PACIFIC REGION

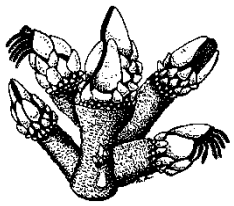
FIVE NATIONS MULTI-SPECIES FISHERY MANAGEMENT PLAN

April 1, 2021 – March 31, 2022

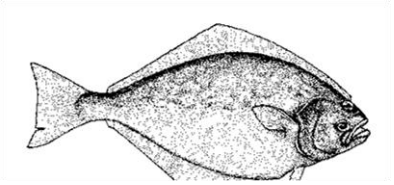
SALMON, GROUNDFISH, CRAB, PRAWN, GOOSENECK BARNACLE, AND SEA CUCUMBER

Version 1.0

Genus Oncorhynchus

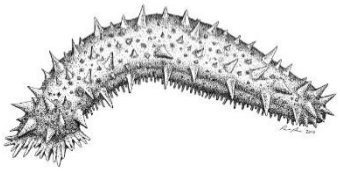


Gooseneck Barnacle
(*Pollicipes polymerus*)

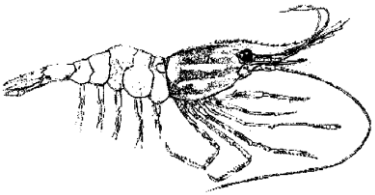


Pacific Halibut
(*Hippoglossus stenolepsis)*

Dungeness crab
(*Cancer magister*)



Sea Cucumber
(*Apostichopus californicus*)



Spot Prawn
(*Pandalus platyceros*)

Fisheries and Oceans Canada

Pêches et Océans Canada

Canada

This Multi-species Fishery Management Plan (FMP) is intended for general purposes only. Where there is a discrepancy between the FMP and the Fisheries Act and Regulations, the Act and Regulations are the final authority. A description of Areas and Subareas referenced in this FMP can be found in the Pacific Fishery Management Area Regulations, 2007. This FMP is not a legally binding instrument which can form the basis of a legal challenge and does not fetter the Minister's discretionary powers set out in the *Fisheries Act*.

Front cover drawing (crab) by Antan Phillips, Retired Biologist, Fisheries and Oceans Canada

Front cover drawing (gooseneck barnacle) by Pauline Ridings, Biologist, Fisheries and Oceans Canada

Front cover drawing (sea cucumber) by Pauline Ridings, Biologist, Fisheries and Oceans Canada

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FMP Amendment Tracking

Date	Version	Sections revised and details of revision.
2021-04-09	April 9, 2021 (1.0)	Initial

CONTENTS

GLOSSARY AND LIST OF ACRONYMS

A comprehensive glossary is available online at:

http://dev-public.rhq.pac.dfo-mpo.gc.ca/fm-gp/salmon-saumon/gloss-eng.html

GLOSSARY

For the purpose of this FMP, the following definitions apply.

TERM	DEFINITION
2018 Court Decision	*Ahousaht Indian Band and Nation v Canada (Attorney General)*, 2018 BCSC 633
2018 Court Order	Order of the BC Supreme Court entered November 1, 2018 following the decision in *Ahousaht Indian Band and Nation v Canada (Attorney General)*, 2018 BCSC 633
Catch	All fish caught, regardless of whether they are retained, released, discarded or used as bait.
Catch Reporting	Providing information either verbally, in writing or electronically on catch and other essential details related to fishing activity (e.g., location, gear type, etc.)
Court Defined Area or CDA	The combined area of each of the Five Nations' individual court defined Fishing Territories.
Canadian Total Allowable Catch or CTAC	The amount that is available for harvest by First Nations for FSC and Treaty domestic purposes, commercial and recreational fisheries. For further clarity, the Five Nations allocations in this FMP are a share of the available catch remaining after requirements for FSC and Treaty have been deducted from the CTAC (in fisheries that have a CTAC).
Fishery Monitoring	Observing and understanding the fishery and its dynamics. Includes observation and examination of the catching and landing of fish and any related activities, such as counting vessels, gear, and sampling of any fish caught.
Five Nations	The Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht Nations
Offshore fishing area	Those portions of the CDA within PFMAs 124-126, that extend nine nautical miles offshore.

Nearshore fishing area	Those portions of the CDA within PFMAs 24-26, not including Terminal areas. Nearshore fisheries target multiple stocks returning to each individual PFMA within PFMAs 24-26.
Terminal fishing area	Those portions of the CDA within PFMAs 24-26 in close proximity to the mouths and or within rivers, where an available harvest has been identified. Terminal fisheries are intended to target specific stocks and do not include Nearshore areas.

LIST OF ACRONYMS USED IN THIS PLAN:

ACRONYM	PHRASE
AABM	Aggregate Abundance-Based Management
ACFLR	Aboriginal Communal Fishing Licences Regulations
ATP	Allocation Transfer Program
CCG	Canadian Coast Guard
CCTAC	Canadian Commercial Total Allowable Catch
CDA	Court Defined Area
CFE	Commercial Fishing Enterprise
COHO ABM	Coho Abundance-Based Management
COSEWIC	Committee for the Status of Endangered Wildlife in Canada
CTAC	Canadian Total Allowable Catch
CWT	Coded Wire Tag
DA	Domoic Acid
FAS	Frozen at Sea
FGR	Fishery General Regulations
FMP	Fishery Management Plan
FRP	Fraser River Panel
FSC	Food, Social, and Ceremonial
IFMP	Integrated Fisheries Management Plan
IFR	Interior Fraser River
IPHC	International Pacific Halibut Commission
ISBM	Individual Stock-Based Management
ITQ	Individual Transferable Quota
LAER	Low Abundance Exploitation Rates
LGS	Lower Strait of Georgia
PICFI	Pacific Integrated Commercial Fisheries Initiative

PFMA	Pacific Fishery Management Areas
PFR	Pacific Fishery Regulations
PSC	Pacific Salmon Commission
PSP	Paralytic Shellfish Poison
PST	Pacific Salmon Treaty
QMA	Quota Management Area
RCA	Rockfish Conservation Area
RIRSD	Recognition of Indigenous Rights and Self-Determination
SARA	Species at Risk Act
SCUBA	Self-Contained Underwater Breathing Apparatus
SFF	Sustainable Fisheries Framework
TAC	Total Allowable Catch
TC	Transport Canada
VMS	Vessel Monitoring System
VRN	Vessel Registration Number
WCVI	West Coast Vancouver Island

1 PREAMBLE

This Five Nations' Multi-Species Fishery Management Plan (2021 FMP) covers the period April 1, 2021 to March 31, 2022. The FMP outlines fishing opportunities that DFO intends to provide to the Five Nations for the 2021/22 season to implement the Five Nations' Aboriginal rights to harvest salmon, groundfish, crab, prawn, gooseneck barnacle, and sea cucumber in a right-based multi-species sale fishery. The objective of these opportunities is further outlined in Section 3.

The 2021 FMP is the third Multi-Species FMP developed by DFO since the 2018 Court Order interpreted the Five Nations' Aboriginal right to fish and sell fish and made general and specific declarations of no infringement, justified infringement, and unjustified infringement.

DFO considered feedback provided by the Five Nations other First Nations and stakeholders during consultations when finalizing the 2021 FMP.

In DFO's view, the 2021 FMP expands the Five Nations' right-based multi-species fishing opportunities from last year's FMP (2020 FMP) while continuing to remedy the findings of unjustified infringement in the 2018 Court Order. Section 2 identifies key changes in the 2021 FMP from last year. The Five Nations do not agree that this FMP accommodates their aboriginal right or complies with the judgments of the BC courts. Broadly speaking they maintain that the allocations are insufficient, the monitoring requirements are unduly restrictive and restrictions on means of fishing are unreasonable. DFO continues to consult with the Five Nations on those aspects of the FMP that they disagree with, and is also engaging in broader negotiations with the Five Nations at a reconciliation table.

The 2021 FMP is an expression of DFO policy. This document does not limit the Minister's ability to deviate, for conservation or other valid reasons, from the 2021 FMP when issuing licences.

In addition, in light of health and safety instructions from local health authorities and the Public Health Agency of Canada regarding the rapidly evolving situation with COVID-19, and the provincial and international response to the pandemic, there could be changes to the FMP in-season. DFO will communicate with the Five Nations on adjustments that may be required.

2 KEY CHANGES FROM THE 2020 FMP

2.1 Sea Cucumber

An opportunity to harvest Sea Cucumber has been added into the FMP for the first time in 2021/22. This opportunity will be managed similarly to opportunities provided to the Five Nations outside the FMP in 2019 and 2020.

Please also see Section 9.9 Sea Cucumber Fishing Opportunity.

2.2 RFID tags specific to holding cages

RFID tags specific to holding cages will be required to be installed and scanned on all holding cages in 2021/22. See Section 9.6.6 Gear (Crab).

2.3 Fishery Monitoring and Catch Reporting

A new section on fishery monitoring and catch reporting has been incorporated into the 2021/22 FMP. This section informs on the release of DFO's National Fishery Monitoring Policy. This policy was developed in connection to DFO's Sustainable Fisheries Framework and supports the need to have a complete, accurate and verifiable fishery monitoring and catch reporting program. This program is a requirement to successfully balance conservation, ecosystem, socio-economic, and other management objectives.

The section also provides additional guidance on the "Introduction to the Procedural Steps of Implementing the Fishery Monitoring Policy" and information on DFO's monitoring program assessment process.

A phased approach to transition from the Regional Framework to the National policy will be undertaken.

See Section 9.1 Fishery Monitoring and Catch Reporting.

2.4 Split Offloads

Split offloads were not specifically outlined in previous FMPs. For 2021, split offloads will only be permitted for vessels not equipped with commercial troll gear configurations. All catch, both FSC and sale, must be reported. The vessels equipped with commercial troll gear configurations will not be permitted split offloads. The reporting elements around split offloads will be evaluated in the post-season.

See Section 9.2.6 Dockside Monitoring Program.

2.5 Size Limits

The 55 cm size limit for chinook has been changed to 45 cm in offshore and nearshore fisheries and removed in Terminal and Surplus to Escapement fisheries.

See Section 9.3.7, 9.4.7 and 9.5.7 Size Limits.

2.6 Bait

The bait restriction in terminal salmon fisheries has been removed.

See Section 9.5.9 Bait.

3 THE OBJECTIVE OF THE FMP

The objective of the FMP is to implement a right-based multi-species sale fishery that accommodates the Five Nations' Aboriginal rights as first declared by the Court in 2009 and subsequently interpreted in the 2018 Court Order.

3.1 The Court's Interpretation of the Five Nations' Rights

Paragraph 5 of the 2018 Court Order interprets the Five Nations' Aboriginal rights to fish and sell fish as providing:

a. *A non-exclusive, small scale, artisanal, local, multi-species fishery, to be conducted in their court defined area for fishing, which extends nine nautical miles offshore, using small, low-cost boats with limited technology and restricted catching power, and aimed at wide community participation;*

b. *Providing predictable and long term fishing opportunities; and*

c. *Allowing the sale of fish into the commercial marketplace with the objective, but not the guarantee, of sustainability and viability.*

3.2 Wide Community Participation and Vessels Equipped with Commercial Troll Gear in the Right-Based Sale Fishery

DFO has developed this FMP to continue providing fishing opportunities that are aimed at facilitating wide community participation.

For hook and line opportunities, DFO is of the view that wide community participation is facilitated by the use of small, low-cost boats with limited technology and restricted catching power, and has developed the hook and line opportunities in the FMP primarily for such vessels. This does not preclude vessels equipped with commercial troll gear configurations. DFO views this as consistent with the 2018 Court Order and 2018 Court Decision.

In DFO's view, the use of vessels with catching power equivalent to the regular commercial fishery can limit the opportunity for wide community participation

because a few vessels catch the available allocation in a short period of time. DFO observed this to occur in the Offshore Integrated Hook and Line Opportunity under the 2019 and 2020 FMPs and remains concerned that the use of these vessels is limiting opportunities for wide community participation. Vessels with a higher level of catching power are also more likely to exceed management measures intended to meet conservation objectives, such as limiting non-target catch. The Five Nations maintain that the manner of allocation distribution within the communities should be at the discretion of the Nations' leadership, as the Nations are best suited to determine the preferred means of their communities.

DFO is aware that the Five Nations have a different view of the role and benefit of troll vessels in their fishery and acknowledges that they wish to continue using many vessels with catching power equivalent to the regular commercial troll fishery in the Offshore Integrated Hook and Line Fishing Opportunities under the 2021 FMP. Though DFO views this as contrary to the primary objective of this FMP, DFO is willing to accommodate the Five Nations' request and will continue to permit the use of such vessels in accordance with the conditions set out in Section 9.2 to 9.4.

3.3 Species covered by the multi-species Right-Based Sale Fishery

Consistent with the 2018 Court Order, the first FMP issued on March 31, 2019 (the "2019 FMP") specifically addressed the Five Nations' harvesting opportunities for salmon, groundfish, prawn, and crab. In addition to the harvesting opportunities under the FMP, DFO continued to provide other harvesting opportunities to the Five Nations outside the FMP, which DFO views as contributing to the accommodation of the Five Nations' rights.

The 2020 FMP added a harvesting opportunity for gooseneck barnacles, in addition to those outlined for salmon, groundfish, prawn, and crab.

In consultation with the Five Nations, the 2021 FMP now also incorporates an opportunity to harvest sea cucumber. This opportunity is based on sea cucumber access previously available to the Five Nations outside the FMP.

DFO also continues to provide the Five Nations with other existing access as harvesting opportunities outside the Multi-Species FMP, which are outlined in Appendix 1 to this FMP. DFO views this access as contributing to the accommodation of the Five Nations' rights and considers the totality of these fishing opportunities when developing the fishing opportunities in the FMP.

DFO hopes to work with the Five Nations to further expand the multi-species right-based sale fishery in future years to include opportunities to harvest additional species, including from other existing fisheries access that DFO currently provides to the Five Nations outside the Multi-Species FMP as listed in Appendix 1.

3.4 Assessing the opportunity for economic viability

Managing a unique multi-species fishery like this is new to both DFO and the Five Nations, and there is much to learn about the factors affecting its performance. DFO has continued to provide funding to the Five Nations for an independent study that will help both DFO and the Five Nations better understand the drivers of economic performance in the Five Nations' rights based sale fishery.

The opportunity for economic viability will continue to improve as the right-based sale fishery expands in future years to include additional opportunities to harvest other species. DFO views the inclusion of an opportunity to harvest sea cucumber in the 2021 FMP as a next step in that direction and is optimistic about working with the Five Nations to include further opportunities next year.

DFO also considers that the opportunity for economic viability of the right-based fishery would be similarly improved with the inclusion of access to salmon, groundfish, crab and prawn that was removed from the FMP at the Five Nations request.

3.5 Remedying the findings of unjustified infringement

DFO developed the 2019 FMP to comply with paragraphs 16 and 17 of the 2018 Court Order and considered it to remedy the general and specific findings of unjustified infringement declared at paragraphs 8 and 9 of the 2018 Court Order.

The 2021 FMP continues to remedy the findings of unjustified infringement in the 2018 Court Order in the same manner as the 2019 and 2020 FMPs. An explanation for how each finding of unjustified infringement is remedied can be found in those earlier FMPs.

