NOAA FISHERIES

Update on Columbia Basin Partnership Task Force

MAFAC

June 27, 2018

Overview of Today's Presentation:

- Background on Columbia Basin & why we need goals
- Tribal perspectives
- Progress on CBP Products:
  - Relationships
  - Vision, Guiding Principles
  - Qualitative Goals
  - Quantitative Goals
- Next Steps

Major Columbia Basin Dams & ESA-Listed Fish

Columbia Basin salmon landscape:

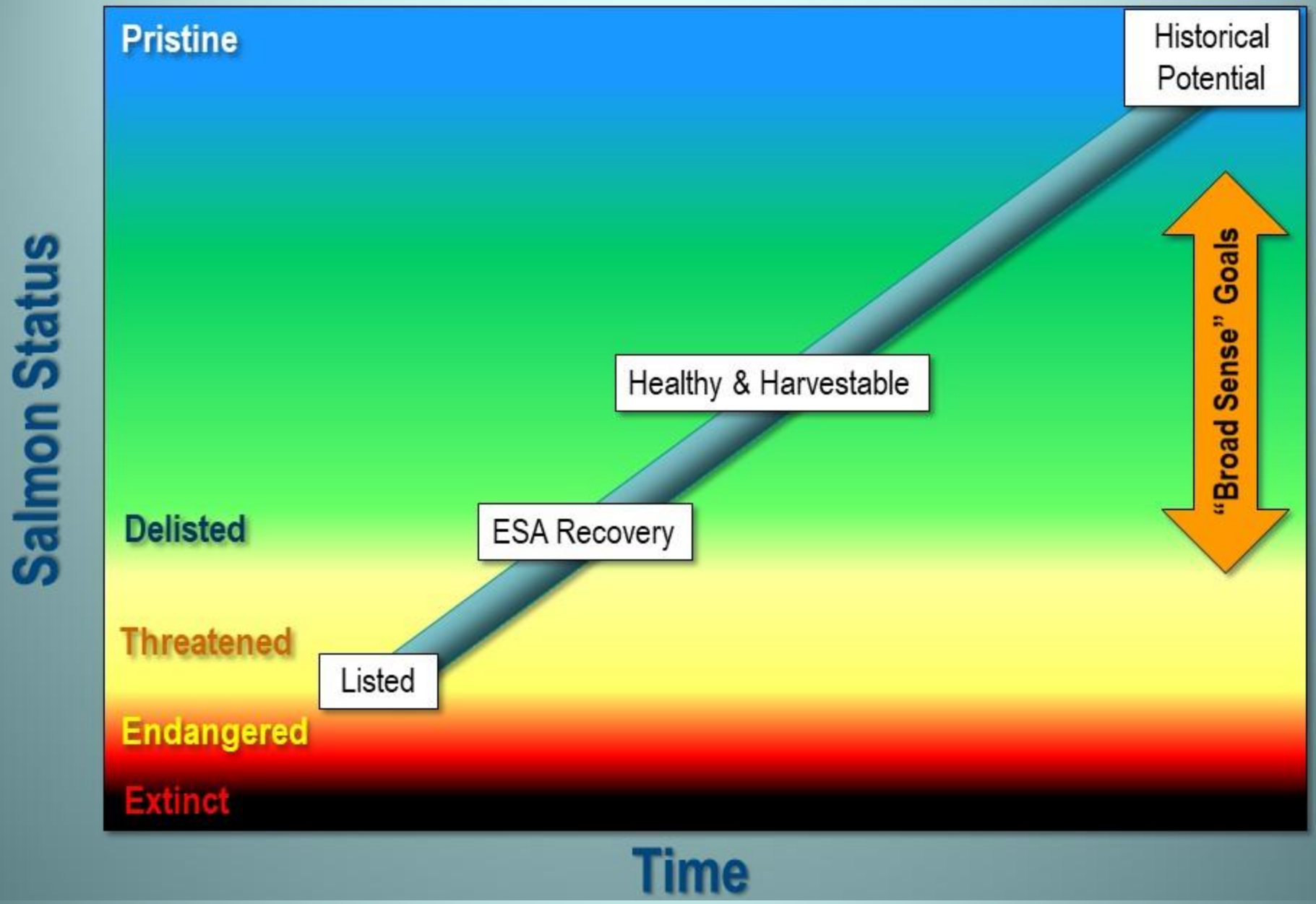
- NOAA Fisheries has multiple responsibilities such as ESA, Magnuson-Stevens Act, treaty/trust to tribes, and mitigation.
- 24 salmon stocks - 13 listed under ESA.
- Plans and processes related to habitat, hydrosystem, harvest, and hatchery address varying aspects of salmon management.
- 4 states, 13 tribes, and stakeholders covering commercial and recreational fishing, agriculture, irrigation, navigation/ports, public utilities, environmental groups and recreation.
- Ongoing litigation since mid- 1990's.

