



**YUKON RIVER
CHINOOK SALMON
STOCK RESTORATION**



Fisheries and Oceans
Canada

Pêches et Océans
Canada

YUKON RIVER CHINOOK SALMON STOCK RESTORATION WORKSHOP

PROJECT REPORT

On October 7th and 8th, 2014, the Yukon Salmon Sub-Committee (YSSC) and Fisheries and Oceans Canada (DFO) co-hosted the Yukon River Chinook Salmon Stock Restoration Workshop in Whitehorse.

The workshop was attended by 85 participants from First Nation Governments, Renewable Resources Councils, government agencies, consultants, not-for-profits and the public.

The purpose of the workshop was to:

- bring together a broad-cross section of participants and presenters to share perspectives about Yukon River Chinook salmon stock restoration,
- build understanding regarding the concepts and principals around stock restoration, and
- begin building a Canadian position for the Yukon River Panel.



PRESENTERS AT THE WORKSHOP

- Mike Bradford, DFO – Presentation: **Salmon Hatcheries - Concepts, Techniques, Principles and Application in the Yukon Context.**
- Joseph Oatman, Nez Perce Tribe, Idaho – Presentation: **Columbia River Chinook Stock Restoration Project.**
- Howie Wright, Okanagan Nation Alliance – Presentation: **Salmon Stock Restoration in Columbia River and Okanagan.**
- Ron Josephson, Alaska Department of Fish and Game – Presentation: **Chinook Salmon Hatchery Overview and Case Study.**
- Michael Crowe, DFO – Presentation: **Overview of DFO's Salmonid Enhancement Program: Stock Restoration Case Study.**
- Darrell Otto, Yukon College – Presentation: **McIntyre Creek Hatchery.**
- CoraLee Johns, Ta'an Kwach'an Council – Presentation: **Fox Creek Project Case Study.**
- Lawrence Vano, Yukon Energy Corp./Access Consulting – Presentation: **Whitehorse Rapids Fish Hatchery.**
- Tami Grantham, Ecofor Consulting and CTFN – Presentation: **Tagish Salmon Update.**
- Angus Mackay, Pacific Salmon Commission – Presentation: **Yukon River Panel Restoration and Enhancement Program.**



All presentations are available as downloadable pdf at: <http://yssc.ca/about/publications>.

GROUP WORK

After the presentations, the participants were separated into groups to provide:

- 1) feedback on the opportunities and challenges related to Yukon River stock restoration.
- 2) traditional knowledge and insight on locations through a mapping exercise.

General Perspectives

The following is a consolidated list of general participant perspectives related to Yukon River Chinook salmon stock restoration:

- Need to keep building on this initiative and engaging with Yukon communities.
- Need to work with Alaska in partnership.
- Salmon have a purpose beyond harvest. Water has a ceremonial value and we need to keep putting back the nutrients.
- The Restoration and Enhancement Fund provides for resources to support the Yukon River stock restoration process.
- There needs to be more documentation, distribution and utilization of restoration and enhancement data and research.
- Traditional knowledge needs to be incorporated into the Yukon River Chinook stock restoration process.
- Traditional Knowledge moves the baseline data back. Should be a priority before it is lost.
- Traditional knowledge must be collected with protocols to ensure it is not exploited.
- Need to be sympathetic towards community based projects and maintaining access to spawning areas.
- Focus on hatcheries needs to be approached cautiously. It will require multi-year funding.
- Food security around salmon is a large issue. Traditional food sources are declining.
- Should focus restoration objectives on the juveniles to ensure they survive increasing pressures from development and climate change.
- Looking to connect the management system with stock restoration. Yukon River has intense management but little restoration.
- Climate change needs to be a key consideration.
- Funding should be allocated to new projects and to support an Aboriginal fishery strategy.
- There are gaps in good quality data. For example, down river harvest information.
- There should be a better way to access stock restoration information. Should be in one place, a “one stop shop”. Right now it is all spread around and not all publically accessible.
- Must not forget about the stewardship component of stock restoration, e.g., fish and culture camps are the best way to disseminated information and share knowledge between youth and elders.
- Have a mechanism for prioritizing which restoration efforts are a priority
- Funding restoration projects should be strategic and support priorities rather than just good applications. Should avoid duplication on restoration initiatives.
- Need to get a community perspective on stock restoration.



- There are limited resources and capacity to fund all of the good restoration ideas.
- Quality of escapement is important. Restoration & enhancement should look at what projects increase the number of eggs in gravel of Canadian origin Chinook. Also what does this mean for offspring in the long-term, does the number of eggs change with age and size of fish.
- Focus on the successes and what has worked.
- Stock restoration is a long term commitment. Need to look at a 10 year minimum or two cycles. This requires multiple year funding and on-going support. Need to consider other funding partners.
- Urgency in the issue...need to act now.