4 CONSERVATION

The fisheries contained in this plan will be conducted in a manner consistent with conservation requirements applicable for each species. Regulatory requirements and policy that inform the direction of management decisions (e.g. decision-making that incorporates the Precautionary Approach) are described within Section 5 of this plan. Fishery specific management measures are described in Section 9 (Specific Fisheries Harvesting Opportunities). These measures are designed to support conservation objectives including control of the harvest of target and by-catch species, measures to protect vulnerable life stages (e.g. size, sex restrictions), effort or gear restrictions, time and area prohibitions, or other reasonable measures.

4.1 Precautionary Approach

The Department follows the Sustainable Fisheries Framework (SFF), which is a toolbox of policies for DFO and other interests to sustainably manage Canadian fisheries in order to conserve fish stocks and support prosperous fisheries. The SFF includes a decision-making framework incorporating a precautionary approach to commercial, recreational, and Food, Social, and Ceremonial fishing: http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/precaution-eng.htm

In general, the precautionary approach in fisheries management requires caution when scientific knowledge is uncertain. The absence of adequate scientific information should not result in postponed action or failure to take action to avoid the risk of serious harm to fish stocks or their ecosystem. This approach is widely accepted internationally as an essential part of sustainable fisheries management.

Applying the precautionary approach to fisheries management decisions entails establishing harvest strategies that:

- identify three stock status zones – Healthy, Cautious, and Critical – delineated by an upper stock reference point and a limit reference point;
- set the removal rate at which fish may be harvested within each stock status zone; and
- adjust the removal rate according to fish stock status (i.e., spawning stock biomass or another index/metric relevant to population productivity), based on pre-agreed decision rules.

The framework requires that a harvest strategy be incorporated into respective fisheries management plans to keep the removal rate moderate when the stock status is in the Healthy Zone, to promote rebuilding when stock status is low, and to ensure a low risk of serious or irreversible harm to the stock. A key component of the Precautionary Approach Framework requires that when a stock has declined to the Critical Zone, a rebuilding plan must be in place with the aim of having a high probability of the stock growing out of the Critical Zone within a reasonable timeframe: http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/precautionary-precaution-eng.htm

Amendments to the *Fisheries Act* (Bill C-68) were passed into legislation in 2019 and include new authorities to amend the *Fishery (General) Regulations* and requirements to maintain major fish stocks at sustainable levels, and develop and implement rebuilding plans for stocks that have declined to their critical zone. The proposed regulatory amendments draw upon the 2013 *Guidance for the development of rebuilding plans under the Precautionary Approach Framework: Growing stocks out of the critical zone.*

Information on the regulatory proposal regarding fish stocks and rebuilding plans is available at:

http://www.dfo-mpo.gc.ca/fisheries-peches/consultation/consult-maj-pri-eng.html The regulatory proposal was consulted on from December 2018 to March 2019 and pre-publication of the regulation in Canada Gazette Part 1 on January 2, 2021 to February 2, 2021 to provide further opportunity for feedback on the proposed regulation. We anticipate that the regulation will come into effect in spring 2021.

WCVI Chinook, Haida Gwaii Herring and Bocaccio, Inside Yelloweye and Outside Yelloweye Rockfish are major stocks proposed to be prescribed in the regulatory amendment (Proposed list of major stocks for Batch 1), but as a result of the *Commissioner of the Environment and Sustainable Development report, Sustaining Canada's Major Fish Stocks*—Fisheries and Oceans Canada, DFO has already committed to developing rebuilding plans for these stocks by the end of the 2020/21 fiscal year. Rebuilding plans for Bocaccio, Inside and Outside Yelloweye Rockfish and Haida Gwaii Herring have been completed, or are anticipated to be completed by the end of 2020/21; work is underway on the WCVI Chinook rebuilding plan and it is expected to be completed in 2022.

4.2 Depleted Species Concerns

4.2.1 Species at Risk Act

The *Species at Risk Act* (SARA) came into force in 2003. The purposes of SARA are "to prevent wildlife species from being extirpated or becoming extinct, and to provide for the recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened". More information on SARA can be found at: https://www.registrelep-sararegistry.gc.ca

In addition to the existing prohibitions under the *Fisheries Act*, under SARA it is illegal to kill, harm, harass, capture, take, possess, collect, buy, sell or trade any listed endangered, threatened or extirpated animal or any part or derivative of an individual. These prohibitions apply unless a person is authorized, by a permit, licence or other similar document issued in accordance with SARA, to engage in an activity affecting the listed species or the residences of its individuals. Species listed as special concern are not included in these prohibitions.

Endangered, threatened, and special concern species in Pacific region currently listed under SARA can be found at http://www.dfo-mpo.gc.ca/species-especes/index-eng.htm.

Marine or anadromous species of fish designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that are currently under consideration for listing under SARA are listed at the COSEWIC website at:

https://www.cosewic.ca/index.php/en-ca/

4.2.2 Shark Codes of Conduct

Of the fourteen shark species in Canadian Pacific waters, three are listed under SARA (see above). The Basking Shark (*Cetorhinus maximus*) is listed as Endangered, and the Bluntnose Sixgill Shark (*Hexanchus griseus*) and Tope Shark (*Galeorhinus galeus*) are species of Special Concern. The primary threats to shark species have been identified as bycatch and entanglement. In order to address the conservation concerns with shark species, it is important that measures are taken to reduce the mortality of sharks resulting from these primary threats. As such, the Five Nations fishing licences include a Condition of Licence for Basking Sharks that specifies mitigation measures in accordance with SARA permit requirements.

Additionally, two 'Code of Conduct for Shark Encounters' documents have been developed to reduce the mortality of Basking Shark, as well as other Canadian Pacific shark species such as Bluntnose Sixgill and Tope Shark resulting from entanglement and bycatch in commercial, aquaculture, and recreational fisheries. These guidelines include boat handling procedures during visual encounters with Basking Sharks, as well as best practices for handling Canadian Pacific shark species during entanglement encounters.

These documents have been posted online and can be found at the following URL links.

Code of Conduct for Basking Sharks:

https://dfo-mpo.gc.ca/species-especes/publications/sharks/coc/coc-basking/index-eng.html

Code of Conduct for Sharks:

http://dfo-mpo.gc.ca/species-especes/publications/sharks/coc/coc-sharks/index-eng.html

Amendments to the *Fisheries Act*, which came into force on June 21, 2019, include a prohibition on shark finning, which is defined as the “practice of removing fins from a shark and discarding the remainder of the shark while at sea”. The practice of shark finning, and the import and export of shark fins or parts without a permit, is prohibited under the *Fisheries Act*.

4.2.3 Whale Depredation

Depredation (the removal of fish from fishing gear) by killer whales and sperm whales has been reported by groundfish longline, salmon troll, and recreational harvesters in British Columbia and Alaska.

Depredation is a learned behaviour that can spread throughout whale social groups and once established is impossible to eliminate. It is critical that harvesters do not encourage this learning by allowing whales to associate obtaining fish with fishing activity; encouraging this behaviour will quickly lead to significant losses for harvesters.

The most important approach to prevent this from spreading is by NOT feeding whales directly or indirectly and not hauling gear in the vicinity of killer whales and sperm whales. Typically killer whales pass quickly through an area allowing fishing to resume. It is also recommended that you advise other fish harvesters in the area if you encounter depredation. Additional tips on avoiding depredation events can be found in the DFO Marine Mammal Bulletin #2.

If you experience depredation by whales, please report the incident by email MarineMammals@dfo-mpo.gc.ca or by calling (604) 666-9965. Reporting all incidents will assist DFO mangers and fish harvesters in understanding this problem and help in developing strategies to avoid it.

4.2.4 Marine Mammal Incident Reporting

Reporting all interactions with marine mammals is mandatory during all commercial fishing trips. Interactions refer to cases of incidental mortality and serious injury to marine mammals. This includes accidental drowning, bycatch, entanglements, collisions and fatalities. The Marine Mammal Incident Hotline must be contacted immediately to report cases of mortality and serious harm.

Additionally, if a marine mammal becomes entangled in fishing gear, immediately log your coordinates and contact the Marine Mammal Incident Hotline providing as much information as possible regarding species and gear type and a DFO representative will contact you. If a whale is entangled in fishing gear you may be asked to track the animal to aid in relocating the animal as an attempt may be made to rescue both the animal and fishing gear.

Marine Mammal Incident Hotline:

1-800-465-4336 OR VHF CHANNEL 16 OR DFO.ORR-ONS.MPO@dfo-mpo.gc.ca

What to report:

- Your name and contact information
- Date and time of incident
- Species
- Animal alive/dead
- Nature of injury
- Location: Latitude/Longitude coordinates, landmarks
- Pictures/Video taken

Interaction Reporting:

In instances of marine mammal interactions, a reporting form shall be submitted. The form is available at:

https://dfo-mpo.gc.ca/species-especes/mammals-mammiferes/report-rapport/page01-eng.html

4.2.5 Whale, Leatherback Sea Turtle and Basking Shark Sightings

The Department welcomes assistance in the reporting of any marine mammal, Leatherback Sea Turtle or Basking Shark sightings. While there are many marine species found in Pacific Canadian waters, sightings of Basking Sharks and Leatherback Sea Turtles are infrequent. The collection of sightings data is useful to scientists in determining population size and species distribution and aids in recovery efforts under the Species at Risk Act (SARA).

Species identification guides for Sharks are available at https://waves-vagues.dfo-mpo.gc.ca/Library/40757067.pdf

Guides to distinguish between pinnipeds, emphasizing differences between Steller and California Sea Lions can be found here: https://wildwhales.org/wp-content/uploads/2020/08/BCCSN_IDGuide_Pinniped_email.pdf and between Sea and River Otters: https://wildwhales.org/wp-content/uploads/2020/05/BCCSN_IDGuide_Otters_vertical_4.pdf

Best practices to reduce entanglement and reporting an incident: http://dev-public.rhq.pac.dfo-mpo.gc.ca/whales-baleines/docs/entanglements-empetrements-pub-eng.html

Information on approach distances from Marine Mammal Regulations can be found here: https://www.dfo-mpo.gc.ca/about-notre-sujet/publications/infographics-infographies/documents/100-200-400-eng.pdf

To report whale or turtle sightings contact the BC Cetacean Sighting Network:

Toll free: 1.866.I.SAW.ONE (1-866-472-9663)

Email: sightings@ocean.org

Website: http://wildwhales.org/

App : WhaleReport

To report Basking Shark sightings contact the Basking Shark Sightings Network:

Toll free: 1-877-50-SHARK (1-877-507-4275)

Email: BaskingShark@dfo-mpo.gc.ca,

Website: www.pac.dfo-mpo.gc.ca/SharkSightings

4.2.6 Resident Killer Whale

Two distinct populations of Resident Killer Whales, known as the Northern and Southern Residents, occupy the waters off the west coast of British Columbia. Northern Resident Killer Whales are listed as Threatened and Southern Resident Killer Whales are listed as Endangered on Schedule 1 of the *Species at Risk Act* (SARA). Broad strategies for recovery are identified in the *Recovery Strategy for the Northern and Southern Resident Killer Whales (*Orcinus orca*) in Canada*, which was finalized in March 2008, and amended in 2011 and 2018 to include amendments to the critical habitat section. The Recovery Strategy also identifies key threats to Resident Killer Whales as (1) reduced prey availability, (2) physical and acoustic disturbance, and (3) environmental contaminants along with an additional emerging threat of vessel strikes. It can be viewed at: https://sararegistry.gc.ca/virtual_sara/files/plans/Rs-ResidentKillerWhale-v00-2018dec-Eng.pdf.

Critical habitat and its associated functions, features, and attributes have been identified for both populations in the Recovery Strategy, and are protected from destruction through Critical Habitat Orders made under SARA sections 58(4) and (5). The update to the Recovery Strategy for Resident Killer Whales in 2018 resulted in the identification and protection of two additional areas of critical habitat: the waters on the continental shelf off southwestern Vancouver Island, including Swiftsure and La Pérouse Banks (important for both Northern and Southern Resident Killer Whales), and the waters of west Dixon Entrance, along the north coast of Graham Island from Langara to Rose Spit (important for Northern Resident Killer Whales). The *Action Plan for Northern and Southern Resident Killer Whale (*Orcinus orca*) in Canada* (DFO 2017) supports the strategic direction set out in the Recovery Strategy, and outlines measures that provide the best chance of achieving the recovery goal for the species, including the measures to be taken to address the threats and monitor the recovery of the species.

The *Fisheries Act* provides for the protection and conservation of fish and prohibits the harmful alteration, disruption or destruction of fish habitat. The *Marine Mammal Regulations*, which are made under the *Fisheries Act*, prohibits the disturbance of marine mammals such as Killer Whales. The *Species at Risk Act* (SARA) contains prohibitions against the killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling or trading of individuals of endangered, threatened and extirpated species listed in Schedule 1 of the Act, including Killer Whales.

Applications for works, undertakings or activities in fish habitat, including habitats designated as critical habitat under SARA, are reviewed to ensure suitable avoidance and mitigation measures are incorporated to protect fish and fish habitat, Species at Risk, their residences and critical habitat.

Monitoring is carried out to confirm compliance with regulatory instruments and conformity with advice. Non-compliance may lead to charges under the *Fisheries Act, Marine Mammal Regulations,* and/or the SARA.

Guidelines for marine mammal viewing have also been developed. To avoid disturbing Killer Whales and other marine mammals, all vessel operators, including fish harvesters, are advised to follow the *Be Whale Wise (BWW): Marine Wildlife Guidelines for Boaters, Paddlers and Viewers*, which are available from local Fishery Offices or on-line at: https://www.bewhalewise.org/marine-wildlife-guidelines/.

4.2.6.1 Key Threat: Reduced Prey Availability

Northern and Southern Resident Killer Whales feed primarily on salmon. The seasonal distribution and movement patterns of Resident Killer Whales are strongly associated with the availability of their preferred prey, Chinook salmon (*Oncorhynchus tshawytscha*), and secondarily, Chum salmon (*O. keta*) during summer and fall. There is less known about the winter and spring diet and winter distribution of Resident Killer Whales, but recent and ongoing research continues to further our understanding and provide more information about the principal threats facing the population.

DFO and other researchers continue to advance new scientific information and analyses regarding the ecology of Resident Killer Whales. Much of this new information focuses on their feeding habits and preference for Chinook salmon, particularly in the Salish Sea with southern BC Chinook stocks experiencing poor returns in recent years.

4.2.6.2 Key Threat: Environmental Contaminants:

There are numerous chemical and biological pollutants that may directly or indirectly impact Resident Killer Whales, ranging from persistent organic pollutants to antibiotic resistant bacteria and exotic species. Recent studies indicate Resident Killer Whales have high levels of some contaminants with males having the highest levels, including polychlorinated biphenyls (PCBs) and certain fire-retardant persistent organic pollutants which have been banned in Canada. Canadian and U.S. researchers continue to monitor the health of the Resident Killer Whale populations.

4.2.6.3 Key Threat: Physical and Acoustic Disturbance:

All cetaceans, including Resident Killer Whales, have been subjected to increasing amounts of disturbance from vessels, aircraft and other anthropogenic noise in recent years. This includes chronic noise from shipping, and acute noise from industrial activities such as dredging, pile driving, and construction, as well

as seismic testing, military sonar, and other vessel use of low and mid-frequency sonars. Physical and/or acoustic disturbance can affect Resident Killer Whales at both the individual and population level, and research is ongoing to further determine the short and longer-term impacts of disturbance to individuals and their populations.