CBP Task Force Purpose

- NOAA Fisheries, states and tribes have multiple management responsibilities and plans. Without common, shared goals it is difficult to achieve any of them.
- 2012 Situational Assessment by Ruckleshaus Center and Oregon Consensus found the need for:
  - ✓More coherent, integrated, and efficient means of addressing the complexities of salmon recovery.
  - ✓NOAA Fisheries to convene regional sovereigns and stakeholders to develop common, long-term goals for salmon and steelhead.
- CBP Task Force established in fall 2016 and began in January, 2017.
- 28 members from states, tribes and stakeholders.

Questions About Salmon Goals and Plans

- Are we using our resources effectively and efficiently?
- Are we optimizing harvest opportunities consistent with recovery?
- Do we have ways to measure progress and success?
- Are we using non-listed stocks effectively and efficiently to help relieve pressure on listed stocks?
- Are goals attainable given current habitat conditions and likely effects of climate change? How should we consider future habitat conditions?
- Are we optimizing our hatcheries for recovery and harvest?

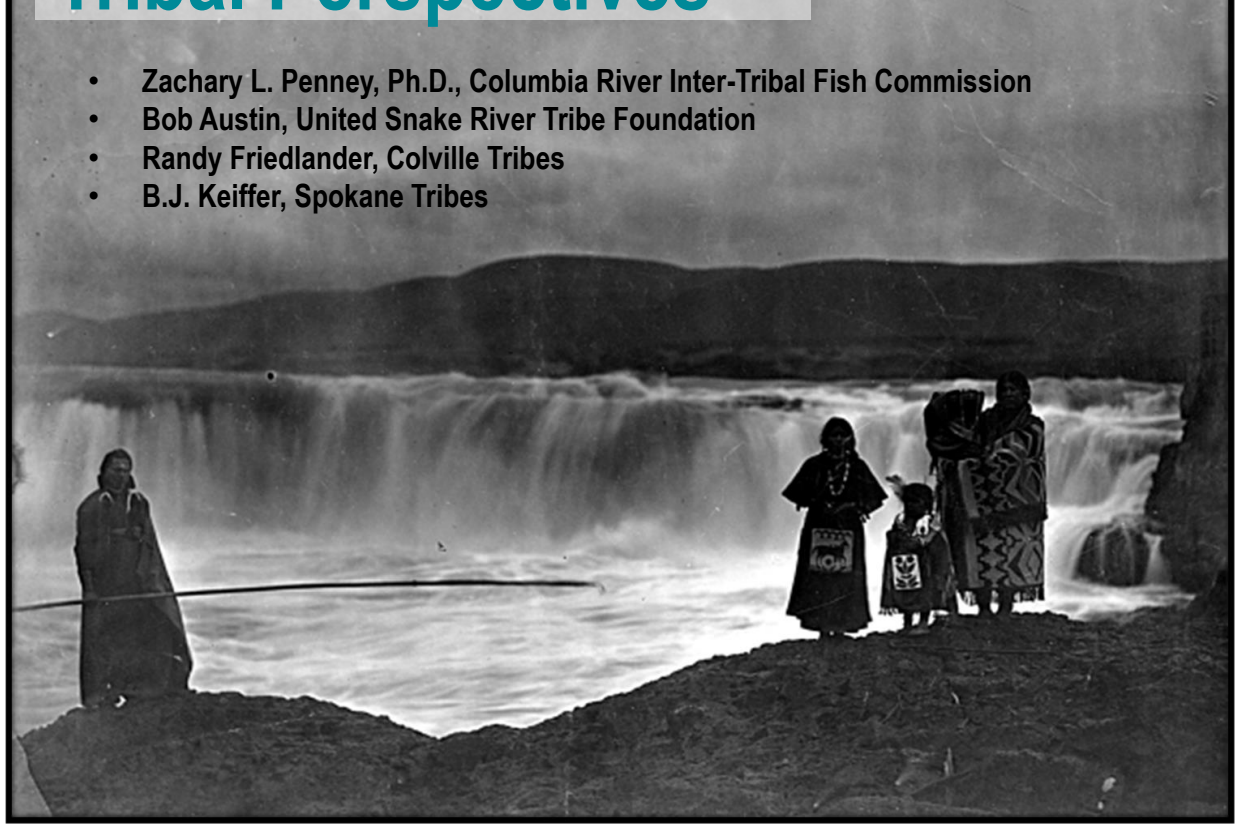

Pristine
Historical Potential
Healthy & Harvestable
"Broad Sense" Goals
ESA Recovery
Delisted
Threatened
Listed
Endangered
Extinct
Salmon Status
Time

Desired CBP Task Force Outcomes

- 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.

Tribal Perspectives

- Zachary L. Penney, Ph.D., Columbia River Inter-Tribal Fish Commission
- Bob Austin, United Snake River Tribe Foundation
- Randy Friedlander, Colville Tribes
- B.J. Keiffer, Spokane Tribes

