Species	Natural origin	Hatchery origin	Total	% Hatchery
Current Run Size	Chinook	384,740	718,400	1,103,140	65%
	Spring	58,940	217,100	276,040	79%
	Summer	30,000	45,000	75,000	60%
	Fall	295,800	456,300	752,100	61%
	Chum	14,700	300	15,000	2%
	Coho	34,000	375,100	409,100	92%
	Sockeye	297,490	34,070	331,560	10%
	Steelhead	107,600	375,700	483,300	78%
	Winter	17,300	33,000	50,300	66%
	Summer	90,300	342,700	433,000	79%
Total	838,530	1,503,570	2,342,100	64%	
Run Size at Low Goals	Chinook	536,700	727,700	1,264,400	58%
	Spring	198,400	217,300	415,700	52%
	Summer	30,000	43,000	73,000	59%
	Fall	308,300	467,400	775,500	60%
	Chum	21,000	0	21,000	0%
	Coho	116,300	375,100	491,400	76%
	Sockeye	320,100	53,600	373,700	14%
	Steelhead	187,900	371,400	559,300	66%
Winter	57,000	28,000	85,000	33%	
Summer	130,900	343,400	474,300	72%	
Total	1,182,000	1,527,800	2,709,800	56%	
Run Size at High Goals	Chinook	1,753,300	1,046,300	2,799,600	37%
	Spring	1,042,500	342,000	1,384,500	25%
	Summer	234,000	140,000	374,000	37%
	Fall	476,800	564,300	1,041,100	54%
	Chum	102,000	0	102,000	0%
	Coho	446,400	375,100	821,500	46%
	Sockeye	2,913,900	100,000	3,013,900	3%
	Steelhead	886,300	394,300	1,280,600	31%
Winter	163,000	28,000	191,000	15%	
Summer	723,300	366,300	1,089,600	34%	
Total	6,101,900	1,915,700	8,017,600	24%	



FIGURE 11. Columbia River mouth run sizes for salmon and steelhead at low and high natural production goals in conjunction with anticipated hatchery production and potential harvest relative to current numbers.





Next Steps

Goals Going Forward

Next Steps Include:

- Regional Conversations about how best to achieve goals
- Explore and agree on strategies and actions for the near- and long-term



Questions?