4.2.6.4 Southern Resident Killer Whale

The Government of Canada, together with Indigenous groups, partners, and stakeholders continue to take important steps to protect and recover the Southern Resident Killer Whale population, in keeping with direction provided in SARA recovery documents. In May 2018, the Minister of Fisheries, Oceans and the Canadian Coast Guard and the Minister of Environment and Climate Change Canada (ECCC) determined that the Southern Resident Killer Whale is facing imminent threats to its survival and recovery. Given the status of the population and ongoing threats to Southern Resident Killer Whale recovery, DFO implemented a number of enhanced measures starting in 2018 aimed at increasing prey availability and accessibility for Southern Resident Killer Whales - particularly with respect to Chinook salmon - and reducing threats related to physical and acoustic disturbance in key foraging areas.

Since 2018, Indigenous groups, the Indigenous and Multi-Stakeholder Advisory Group, Technical Working Groups (TWGs) and stakeholders have provided recommendations and feedback to Ministers and Departments on a range of measures (including measures related to increasing prey availability, sanctuaries, vessel disturbance [both noise and physical disturbance], and contaminants).

For the 2020 season, Canada focused on supporting increased Chinook salmon prey availability and reduced physical and acoustic disturbance in key foraging areas within the Southern Resident Killer Whale critical habitat. The fishing-related management measures for the 2020 season included area-based closures for recreational and commercial salmon fishing in the southern Gulf Islands, Juan de Fuca Strait and Swiftsure Bank; Interim Sanctuary Zones (established via Interim Order under the Canada Shipping Act) that prohibit boating and fishing (with some exceptions) in a portion of Swiftsure Bank and off the south-west coast of Pender Island and south-east coast of Saturna Island; and a voluntary fishing avoidance zone which encourage fishers to stop fishing within 1000m of any killer whales within Canadian Pacific waters. The primary objective of the measures was to improve Chinook salmon availability for Southern Resident Killer Whales by decreasing potential fishery competition, as well as minimizing physical and acoustic disturbance in key foraging areas to the extent possible.

These mandatory closures did not apply to individuals or vessels being used to fish for food, social or ceremonial purposes, or for domestic purposes pursuant to a treaty, under a license issued under the Aboriginal Communal Fishing License Regulations.

Full coordinates for the area-based fishery closures can be found in FN561. Transport Canada announced Interim Sanctuary Zones in a portion of Swiftsure

Bank and off the coasts of North Pender and Saturna Islands. The Interim Sanctuary Zones prohibit boating and fishing (with some exceptions) from June 1 to November 30, 2020, as per the Interim Order enacted under the Canada Shipping Act. These zones address physical and acoustic disturbance in Southern Resident Killer Whale key foraging areas within Southern Resident Killer Whale Critical Habitat. Full coordinates can be found in FN0491.

The Government of Canada is asking vessel operators to respect the following voluntary measures:

 Stop fishing within 1,000 metres of killer whales and let them pass;

 Respect a "Go Slow" zone around whales by reducing speed to less than 7 knots when within 1,000 metres of a marine mammal; and

 Reduce noise by turning echo sounders and fish finders off when not in use, and turning engines to neutral idle when within 400 metres of a killer whale.

 For more information on the best ways to help whales while on the water, when on both sides of the border, please visit: bewhalewise.org

For 2021, the Government of Canada will be reviewing the suite of 2020 management measures and discussing potential adjustments to measures with Indigenous groups, the Southern Resident Killer Whale Indigenous and Multi-Stakeholder Advisory Group, Technical Working Groups, and with key stakeholders.

Canada intends to ensure that any updates to actions for the 2021 season can be implemented by spring 2021 to coincide with the return of Southern Resident Killer Whales in typically greater numbers to the Salish Sea.

For more information on all of the Southern Resident Killer Whale management measures, please visit: https://www.pac.dfo-mpo.gc.ca/whales-baleines/srkw-measures-mesures-ers-eng.html

For further information regarding the Southern Resident Killer Whale management measures to support recovery, please contact the Marine Mammal Unit (DFO.SRKW-ERS.MPO@dfo-mpo.gc.ca) or visit www.pac.dfo-mpo.gc.ca/southern-resident-killer-whale)

4.2.7 US *Marine Mammal Protection Act* - Fish and Fish Product Import Provisions

In 2016, the United States of America (USA) published new regulations (80 FR 54390) implementing the *Fish and Fish Product Import Provision of the United States Marine Mammal Protection Act* (“MMPA Import Provisions”) pertaining to the reduction of marine mammal bycatch in foreign commercial fishing operations.

NOAA Fisheries recently announced an interim final rule to provide a one-year extension to foreign nations to apply for and receive a comparability finding for

their commercial fishing operations to export fish and fish products to the United States. As such, harvesting nations intending to continue to export fish and fish products to the USA after January 1, 2023, must apply to the US National Oceanic and Atmospheric Administration (NOAA) for a comparability finding for each of its commercial fisheries listed in the US List of Foreign Fisheries (LOFF).

The final 2020 US LOFF was published on the NOAA public registry on October 8, 2020. The Federal Register Notice for the final 2020 LOFF is available at: https://www.federalregister.gov/documents/2020/10/08/2020-22290/fish-and-fish-product-import-provisions-of-the-marine-mammal-protection-act-final-2020-list-of

To receive a comparability finding for a fishery, the US MMPA import provisions mandate that the harvesting nation (country) demonstrate: 1) the prohibition of intentional mortality or serious injury of marine mammals in the course of commercial fishing operations; and 2) the implementation of a regulatory program comparable in effectiveness to the USA, including mandatory reporting of marine mammal bycatch, monitoring programs, and management mitigation measures. DFO continues to work closely with wild-capture fishing industry representatives to meet these requirements.

DFO will share information about this new USA regulation, its implications for Canadian fisheries, and discuss the process for ensuring continued access to USA markets. Further information regarding the US MMPA import provisions can be obtained on the NOAA website: https://www.fisheries.noaa.gov/foreign/marine-mammal-protection/noaa-fisheries-establishes-international-marine-mammal-bycatch-criteria-us-imports or by contacting the Regional Fisheries Coordinator or the DFO Marine Mammal Unit (MMU) (Contact: Lee Harber, Marine Mammal Advisor; Lee.Harber@dfo-mpo.gc.ca).

4.2.8 Inshore Rockfish Conservation

In 2002, an inshore rockfish conservation strategy was established with initial measures introduced for recreational and commercial fisheries. The strategy addresses four areas under the fisheries management and stock assessment regime:

a) Protect a part of inshore rockfish populations from harvest through the use of rockfish conservation areas.
b) Collect information on total fishery mortalities through improved catch monitoring programs.
c) Reduce harvests to levels that are less than the estimates of natural mortality (i.e. less than two percent).
d) Improve the ability to assess the status of inshore rockfish populations and monitor changes in abundance.

There are 162 Rockfish Conservation Areas (RCAs) in British Columbia, covering roughly 4,350km^2 of the Canadian Pacific Coast. These areas were established

between 2003 and 2007 and are closed to a range of recreational and commercial fisheries to protect inshore rockfish and their habitat.

DFO is currently undertaking a multi-year review of the conservation effectiveness of RCAs, including meeting the national criteria and standards for marine refuges to better conserve sensitive areas and contribute towards Canada's Marine Conservation Targets (MCT). To meet these standards, the risks to inshore rockfish, their habitat, and benthic communities will need to be avoided or mitigated. Peer-reviewed science advice also recommends that boundary changes to some RCAs will improve their spatial design by better capturing rockfish habitat features.

RCAs in the Northern Shelf Bioregion have been selected for the first phase of engagement to align with the MPA network planning process in that area. Workshops with First Nations and stakeholders and online consultations were held in 2019. A summary of what we heard is available online at: https://www.pac.dfo-mpo.gc.ca/consultation/ground-fond/rca-acs/2020-heard-entendu-eng.html#6. There will be more opportunities to provide feedback on Rockfish Conservation Areas in the Northern Shelf Bioregion in the near future. We're also planning to review Rockfish Conservation Areas in other regions of British Columbia in Howe Sound to Jervis Inlet and other areas at a later date.

Further information on RCAs and the boundary proposals are available online at: http://dfo-mpo.gc.ca/rockfish-conservation or for further information on this, please contact DFO.RCA-ACS.MPO@dfo-mpo.gc.ca.

Fish harvesters are reminded prior to fishing to check with the local DFO office to verify RCAs and other closures currently in effect. A description of all RCAs can be found at: http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-acs/index-eng.htm.

A species identification guide for Rockfish can be found here: www.pac.dfo-mpo.gc.ca/fm-gp/rec/docs/rockfish-sebaste-idguide-eng.pdf

4.2.8.1 Rockfish Rebuilding Plans

Based on updated science information and DFO's policy document "Guidance for the Development of Rebuilding Plans under the Precautionary Approach Framework", the Department has established rebuilding plans for Bocaccio and Yelloweye Rockfish (Outside and Inside populations).

The Department has worked with fishing interests to develop measures that will reduce mortality and enable stock rebuilding. Please refer to Appendix 9 and the harvest plans in the Appendices of the Groundfish IFMP, further information on the measures being undertaken. The Department continues to review the

efficacy of these measures at the end of each fishing season and considers any additional measures necessary to achieve stock rebuilding. Through the process of regular evaluation of the rebuilding plans, science advice on stock status and rebuilding strategies for Bocaccio and the outside Yelloweye Rockfish population was peer-reviewed in autumn 2019 and published in 2020. Updated science advice for the inside Yelloweye Rockfish stock was peer reviewed in the spring of 2020.

Science advice for both stocks of Yelloweye Rockfish sought to develop an adaptive, feedback-based framework for evaluating candidate management procedures against the rebuilding objectives. While the advice successfully developed stock assessment approaches and evaluated management measures against rebuilding objectives, further discussions with stakeholders and Indigenous groups are planned for 2021/22 to determine a target biomass given that the current conservation objectives of growing the stocks above the LRP have been satisfied.

4.2.9 Wild Salmon Policy

The goal of Canada's Policy for Conservation of Wild Pacific Salmon (WSP), which was released in 2005, is to restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity. To further communicate the work the Department is doing in support of the policy, on October 11, 2018, Canada's Minister of Fisheries and Oceans and the Canadian Coast Guard released the *Wild Salmon Policy 2018-2022 Implementation Plan.* This collaboratively developed plan was consulted on broadly throughout fall 2017, and lays out nine overarching approaches to implementation and 48 specific activities that will be achieved over the next five years. The plan is organized under three key themes: Assessment; Maintaining and Rebuilding Stocks; and Accountability. In 2019, the first annual report on progress was released.

For a copy of the Wild Salmon Policy, the Wild Salmon Policy 2018-2022 Implementation Plan, highlights of work done from 2005-2017, information on what we heard during consultations and response, and the latest annual report, please see: http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/salmon-saumon/wsp-pss/index-eng.html

4.3 Reporting Lost and Retrieval of Lost Gear

The vessel master shall report any lost fishing gear by completing and submitting a 'Lost Fishing Gear' form within 24 hours of landing in port after determining the gear was lost. The vessel master shall also report the retrieval of any of their own previously reported lost gear by completing and submitting a 'Retrieval of Previously Reported Fishing Gear' form within 24 hours of landing in port after retrieving gear previously reported as lost.

The 'Lost Fishing Gear' form is available online at:

http://www.dfo-mpo.gc.ca/fisheries-peches/reports-rapports/fixed-pac-fixe/index-eng.html

The 'Retrieval of Previously Reported Fishing Gear' form is available online at: http://www.dfo-mpo.gc.ca/fisheries-peches/reports-rapports/retrieval-pac-recuperation/index-eng.html

Retrieval can only occur under a valid fishing licence and only in relation to the specific type of gear authorized to be used by the fishing licence (Section 9.1 Reporting Lost Gear and Retrieval of Lost Gear).

5 LEGISLATION, REGULATIONS, AUTHORITIES, AND INTERNATIONAL OBLIGATIONS

Subject to any management measures expressly outlined in this FMP, all fishing opportunities outlined in this document will be conducted in a manner that is consistent with relevant legislation and regulations, including international agreements, and the decision-making authority of the Minister of Fisheries and Oceans.

5.1 Human Waste Containment Regulations

Disposal of human waste into waters where shellfish are harvested or adjacent to shellfish harvest areas creates unnecessary and potentially serious health risks for shellfish consumers. In accordance with the Canadian Shellfish Sanitation Program (CSSP) and Regulations administered by Transport Canada, raw sewage (Human wastes, sewage or refuse) shall not be discharged from vessels while in or adjacent to shellfish areas. Vessels operating at a distance which does not allow for timely access to on-shore washroom facilities are expected to have a designated human waste receptacle on board. Receptacles could include a portable toilet, a fixed toilet, or other containment device as appropriate. Such devices must be made of impervious, cleanable materials and have a tight-fitting lid. (Refer to Division 4 of the Vessel Pollution and Dangerous Chemicals Regulations under the *Canada Shipping Act*):

1. Portable toilets or other designated human waste receptacles shall be used only for the purpose intended, and shall be so secured and located as to prevent contamination of the shellfish area or any harvested shellfish on board by spillage or leakage.
2. The contents of toilets or other designated human waste receptacles shall be emptied only into an approved sewage disposal system.
3. Every person onboard a shellfish harvest vessel must wash and sanitize their hands after using or cleaning a waste receptacle, or after using an onshore washroom facility.

Information on Human Waste Containment Receptacle Requirements under the CSSP can be found at the following Canadian Food Inspection Agency internet site:

https://www.inspection.gc.ca/preventive-controls/fish/cssp/questions-and-answers/eng/1563470479199/1563470589053

5.2 Safe Food for Canadians Act

The *Safe Food for Canadians Act* and *Safe Food for Canadians Regulations* came into effect in January 2019. The regulations require those businesses that export or prepare food for export and/or inter-provincial trade to obtain a license and to document preventive controls that outline steps to address potential risks to food safety. Information on food business activities that require a licence under the *Safe Food for Canadians Regulations* is available from the Canadian Food Inspection Agency (CFIA) at:

https://inspection.gc.ca/food/requirements-and-guidance/food-licences/food-business-activities/eng/1524074697160/1524074697425#a511

For further information, contact the local CFIA fish inspection office:

Burnaby: (604) 666-9904
Victoria: (250) 363-3618
Parksville: (250) 248-4772

5.3 Fish and Seafood Act and Regulations

Provincial regulations apply to non-federally registered facilities processing seafood or fish for sale within B.C. Contact the Ministry of Agriculture, Food and Fisheries, Courtenay Access Centre at (250) 897-7540 for additional information.

Commercial fish harvesters are reminded that a Fisher Vendor Licence is required to sell all fish or seafood directly from their harvest vessel to the public for that person's personal use. Fish harvesters should contact the Ministry of Agriculture, Food and Fisheries, Courtenay Access Centre at (250) 897-7540 for additional information. Sales at farmer's markets and roadside require approval from the Regional Health Authority.