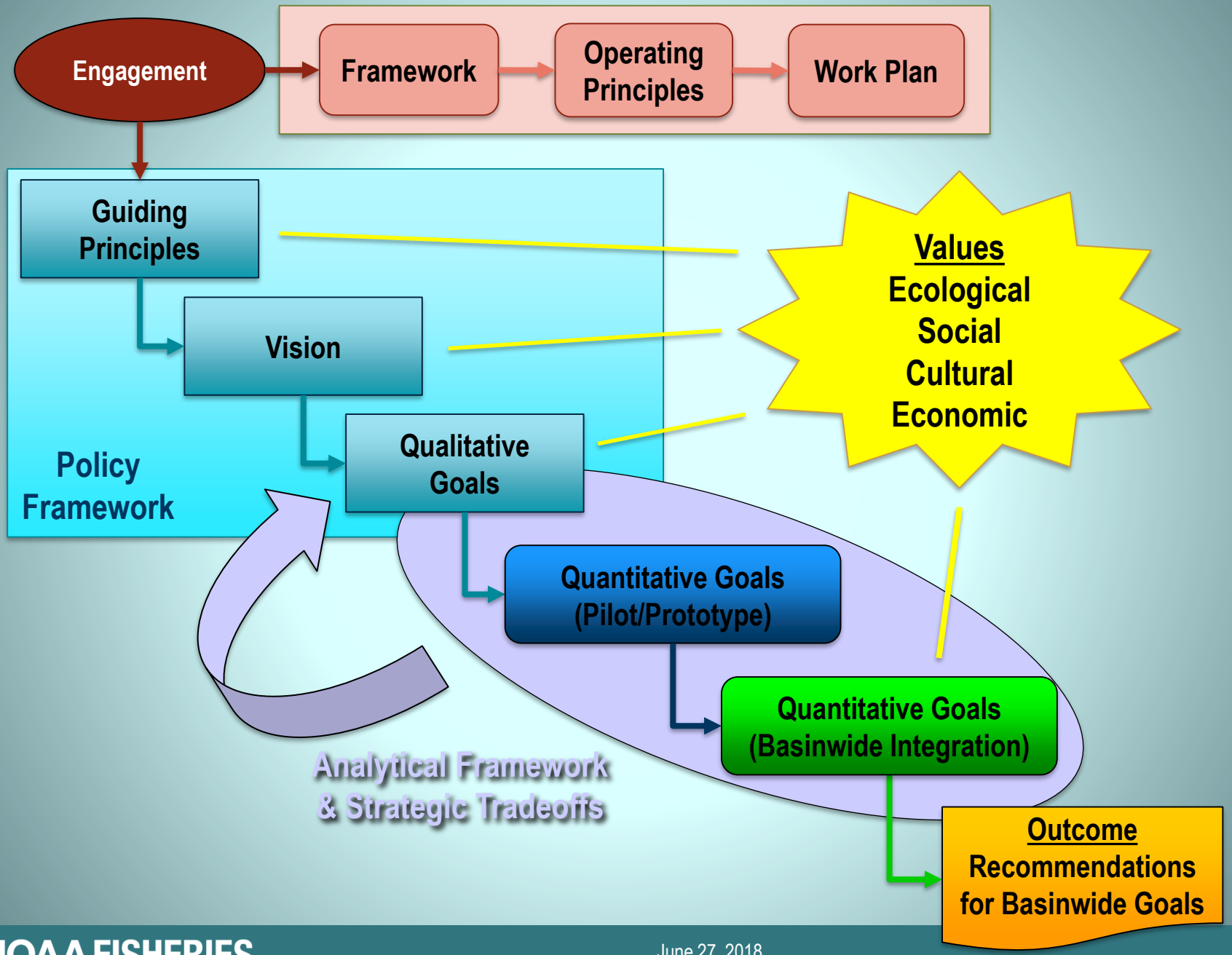


CBP Task Force: Progress and Products

Relationships and Cross-Sector Understanding by CBP Task Force Members

- Represent diverse interests and perspectives from across the basin who have not been at one table before.
- Shared their stories throughout the process to gain a better understanding of each other's core values, interests, and concerns.
- Sharing background information and issue-based discussions (e.g. harvest, hatchery, hydrosystem, habitat and ecological considerations) have helped provide a common foundation of understanding and increased knowledge of each other's perspectives across sectors.
- Constructive relationships and opportunities for building common ground based on joint interests has emerged from these interactions and this process.


stable
vibrant
Robust
Inclusive
cheap
risks
ecosystem
Snow
Stewardship
future
Value
benefits
Heathy
Nutrition
water
Sustenance
Reliable
Salmon
harvest
Thrive
Balance
Water
Harvestable
Ever-changing
Human-centric
Collaborative
Culture
Snake
Restraint
Honest
communities
regime
Cold
energy
clean
Wet
impediments
Collaboration
ESA
Complete
Reinvigorate
Defend
Inter-connected
Proper
Equitable
Wild
Clean
healthy
Viable
Fishing
Achieve
Ask
Incorporated
Imaginative
function
Good
runs
control
sustainable
Round
Climate
Complex
World-class
Abundant
Sustainable
Nourishing
Economy
Cooler
Jobs
Diversified
Plentiful
Save
