



Salmon IFMP: Key Changes for 2023-24

FRASER AND APPROACH SALMON FORUM

FEBRUARY 28 – MARCH 2, 2023



Outline

- A. IFMP Planning Considerations:
 - 1. First Nations Food, Social and Ceremonial Fisheries
 - 2. Dual fishing
 - 3. New monitoring requirements in commercial fisheries
 - 4. Chinook Management
 - 5. Mark-Selective Fisheries
 - 6. Inside Southern Chum / Fraser Chum
 - 7. Southern Inside Coho Assessments
 - 8. CSAF Demonstration Fisheries
- B. IFMP process timelines



A. IFMP Planning Considerations

- Key planning considerations reflect areas where Department expects discussion on potential changes to management approaches and decision guidelines for the 2023 fishing season
- A letter was sent to First Nations and stakeholders in mid-January with further details on planning
- Consultations with First Nations and stakeholders will occur as part of process to develop the draft salmon IFMPs and will include a minimum 30-day public comment period prior to finalizing 2023/24 salmon IFMPs



1. First Nations Food, Social and Ceremonial Fisheries

- Staff will consult with First Nations on fishing plans that achieve conservation objectives and provide FSC harvest opportunities
- Restrictions in commercial and recreational fisheries may be required to provide for First Nations harvest opportunities
- Meetings planned with First Nations, including the Fraser Forum, to discuss salmon fishing plans as part of the IFMP process
- The Department signed the Fraser Salmon Collaborative Management Agreement and will be working via the Fraser Salmon Management Board (FSMB) to advance key FSMB work plan items, including reviewing recent Chinook mortalities



2. Dual Fishing

- Seeking to incrementally implement new approaches to build experience and vision for dual fishing in the long-term
- Many First Nations are interested in dual fishing to support self-determination, cultural practices and methods of fishing, increasing flexibility, eliminating inefficiencies, and reducing costs of conducting FSC fisheries (eliminating the need for separate fishing trips)
- The Department will engage with proponents to conduct evaluations, with recommendations being put to the Regional Director General for decision in June 2023
- Retention of bycatch for FSC would be permitted subject to any remaining allocation, sufficient abundance, a valid FSC licence for the fishing area, compliance with communal licence areas and mandatory landing, and catch monitoring and reporting requirements to separately account for FSC and sale harvests.
- Many First Nations have a strong interest in conducting dual fishing and are supportive of pilot opportunities to increase flexibilities in harvesting practices.



3. New monitoring requirements in commercial fisheries

- Starting in 2023, DFO is proposing to implement additional monitoring requires in certain commercial fisheries to improve information on potential bycatch of stocks of concern
- Aligns with initiatives in Commercial Harvest Transformation element of PSSI to improve monitoring and assessment programs
- These measures will help to improve information and limit the risk of serious harm to stocks of concern consistent with the precautionary approach
- Specific requirements will vary by fishery
- The Department will be consulting with the commercial sector and will discuss specific requirements



4. Southern BC Chinook: FSMB recommendations for Fraser Chinook

- The FSMB recommends continued precautionary management for Spring 4-2 and Spring 5-2 Chinook, and further measures to reduce mortalities on Summer 5-2 Chinook
 - Spring 4₂ and Spring 5₂ Chinook - maintain a precautionary management approach
 - **New recommendation:** Summer 5-2 Chinook – reduce Fishery Mortality Index from ~15% towards 10%
 - In a manner that respects priority access for FSC after conservation
- Concerns over future productivity and low abundance of Fraser Chinook populations, potential impacts of the Big Bar landslide on migration of the Spring 5(2) and Summer 5(2) Chinook, and limited access for FSC fisheries in the Fraser River
- DFO is a signatory to the Fraser Salmon Collaborative Management Agreement with 76 First Nations that provides management recommendations for Fraser salmon:
- Potential fishery reductions for recreational, commercial, and potentially FSC fisheries may be required after analysis & consultations have occurred



