

Fisheries Program Update



September 6, 2022

Why we're here

- Habitat Conservation Plans (HCP) hatchery recalculation update

Catherine Willard

- Ocean conditions update

Alene Underwood

- 2022 Columbia River sockeye returns

Catherine Willard

Hatchery Recalculation Update

- Objective of the HCPs signed in 2004 is to achieve No Net Impact (NNI)
 - 91% combined adult and juvenile project survival
 - 7% compensation provided through hatchery programs
 - 2% compensation through tributary programs



Hatchery Production Components

- Initial production
- Inundation
- No Net Impact



Recalculation Methodology

- Mitigate for hatchery and natural-origin HCP species
- Utilize measured juvenile survival values at the Projects
- Data set derived from the hatchery monitoring and evaluation program

Recalculation Timing

- First hatchery recalculation from October 2010 to December 2011
- Second hatchery recalculation from April 2021 to July 2022

Hatchery Recalculation Update

		Smolt Production Targets		
Species	Facility	2004	2014	2024
Spring Chinook	Chiwawa	298,000	144,026	144,000
	Methow	90,000	60,516	61,000
	Chief Joseph	NA	Funding agreement	
Summer Chinook	Chelan Falls	400,000	400,000	400,000
	Chelan Falls	200,000	176,000	135,283
	Dryden	864,000	318,000	293,776
	Chief Joseph	NA	Funding agreement and O&M of Similkameen	
Steelhead	Chiwawa	165,000	165,000	165,000
	Chiwawa	235,000	88,300	70,490
Coho	NA	NA	Funding agreement with Yakama Nation	
Lake Wenatchee Sockeye	NA	50,000	46,000*	43,652*
Okanagan Sockeye	Penticton Hatchery	Funding agreement		

*Calculated sockeye production was traded for other species production.