Rational
Responsibility
Symbiotic
salmon
Integrated
enjoy
populations
Bountiful
Language
Help
listings
Ecosystem
cultural
fish
flood
kill
court
Fulfill
supply
Build
identity
Replace
Restore
Rationalize
Manage
Food
Resilient
River
Harmony
actions
Historical
Economically
Healthy
service
Productive
Environmentally
history
Rebirth
Diverse
people
basin
Functional
values
Safe


Engagement
Framework
Operating Principles
Work Plan
Guiding Principles
Vision
Qualitative Goals
Policy Framework
Values
Ecological
Social
Cultural
Economic
Quantitative Goals (Pilot/Prototype)
Quantitative Goals (Basinwide Integration)
Analytical Framework & Strategic Tradeoffs
Outcome
Recommendations for Basinwide Goals

Work Products and Progress: Guiding Principles

- FAIRNESS:
- OPENNESS & TRANSPARENCY
- OBLIGATIONS & RESPONSIBILITIES
- CLARITY
- SUSTAINABILITY
- KNOWLEDGE & WISDOM
- INNOVATION & ADAPTIVENESS
- INTERCONNECTION & COMPLEXITY

Work Products and Progress: Draft Vision

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.

Work Products and Progress: Provisional Qualitative Goals

- Reflect Guiding Principles and Vision
- Provide a foundation for Quantitative Goals
- Important link between Vision and Quantitative Goals
- Four categories
    - Natural production
    - Hatchery/mitigation
    - Harvest/fisheries
    - Social, cultural, economic, and ecological
- Sub-group development, multiple iterations
- Words matter!