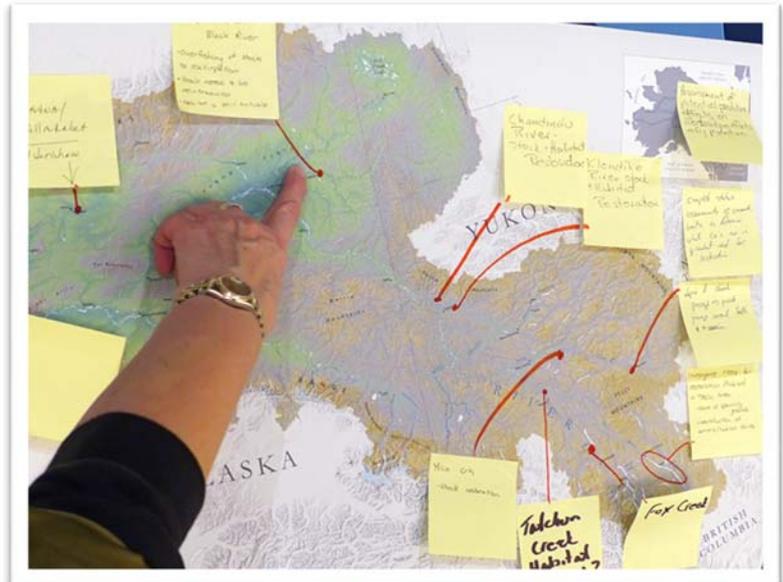


MAPPING EXERCISE

The following is a list of stock restoration projects and/or concepts that were provided from the mapping exercise. Note: maps contain additional thoughts and concepts not presented.

Group 1

- Current – Mayo B rearing habitat creation
- Current – Whitehorse spawning and rearing channels
- Current – Juvenile Chinook salmon salvage work
- New opportunity – Upper Mayo River feasibility study
- New opportunity – Faro - Rose Creek watershed restoration
- New opportunity – Teslin Lake and tributaries – upper Yukon restoration initiative.



Group 2

- Current – Whitehorse Dam hatchery
- Marsh and Tagish Lake area – identification of habitat restoration in Deep Bay, Tagish Lake and Rose River
- Look at restoration on the Porcupine, Marsh Lake, Indian River, Stewart River, Klondike River
- Expand the Mayo B restoration initiatives.

Group 3

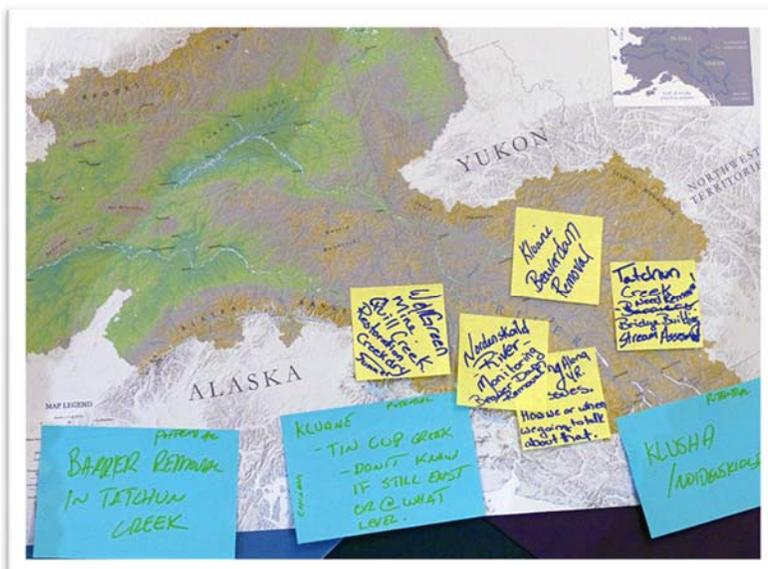
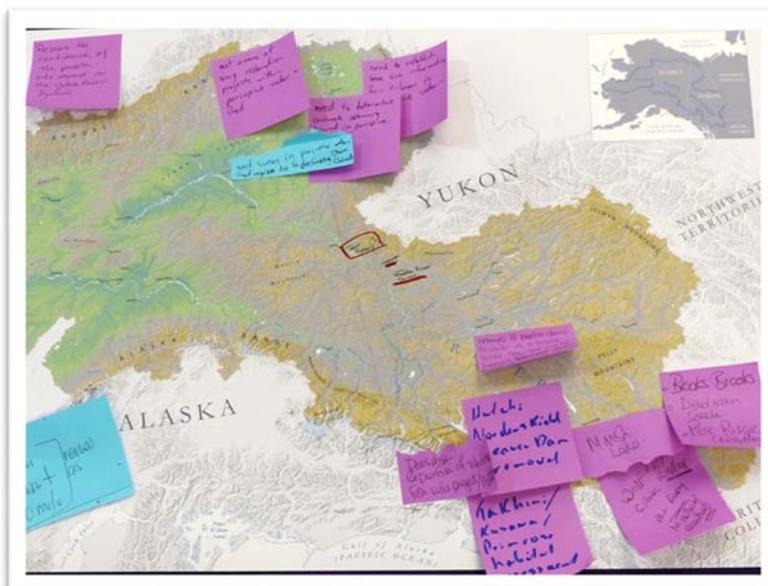
- Work on Takhini River traditional knowledge to restore these stocks
- Continue to focus on beaver dam removal – look at this on the North Slope, Little Salmon Carmacks First Nation traditional territory
- Look at Mayo River stock restoration to bring those fish back.

Group 4

- Need to keep monitoring salmon on the North Slope
- Remove barriers on the Tatchun River system
- Look at the Tincup – Kluane System – need to determine what utilization is there now
- Restore streams that are affected by mining.

Group 5

- Fishing Branch and the effects of predation on restoration efforts
- Klondike River – assess the area for a hatchery
- Remove barriers and keep erosion from entering the Tatchun River system.



NEXT STEPS

The YSSC and DFO assured participants that this is the beginning of the stock restoration discussion. It was suggested that all participants go back to their communities and discuss their priorities for stock restoration.

The YSSC and DFO will start a community engagement process in November in advance of the Yukon River Panel meeting in December. The Canadian contingent of the Yukon River Panel will then present these findings to the Alaskan members of the Yukon River Panel at their upcoming meeting in Anchorage.