Ocean Conditions



OCEAN CONDITION INDICATORS TREND

good fair poor

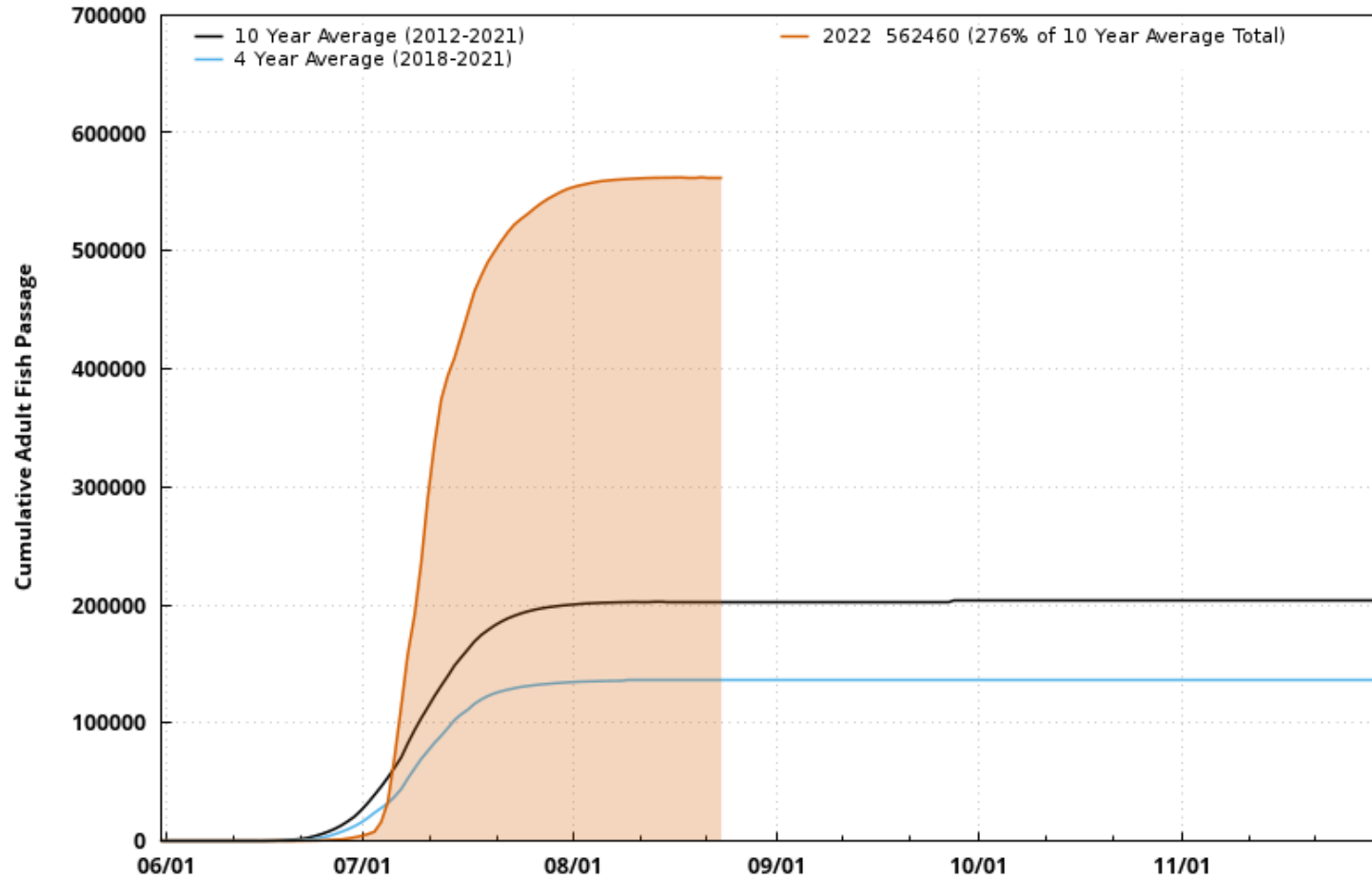
ECOSYSTEM INDICATORS		'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21
CLIMATE & ATMOSPHERIC	PDO (SUM; Dec-Mar)	poor	good	good	fair	good	poor	fair	poor	fair	good	good	poor	good	good	fair	fair	poor	poor	poor	fair	poor	fair	poor	good
	PDO (SUM; May-Sep)	fair	good	good	good	fair	poor	poor	poor	fair	good	good	good	good	good	good	poor	poor	poor	poor	poor	fair	poor	fair	good
	ONI (AVG; Jan-Jun)	poor	good	good	good	fair	poor	fair	poor	fair	good	good	poor	good	good	good	fair	fair	poor	poor	poor	good	poor	poor	good
LOCAL PHYSICAL	SST NDBC Buoys (°C; May-Sep)	poor	good	fair	good	good	fair	poor	fair	good	good	good	good	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	good
	Upper 20 m T (°C; Nov-Mar)	poor	fair	fair	fair	good	poor	poor	poor	poor	good	good	good	poor	good	good	good	poor	poor	poor	poor	poor	poor	poor	good
	Upper 20 m T (°C; May-Sep)	fair	fair	fair	good	good	poor	poor	poor	poor	good	good	poor	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	good
	Deep Temp (°C; May-Sep)	poor	good	fair	good	good	fair	poor	poor	poor	good	good	good	good	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor
	Deep Salinity (May-Sept)	poor	good	fair	good	good	poor	poor	poor	poor	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	good
LOCAL BIOLOGICAL	Copepod richness	poor	good	good	fair	good	poor	poor	poor	poor	poor	poor	poor	poor	good	good	good	good	poor	poor	poor	poor	poor	poor	good
	N copepod biomass	poor	poor	fair	fair	good	poor	poor	poor	poor	poor	poor	poor	poor	good	good	good	good	poor	poor	poor	poor	poor	poor	good
	S copepod biomass	poor	good	good	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	good
	Biological transition	poor	fair	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor
	Nearshore Ichthyoplankton	poor	good	fair	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor
	Nearshore & offshore Ichthyoplankton	fair	good	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor
	Chinook salmon juvenile catch	poor	good	good	poor	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor
	Coho salmon juvenile catch	poor	fair	poor	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor
MEANS & RANKS	Mean of ranks	20.1	7.0	8.5	8.1	6.8	15.2	18.2	19.4	12.1	10.7	3.2	9.6	13.9	8.1	6.6	9.3	14.2	20.4	19.8	18.3	13.4	17.3	13.2	6.0
	Rank of the mean rank	poor	good	good	good	good	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor	poor