Natural Production Qualitative 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 and Fishing Opportunity Qualitative Goals

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.*

Hatchery/Mitigation Qualitative Goals

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 and Ecological Qualitative Goals

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.**

Work Products and Progress: Provisional Quantitative Goals

- Three categories – natural production, hatchery/mitigation and harvest/fishing.
- Aggregate run reconstructions total all goals.
- Where possible, used goals identified in the variety of recovery, management, and mitigation plans that exist in the basin.
- Started with 5 prototype species; now cover all 24 stocks with geographic subgroups.
    - Includes all salmon and steelhead in the Columbia River Basin and its tributaries, listed and non-listed populations, and historical anadromous production areas that are currently blocked.
- Goals are identified for stock units, based on
    - Species (Chinook, coho, sockeye, and chum salmon; and steelhead)
    - Region of origin (e.g., Lower Columbia, Middle Columbia, Upper Columbia, Snake, or Willamette)
    - Run type (e.g. spring, summer, fall, late fall).

Work Products and Progress: Provisional Quantitative Goals

- Goals identify low, medium and high numbers reflecting a continuum of aspiration for progressive improvements to be achieved over an extended time period.
- Goals are defined based on abundance of adult salmon and steelhead.
- Numbers take into account a number of factors including ESA requirements, habitat constraints and future potential, density dependence, cultural needs of tribes, fishing interests and sustainability, and mitigation responsibilities including currently blocked historical anadromous production areas.

Work Products and Progress: Provisional Quantitative Goals

- Work was aided by regional teams composed of technical experts with specific experience in the subject area were formed.
- Technical experts were identified by CBP members and generally included local staff from state, tribal, and other partner Task Force participants.
- Work groups operated under the Guiding Principles set by the CBP, including the principle that recommendations be firmly grounded in sound science.

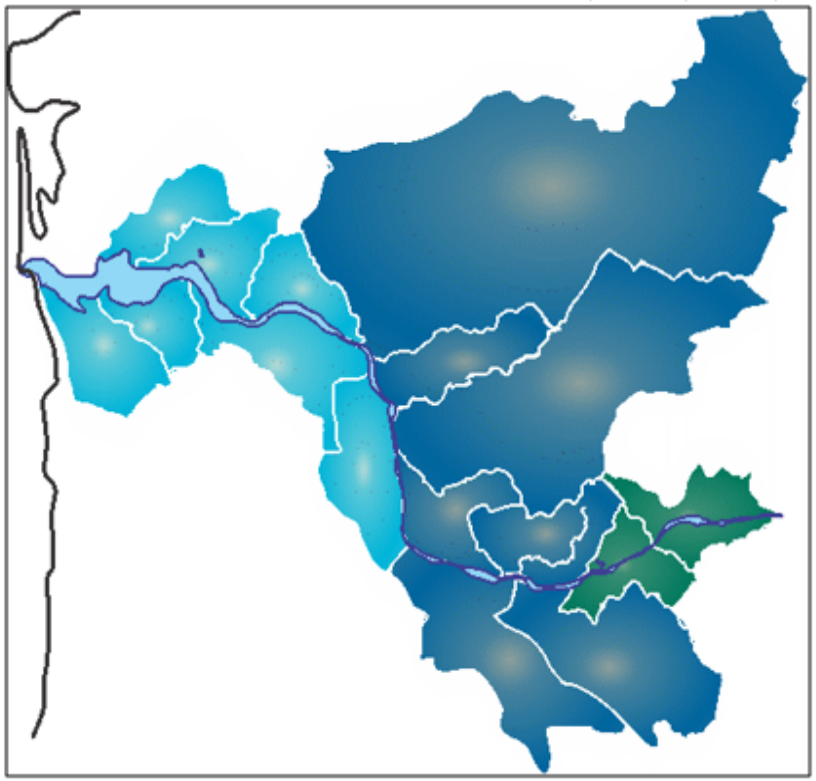
Example of Provisional Quantitative Goals Summary Sheet