4. Southern BC Chinook: Quinsam and Harrison Chinook

- Pacific Salmon Treaty (PST) details commitments to limit Canadian exploitation rates for key Chinook populations.
- Quinsam and Harrison Chinook have exceeded allowable impacts in most recent years.
- DFO is engaging with the CTC on Canada's requirements under PST Chapter 3
- Harrison – 75,100 escapement goal; CYER reductions below 11%
 - To achieve this goal, the Department aimed to reduce Canadian fishery mortalities by at least 25% compared to the 2013-2016 average.
- Quinsam - CYER limit is 16.48%
 - Average CYER is 19.28%
- DFO will be consulting on changes to fisheries that will reduce exploitation rates on these stocks that would also support meeting escapement goals



4. Southern BC Chinook: Fraser Chinook Management and Data Review

Fishery evaluation data for Chinook available in Winter/Spring of following year includes:

1. Final spawner abundance estimates
2. Big Bar impacts
3. Terminal return / Run size (Run Reconstruction)
4. Fishing impacts on Fraser stocks of concern:
 - a) Coded-wire tag (CWT) recoveries
 - b) Exploitation rate analysis (ERA) results
 - c) Estimated fishing mortalities via genetic stock identification (GSI) analysis and run reconstruction; focus on Fraser Chinook but potential future expansion to other southern Chinook populations