Columbia River Sockeye Returns



2022 Columbia River Sockeye Returns

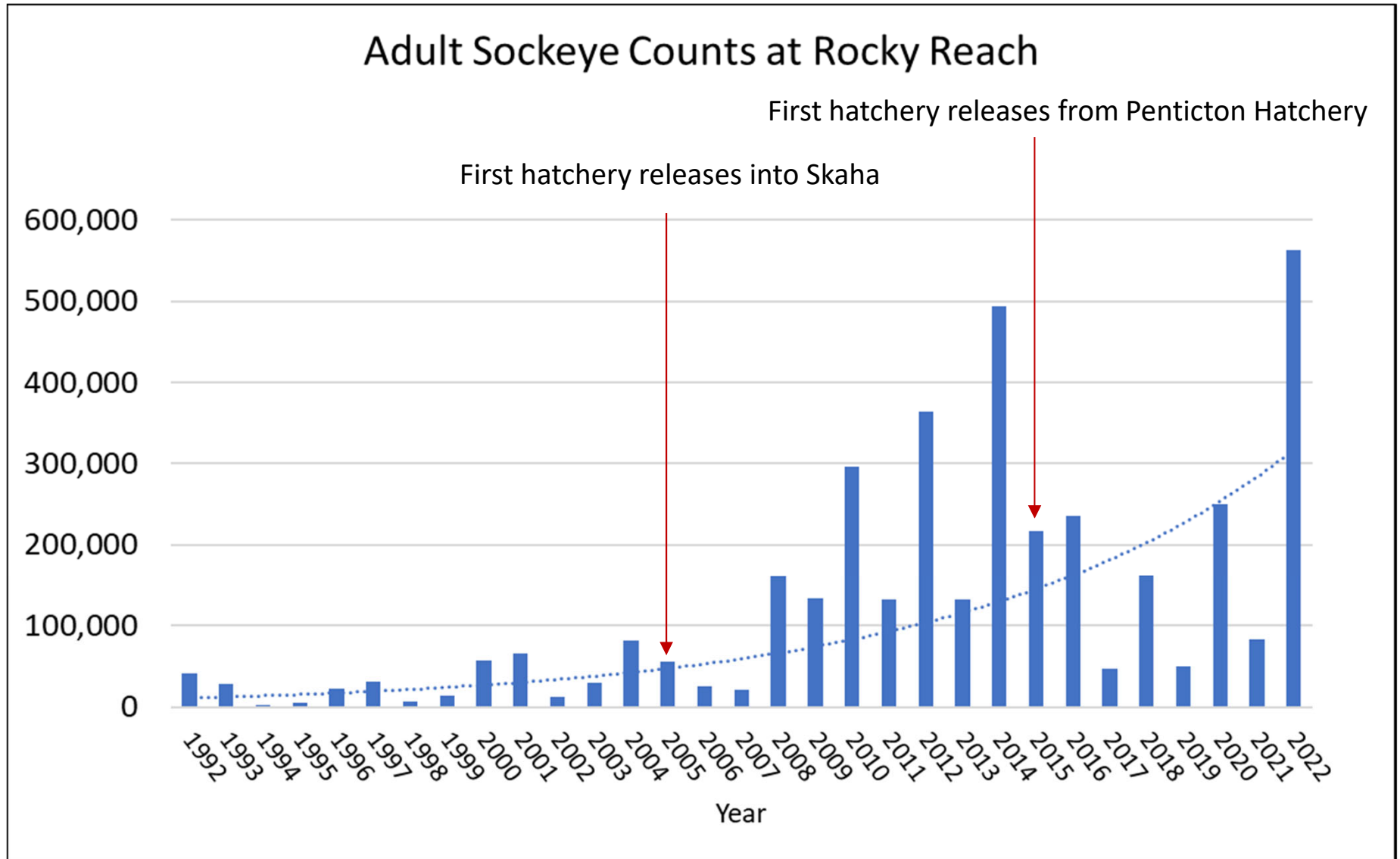
2022 Adult Cumulative Passage at Rocky Reach
Sockeye with 10 Year Average
2022 Adult Cumulative Passage 276% of 10 Year Average Total, 412% of 4 Year Average Total
Date Range 6/1-11/30