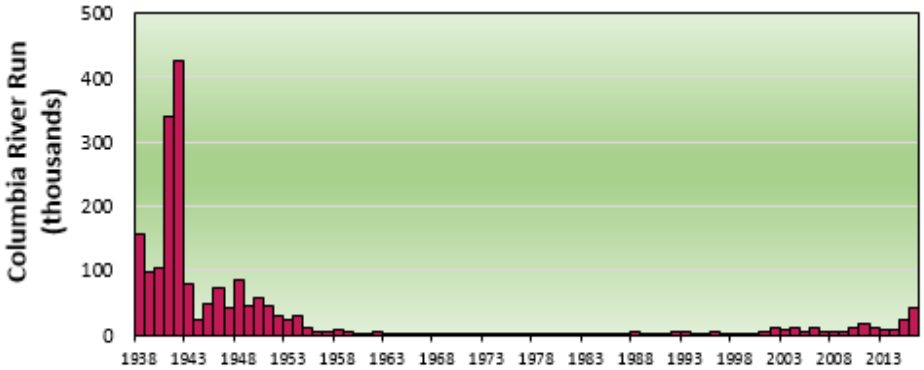
Columbia River Chum — **ESA: Threatened** — **Life History: Late Fall Run, Ocean-rearing** — **Life History: Late Fall Run, Ocean-rearing**

- *Historically spawned in lower reaches of streams and the mainstem downstream from Celilo Falls.*
- *Chum need clean gravel beds and intergravel flow or upwelling for successful spawning and incubation.*
- *Juveniles migrate seaward as fry soon after emergence from the gravel in late winter and early spring.*
- *Chum have declined to very low levels consisting of a few small remnant populations.*
- *Causes are loss of critical stream habitats due to watershed and stream alteration.*
- *Hatchery production is limited to small-scale supplementation efforts.*

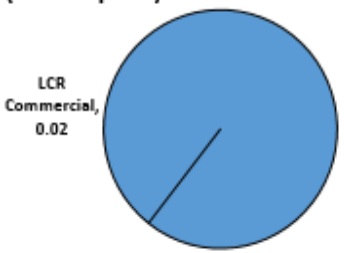
Run Summary (10-yr avg. adults)

	Total	Wild/Natl	Hatchery	Hatchery
@ Columbia R Mouth	14,500	14,200	300	2%
To Mid Col R (BON)	100	100	0	0%
Local return (tributary e	14,400	14,100	300	2%
Escapement ("spawners	14,400	14,100	300	2%
Harvest (Col mainstem)	--	--	--	--



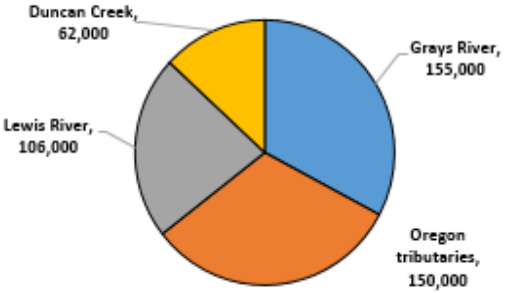


Current Fishery Distribution (Total Impacts)



Totals <2%

Current Hatchery Production (fry)



Totals 473,000

Example of Provisional Quantitative Goals Summary Sheet

Natural Production		Abundance (mean		Potential Goal Range		
MPG	Population	Recent	Historical	Low	Med	High
Coast	Grays	6,928	10,000	1,600	2,400	3,200
	Eloch/Sam	50	16,000	1,300	1,950	2,600
	Mill/Aber/Germ	50	7,000	1,300	1,950	2,600
	Youngs	0		500	750	1,000
	Big	0		500	750	1,000
	Clatskanie	0		1,000	1,500	2,000
	Scappoose	0		1,000	1,500	2,000
Cascade	Cowlitz	50	195,000	900	1,350	1,800
	Kalama	50	21,000	900	1,350	1,800
	Lewis	50	125,000	1,300	1,950	2,600
	Salmon	50	4,000	50	75	100
	Washougal / I205	2,176	18,000	1,300	1,950	2,600
	Clackamas	0		500	750	1,000
	Sandy	0		1,000	1,500	2,000
Gorge	Lower	1,694	6,000	2,000	3,000	4,000
	Upper	80	11,000	900	1,350	1,800
Totals		**11,178**	**900,000**	**16,050**	**24,075**	**32,100**