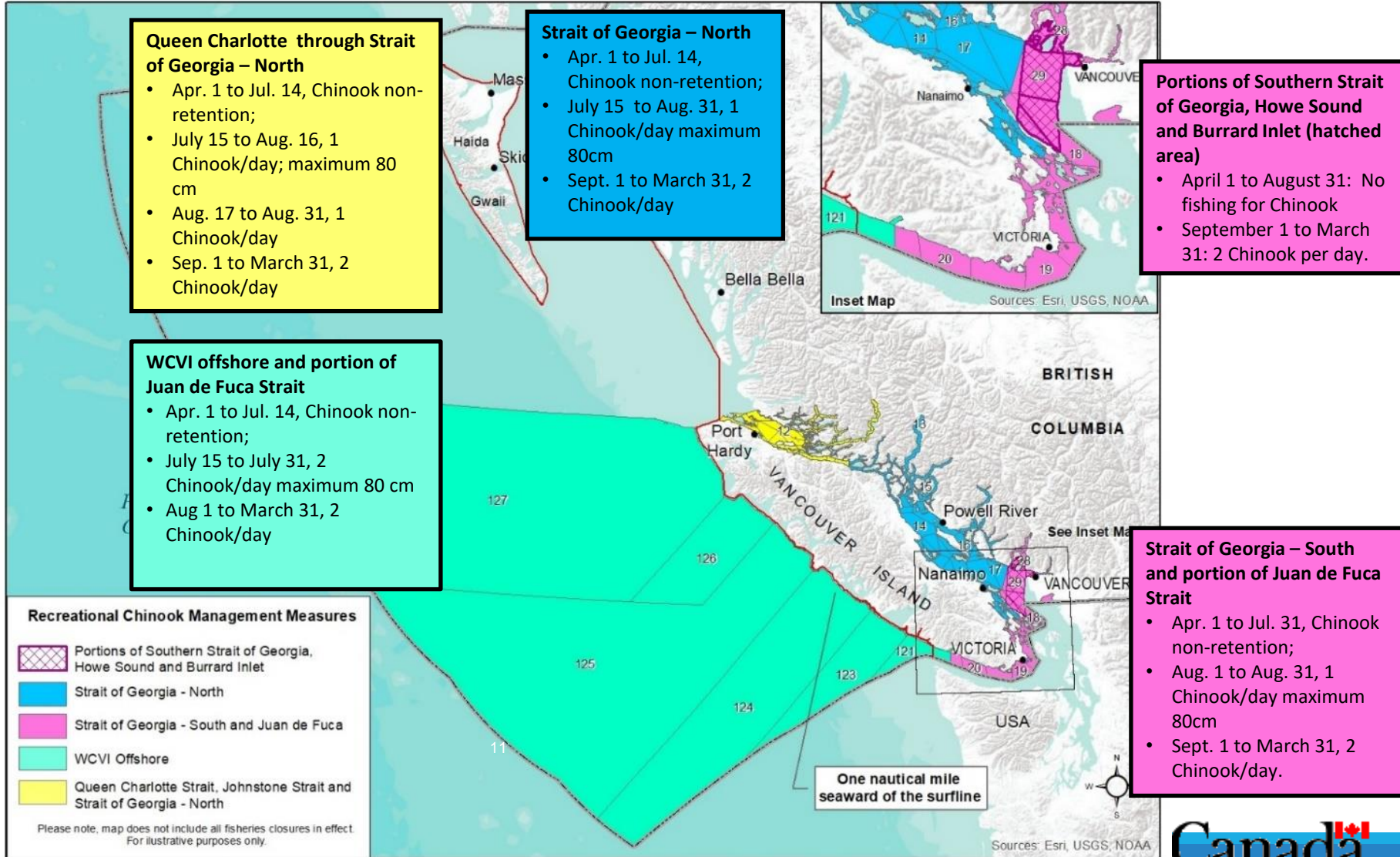


4. Southern BC Chinook: 2023 Management Measures

- Restrictions for Fraser Chinook covering wide times/areas of Southern BC and parts of Northern BC also benefit other co-migrating Chinook; additional stock specific measures will be identified in IFMPs
- Planning to anticipate continuation of measures in similar times/areas similar to recent years
- Consideration of potential adjustments to current fishery management measures will be discussed and reviewed during Salmon IMFP process
- Management measures are anticipated to be required for many years given the status of Southern BC / Fraser Chinook
- FSMB JTC working on scenarios for fisheries



4. 2023 Recreational Chinook Management Measures





4. Southern BC Chinook

Mass Marking / Mark Selective Fisheries

- As part of PSSI, DFO developed a discussion paper to help inform future decision making around the use of hatchery Chinook mass marking (MM) and mark-selective fisheries (MSF)
- Considerable interest and concerns raised around the use of MM/MSF as management tools
- Department is seeking feedback on new MSFs for spring 2023 and those same pilots are in the draft 2023/24 IFMP. The MSF that are approved for Spring 2023 will be continued in Spring 2024 subject to post-season analysis



5. Inside Southern Chum

2023 Fisheries Planning

- Major changes are not anticipated for South Coast Chum fisheries decision guidelines in 2023. However, the development of guidelines for fisheries implementation during extreme drought conditions could be considered during this year's planning process.
- Management measures to reflect 2022 approach for marine recreational fisheries:
 - Typical daily limits in marine waters are 4 per day, however these may be reduced in-season for conservation reasons
 - Potential sources of data for in-season decisions:
 - Johnstone Strait Chum purse seine test fishery (1M Critical Threshold)
 - Fraser River Albion test fishery (In-season run size)
 - Stock Assessment information (returns to many Strait of Georgia systems)
 - In-season information will be used to inform management measures:
 - Continuing retention at full limits, reduced limits, or non-retention



5. Inside Southern Chum

2023 Marine Recreational Fisheries Planning

JST Chum Abundance	Fraser River Run Size	ECVI Monitored Systems*	Marine Recreational Fishery**
<1 Million Critical Threshold not achieved	<500,000	Greater than 50% of currently assessed ECVI systems tracking below escapement	Chum non-retention
		50% or less of currently assessed ECVI systems tracking below escapement	
	500,000 to 800,000	Greater than 50% of currently assessed ECVI systems tracking below escapement	Chum non-retention
		50% or less of currently assessed ECVI systems tracking below escapement	Consider reduced Chum retention limits
	800,000 to 916,000	Greater than 50% of currently assessed ECVI systems tracking below escapement	Consider reduced Chum retention limits
		50% or less of currently assessed ECVI systems tracking below escapement	
	916,000 to 1,050,000	Greater than 50% of currently assessed ECVI systems tracking below escapement	Open full limits
		50% or less of currently assessed ECVI systems tracking below escapement	

*Systems: Puntledge, Big Qualicum, Little Qualicum, Nanaimo, Cowichan, Goldstream Rivers

**Areas and times to be determined, with consideration also given to terminal abundances



5. Fraser River Chum 2023 Fisheries Planning

Management of Fraser River Chum fisheries in 2023 will be consistent with the precautionary approach and requirements to provide ongoing protection to stocks of conservation concern, including IFR Steelhead and IFR Coho.