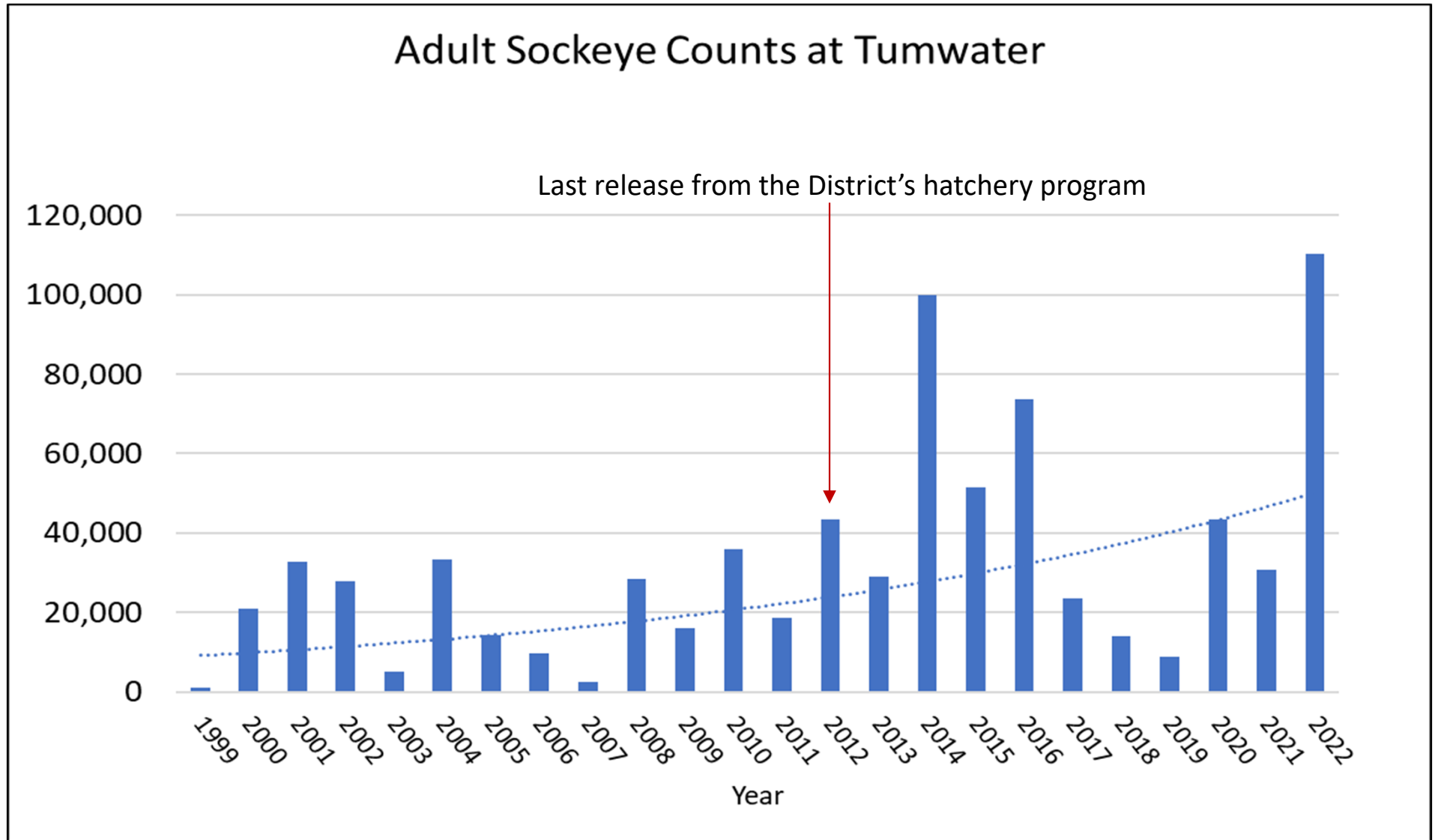
www.cbr.washington.edu/dart

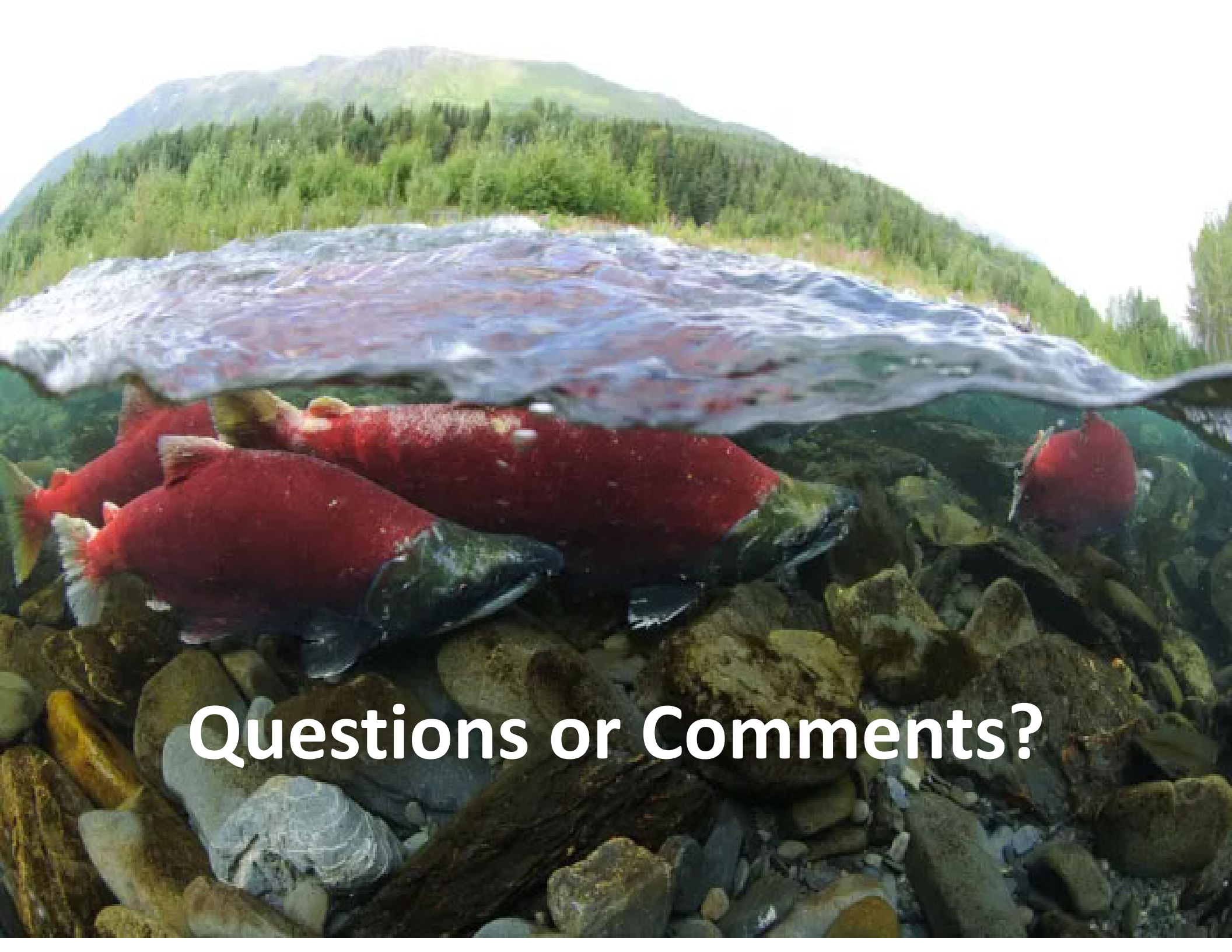
25 Aug 2022 17:03:04 PDT

2022 Okanagan Sockeye Returns



2022 Lake Wenatchee Sockeye Returns





Questions or Comments?