Artificial Production	Current Production			Return		Future
Location (Program)	Brood	Smolts	Fry	Current	Goal	production
Grays River	178	0	155,000	215		300,000
Oregon tributaries	--	0	150,000			300,000
Lewis River	88	0	106,000	22		100,000
Duncan Creek	54	0	62,000	10		50,000
Totals	**320**	**0**	**473,000**	**247**		**750,000**

Fisheries / Harvest		Exploitation rate			Harvest	
	Location	Avg.	Goal	Future	10 yr avg	Future
Natural	Ocean	--	--	--	--	--
	Freshwater	<2%	<5%	<5%	<200	1,690
	Total	*<2%*	*<5%*	*<5%*	--	*1,690*

Total Return	Abundance		@ Goals		
	Recent 10-yr avg	Historical	Low	Med	High
@ Columbia R Mouth	**14,500**	**900,000**	**16,400**	**24,900**	**33,800**
Wild/Natural	**14,200**	--	--	--	--
Hatchery	**300**	--	--	--	--
% hatchery	**2%**	--	--	--	--
To Mid Col R (BON)	**100**		**900**	**1,400**	**1,900**
Wild/Natural	**100**		--	--	--
Hatchery	**0**		--	--	--
% hatchery	**0%**		--	--	--
Local return (tributa	**14,400**		**15,500**	**23,500**	**31,900**
Wild/Natural	**14,100**		--	--	--
Hatchery	**300**		--	--	--
% hatchery	**2%**		--	--	--
Harvest (Col mainste	**<200**	--	**330**	**870**	**1,690**
Wild/Natural	--	--	--	--	--
Hatchery	--	--	--	--	--
% hatchery	--	--	--	--	--

Work Products and Progress: Provisional Quantitative Goals

Natural Production Goals:

- Low end goals represent abundance numbers to avoid listing (for non-ESA listed stocks) or delisting (for ESA listed stocks)
- Mid-range goals are approximately half-way between low end (conservation) goals and the high-end goals.
- High number reflects aspirational “healthy and harvestable” levels that might potentially be achieved with improvements in habitat and other conditions currently limiting stocks.
- High end goals are typically about three times greater than low end goals and generally 50% of historic average or less.

Work Products and Progress: Provisional Quantitative Goals

Hatchery/Mitigation goals:

- Existing hatchery goals were identified for conservation and mitigation programs throughout the basin. Numbers identify current hatchery production and corresponding adult returns.
- Additional production was identified where:
    - Defined in existing processes and plans (e.g., John Day Mitigation program), or
    - Proposed to address specific purposes identified by CBP partners (e.g., currently blocked historical anadromous production areas).

Work Products and Progress: Provisional Quantitative Goals

Harvest/ Fishing Goals:

- Current harvest levels and exploitation rates are identified by species and run type based on the complex of existing plans, agreements, and processes.
- Increases in abundance-based exploitation rates and harvest are projected to result from increasing natural production.

Work Products and Progress: Provisional Quantitative Goals

Aggregated Run Sizes:

- Aggregate numbers for natural production, harvest/fishing, and hatchery/mitigation production are reported at basin wide and species scales.
- Useful for evaluating status and goals relative to a variety of needs across the basin.

CBP Next Steps:

- CBP Task Force members have been working hard to develop and agree in principle to provisional goals.
- Over the summer, CBP Task Force members will share provisional goals and related products with constituencies and communities.
- CBP Task Force members will share feedback in August & further discuss provisional goals in October.
- A drafting group is beginning to draft recommendations to MAFAC; and will complete recommendations in January 2019.

Recommendations to MAFAC: Next steps

- The CBP Task Force would like to continue the effort to integrate quantitative goals across species for natural production, hatchery/mitigation, and harvest/fishing purposes, and begin to analyze them.
- Scenario planning is one tool that could be used to accomplish this. CBP Task Force members are further developing next steps over the summer for discussion at October meeting.

Questions and Discussion