

**PROJECT:** Experimental Re-introduction of Chinook Salmon into Okanagan River

**MISSION:** *To stabilize and rebuild the declining wild Okanagan Chinook population, to return Chinook to their former habitat and migration range, and to revitalize the Okanagan Nation salmon fishery.*

**TASK:** Pilot study for monitoring trends in juvenile Okanagan River chinook abundance and survival using stock augmentation techniques.

**PROJECT CODE:** 673 NC

**OPERATIONAL LOGISTICS:**

Summer Chinook Task	Where	When	Target Quantity	Who
Broodstock Collection	<ol style="list-style-type: none"> <li>Chief Joe Fish trap</li> <li>Similkameen beach seine</li> <li>Oliver beach seine</li> </ol>	10-25 October	5 females (30,000 eggs) plus 5 males	ONA -CCT
Disease Screening	<ol style="list-style-type: none"> <li>ONA Diagnostic Lab</li> <li>WDFW Lab</li> </ol>	November (adults) March (fry)	All adults, 300 fry	ONA, WDFW
Egg incubation	<ol style="list-style-type: none"> <li>Chief Joe Hatchery</li> <li>Kl cp'elk' stim' Hatchery</li> </ol>	Nov-Feb	95% egg survival target	CCT, ONA
Fry Marking	<ol style="list-style-type: none"> <li>ONA</li> </ol>	February, June	100% thermal mark-ad clip; 1000-3000 PIT tag, > 80% CWT tag	ONA
Rearing	Kl cp'elk' stim' Hatchery	365 d fry rearing	25,000 marked fry for outplant (~85% survival)	ONA
Release	<ol style="list-style-type: none"> <li>McIntyre Dam</li> </ol>	June	25,000	ONA

Spring Chinook Task	Where	When	Target Quantity	Who
Broodstock Collection	Shingle Creek	25- Aug – 10 September	2 females (6,000 eggs) plus 2 males	ONA -PIB
Disease Screening	ONA Diagnostic Lab	October (adults) March (fry)	All adults, 300 fry	ONA
Egg incubation	Kl cp'elk' stim' Hatchery	Sept-Dec	95% egg survival target	ONA
Fry Marking	ONA	February, June	100% thermal mark; > 100%	ONA

			CWT tag (No ad clip)	
Rearing	Kl cp'elk' stim' Hatchery	365 d fry rearing	5,500 marked fry for outplant (>85% survival)	ONA
Release	Shingle Creek	June	5,500	ONA

**KEY MESSAGES:**

Continuation Year 2, collection of adults, disease screening, marking and release of chinook summer run and spring run to: 1. Monitor survival of egg to fry survival comparing Chief Joe to Kl cp'elk' stim' Hatchery program, 2. Determine biologically optimal release strategies , and 3. Determine survival and distribution of PIT tagged juveniles from Okanagan River to Rocky Reach Dam.

**BACKGROUND AND OBJECTIVES:**

- The Okanagan Chinook Re-introduction project is a long term experiment designed to assess the feasibility of reintroducing Chinook Salmon into their historic range, which includes mainstem summer run and tributary spring run populations. ONA has been monitoring live adults and carcass for over 15 years.
- In collaboration with our communities and En'owkin Centre, recovery plans and population reassessment reviews have been completed in 2007, and 2016. Less than 70 adult chinook estimated per year to spawn in mainstem or tributaries.
- Beginning June 2017, hatchery-reared Chinook fry have been released into Osoyoos Lake (McIntyre Dam). These fry, along with the wild summer chinook fry in Osoyoos Lake, may spend months to up to two years in their rearing lake or downstream reservoirs before migrating out the Columbia River to the ocean. Osoyoos Lake chinook are unique in life history where a small component of the chinook population spend their entire life in the lake (freshwater).
- Outcomes from this 3-5 year pilot study will inform an expanded program, with interim goals for > 7,500 adult summer spawning chinook, and > 2,500 adult spring chinook escapement to the Okanagan region (Canadian segment)
- 100% financing contribution in 2016-017 provided by ONA-CCT, an expansion for rearing was financed and shared between OAE/ONA and Federal funds (DFO PICFDI program).

**TIME FRAME/SCHEDULE:**

- 1997 → ONA initiated and proposed the reintroduction of Chinook into their historic range.
- 2006 → COSEWIC Review Completed
- 2016 → Ten year COSEWIC re-assessment of population
- 2016– Kl cp'elk' stim' Hatchery (Penticton) modifications for summer chinook incubation and early fry rearing; license review for adding chinook (multi-species rearing); September 2017, CCT-ONA at Chief Joe 15,000 eggs collected, disease screened tested negative, transported via CFIA documentation
- 2017 - Released 12,500 chinook marked fry (19 June, McIntyre following Salmon Ceremony)

**ONAFD TEAM LEADS:**

- Pauline Terbasket (Director)
- Howie Wright (Program Manager)
- Shayla Lawrence (Contract Lead)

**Left:**  
Diagram

- Richard Bussanich (ONA project lead)
- Kari Alex-Long – Lead Habitat
- Ryan Benson– Field Lead –Stock
- Norm Johnson/Dan Stefanovic – Hatchery Lead/Co-lead
- Herb Alex –Hatchery Facility
- Chad Fuller –Fish Diagnostics

**PROJECT PARTNERS:**

- Funders – ONA
- OIB fisheries field support
- PIB natural resources field support
- Operational Support - CCT, Department of Fisheries and Oceans Canada