The Department is planning to continue to implement new decision rules initiated in 2022 to improve manageability and to maintain equitable harvest across all portions of the Fraser River Chum return:

1. No fishing for salmon in the Fraser mainstem after **November 30**, no recreational Chum fishing in the tributaries after **November 30** (unless in-season information indicates run is much later than average)
2. Fraser Chum TAC for commercial fisheries calculated based on a proportion of Fraser Chum return available
3. Delayed start of Chum-directed recreational opportunities in the Fraser and approach areas (including tributaries) until the in-season terminal run size estimate is available



5. Fraser River Chum 2023 Fisheries Planning

Fraser Chum TAC for commercial fisheries calculated based on a proportion of Fraser Chum return available after the Interior Fraser Steelhead window closure ends

- Using average run timing information, the amount of TAC that would be released ranges from approximately 22-34% of the full amount.
- The proportion varies by area due to the offset timing of the IFR Steelhead window closure by area.
- In-season information on return timing will be used when estimating the proportion of Fraser Chum return remaining available to fisheries.



5. Fraser River Chum 2023 Fisheries Planning

Fraser River Terminal Run Size	Harvest Plan	Lower Fraser First Nations	Commercial	Recreational
<500,000	Reduced directed harvest of Chum Salmon in FSC and test fisheries. Harvest rate not to exceed 10% of the terminal run size for Fraser Chum.	Reduced allocation and limited fisheries (reduced hours and days/week fishing)	Closed	Mainstem Fraser River and tributaries closed to fishing for Chum Salmon.
500,000 to 800,000	Directed harvest of Chum Salmon limited to FSC and test fisheries. Catch not to exceed 91,800 (82,800 First Nations* and 9,000 test fishing).	Normal	Closed	Mainstem Fraser River closed to fishing for Chum Salmon. Non-retention of Chum Salmon in tributaries.
800,000 to 916,000	Directed harvest of Chum Salmon limited to FSC, test fisheries, and reduced recreational fisheries. Catch not to exceed 91,800 (82,800 First Nations* and 9,000 test fishing).	Normal	Closed	Mainstem Fraser River and tributaries open to retention of Chum Salmon. Consider reduced daily Chum retention limits.
916,000 to 1,050,000	Directed harvest of Chum Salmon. Commercial catch not to exceed 10% of the terminal run size for Fraser Chum.	Normal	Open (TAC 35,000-105,000)	Mainstem Fraser River and tributaries open to retention of Chum Salmon, subject to regular daily limits.
>1,050,000	Directed harvest of Chum Salmon. Commercial catch not to exceed 15% of the terminal run size for Fraser Chum.	Normal	Open (minimum TAC 105,001)	Mainstem Fraser River and tributaries open to retention of Chum Salmon, subject to regular daily limits.



5. Inside Summer Chum

Options to mitigate bycatch in commercial fisheries

- Brood year abundance is poor for Summer Chum (some improvements to marine survival but still poor)
- Inside Southern Chum are caught in Fraser Sockeye and mixed stock Pink commercial fisheries
- Consistent with the precautionary approach, the Department seeks to improve information on bycatch impacts of IS Chum in Fraser Sockeye and Pink fisheries
- The Department is consulting on:
 - Develop a comprehensive sampling plan for Chum bycatch in 2023, in order to assess the impact of Fraser River Sockeye and Pink salmon fisheries on Summer-timed Chum
 - Implement non-retention of Chum bycatch during Fraser Sockeye and Pink- directed fisheries



6. Southern Inside Coho

- Stock assessment projects underway to develop escapement estimates and eventually status determination frameworks for Strait of Georgia and Lower Fraser Coho

Lower Fraser Coho - Genetic Mark-Recapture Program

- A pilot mark-recapture program was initiated in 2020 to provide an escapement estimate for this system

Strait of Georgia Coho Assessment – Fishery Sampling Pilot

- Retention of 1 unmarked Coho permitted in portions of areas 13-15 from Sept 1-30
- DNA were collected from marked and unmarked Coho as they are encountered in the fishery; target 1000-2000 samples
- Parentage Based Tagging (PBT) to determine origin of hatchery fish combined with hatchery returns to estimate wild abundance



