



# 2020 Chinook Management

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# Chinook FSC Management

- Presentation objective is to provide a high level overview of some of the considerations that were taken into account in the 2020 Chinook FSC Fisheries planning that took place throughout the Fraser Chinook migration route.
- This presentation focusses on FSC fisheries access and opportunities only.

# BC Chinook – Conservation Measures

- Specific Fraser Chinook stocks of conservation concern include:
  - Spring 4<sub>2</sub>, Spring 5<sub>2</sub>, Summer 5<sub>2</sub>, Summer 4<sub>1</sub> (Maria Slough) and Fall 4<sub>1</sub> (Harrison).
- **The objective for Fraser River Spring 4<sub>2</sub>, Spring 5<sub>2</sub> and Summer 5<sub>2</sub> Chinook is to manage Canadian fisheries in a highly precautionary manner to allow as many fish to pass through to the spawning grounds as possible.**
- **This approach is expected to reduce overall Canadian fishery mortalities on these populations to very low levels approaching 5%.**

# BC Chinook – Conservation Measures

- Conservation concerns for many (not all) Chinook populations:
  - Regional pattern of reduced stock productivity (i.e. decreased marine survival, younger age at maturity, reduced size at age, and lower fecundity)
  - Coast-wide declines in and below average escapement over last 10-15 years
  - Warm Pacific Ocean “blob”, El Nino and other anomalous ocean conditions since 2014 may be cause of reduced marine survival of Pacific salmon. Effect of these conditions on Fraser Chinook expected to be seen at least through 2024.
  - COSEWIC and SARA listing process underway.

# Management Considerations

- Over the years input was sought from First Nations on how to design specific fishery management measures to achieve the required reductions.
- Actual reductions in specific fisheries will depend on relative impacts on stocks of concern and allocation priorities.
- Proposed measures will need to consider:
  - achievement of fishery reductions for identified Chinook stocks of concern.
  - consideration of differential impacts on Chinook stocks in different fisheries and areas due to stock composition;
  - design of fishery measures that foster compliance and support effective implementation.
  - existing fishery measures for stocks of concern;
  - In cases where fisheries have direct and significant effect on stocks of concern, more significant fishery-specific reductions may be required.

# Marine FSC Fisheries

- Up to June 19, 2020 marine areas closed to FSC retention of Chinook.
  - DFO provided opportunities to harvest Chinook for FSC in specific areas based on agreed upon fishing plans with First Nations (via VO).
- As of June 19, 2020, mixed stock fishery (Fraser, Lower Georgia Strait, Johnstone Strait, Mainland Inlets)
  - FSC Permitted in marine areas, except for Subareas 29-6, 29-7, 29-9 and 29-10 (approach to Fraser River)
  - Primarily fishing method hook and line.
- This management approach continues for 2021, intent to avoid increasing impacts on FR Chinook stocks compared to the low impacts expected based on typical Spring FSC fishing patterns.
  - DFO working with First Nations to increase monitoring and biological sampling of FSC fisheries.
  - DFO supplying biological sampling kits to First Nations and training if needed, upon request.
- Communal Licence Allocations for FSC Chinook are modest.

# Fraser River FSC Fisheries

**There are different types of Chinook FSC fisheries.**

- Fisheries may be:
  - Chinook directed or
  - Sockeye, Pink or Chum directed with Chinook bycatch
- Licences may specify limited participation or be communal
- Fisheries may take place on the main-stem (mixed stock) or on systems with only one or two stocks (examples: Chehalis River, Chilliwack River, Birkenhead River, Kamloops Lake, etc.)
- Preferred gear varies from area to area (examples: gill nets, dip nets, rod and reel, gaffs or spears)

## Lower Fraser Management Considerations – Limited Participation Licences – before Aug. 10

- Delay in Communal FSC opportunities until second week in August to meet the objectives of Spring 4<sub>2</sub>, Spring and Summer 5<sub>2</sub>.
- Limited Participation opportunities prior to Communal openings to include unplanned events and a ceremony of each community's choosing (i.e. First Salmon Ceremony).
  - Limited Participation licences provide a small number of Chinook (3) for each request.
  - Fishing time and effort (1 net) are often limited.



# Lower Fraser Management Considerations – Communal Licences - After August 10

- Target species are Summer 4<sub>1</sub> Chinook
- An effort based model is used to ensure alignment with Chinook objectives for Spring and Summer 5<sub>2</sub> - End of August.
- If sockeye return is low, the objectives around sockeye bycatch must be considered when planning chinook fisheries.
- Fishery plans include staying within Chinook harvest targets for the area.

# Mid-Fraser Management Considerations

## **Fisheries downstream of the confluence with the Thompson River (and in the Thompson River watershed):**

- Delay in Communal FSC opportunities to meet the objectives of Spring 4<sub>2</sub>, Spring and Summer 5<sub>2</sub>.
- Limited Participation opportunities.
  - Limited Participation licences provide a small number of Chinook (for example 3) for each request.
  - Fishing time and effort (1 net) are often limited.

# Mid-Fraser Management Considerations

## **Fisheries downstream of the confluence with the Thompson River (and in the Thompson River watershed):**

- Target species are Summer 4<sub>1</sub> Chinook
- An effort based model is used to help alignment with Chinook objectives for Spring and Summer 5<sub>2</sub>.
- Information on Chinook run timing may be used to plan fisheries to target on Summer 4<sub>1</sub> Chinook while avoiding stocks of concern.
- If sockeye return is low, the objectives around sockeye bycatch must be considered when planning chinook fisheries.

# Mid and Upper Fraser Management Considerations

## **Fisheries upstream of the confluence with the Thompson River:**

- The only Chinook in this area are Spring and Summer 5<sub>2</sub> Chinook.
- Discussions take place on how to ensure that Chinook objectives for Spring and Summer 5<sub>2</sub> Chinook are met.
- If sockeye return is low, the objectives around sockeye bycatch must be considered when planning chinook fisheries.
- Issues around passage at Big Bar are taken into account and may influence decisions around fisheries.

# Terminal Fisheries

# Lower Fraser – Terminal Fisheries – Sumas New in 2020\*\*\*

- Area - Lower Vedder and Sumas Canal (Hwy #1 Bridge)
- Time frame: July 16 through to August 27
- Limited participation fishery for 4/days per week
- 4 set nets 8" mesh or greater due to co-migrating Chilliwack and Cultus Sockeye (LAER)
- Fully monitored.
- Selective gear – (non-gillnet) was an option to plan additional fisheries.

# Lower Fraser – Terminal Fisheries – Sts' ailes New in 2020\*\*\*

- Area - Chehalis River Hatchery channel up to the logging bridge 2.4km below Chehalis Lake
- Time frame: July 30 to Sept 16.
- Communal Fishery
- Selective gear i.e. spear, gaff, hook and line – However snagging was not permitted
- Fully Monitored

# Thompson Watershed – Terminal Fisheries – Secwepemc Nation

- Area – Kamloops Lake
- Time frame: Start date of fishery is planned to avoid Summer 5<sub>2</sub> Chinook.
- Gear: One vessel using a seine net.
- Fully Monitored

There are many more examples of fisheries throughout the watershed where Nations rely on only one or two stocks.



# Chinook FSC Fishery Measures

Discussions with First Nations will continue on how to plan and implement FSC fisheries while meeting Chinook management objectives.

- Is there additional technical information required to support discussions?
- Do you have suggestions on potential chinook management actions that should be considered?