Information about provincial licensing requirements for the seafood industry is available at:
https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/fisheries-and-aquaculture/seafood-industry-licensing

6 FISHING OPPORTUNITIES

This FMP provides opportunities for the Five Nations to harvest salmon, groundfish, crab, prawn, gooseneck barnacle, and sea cucumber that DFO views as meeting the objective of the FMP as described in Section 3.

6.1 The Totality of the Five Nations' Fishing Opportunities

DFO recognizes that the Five Nations hold Aboriginal rights to a multi-species fishery that applies to all species present in the CDA, except geoduck. Currently, DFO provides the Five Nations some opportunities through this FMP, as outlined below, but DFO also provides the Five Nations with other opportunities outside the FMP.

Appendix 1 provides the details of the fishing opportunities that DFO offers the Five Nations outside this FMP. DFO has considered the totality of these fishing opportunities when developing the fishing opportunities in this FMP.

The fishing opportunities in the 2021 FMP have been expanded from last year to include an opportunity to harvest sea cucumber based on fisheries access that was previously provided outside the FMP. DFO looks forward to working with the Five Nations to further expand the FMP in future years to include opportunities to harvest additional species.

6.2 Fishing Opportunities in this FMP

This FMP provides opportunities for the Five Nations to harvest salmon, groundfish, crab, prawn, gooseneck barnacle, and sea cucumber, as further described below.

As a flexibility in the FMP that is beyond the right established by the courts, dual fishing will continue to be permitted in the 2021 Integrated Hook and Line fisheries for salmon and groundfish species, and the Terminal Salmon fishery, in order to facilitate FSC harvests and make fishing opportunities more cost effective, subject to implementation of independent dockside monitoring to account for all landings against FSC and sale allocations. Dual fishing entails fishing simultaneously for First Nations' food, social and ceremonial (FSC) purposes and for right-based sale purposes under the authority of one licence and attributing catch against the two different allocations.

6.2.1 Access to Salmon

Table 1. 2021 Five Nations Multi-species Fishery Management Plan Salmon Allocations

Species	**2021 Allocation**	**Adjusted 2021 allocation** (with ATP/PICFI access[1] removed at the request of the Five Nations)
AABM Chinook*	12.17% of the available catch remaining after requirements for FSC and Treaty have been deducted from the WCVI AABM CTAC.	9.83% of the available catch remaining after requirements for FSC and Treaty have been deducted from the WCVI AABM CTAC.
Offshore Coho	Unlimited bycatch of hatchery marked Coho only, during fisheries targeting other species only until September 15. 2,000 hatchery marked or wild Coho after September 15. An abundance-based approach may be developed in future years beyond 2020.	Unlimited bycatch of hatchery marked Coho only, during fisheries targeting other species only until September 15. 2,000 hatchery marked or wild Coho after September 15. An abundance-based approach may be developed in future years beyond 2020.
Offshore Chum	Unlimited bycatch during Chinook, Sockeye or Coho fisheries	Unlimited bycatch during Chinook, Sockeye or Coho fisheries
Fraser River Sockeye	1.366% of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Sockeye CTAC.	0.895% of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Sockeye CTAC.
Fraser River Pink	0.542% of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Pink CTAC.	0.152% of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Pink CTAC.
Nearshore/Terminal Conuma Chinook (combined)	15.2% of the CTAC[2]. Plus a Surplus to Escapement Terminal fishery. The CTAC for this fishery is the total estimated return to Conuma after accounting for escapement requirements, and FSC/Treaty obligations.	14.81% of the CTAC[2]. Plus a Surplus to Escapement Terminal fishery. The CTAC for this fishery is the total estimated return to Conuma after accounting for escapement requirements, and FSC/Treaty obligations.
Nearshore Coho	3,000 Coho (2,000 Area 25, 1,000 Area 24) Hatchery and wild Coho.	3,000 Coho (2,000 Area 25, 1,000 Area 24) Hatchery and wild Coho.

[1] ATP/PICFI access as of April 1/21

[2] Using a percent that is a variable share based on an average Conuma return of 40,000 remains an option. A fixed share will be used if an agreement with the Five Nations is not reached.

	An abundance-based approach may be developed in future years.	An abundance-based approach may be developed in future years.
Nearshore Chum	8.27% of Canadian Commercial TAC (CCTAC). The CCTAC for this fishery is the total estimated return to Esperanza Inlet, Nootka Sound and Clayoquot Sound (calculated separately) less escapement goals and FSC/treaty obligations.	7.47% of Canadian Commercial TAC (CCTAC). The CCTAC for this fishery is the total estimated return to Esperanza Inlet, Nootka Sound and Clayoquot Sound (calculated separately) less escapement goals and FSC/treaty obligations.
Burman/Gold Terminal Chinook	50% of available harvest remaining after accounting for FSC/treaty obligations.	50% of available harvest remaining after accounting for FSC/treaty obligations.
Terminal Chum	50% of available harvest remaining after accounting for FSC/treaty obligations.	50% of available harvest remaining after accounting for FSC/treaty obligations.
Terminal Coho	50% of available harvest remaining after accounting for FSC/treaty obligations	50% of available harvest remaining after accounting for FSC/treaty obligations

* AABM chinook caught during the time period October 1 to March 31 will be accounted for against the AABM chinook allocation provided in the subsequent FMP.

6.2.2 Access to Groundfish

Table 2. 2021 Five Nations Multi-species Fishery Management Plan Groundfish Allocations

Species**	**2021 Allocation**	**Adjusted 2021 allocation** (with ATP/PICFI access[3] removed at the request of the Five Nations)
Halibut	1.6280% of the commercial/recreational Halibut TAC in 2021 (1.9343% of the commercial Halibut TAC)[4, 5]	0.9106% of the commercial/recreational Halibut TAC in 2021 (1.0820% of the commercial Halibut TAC) [4, 5, 6]
Lingcod	12.9095% of the commercial Lingcod fishery area 3C TAC	11.7963% of the commercial Lingcod fishery area 3C TAC

[3] ATP/PICFI access as of April1/21

[4] This share includes access provided in 2020 under the Reconciliation Funding Agreement totaling 0.008841 per cent of the commercial Halibut TAC and is being fished in the FMP this year at the request of the Five Nations.

[5] Halibut allocation includes allocations for rockfish TACs from Halibut sector, in addition to the rockfish allocation described in the table.

[6] This share also includes access provided in 2021 under the Reconciliation Funding Agreement totaling 0.06756% of the commercial Halibut TAC and is being fished in the FMP this year at the request of the Five Nations.

	12.6577% of the commercial Lingcod fishery area 3D TAC	11.6714% of the commercial Lingcod fishery area 3D TAC
Dogfish	1.0932% of the commercial Dogfish fishery area 3C/D, 5A/B/C/D/E TAC	0.1668% of the commercial Dogfish fishery area 3C/D, 5A/B/C/D/E TAC
Rockfish[7]	5.2356% of the commercial Rockfish fishery TACs for 3C/D Canary Rockfish, 3C/D Silvergray Rockfish; 3C/D, 5A Yelloweye Rockfish; 3C/D, 5A Quillback Rockfish; and 3C/D, 5A Copper, China, Tiger Rockfish	4.1885% of the commercial Rockfish fishery TACs for 3C/D Canary Rockfish, 3C/D Silvergray Rockfish; 3C/D, 5A Quillback Rockfish; 3C/D, 5A Copper, China, Tiger Rockfish; and 5.2356% of the commercial Rockfish fishery TACs for 3C/D, 5A Yelloweye Rockfish;

** Groundfish caught during the time period January 1 to March 31 will be accounted for against the groundfish allocation provided in the next FMP.

6.2.3 Access to Crab, Prawn, Gooseneck Barnacles, and Sea Cucumber

Table 3. 2021 Five Nations Multi-species Fishery Management Plan Crab, Prawn, Gooseneck Barnacle, and Sea Cucumber Allocations

Species	**2021 Allocation**	**Adjusted 2021 allocation** (with ATP/PICFI access[8] removed at the request of the Five Nations)
Dungeness (*Cancer magister*) Red Rock (*Cancer productus*)	<u>Main Opportunity</u> 10.85% of the total trap limit for E-Tofino-Area 24; (174 traps) 10.85% of the total trap limit for the rest of E-Tofino (911 traps) Within E-Tofino, 10.85% of the total trap limit for Amphitrite Hole (338 traps) <u>Exploratory Opportunity</u> 25 additional traps for use in each of the Hesquiaht, Ehattesaht and Mowachaht/Muchalaht First Nations Fishing Territories to	<u>Main Opportunity</u> 4.79% of the total trap limit for E-Tofino-Area 24; (77 traps) 4.79% of the total trap limit for the rest of E-Tofino (402 traps) Within E-Tofino, 4.79% of the total trap limit for Amphitrite Hole (153 traps) <u>Exploratory Opportunity</u> 25 additional traps for use in each of the Hesquiaht, Ehattesaht and Mowachaht/Muchalaht First Nations Fishing Territories to

[7] Note that the rockfish allocation is intended to provide the access required to facilitate fisheries for Halibut, Lingcod, and Dogfish. DFO will re-evaluate the allocations at the end of the fishing season to determine whether they are sufficient to meet conservation objectives and to facilitate fisheries for Halibut, Lingcod, and Dogfish.

[8] ATP/PICFI access as of April 1/21

	support exploratory fishing efforts by the Five Nations for the 2021/22 season. To augment this exploratory opportunity, the Ehattesaht, Hesquiaht, and Mowachaht / Muchalaht First Nations and DFO have jointly developed and intend to carry out resource assessment surveys in these three Nations' fishing territories, to collect Dungeness crab stock assessment information that will inform future management decisions.	support exploratory fishing efforts by the Five Nations for the 2021/22 season. To augment this exploratory opportunity, the Ehattesaht, Hesquiaht, and Mowachaht / Muchalaht First Nations and DFO have jointly developing and intend to carry out resource assessment surveys in these three Nations' fishing territories, to collect Dungeness crab stock assessment information that will inform future management decisions.
Octopus	By-catch retention during directed crab and prawn fishing	By-catch retention during directed crab and prawn fishing
Prawn (*Pandalus platyceros)* Other shrimp species (*Pandalus* species and *Pandalopsis dispar* Sidestripe Shrimp)	2.45% of the coast-wide trap total (1,800 traps)	0.82% of the coast-wide trap total (600 traps)[9]
Goose Barnacle (Pollicipes polymerus)	12,000lbs	12,000lbs
Sea Cucumber (*Apostichopus californicus*)	TBD	TBD

7 LICENSING AND DESIGNATIONS

The Five Nations' right-based sale fishery will be authorized under the *Aboriginal Communal Fishing Licences Regulations* (ACFLR).

The Five Nations will specify individual community members and vessels to be designated and authorized to participate in the fishery under the conditions set out in the licence(s) issued by DFO authorizing the fishery. Consultations will be required to ensure that the objective of wide community participation in the right-based sale fishery is achieved.

7.1 Designation of Individuals

[9] This includes one licence equivalent of access that is provided as part of the DFO/Five Nations Reconciliation Funding Agreement that is being fished in the FMP this year at the request of the Five Nations.

Only members of Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht First Nations are eligible to participate in the fishery. Participants in the fishery shall be designated by Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, or Tla-o-qui-aht First Nations. Designations are personal and non-transferable.

Individuals who fish under authority of the licence shall carry documentation to establish their identity as Participants (T'aaq-wiihak Card) and membership in one of Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht First Nations while participating in the fishery and while transporting fish harvested in the fishery, and will present such documentation on request by any fishery officer or fishery guardian.

7.2 Designation of Vessels

A vessel designated to harvest fish shall be identified by a registration number and by affixing a T'aaq-wiihak decal and flag. The T'aaq-wiihak flag shall be mounted as high as practicable and be clearly visible, legible and unobstructed. The Five Nations shall provide a list of the names of designated Participants, their T'aaq-wiihak Card number, and vessels with the T'aaq-wiihak decal number to DFO as soon as possible and before fishing commences. The Five Nations may amend the list of designated individuals and vessels and shall provide the amended list to DFO at the earliest possible opportunity and before the newly designated individuals and vessels commence fishing activities. Any changes to the list of designated individuals and vessels will be sent to DFO.

For the proper management and control of the crab and prawn fisheries, the Five Nations must provide DFO with the names and decal numbers of the vessels participating in the crab and prawn fisheries and the number of prawn and crab traps to be fished by those vessels in advance of them participating in the fishery. Should the list of vessels participating in the crab and prawn fisheries change, or their trap allotment change, during the season, the Five Nations must provide DFO with notification of such changes at least 2 weeks prior to those new vessels participating in the fishery or those new trap allotments being fished.

DFO will need to carefully manage the use of commercial troll gear in the right-based sale fishery to achieve the objective of wide community participation. The Court clarified that the focus of the right-based sale fishery is on small, low-cost boats and wide community participation. How the use of commercial troll gear will be handled to ensure that wide community participation can be maintained will necessitate appropriate management and monitoring of the right-based sale fishery.

8 FISHING AREA

The fishing opportunities outlined in the Five Nations Fishery Management Plan are confined to the CDA that extends offshore nine nautical miles. The CDA includes the Pacific Fisheries Management Areas (PFMAs) listed below:

- PFMA 24: all Subareas.
- PFMA 25: Subareas 25-1 to 25-8, 25-10 to 25-12, and 25-15 to 25-16; portions of Subarea 25-9; portions of Subarea 25-13.
- PFMA 26: portions of Subarea 26-1.
- PFMA 124: portions of Subarea 124-1 to 124-4.
- PFMA 125: portions of Subarea 125-1 to 125-5.
- PFMA 126: portions of Subarea 126-1 to 126-2.

The Five Nations CDA overlaps with the Maa-nulth Domestic Fishing Area in a portion of Subarea 26-1, 126-1, 126-2, 124-1 and 124-3.