7. 2023 NEW CSAF Proposals in Draft IFMP

Year	First Nations	Commercial
	<u>Northern BC</u>	<u>Northern BC</u>
2023	Lax Kw'alaams – Area 4 Sockeye	Area A – Inside Chum (Area 8)
2023	NCSFNSS – Area 4 Sockeye (revisions)	
2023	CTAC Approach for Northern Demo Fisheries	
2023	Lake Babine Nation – Skeena Sockeye	
	<u>Southern BC</u>	<u>Southern BC</u>
2023	A-Tlegay Fisheries Society – Marine Pink	Area E – Fraser Sockeye ITQ
2023		Area H – Quinsam Pink
2023		Area B – Southern Pink Assessments



B. 2023/24 IFMP Timelines

Activity	Proposed Timelines
Deadline for new CSAF proposals	February 3, 2023
Meetings to review and discuss potential changes to IFMPs and opportunity for focussed discussion on key IFMP issues.	Fraser Forum – January 31 - February 2, 2023 Northern IHPC – February 2, 2023 Southern IHPC – February 8, 2023
Draft IFMPs released for public review & comment	End of February 2023
Meetings to review draft IFMP	Fraser Forum – February 28 - March 2, 2023 Northern IHPC – March 8, 2023 Southern IHPC – March 9, 2023
Deadline to submit comments on draft IFMP (minimum 30-day comment period)	April 12, 2023
Final Meetings for discussion on IFMP feedback	Fraser Forum – April 4-6, 2023 Full IHPC – April 26-27, 2023
Target for public release of salmon IFMP	June 30, 2023

BACKGROUND SLIDES:

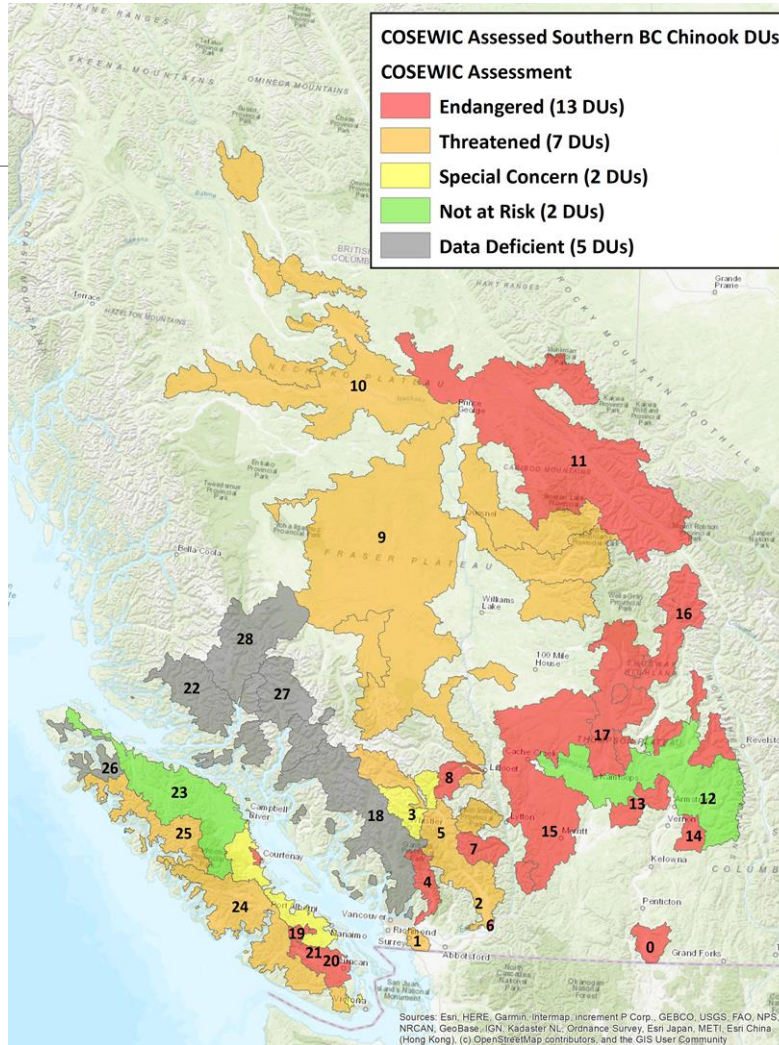


3. Fraser Chinook 2019 and 2021 Results – Fishery Mortalities

Management Unit (indicator)	2014-2018 Avg. CDN Fishery Mortalities (ERA)	2014-2018 Avg. CDN Fishery Mortalities (RR+GSI)*	2019 CDN Fishery Mortalities (ERA)	2019 CDN Fishery Mortality Index (RR + GSI)*	2020 CDN Fishery Mortalities (ERA)	2020 CDN Fishery Mortality Index (RR + GSI)*	2021 CDN Fishery Mortalities (ERA)	2021 CDN Fishery Mortality Index (RR + GSI)*	2019-2021 Avg. CDN Fishery Mortalities (ERA)
Spring 4 ₂ (Nicola)	16.6%	24.9%	2.1%	5.1%	27.7%	4.5%	5.1%	3.7%	11.6%
Spring 5 ₂ (No Indicator)	n/a	23.9%	n/a	10.4%	n/a	2.6%	n/a	4.6%	n/a
Summer 5 ₂ (No Indicator)	n/a	24.4%	n/a	18.2%	n/a	12.7%	n/a	15.4%	n/a
Summer 4 ₁ (Lower Shuswap)	27.6%	42.5%	13.6%	32.3%	20.3%	25.4%	17.6%	24.1%	17.2%
Fall 4 ₁ (Harrison)	22.5%	23.7%	22.0%	18.3%	18.9%	19.5%	15.2%	23.4%	18.7%