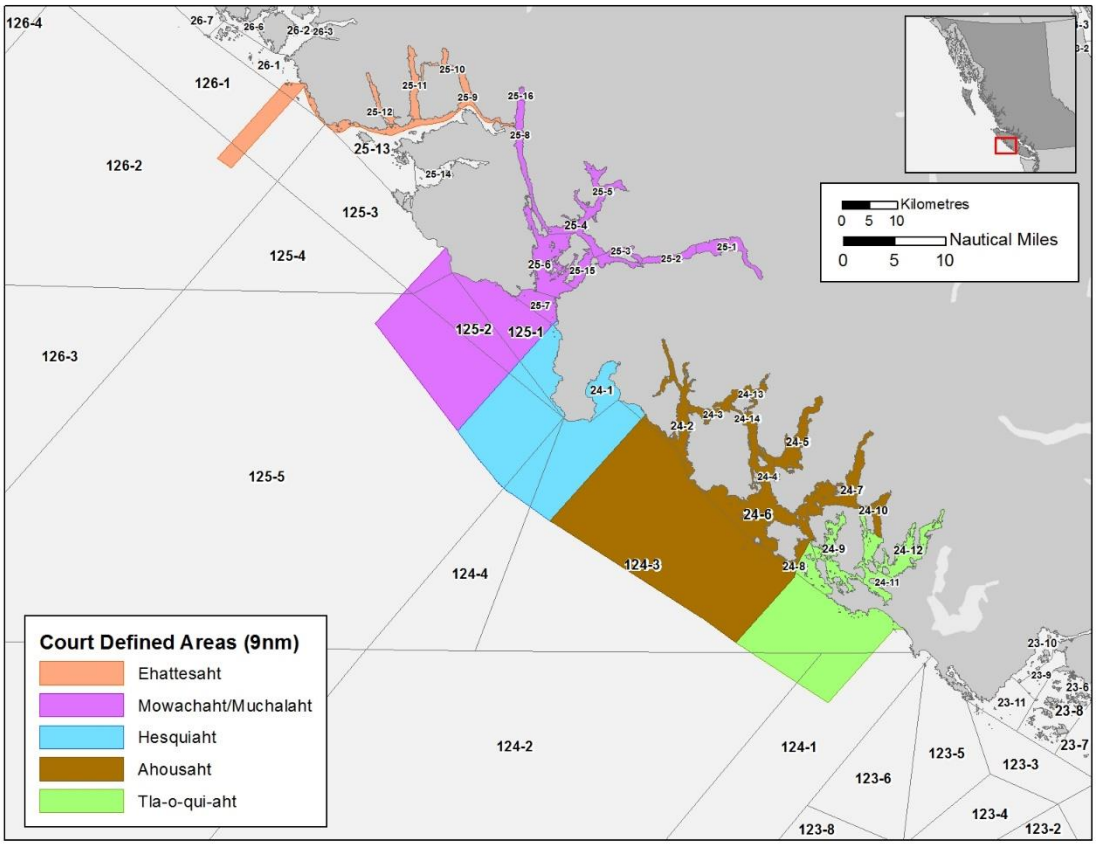


Figure 1. Court Defined Area

In addition, there may be additional fishery restrictions in place within the CDA to address:

i) Allocations provided for the fishery and availability of particular species within the CDA

ii) Availability of Canadian Total Allowable Catch may limit opportunities for some species (e.g. salmon)
iii) Conservation measures for stocks / species of concern;
iv) Time/area restrictions or seasons for particular species;
v) Rockfish Conservation Areas will be closed to the fishery;

Finer scale area restrictions on the harvest of certain species are detailed in Section 9.

9 SPECIFIC FISHERIES HARVESTING OPPORTUNITIES

9.1 Fishery Monitoring and Catch Reporting

A complete, accurate and verifiable fishery monitoring and catch reporting program is required to successfully balance conservation, ecosystem, socio-economic, and other management objectives.

Following multi-sectoral consultations, DFO released the national Fishery Monitoring Policy in 2019, replacing the regional “Strategic Framework for Fishery Monitoring and Catch Reporting in the Pacific Fisheries” (2012). Founded on the Pacific Region Framework, the Fishery Monitoring Policy seeks to provide dependable, timely and accessible fishery information through application of a common set of procedural steps used to establish fishery monitoring requirements across fisheries. Policy principles include respecting Indigenous and Treaty rights, linkage of monitoring requirements to the degree of risk and complexity of fisheries, linkage of monitoring programs to fishery and policy objectives while accounting for cost-effectiveness and practicality of implementation, and shared accountability and responsibility between DFO, Indigenous groups and stakeholders.

To ensure consistent national application of the Fishery Monitoring Policy, further guidance is provided through the “Introduction to the Procedural Steps of Implementing the Fishery Monitoring Policy”. Fisheries are first prioritized for assessment through collaboration with Indigenous groups and stakeholders. Risk and data quality assessments are then conducted on priority stocks and associated fisheries and monitoring programs. Next, monitoring objectives are set in alignment with the Fishery Monitoring Policy, followed by specifying monitoring requirements and then monitoring programs are operationalized. DFO will track and evaluate progress to achieve the policy objectives and report on the progress.

The Fishery Monitoring Policy is part of DFO’s Sustainable Fisheries Framework and is available at:

https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/fishery-monitoring-surveillance-des-peches-eng.htm

The “Introduction to the Procedural Steps of Implementing the Fishery Monitoring Policy” is available at:

https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/fmp-implementation-psp-mise-en-oeuvre-eng.htm

In cases where assessment of monitoring programs identifies a gap between the current and target level of monitoring, discussions will be held between DFO, Indigenous groups and stakeholders to identify options to address the monitoring gap, and the feasibility of these options (e.g. cost, technical considerations, etc.). To support Fishery Monitoring Policy principles, a collaborative approach is required.

Where monitoring options are determined to be feasible, the monitoring and reporting regime will be revised to incorporate these options, providing resource managers with sufficient information to meet Fishery Monitoring Policy objectives. Where monitoring options are not feasible, alternative management approaches are required to reduce the risk posed by the fishery. If there is no gap between the current and target level of monitoring, the management approach will not require any change.

A phased approach to transition from the Regional Framework to the National Policy will be undertaken and additional consultation on specific monitoring program elements consistent with the requirements described in this section and associated costs will continue to occur with the Five Nations.

Further discussions are required with the Five Nations regarding the application of updated versions of the risk assessment tools and implementation of associated monitoring programs in the future.

Fishery monitoring will be conducted by DFO and the First Nations under Fisheries Agreements.

Reporting Lost Gear and Retrieval of Lost Gear

Requirements associated with the reporting and retrieval of lost gear can be found in Section 4.3 of this document.

9.2 Integrated Hook and Line Fisheries and Terminal Salmon Fishery Monitoring and Catch Reporting Requirements

Harvesters will be required to provide a full and reliable accounting of all catch, both retained and released, and record fishing activity, location, date, and time. This requirement shall be met through a combination of designations, hails, harvest logs, and dockside validation.

9.2.1 Designation of Landing Sites

The landing sites will be specific sites to allow for inspection and attendance by dockside observers. The designated landing sites for this fishery are:

a) Zeballos Government Dock, Mid - Island Ice;
b) Tofino Lions Gate Fisheries Dock;
c) Tofino Fourth Street Dock;
d) Gold River
e) Additional sites as jointly agreed to in-season

9.2.2 Hail reports

All vessel masters will file a Start Fishing Report (hail out into the fishery) prior to participating in the fishery by calling or texting 250-266-0418, or emailing hail@taaqwiihak.ca or completing the report online at http://taaq.ca. The Start Fishing Report will include the following:

a) Vessel master's name and vessel name;
b) Intended fishing start date;
c) Expected landing date; and
d) Area to be fished
e) Target species (e.g. groundfish vs salmon) when applicable

The Ha'oom Fishery Manager will provide all Start Fishing Reports in electronic form to DFO, on a daily basis.

9.2.3 Harvest reporting logs

Each vessel master shall keep a complete Logbook that remains with the fishing vessel at all times during the duration of this fishery. Each vessel master will complete a Logbook report prior to 08:00 h of the day following a day in which fishing occurred or a minimum of 2 hours prior to offload. The logbook shall contain the following information:

a) Harvest log identification number and page number;
b) Vessel master's name and T'aaq-wiihak Card number;
c) Vessel name and T'aaq-wiihak decal number;
d) Date fished;
e) Area fished;
f) Number of hours fished;
g) Number of fish caught and retained by species or type as indicated in the harvest log;
h) Number of fish caught and released by species or type as indicated in the harvest log; and
i) Number of fish caught used as bait by species or type as indicated in the harvest log; and
j) Number of non-fish (.e.g. turtles, birds, and mammals) encountered by species or type.

All vessel masters will submit a hard copy of the logbook page(s) for that trip to the dockside observer at each landing. No Landing Slip will be issued by the

dockside observer until the completed logbook page(s) has been provided. Data from the logbook pages will be provided by the Dockside Monitoring Company in electronic form to DFO weekly, during weeks which fishing occurred. The Dockside Monitoring Company will provide a hardcopy of all pages in the logbook to DFO upon request.

Following the landing of Pacific Halibut, a completed copy of the log shall remain in the Logbook until removed by an International Pacific Halibut Commission employee or mailed within seven (7) days of the vessel's landing to:

International Pacific Halibut Commission
2320 West Commodore Way, Suite 300
Seattle, WA, United States
98199-1287

9.2.4 Landing slips

All vessel masters must obtain a Landing Slip in order to retain or sell any fish caught in the fishery. Copies of all Landing Slips issued must be made available to DFO for review. The Landing Slips must be issued by a dockside observer and shall specify:

a) the name and signature of the vessel master landing the fish;
b) date and time of landing;
c) location of landing site;
d) the vessel master’s T’aaq-wiihak Card number;
e) vessel name and T’aaq-wiihak decal number;
f) the area of catch;
g) the target species (e.g. groundfish vs salmon) when applicable;
h) gear used;
i) number of fish landed for the intent of sale;
j) name and signature of dockside observer (holder of Landing Slip book);

A vessel master must carry a Landing Slip when in possession of fish caught in the right-based fishery, except when fishing or transporting fish to a Landing Site by water. The vessel master shall show Landing Slips to a fishery officer or fishery guardian upon request. Landing Slips issued by dockside observers will be forwarded to the Dockside Monitoring Company who will submit data in electronic form to DFO following each fishery opening. The Dockside Monitoring Company will provide a hard copy of all landing slips to DFO upon request.

9.2.5 Fish (Sales) slips

All vessel masters must obtain a Fish (Sales) Slip when selling fish caught under authority of a licence. The Fish (Sales) Slip can be issued by the purchaser or, in the case of direct sales, the vessel master and shall specify:

a) the name of the company, plant, packer, collector or individual purchasing fish;

b) the vessel master's name and address;
c) the number of a licence and the T'aaq-wiihak Card number;
d) the Landing Slip number;
e) the area of catch and landing site;
f) days fishing;
g) gear used;
h) number and weight of fish (by species) sold;
i) price per pound by species;
j) total landed value of catch;
k) payment (paid and payable in cash and otherwise); and
l) such information as may be required.

If fish are landed and sold at the same location, a Landing Slip and Fish (Sales) Slip may be incorporated into one document by attaching a voided Landing Slip to a copy of the Fish (Sales) Slip.

The vessel master must provide a copy of the Fish (Sales) Slip to a purchaser. Vessel masters shall submit Fish (Sales) Slips no later than seven days after offloading. Fish (Sales) Slips shall be mailed to DFO.

9.2.6 Dockside Monitoring Program

All fish retained will be validated by independent dockside observers (for situations of vessel master refusal, see incident report information below). Vessel masters must permit dockside observers access to their catch at landing sites for the validation procedure. The dockside observer shall provide a Validation Report containing the following information:

a) Vessel name and T'aaq-wiihak decal number;
b) Vessel master name;
c) Logbook number;
d) Date of offload;
e) Last area fished;
f) Number of pieces for salmon
g) Weight and number of pieces by species for groundfish;
h) Landing port and time of landing;
i) Start time of offload;
j) End time of offload; and
k) Observer identification number/name

Validation reports shall be forwarded from the Dockside Monitoring Company to DFO on a weekly basis.

Consistent with the 2009 National Dockside Monitoring Program Policies and Procedures, dockside observers will conduct a thorough check of the fish holds and containers on deck to ensure all fish have been offloaded. If a violation occurs, an incident report shall be recorded following the guidelines in the 2009

National Dockside Monitoring Program Policies and Procedures. Dockside observers can provide incident reports to the Dockside Monitoring Company or to DFO.

Violations that require an incident report include (but are not limited to) the following examples:

a) The dockside observer is unable to conduct a hold check to verify the offload is complete.
b) The sales trip limit is exceeded.
c) Retention of prohibited species.
d) A vessel master failed to file a start fishing report.
e) A vessel is not designated as a T'aaq-wiihak fishing vessel and does not have a T'aaq-wiihak vessel decal.
f) A vessel master is not designated.
g) Sale of under-sized fish.

Split-Offloads

A split offload allows a fisher to offload FSC catch before arriving at the designated landing site with prior agreement and monitoring by the respective Nations Fishery Manager. For 2021 split offloads will be permitted, except for vessels equipped with commercial troll gear configurations.

9.2.7 Additional requirements for vessels equipped with commercial troll gear configurations

In addition to the fishery monitoring and catch reporting requirements outlined above, the following monitoring and reporting requirements for the Offshore Integrated Hook and Line fishery while using commercial troll gear are as follows:

- All vessels are required to have a fully operational DFO-approved VMS and to report the geographic position (latitude and longitude) of the vessel, date and time corresponding to this position, and Communication Service Provider identifier for the VMS unit. This information shall be reported automatically to the DFO Vessel Monitoring Operations Centre (Newfoundland) every 15 minutes throughout the season, from the time the vessel leaves port for the first fishing trip until it returns to port and all catch on board the vessel is offloaded after its last fishing trip. A list of DFO-approved VMS units can be found at: www.nfl.dfo-mpo.gc.ca/e0011108 or by contacting DFO by telephone at 1 (709) 772-5789 or Toll Free at 1 (888) 772-8225.

  A completed DFO National VMS Form shall be faxed to DFO at 1 (709) 772-5787 not less than two business days before commencing fishing for each VMS unit installation, replacement, transfer, or change to the licence holder.

The DFO National VMS Form is available on the internet at:
http://www.nfl.dfo-mpo.gc.ca/e0010178

In the event that the VMS unit or equipment becomes inoperative, is turned off, or malfunctions, the service provider must be notified immediately by telephone at 1-866-930-4000 Monday to Friday 8:00 a.m. to 4:00 p.m. and provide the following information:

a) Vessel name, vessel master's name, and VRN or T'aaq-wiihak decal number;
b) The date and time of sailing;
c) The port of landing; and
d) The telephone number where the vessel master can be reached.

A back-up VMS unit must be activated within 72 hours of the malfunction. A back-up VMS unit may be obtained by phoning 1-866-930-4000 and provide the following information:

a) Vessel name, vessel master's name, and VRN or T'aaq-wiihak decal number;
b) The telephone number where the vessel master can be reached.

Once 72 hours from the malfunction has elapsed, fishing may only resume once the VMS unit is turned on and fully operational or when the vessel master has received approval from DFO.

- In the event of a VMS unit failure where a vessel carries two or more approved VMS units on board, it is the responsibility of the vessel master to immediately notify DFO that a secondary unit is being activated and subsequently ensure it is fully operational, turned on and in use before resuming fishing activity.

9.2.8 Tagging and Biological sampling requirements

All Halibut retained for sale must be tagged by a dockside observer prior to sale. To facilitate catch sampling by the International Pacific Halibut Commission all Halibut shall either be landed fresh, dressed head-on or fresh, round head-on.

Vessel masters will permit dockside observers access to catch for the purposes of sampling for coded-wire tag (CWT) as required at designated landing sites. Sampling protocols are to be developed with Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht First Nations and DFO in-season.

9.3 Offshore Integrated Hook and Line Fishing Opportunities

This section of the FMP outlines directed fishing opportunities for salmon, Lingcod, Halibut and Dogfish in offshore areas of the CDA. Specific rules for each species are identified in the relevant sections.

DFO has developed the Offshore Integrated Hook and Line Fishing Opportunities below to meet the objective of this FMP as described in Section 3. In particular, the fishing opportunities were developed to support wide community participation by members of the Five Nations fishing with small, low-cost boats with limited technology and restricted catching power. The fishing opportunities were not developed to support a fleet equivalent to the regular commercial fishery.

DFO acknowledges, however, that the Five Nations' wish to continue using many vessels with catching power equivalent to the regular commercial troll fishery in the Offshore Integrated Hook and Line Fishing Opportunities under the 2021 FMP. Though DFO views this as contrary to the primary objective of this FMP, DFO is willing to accommodate the Five Nations' request and will continue to permit the use of such vessels in accordance with the conditions set out in this FMP.

Because of their higher catching power and similarity to the regular commercial fishery, additional management measures will apply to vessels fishing using commercial troll gear configurations.

Dual Fishing is permitted, see Section 6.2 for details.

9.3.1 Offshore Fishing Area

The offshore fishing area is defined as those portions of the CDA within PFMAs 124-126, that extends nine nautical miles offshore.

Species-specific accounting for Chinook salmon is different than what is defined as Offshore and Nearshore and will follow AABM and ISBM area designations as described in the Pacific Salmon Treaty. The AABM fishing area within the CDA is as defined as follows:

PFMA 24 inside the Canadian "surfline" and portions of PFMA 124 during the period from October 16 through July 31, plus that portion of PFMA 124 outside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surfline, during the period August 1 through October 15; and

Portions of PFMA 25 and 26 inside the Canadian "surfline" and portions of PFMA 125 and 126 during the period from October 16 through June 30, plus that portion of PFMA 125 and 126 outside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surfline, for the period from July 1 through October 15.

9.3.2 Conservation Measures

In addition to those conservation issues described in Section 4 of this plan, specific conservation concerns within the Offshore Integrated Hook and Line Fishing Opportunities include:

9.3.2.1 Coho

The objective for Interior Fraser River Coho (including Thompson River Coho) is to manage Canadian fisheries in a highly precautionary manner with fisheries management measures similar to those in place prior to 2014. This approach is expected to achieve an overall exploitation rate in Canadian waters within the 3 – 5 % range.

9.3.2.2 Chinook

i. The objective for Lower Strait of Georgia Chinook is to continue rebuilding through a comprehensive set of fishery, hatchery, and habitat related actions.
ii. WCVI wild Chinook continues to be a stock of concern. The objective for WCVI Chinook is to manage key Canadian ocean fisheries (as specified in the Southern BC Salmon IFMP) to an exploitation rate of 10%. As a result, management measures may be implemented to protect this stock. These measures may include closures, salmon non-retention and Chinook non-retention provisions.
iii. Management measures to address conservation concerns for Fraser Chinook continue to be required in 2021 and will likely be required for several years. Adjustments to management measures identified in the current Salmon Integrated Fisheries Management Plans (currently in effect until May 31, 2021) may be considered subject to review with an evaluation framework for consistency with conservation, fishery and other objectives.

    Achieving these conservation objectives is the highest priority and requires significant actions in commercial troll, recreational and First Nations fisheries in times and areas where at risk Fraser Chinook may be encountered. Fraser Spring 42 and Spring 52 Chinook return to spawn from early March through late July, with migration peaks in June through the lower Fraser River. Summer 52 Chinook have later timing and return to the Fraser River to spawn from late June to August with a peak in late July.

    The final Southern BC Salmon IFMP will reflect decisions on specific management measures that will be in effect for the period June 1, 2021 to May 31, 2022. Updated information will be included in the Species Specific Salmon Fishing Plans of the Southern BC Salmon IFMP.

9.3.2.3 Early Stuart Sockeye conservation measures

In recent years, window closures and other fishing restrictions have been required in commercial, recreational and First Nations fisheries to stay within the Low Abundance Exploitation Rate (LAER) objectives identified in the escapement plan. Management measures may include a rolling window closure based on the run timing of the Early Stuart migration through various fishing areas. Potential window closure dates will be provided for planning purposes to protect Early Stuart Sockeye. These dates may be revised based on timing forecasts or in-season information. Sockeye non-retention would be in effect as defined in the Southern BC Salmon IFMP.

9.3.2.4 Steelhead

Retention of wild Steelhead will not be permitted due to conservation concerns for Interior Fraser Steelhead.

9.3.2.5 Rockfish

i. The Offshore Integrated Hook and Line Fishery is not permitted in RCAs.

ii. **Yelloweye Rockfish**

Based on science information, the Department set out a plan in 2016 for stepped reductions of total Yelloweye Rockfish outside population harvest from the estimated total catch mortality of 287 t in 2014 to a mortality cap of 100 t over 3 years (2016/17 to 2018/19). The mortality cap, which accounts for Indigenous fishing opportunities, was broken out to identify sector-specific mortality caps. DFO has implemented measures that will reduce Yelloweye Rockfish catch and enable stock rebuilding over the long term. Through the process of regular evaluation of the rebuilding plan, science advice on stock status and rebuilding strategies for Yelloweye Rockfish was peer-reviewed in autumn 2019. Based on the science advice, the 2021/22 mortality cap for the Yelloweye Rockfish outside population has been increased to 217 t (see Table 4). Additional information regarding rockfish Rebuilding Plans is available in Appendix 9 of the Integrated Fisheries Management Plan for Groundfish.

iii. **Bocaccio Rockfish**

Based on science information, the Department set out a plan in 2013 for stepped reductions of total Bocaccio harvest from the estimated total catch mortality of 137 metric tonnes (t) in 2012 to a mortality cap of 75 t over 3 years (2013/14 to 2015/16). The mortality cap, which accounts for Indigenous fishing opportunities, was broken out to identify sector-specific mortality caps. Through the process of regular evaluation of the rebuilding plan, science advice on stock status and rebuilding strategies for Bocaccio was peer-reviewed in autumn 2019. Based on

the science advice, the 2021/22 mortality cap for Bocaccio has been increased to 500 t. Additional information regarding rockfish Rebuilding Plans is available in Appendix 9 of the Integrated Fisheries Management Plan for Groundfish.

9.3.2.6 Species at Risk Act (SARA)

It may be necessary to collaboratively discuss SARA allowable harm implications for species, depending on legal listing decisions. In addition, harvesting opportunities in this Five Nations FMP may change due to SARA requirements.

9.3.3 Fishery Access and Allocation

9.3.3.1 Salmon Species

9.3.3.1.1 AABM Chinook

An AABM Chinook fishery is an aggregate abundance-based management regime that constrains catch or total mortality to a numerical limit computed from either a pre-season forecast or an in-season estimate of abundance, from which a harvest rate index can be calculated, expressed as a proportion of the 1979 to 1982 base period.

AABM fisheries are managed annually so as not to exceed the specified TAC. In addition, domestic conservation concerns may reduce overall harvests below the PST allowable TAC.

The AABM chinook year is October 1 to September 30. The PST Chinook Technical Committee (CTC) provides a final calibration of the Chinook Model annually. That calibration is provided in April each year, and provides official forecasts of Abundance Indices (AI) for the three AABM fishing areas: WCVI, South East Alaska (SEAK), and Northern BC (NBC). Table 1 in PST Chapter 3 converts the AI to the Total Allowable Catch (TAC) for each AABM fishing area for the fishing year from the previous October 1 until September 30 in the year of the calibration.

When there is a TAC identified for the WCVI AABM management area, targeted Chinook fisheries are permitted.

In 2019 the WCVI AABM TAC was reduced consistent with obligations outlined in the re-negotiated PST.

The Five Nations fishery allocation for WCVI AABM Chinook Salmon in this FMP is expressed as a per cent share of the available catch remaining after the expected FSC catch (currently 5,000 Chinook) and the Maa-nulth treaty entitlement (calculated annually based on the TAC) have been deducted from the WCVI AABM Chinook CTAC. See Table 1 in Section 6.2.1 for details. The domestic allocations for salmon under the Maa-nulth First Nations Final

Agreement are “an amount of Ocean Chinook Salmon equal to 1,875 pieces plus 1.78% of the Ocean Chinook Salmon Canadian Total Allowable Catch.” The Maa-nulth Treaty entitlement for the current year is determined in April each year.

Note that in order for catch accounting for AABM chinook harvested under this FMP to align with the chinook fishing year under the PST, all AABM chinook caught after September 30 under this FMP (i.e during the period of October 1 to March 31) will be accounted for against the AABM Chinook allocation provided in the next FMP.

Within the CDA, Chinook harvests that occur in the following times and areas will be accounted for against the WCVI AABM Chinook allocation:

- Pacific Fishery Management Area (PFMA) 24 inside the Canadian “surf line” and PFMA 124 during the period October 16 through July 31, plus that portion of PFMA 124 outside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surf line, during the period August 1 through October 15.

- PFMA 25 and 26 inside the Canadian “surfline” and PFMA 125 and 126 during the period October 16 through June 30, plus that portion of PFMA 125 and 126 outside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surfline, for the period July 1 through October 15.

In-season adjustments to the allocation for this fishery are not anticipated (i.e. not affected by higher or lower than forecasted recreational catches) unless a conservation concern is identified.

9.3.3.1.2 Offshore Coho

The Five Nations fishery allocation for offshore Coho Salmon in this FMP is expressed as a fixed share. See Table 1 in Section 6.2.1 for details.

The basis for managing fisheries impacting wild Coho originating from southern BC, Washington State, and Oregon Coho is set out in the Pacific Salmon Treaty (PST). An abundance based management (ABM) system is used to define harvests of Southern Coho. The ABM plan constrains total fishery exploitation of key stock management units. In Southern BC, a framework to identify *low*, *moderate* or *abundant* status zones and associated exploitation rate caps has been developed for the Interior Fraser River (IFR) Coho management unit and will continue to be implemented. Based on this framework, annual limits of fishing mortality will be established based on the level of abundance and the health of the wild stocks.

The recent productivity of IFR Coho remains low, and as a result, the sustainable harvest that can be expected from the management unit is also low relative to historic levels. Under *low* status in the ABM framework, a maximum exploitation rate of 20% is permitted under the PST, with 10% in Canada and 10% in the United States.

In addition, within the *low status* zone, each country is expected to implement additional fishery management measures as may be necessary to address conservation needs for management units within its jurisdiction. For most years since 1998 (except 2014 and 2015) Canada has done this by planning on reducing its share of the total exploitation rate on IFR Coho to approximately 3%-5% or less.

Management measures for IFR Coho are generally in place from January to September when these populations are expected to be encountered in southern BC waters. With the exception of some First Nations FSC fisheries, most fisheries in southern BC do not permit retention of wild Coho in times and areas where Interior Fraser Coho may be prevalent. However, mark-selective (i.e. retention of hatchery origin Coho with an adipose fin clip) fisheries have been implemented in most southern BC recreational fisheries and some commercial fisheries permit retention of hatchery enhanced stocks, while minimizing impacts on wild stocks.

During the Five Nations offshore fishery from January until September 15, non-retention of wild Coho will be in effect to meet conservation objectives for IFR Coho; unlimited hatchery marked Coho only may be retained. Beginning on September 15 when IFR Coho are expected to have migrated out of the area, retention of hatchery and wild Coho may be permitted up to a maximum of 2,000.

IFR Coho conservation measures on the WCVI are being reviewed by DFO. If changes are made in the Southern Salmon IFMP the FMP may be amended.

9.3.3.1.3 Fraser River Sockeye

2021 is an off cycle year for Fraser Sockeye. Quantitative forecasts are usually available in February and final forecasts of timing and diversion rates are generally finalized in June.

Fraser River Sockeye are managed in-season based on four stock groups (Early Stuart, Early Summer, Summer and Late Run) identified under the Pacific Salmon Treaty Annex and the CTAC is comprised of the available harvests identified for each of the four stock groups. Available harvests are determined based on the pre-season escapement plan and harvest decision rules that are set for each stock group and in-season information including estimates of abundance, run timing, stock composition, and other technical information used

to assess potential fishing opportunities. Harvests are planned based on the available TAC for each of these stock groups.

The Southern BC Salmon IFMP provides detailed information on harvest constraints for Fraser River Sockeye salmon (http://www.pac.dfo-mpo.gc.ca/fm-gp/ifmp-eng.html).

The Five Nations fishery allocation for Fraser River Sockeye salmon in this FMP is expressed as a per cent share of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Sockeye CTAC. For Fraser River Sockeye FSC fisheries, the communal licence harvest target amounts deducted from the CTAC for management purposes is currently 1,050,850 Sockeye. Treaty Domestic Allocations for Tsawwassen, Maa-nulth and Tla'amin are abundance based formulas based on the CTAC and vary based on in-season abundance. The Five Nations fishery allocation will be expressed as a number of pieces of Sockeye Salmon based on in-season information. See Table 1 in Section 6.2.1 for details.

In general, harvesting efforts to access the Five Nations Sockeye allocation will be designed to distribute harvesting effort across the four stock groups where CTAC is identified for Fraser River Sockeye salmon that are available in the CDA In general, it is expected that the largest catches will be planned from the stock group(s) with the largest CTAC. However, it is recognized that there may be circumstances where harvesting efforts are directed on specific stock group(s) as part of in-season planning and in consideration of planning harvest opportunities for all groups accessing Fraser River Sockeye.

In the event that there is a conservation concern for one or more stock groups and/or the quantity of CTAC that is available for harvest is not sufficient to meet all anticipated allocations from that stock for FSC purposes or domestic purposes, the Five Nations fishery allocation may be reduced or harvest opportunities may be constrained or not permitted.

For stock groups with no available CTAC, it is recognized that there will be some low incidental harvest in the form of low abundance exploitation rates (LAERs) to allow for fisheries directed on co-migrating stocks and species. The LAER in recent years is up to 10% for Early Stuart, Early Summer and Summer run Sockeye and 20% for Late run Sockeye. The LAER is not a target as the objective is to allow as many fish to pass to the spawning grounds as possible while allowing some incidental harvest, and in some cases some directed harvest when there is little opportunity for harvest directed on other Fraser Sockeye stock groups or species. All fishery impacts including test fisheries are to be accounted for under the LAER. In this circumstance, fisheries are only considered if they provide scientific information necessary for conservation (test fisheries) or have reasonably low catch impacts on Fraser Sockeye. By-catch retention of Sockeye may be permitted or mandatory release may be required in the Five Nations fishery.

In-season information derived from catch in test and other fisheries, and in-river hydro-acoustic estimates of salmon passage are provided by the Pacific Salmon Commission (PSC) staff to the DFO and Fraser River Panel (FRP) for consideration when planning fisheries.

The FRP meets regularly from early July to mid-September to review information as it becomes available over the course of the Sockeye migration. During this period in-season information is regularly updated by the FRP to set spawning escapement objectives, management adjustments, and calculate Total Allowable Catch (TAC). The availability of the TAC to harvesters will be affected by other factors, including migration pathways (i.e. diversion rates) and conservation requirements for co-migrating stocks or species.

In-season information including fishery openings is posted on the Internet regularly throughout the fishing season by the DFO and the PSC at the following web sites:

- Weekly PSC News Release:
  http://www.psc.org/news_frpnews.htm
- Aboriginal, Commercial and Recreational Fishery Notices:
  http://www-ops2.pac.dfo-mpo.gc.ca/fns-sap/index-eng.cfm
- Sockeye Test fisheries:
  - FRP approved test fishery results are available from the PSC at:
    http://www.psc.org/publications/fraser-panel-in-season-information/test-fishing-results/
  - Other test fishery results are available from DFO at:
    http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html

9.3.3.1.4 Fraser River Pink

Fraser Pink salmon migrate up the Fraser system from early August through early October, peaking in early to mid-September. Returns occur on a two year cycle, almost entirely in odd numbered calendar years only. Minimal numbers of Fraser River Pink salmon return in even years and no directed harvest will be permitted in these years. Pink bycatch for sale will be permitted in off cycle years.