COSEWIC Status of Southern BC Chinook DUs

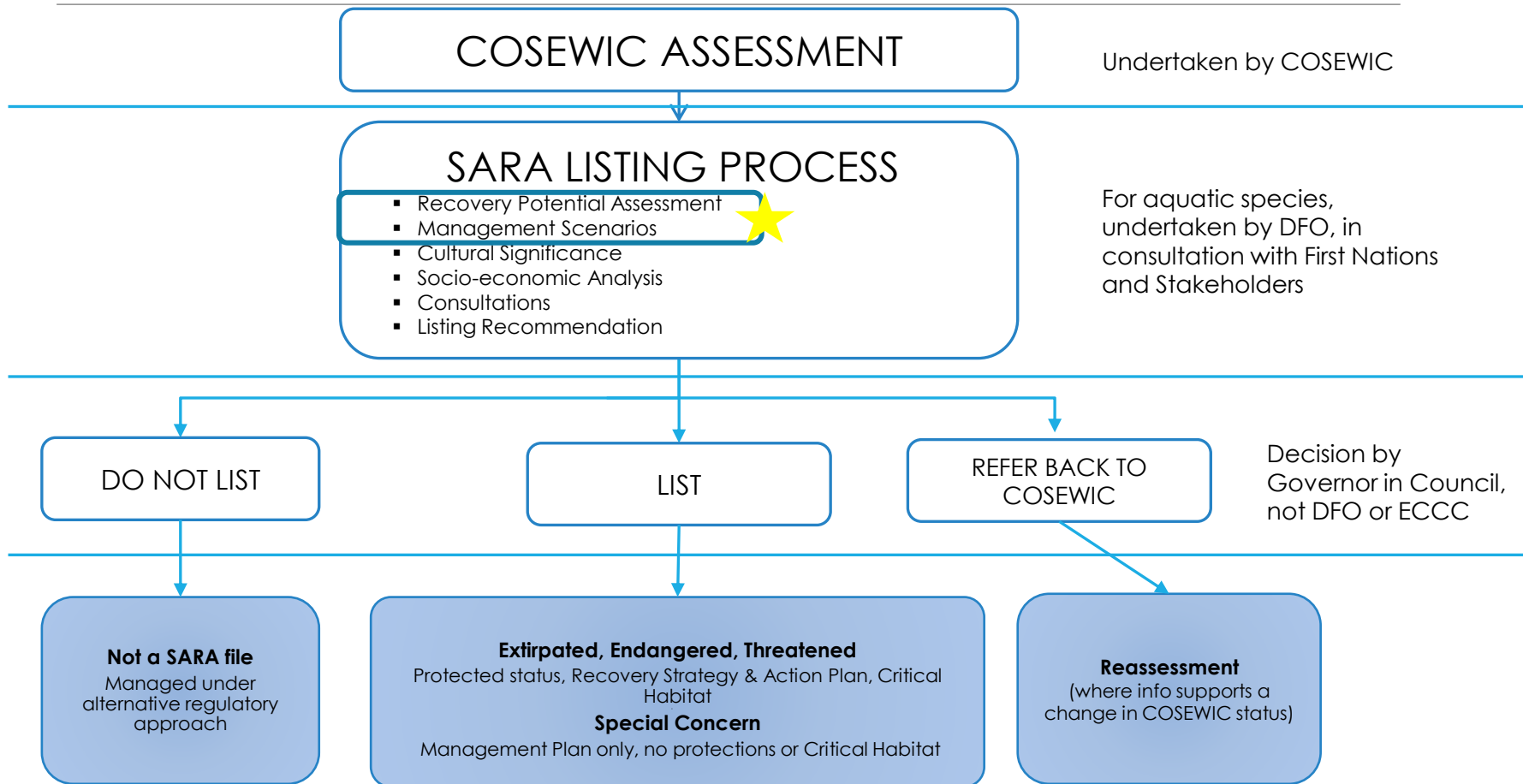


DU #	Name	Status
0	Okanagan Chinook	EN
1	Mainland Boundary Bay, Ocean, Fall	TH
2	Lower Fraser, Ocean, Fall	TH
3	Lower Fraser, Stream, Spring	SC
4	Lower Fraser, Stream, Summer (U.Pitt)	EN
5	Lower Fraser, Stream, Summer	TH
6	Lower Fraser, Ocean, Summer	EN
7	Mid Fraser, Stream, Spring	EN
8	Mid Fraser, Stream, Fall	EN
9	Mid Fraser, Stream, Spring (MFR+GStr)	TH
10	Mid Fraser, Stream, Summer	TH
11	Upper Fraser, Stream, Spring	EN
12	South Thompson, Ocean, Summer	NAR
13	South Thompson, Stream, Summer 1.3	EN
14	South Thompson, Stream, Summer 1.2	EN
15	Lower Thompson, Stream, Spring	EN
16	North Thompson, Stream, Spring	EN
17	North Thompson, Stream, Summer	EN
18	SC - Georgia Strait, Ocean, Fall	DD
19	East Vancouver Island, Stream, Spring	EN
20	East Vancouver Island, Ocean, Summer	EN
21	East Vancouver Island, Ocean, Fall	SC
22	SC – Southern Fjords, Ocean, Fall	DD
23	East Van. I., Ocean, Fall (EVI + SFj)	NAR
24	West Van. I., Ocean, Fall (South)	TH
25	West Van. I., Ocean, Fall (Nootka & Kyuc)	TH
26	West Van. I., Ocean, Fall (WVI + WQCI)	DD
27	Southern Mainland, Ocean, Summer	DD
28	Southern Mainland, Stream, Summer	DD

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong). (c) OpenStreetMap contributors, and the GIS User Community



SARA Listing Process





SARA Context – Default Listing Position

DFO will advise the List be amended for a species as assessed by COSEWIC, unless there is a Compelling Rationale not to do so.

When providing Do Not List Advice, DFO must:

- Provide Compelling Rationale
- Create and implement work plan if DFO will undertake incremental activities
- Report on work plan progress after 5 years.

Compelling Rationale must address:

- Alternative recovery approach and expected outcomes in absence of listing
- Net benefits to Canadians of DNL decision.

Compelling Rationale is developed in consideration of multiple sources of information including:

- COSEWIC Assessment, Recovery Potential Assessment, consultation results, approved management scenarios and their impacts, analysis of costs and benefits.

○ <http://www.dfo-mpo.gc.ca/species-especes/publications/sara-lep/policy-politique/index-eng.html>