Fraser River Pink salmon are managed to achieve a 6 million spawning escapement goal according to the following harvest decision guidelines:

Run Size	Escapement Plan
Less than 7.059 M	The allowable exploitation rate (ER) increases linearly from zero percent at a run size of zero to 15% at a run size of 7.059M. (For run sizes less than 7.059M, the allowable % ER is the run size expressed in millions multiplied by (15%/7.059)
Between 7.059M & 20M	The allowable ER increases from 15% to 70%. The escapement goal is 6M, the remainder is harvestable surplus.
Greater than 20M	The allowable ER is 70%. The escapement goal increases as the run size increases beyond 20M.

The CTAC is determined based on pre-season and/or in-season information including estimates of abundance, run timing, and other technical information used to assess potential fishing opportunities. Harvests are planned based on the available CTAC.

The Southern BC Salmon IFMP provides further information on harvest constraints for Fraser River Pink salmon (http://www.pac.dfo-mpo.gc.ca/fm-gp/ifmp-eng.html).

The Five Nations fishery allocation for Fraser River Pink salmon in this FMP is expressed as a per cent share of the available catch remaining after requirements for FSC and Treaty have been deducted from the Fraser River Pink CTAC. For Fraser River Pink salmon FSC fisheries, the communal licence harvest target amounts deducted from the CTAC for management purposes is currently 174,150 Pink salmon. Treaty Domestic Allocations are also identified for Tsawwassen (up to a maximum of 2,500),Tla'amin (up to a maximum of 5,000) and Maa-nulth in each two year period following the effective date of the Final Agreement (2009) up to a maximum of 7,250 Pink salmon (some or all of which may be Fraser Pink). The Five Nations fishery allocation will be expressed as a number of pieces of Pink Salmon based on in-season information. See Table 1 in Section 6.2.1 for details.

In the event that there is a conservation concern for Fraser River Pink salmon and/or the quantity of CTAC that is available for harvest is not sufficient to meet all anticipated allocations for food, social or ceremonial purposes or domestic purposes, the Five Nations fishery allocation may be reduced or harvest opportunities may be constrained or not permitted. By-catch retention of Pink

salmon may be permitted or mandatory release may be required in the Five Nations fishery.

Harvest of Fraser Pink salmon in odd years may also be constrained by the management objectives for Fraser Sockeye or other stocks of concern, particularly IFR Coho salmon.

In-season information including estimates of abundance, run timing, stock composition, and other technical information are used to assess potential fishing opportunities.

The Fraser River Panel meets regularly from early July to early September to review information as it becomes available over the course of the Pink migration. In-season information including fishery openings are posted on the Internet regularly throughout the fishing season by the DFO and the PSC at the following web sites:

- Weekly PSC News Release: http://www.psc.org/news_frpnews.htm
- Aboriginal, Commercial and Recreational Fishery Notices: http://www-ops2.pac.dfo-mpo.gc.ca/fns-sap/index-eng.cfm?

9.3.3.1.5 Offshore Chum

Retention of Chum salmon caught during directed fisheries for other species will be permitted unless a conservation concern is identified.

9.3.3.2 Offshore Groundfish species

Key groundfish species allocations are described via Individual Transferable Quotas (ITQs). An ITQ is a tradable share of the total allowable catch that facilitates individual accountability of retained and released fishing mortality.

The structure of the ITQ management regime is such that ITQs for some species (e.g. rockfish) are allocated with the ITQs of a target species (e.g. Halibut), and as a result the allocations described in Table 5 are greater than the allocations described in Section 6.2.2, *Access to Groundfish*. For example, allocations of skate species and deep water rockfish (e.g. Shortraker Rockfish) are provided and will be managed, but these species are unlikely to be encountered at significant levels by the fishery as described within this plan.

While ITQ shares remain constant, the permitted annual harvest changes with the total allowable catch. Groundfish catch limits are set annually every February via a combination of domestic and international processes. Under agreements

with the United States, harvest advice for Halibut and Hake are developed cooperatively. For other species of groundfish, including Lingcod and rockfish species, harvest advice is developed by Fisheries and Oceans Canada under the Groundfish Stock Assessment Program. Note that any groundfish caught during the time period January 1 to March 31 will be accounted for against the groundfish allocation provided in the next FMP.

Stock assessment and research programs involving groundfish are conducted by the Department and through cooperative research programs carried out in conjunction with industry associations. Stock assessment advice has been provided for over 30 commercially exploited groundfish stocks. Science personnel, in association with DFO fishery managers and groundfish user group representatives, establish assessment priorities and timing schedules for assessments. These programs are intended to support ongoing evaluation of management measures. Opportunities for stakeholder involvement and co-operative ventures in research and assessment activities are pursued.

Table 4. Groundfish total allowable catch limits for allocation calculations.

Species	Area	2021 Total Allowable Catch by sector (pounds)				
		Dogfish	Lingcod	Rockfish outside	Sablefish	Halibut
Halibut	Coastwide	-	-	-	-	5,180,250
Sablefish	Coastwide	-	-	-	5,533,148	-
Spiny Dogfish	3C/D, 5A/B/C/D/E	16,190,582	-	-	-	-
Lingcod	3C	-	328,799	-	-	-
	3D	-	789,119	-	-	-
Big Skate	3C/D	55,288	-	2,131	4,587	29,459
Longnose Skate	3C/D	44,756	-	4,604	34,494	43,488
Canary rockfish	3C/D	-	-	62,636	-	2,970
Silvergray rockfish	3C/D	-	-	90,595	-	4,955
Yelloweye rockfish	3C/D, 5A	-	-	83,043	-	16,811
Quillback rockfish	3C/D, 5A	-	-	94,906	-	5,686
Copper, China, and Tiger rockfish	3C/D, 5A	-	-	53,501	-	3,206
Rougheye/ Blackspotted rockfish	3C/D, 5A/B	-	-	258,676	-	20,040
Shortraker rockfish	Coastwide	-	-	224,234	-	19,301
Shortspine thornyheads	Coastwide	-	-	37,436	-	38,462
Redbanded rockfish	Coastwide	-	-	487,495	-	162,498

*The units of Pacific Halibut weight are reported as fresh, dressed, head-off (net) pounds. All other units are fresh, round pounds.
**May be subject to in-season adjustment

Table 5. 2021 Species-specific groundfish allocations for the right-based sale fishery after the removal of ATP/PICFI access at the request of the Five Nations, and the addition of access acquired via the 2020/21 Reconciliation Funding Agreement.

Species	Area	2021 Allocation (ITQ %) by sector					Allocation (pounds)
		Dogfish	Lingcod	Rockfish outside	Sablefish	Halibut	
Halibut	Coastwide	-	-	-	-	1.0820%	56,049
Sablefish	Coastwide	-	-	-	0.0000%	-	
Spiny Dogfish	3C/D, 5A/B/C/D/E	0.1668%	-	-	-	-	26,999
Lingcod	3C	-	11.7962%	-	-	-	38,786
	3D	-	11.6714%	-	-	-	92,101
Big Skate	3C/D	0.1668%	-	4.1885%	0.7753%	1.0820%	536
Longnose Skate	3C/D	0.1668%	-	4.1885%	0.7753%	1.0820%	1,005
Canary rockfish	3C/D	-	-	4.1885%	-	1.0820%	2,656
Silvergray rockfish	3C/D	-	-	4.1885%	-	1.0820%	3,848
Yelloweye rockfish	3C/D, 5A	-	-	5.2356%	-	2.0019%	4,684
Quillback rockfish	3C/D, 5A	-	-	4.1885%	-	1.0820%	4,037
Copper, China, and Tiger rockfish	3C/D, 5A	-	-	4.1885%	-	1.0820%	2,276
Rougheye/ Blackspotted rockfish	3C/D, 5A/B	-	-	4.1885%	-	1.0820%	11,051
Shortraker rockfish	Coastwide	-	-	4.1885%	-	1.0820%	9,601
Shortspine thornyheads	Coastwide	-	-	4.1885%	-	1.0820%	1,984
Redbanded rockfish	Coastwide	-	-	4.1885%	-	1.0820%	22,177

*The units of Pacific Halibut weight are reported as fresh, dressed, head-off (net) pounds. All other units are fresh, round pounds.

Non-quota groundfish species (i.e. species not listed in Table 5) will be managed via trip limits, see Section 9.3.8.3. As per 11(d) of the Order, the court has found that rockfish allocations shall be adequate to enable fisheries for Halibut, Lingcod, and Dogfish. Acknowledging that rockfish are a non-target species with allocations that are influenced by allocations of target species (i.e. Pacific Halibut, Lingcod, and Dogfish) [1503], and that rockfish allocations are intended to be sufficient to facilitate a small-boat multi-species fishery [1505], the allocations described here and in Section 9.3.8.3 are intended to be adequate to enable fisheries for Halibut, Lingcod, and Dogfish.

9.3.4 Open Times

Specific open dates and times for the fishery will be planned with the Five Nations. Not all species covered in this fishing plan will be available for harvest throughout the duration of the year. Specifically, time, area and seasonal closures will apply as required for conservation and for proper control and management of the fishery.

Anticipated opportunities are as follows:

AABM Chinook – year round subject to close times and areas. 2021 Fraser River Chinook measures are expected to include close times and areas. During the period from October 1 to March 31, a precautionary harvest level will be set to reflect the preliminary nature (based on the two year out forecast instead of the official one year out forecast) of the TAC.

Note that in order for catch accounting for AABM chinook harvested under this FMP to align with the chinook fishing year under the PST, all AABM chinook caught after September 30 under this FMP (i.e during the period of October 1 to March 31) will be accounted for against the AABM Chinook allocation provided in the next FMP. See also section 9.3.3.1.1 (Fishery access and allocation/Salmon species/AABM Chinook).

Offshore Coho – June to December (hatchery marked only until September 15)
Fraser River Sockeye/Pink – Mid July to September

The Lingcod season is April 1 to November 15. Retention of Lingcod for sale is not permitted from November 16 to March 31.

The Halibut season occurs from approximately March to November. Retention of Halibut for sale is not permitted outside of these months. Halibut season open times are determined annually at the International Pacific Halibut Commission Annual Meeting each January. Note that any groundfish caught during the time period January 1 to March 31 will be accounted for against the groundfish allocation provided in the next FMP. See also section 9.3.3.2 (Fishery access and allocation/Offshore Groundfish species).

9.3.5 Gear

The Offshore Integrated Hook and Line Fishery is intended to be an opportunity to provide access for wide community participation using small low-cost boats harvesting multiple species, consistent with court direction.

Permitted fishing gear is by rod and reel or handline. Downriggers and multiple rods are permitted. When directing on salmon species, barbless hooks will be required in order to improve survival of released non-target or undersize salmon species.

Commercial troll gear is permitted. For the purposes of this FMP, commercial troll gear configurations include vessels with 4 to 6 fishing lines each equipped with a heavy weight and multiple lures attached to each line. Each line is suspended from poles (outriggers or trolling poles) extending from the fishing vessel. Fishing lines are set and retrieved using gurdies (mechanical cranks). Vessels often have high capacity fish holds or freezers and are generally able to fish multiple days before returning to port.

Commercial longline gear is not currently permitted. Should the use of Longline gear be permitted, the following conditions would need to be met, including: (1) effort controls that define longline gear, trip limits, and vessels limits in a manner that is consistent with the interpretation of the right as a small scale commercial fishery using small, low-cost boats, and facilitates wide community participation; and (2) catch monitoring commensurate with the use of longline gear as defined, consistent with the national Fishery Monitoring Policy.

Additional management measures may apply for fishing using commercial gear configurations and fishing regulations similar to the regular commercial fishery may apply.

9.3.6 Species Specific Measures

All retained salmon will be accounted for against the Five Nations allocations for sale and FSC as appropriate.

Noting the justified infringements described in paragraphs 11(c) through (d) of the Order, specifically:

> that Canada's management of the groundfish fisheries, including the precautionary approach to managing rockfish allocations, the monitoring of individual species harvested by the Proceeding Plaintiffs under amalgamated bycatch quota, the requirement for individual fisher accountability, the use of Individual Transferable Quotas (ITQs), and giving priority in allocation to research and assessment allocations over the Proceeding Plaintiffs' aboriginal rights;

All groundfish catch, including landed catch, released catch, and catch used as bait, will be accounted for against the Five Nations allocations. Other groundfish species not managed under TACs will be managed under trip limits or will have no limits. Harvesters should reference licence conditions for more details. A vessel's catch is calculated by adding both landed weight and the estimated mortality of all catch either utilized at-sea or released at-sea. When catch is in excess of the allocations described in Table 5, harvesters will be restricted from further fishing opportunities.

9.3.6.1 Rockfish

For conservation reasons, no rockfish shall be released at-sea.

9.3.6.2 Handling of Halibut

Undersized Halibut brought on board the vessel to determine if the minimum size limit of the Halibut is met shall be returned to the sea with a minimum of injury. All undersized Halibut shall be released to the sea with a minimum of injury by:
(a) hook straightening;

(b) cutting the gangion near the hook; or

(c) carefully removing the hook by twisting it from the Halibut with a gaff.

To facilitate catch sampling by the International Pacific Halibut Commission all Halibut shall either be landed fresh, dressed head-on or fresh, round head-on.

9.3.7 Size limits

The species and sizes of fish that will be eligible for retention and sale will be identified in the conditions of licence issued by DFO for the fishery.

Chinook salmon retained for sale must be greater than 45 cm in length measured from the tip of the nose to the fork of the tail.

Coho salmon retained for sale must be greater than 30 cm in length measured from the tip of the nose to the fork of the tail; or 26 cm in length measured along the shortest length of the body to the fork of the tail where the head has been removed.

All Halibut retained for sale must be greater than 81.3 cm (32 inches) head on measured in a straight line, passing over the pectoral fin, from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail or head off more than 61.0 cm (24 inches), measured in a straight line from the base of the pectoral fin at its most anterior point to the extreme end of the middle of the tail.

All Lingcod retained for sale must be greater than 65 cm head on measured from the tip of the nose to the tip of the tail or head off, greater than 53 cm measured along the shortest length of the body to the tip of the tail.

9.3.8 Additional Management Measures

9.3.8.1 Groundfish

For reasons of conservation, sustainability, and to provide for wide community participation, trip limits or other harvest limitations may be required.

9.3.8.2 Salmon

Trip limits or other harvest limitations may be required to ensure TAC's are not exceeded. It is anticipated that identification of specific measures will be discussed with the Five Nations prior to the initiation of a fishery and adjusted in-season as needed.

<u>IFR Coho</u>

All fisheries where IFR Coho are known to be prevalent will be conducted with a non-retention restriction for wild (unmarked; adipose fin present) Coho.

For vessels equipped with commercial troll gear configurations, plugs are required to minimize mortality in fishery openings from July 1 to September 15.

"Plug" means a cylindrical, hard bodied lure painted to resemble a bait fish. Plugs must be equipped with one single, barbless hook and the plug size shall be no smaller than 6 inches (15.2 cm) as measured from the tip of the nose to the tip of the tail of the plug (excluding the hook).

<u>Steelhead</u>

Non-retention of Steelhead will be in place to minimize impacts on Interior Fraser River Steelhead.

9.3.8.3 Non-quota groundfish species

Species	Trip Limit (fresh, round pounds)
"Other Rockfish," including Bocaccio.	100 pounds
Bocaccio	25 pounds
Pacific cod	100 pounds

Sole and flounder	No limit

For conservation reasons, all rockfish caught must be retained and landed. For the purpose of managing trip limits, “Other Rockfish” are defined as:

Aurora Rockfish (*Sebastes aurora*)
Bank Rockfish (*Sebastes rufus*)
Black Rockfish (*Sebastes melanops*)
Blackgill (*Sebastes melanostomus*)
Blue Rockfish (*Sebastes mystinus*)
Bocaccio (*Sebastes paucispinis*)
Brown Rockfish (*Sebastes auriculatus*)
Chilipepper Rockfish (*Sebastes goodei*)
Darkblotched Rockfish (*Sebastes crameri*)
Dusky Rockfish (*Sebastes ciliates*)
Greenstriped Rockfish (*Sebastes elongates*)
Harlequin Rockfish (*Sebastes variegatus*)
Northern Rockfish (*Sebastes polyspinis*)
Pacific Ocean Perch (*Sebastes alutus*)
Puget Sound Rockfish (*Sebastes emphaeus*)
Pygmy Rockfish (*Sebastes wilsoni*)
Redstripe Rockfish (*Sebastes proriger*)
Rosethorn Rockfish (*Sebastes helvomaculatus*)
Sharpchin Rockfish (*Sebastes zacentrus*)
Shortbelly Rockfish (*Sebastes jordani*)
Splitnose Rockfish (*Sebastes diploproa*)
Stripetail Rockfish (*Sebastes saxicola*)
Vermilion Rockfish (*Sebastes miniatus*)
Widow Rockfish (*Sebastes entomelas*)
Yellowmouth Rockfish (Sebastes reedi)
Yellowtail Rockfish (*Sebastes flavidus*)
Longspine Thornyhead (*Sebastolobus altivelis*)

9.3.9 Bait

Fishers wishing to use licensed catch as bait may do so, with the exception of rockfish. All such catch must be accurately recorded in the Fishing Log, and will be accounted for against the allocations provided for the fishery. If a groundfish quota species is used as bait, the vessel will be assessed an average weight for that species as defined in Appendix 2 of the Groundfish IFMP.

For conservation reasons, rockfish may not be used as bait, and must be retained and landed.

For vessels equipped with commercial troll gear configurations, plugs are required to minimize IFR Coho mortality in fishery openings from July 1 to September 15.

9.3.10 Fishery Monitoring and Catch Reporting

In addition to the fishery monitoring and catch reporting outlined in Section 9.1 the following monitoring and reporting requirements for the Offshore Integrated Hook and Line fishery are as follows:

- If AABM Chinook are retained in the Nearshore area (for example, AABM Chinook were retained from Area 25 on June 15), Chinook retained from that fishing trip will be monitored following the standards set in the Offshore Integrated Hook and Line fishery, not the standards set in the Nearshore Integrated fishery in Section 9.4.
- Hail requirements for Offshore Integrated Hook and Line, Nearshore Integrated and Terminal fisheries will require discussion prior to the start of the fishery.

9.4 Nearshore Integrated Fishing Opportunities

Dual Fishing is permitted, see Section 6.2 for details.

9.4.1 Nearshore Fishing Area

The Nearshore fishing area is defined as those portions of the CDA within PFMAs 24-26. For salmon, Nearshore fisheries target multiple stocks returning to each individual PFMA within PFMAs 24-26. Nearshore fisheries do not include Terminal areas which are outlined in Section 9.5.

Species specific accounting for Chinook salmon is different than what is defined as Offshore and Nearshore and will follow AABM and ISBM area designations as described in the Pacific Salmon Treaty. The ISBM fishing area within the CDA is as defined as follows:

PFMA 24 inside the Canadian “surfline” and portions of PFMA 124 inside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surfline during the period from August 1 through October 15; and

Portions of PFMA 25 and 26 inside the Canadian “surfline” and portions of PFMA 125 and 126, inside of a line generally one nautical mile seaward from the shoreline or existing Department of Fisheries and Oceans surfline during the period from July 1 through October 15.

The Conuma Chinook Nearshore fishing area is in portions of Nootka Sound and Esperanza Inlet excluding Muchalaht and Tlupana Inlets (Terminal fishing areas). Additional discussions with the Five Nations are required to finalize precise boundaries.

Nearshore fishing area boundaries for Chum and Coho require additional discussions with the Five Nations.

9.4.2 Conservation Measures

In addition to those conservation issues described in Section 4 of this plan, specific issues within the Nearshore Integrated Fishing Opportunities include:

9.4.2.1 Chinook

WCVI wild Chinook continues to be a stock of concern. The objective for WCVI Chinook is to manage key Canadian ocean fisheries (as specified in the Southern BC Salmon IFMP) to an exploitation rate of 10%. As a result, management measures may be implemented to protect this stock. These measures may include closures, salmon non-retention and Chinook non-retention provisions. Decisions on these management measures are primarily made pre-season and go into effect based on stock outlook and expected returns. In-season changes can also be made based on local Chinook returns to rivers. Harvests largely target hatchery production and management measures are designed to minimize impact on WCVI wild Chinook populations.

9.4.2.2 Steelhead

Non-retention of Steelhead will be in place for conservation of local wild Steelhead populations.

9.4.2.3 Rockfish

i. No fishing for salmon or groundfish will be permitted in RCAs.

ii. **Yelloweye Rockfish**

Based on science information, the Department set out a plan in 2016 for stepped reductions of total Yelloweye Rockfish outside population harvest from the estimated total catch mortality of 287 t in 2014 to a mortality cap of 100 t over 3 years (2016/17 to 2018/19). The mortality cap, which accounts for Indigenous fishing opportunities, was broken out to identify sector-specific mortality caps. DFO has implemented measures that will reduce Yelloweye Rockfish catch and enable stock rebuilding over the long term. Through the process of regular evaluation of the rebuilding plan, science advice on stock status and rebuilding strategies for Yelloweye Rockfish was peer-reviewed in autumn 2019. Based on the science advice, the 2021/22 mortality cap for the Yelloweye Rockfish outside population increased to 217 t (see table 4). Additional information regarding rockfish Rebuilding Plans is available in Appendix 9 of the Integrated Fisheries Management Plan for Groundfish.

iii. **Bocaccio Rockfish**

Based on science information, the Department set out a plan in 2013 for stepped reductions of total Bocaccio harvest from the estimated total catch mortality of 137 metric tonnes (t) in 2012 to a mortality cap of 75 t over 3 years (2013/14 to 2015/16). The mortality cap, which accounts for Indigenous fishing opportunities, was broken out to identify sector-specific mortality caps. Through the process of regular evaluation of the rebuilding plan, science advice on stock status and rebuilding strategies for Bocaccio was peer-reviewed in autumn 2019. Based on the science advice, the 2021/22 mortality cap for Bocaccio increased to 500 t. Additional information regarding rockfish Rebuilding Plans is available in Appendix 9 of the Integrated Fisheries Management Plan for Groundfish.

9.4.2.4 Species at Risk Act

It may be necessary to collaboratively discuss SARA allowable harm implications for species, depending on legal listing decisions. In addition, harvesting opportunities in this Five Nations FMP may change due to SARA requirements.

9.4.3 Fishery Access and Allocation

9.4.3.1 Salmon species

9.4.3.1.1 Nearshore ISBM Chinook

An ISBM fishery is an abundance-based regime that constrains to a numerical limit the total catch or the total adult equivalent mortality rate within the fisheries of a jurisdiction for a naturally spawning Chinook salmon stock or stock group. ISBM management regimes apply to all Chinook salmon fisheries subject to the PST that are not AABM fisheries.

ISBM fisheries are managed annually so as not to exceed the specified TAC. Currently this includes Conuma, Gold and Burman Chinook. Within the CDA, Chinook harvests that occur in the following times and areas will be accounted for against the Nearshore (or Terminal) ISBM Chinook allocation:

- PFMA 24 inside the Canadian “surfline” plus that portion of PFMA 124 outside of a line generally one nautical mile seaward from the shoreline during the period of August 1 through October 15.
- PFMA 25 and 26 inside the Canadian “surfline” plus that portion of PFMA 125 and 126 outside of a line generally one nautical mile seaward from the shoreline during the period of July 1 through October 15.

Chinook caught in these areas outside of this time period are accounted for as part of the AABM fishery catch. Catch and effort typically peaks in these areas during the months of July to August, and effort is largely abundance driven.

When there is a TAC identified for Chinook within the nearshore ISBM management area, targeted Chinook fisheries are permitted. In-season adjustments to the Five Nation’s allowable catch for this fishery is expected based on revisions to the

abundance forecast. Since the allowable catch may be reduced if the forecast is reduced, some of the allowable harvest is withheld until after the in-season forecast is available.

There will be some flexibility for how much of the Conuma allocation is harvested in the Nearshore fishing areas (Nootka Sound and/or Esperanza Inlet) and the Terminal fishing area (Tlupana Inlet) but not all of the Conuma allocation will be permitted to be harvested in the Nearshore fishing areas.

The Nearshore / Terminal Conuma fishery is intended to be directed on hatchery origin Chinook salmon returning to the Conuma River. The intent of this clause is to manage the catch of non-target stocks including other WCVI wild origin Chinook in the fishery. Factors affecting catch of non-target stocks include distance from the Conuma River, location relative to other rivers with Chinook returns, timing of the Conuma Chinook migration, and spatial distribution of non-Conuma origin Chinook. An adaptive approach is proposed, using available information to inform the management approach, and adapting as understanding improves.

The Five Nations combined fishery allocation for Nearshore/Terminal Conuma Chinook in this FMP is expressed as a per cent share of the CTAC. The CTAC for this fishery is the total estimated return to Conuma after accounting for escapement requirements, and FSC (currently 2,250) and Treaty obligations. See Table 1 in Section 6.2.1 for details.

The concept of a variable share remains an option, but a fixed share will be used if an agreement with the Five Nations cannot be reached on a variable share approach. A variable share would be based on an average Conuma return of 40,000 and be larger on lower returns and smaller at higher returns.

Additional discussions with the Five Nations are required regarding the way the Conuma allocation is to be divided between the Nearshore and Terminal fisheries.

Fishing opportunities to harvest Conuma Chinook in the Esperanza Inlet portion of Area 25 will continue to be explored in 2021 in addition to the on-going fishery on the Nootka Sound side of Area 25.

9.4.3.1.2 Nearshore Coho

Each year a salmon Outlook is generated by DFO for WCVI Coho. The Outlook is intended to provide an objective and consistent context within which to initiate fisheries planning. In particular, it provides a preliminary indication of salmon production and associated fishing opportunities. Over the last several years, the Outlook has been classified as low to near target.

The Five Nations fishery allocation for Nearshore Coho Salmon in this FMP is expressed as a fixed amount. See Table 1 in Section 6.2.1 for details.

The Department intends to work with the Five Nations to explore abundance based approaches to determining allocations in order to respond to annual variations in returns.

9.4.3.1.3 Nearshore Chum

Forecasts for WCVI wild and hatchery stocks are generated pre-season for inshore Chum. Forecasted stock management units include Clayoquot, Tlupana Inlet, Nootka, Esperanza and Kyuquot.

The Five Nations fishery allocation for Nearshore Chum in this FMP is expressed as a per cent share of the CCTAC. The CCTAC for this fishery is the total estimated return to Esperanza Inlet, Nootka Sound and Clayoquot Sound (calculated separately) less escapement goals and FSC/treaty obligations. See Table 1 in Section 6.2.1 for details.

Discussions are planned to examine and pilot different in-season management strategies to address the significant forecast error with pre-season WCVI Chum forecasts and the lack of reliable in-season forecasts for most Chum stocks in the CDA.

9.4.3.2 Groundfish species

Groundfish allocations are as described in Section 9.3.3.2.

9.4.4 Open times

Specific open dates and times for the fishery will be planned with the Five Nations. Not all species covered in this fishing plan will be available for harvest throughout the duration of the year. Specifically, time, area, gear type and seasonal closures will apply as required for conservation and for proper control and management of the fishery. It is expected that hook and line fisheries could be open for the majority of the year and that gill net/beach seine fisheries would be more limited in time and area to target specific stocks.

Anticipated Nearshore Integrated Fishery opportunities are as follows:

Chinook/Coho/Chum hook and line – July 1 to Nov. 15

Chinook/Coho/Chum gill net/beach seine fisheries targeting specific systems – TBD

The Lingcod season is April 1 to November 15. Retention of Lingcod for sale is not permitted from November 16 to March 31.

The Halibut season occurs from approximately March to November. Retention of Halibut for sale is not permitted outside of these months. Halibut season open times are determined annually at the International Pacific Halibut Commission Annual Meeting each January.

The Nearshore Integrated Fishery is intended to be an opportunity focused on providing access for wide community participation using small low-cost boats harvesting multiple species, consistent with court direction.

9.4.5 Gear

Gear type will vary by area and target species as required for conservation and for proper control and management of the fishery.

Permitted fishing gear is by rod and reel, handline, gill net or beach seine. Downriggers and multiple rods are permitted. When directing on salmon species, barbless hooks will be required in order to improve survivals of released non-target or undersize salmon species.

Gill net: the maximum net length is 50 fathoms, and the maximum net depth is 60 meshes. The gill net must be retrieved without the aid of any mechanical or hydraulic device. Gill nets must be attended at all times; a vessel cannot be further than 50 meters from the deployed gill net at any time. The end of the gill net that is not attached to a vessel shall be marked with a lantern that gives a steady white light during the period beginning one hour after sunset and ending one hour before sun rise. The maximum gill net soak time is 60 minutes.

Beach seine: specific description to be determined as this gear type has not been utilized in previous fisheries.

Commercial longline gear is not currently permitted. Should the use of longline gear be permitted, the following conditions would need to be met, including: (1) effort controls that define longline gear, trip limits, and vessels limits in a manner that is consistent with the interpretation of the right as a small scale commercial fishery using small, low-cost boats, and facilitates wide community participation; and (2) catch monitoring commensurate with the use of longline gear as defined, consistent with the national Fishery Monitoring Policy.

9.4.6 Species specific measures

All retained salmon will be accounted for against the Five Nations allocations for sale and FSC as appropriate.

Noting the justified infringements described in paragraphs 11(c) through (d) of the Order, specifically:

> that Canada's management of the groundfish fisheries, including the precautionary approach to managing rockfish allocations, the monitoring of individual species harvested by the Proceeding Plaintiffs under amalgamated bycatch quota, the requirement for individual fisher accountability, the use of Individual Transferable Quotas (ITQs), and giving priority in allocation to

research and assessment allocations over the Proceeding Plaintiffs' aboriginal rights;

All groundfish catch, including landed catch, released catch, and catch used as bait, will be accounted for against the Five Nations allocations. Other groundfish species not managed under TACs will be managed under trip limits or will have no limits. Harvesters should reference licence conditions for more details. A vessel's catch is calculated by adding both landed weight and the estimated mortality of all catch either utilized at-sea or released at-sea. When catch is in excess of the allocations described in Table 5 harvesters will be restricted from further fishing opportunities.

9.4.6.1 Rockfish

For conservation reasons, no rockfish shall be released at-sea.

9.4.6.2 Handling of Halibut

Undersized Halibut brought on board the vessel to determine if the minimum size limit of the Halibut is met shall be returned to the sea with a minimum of injury. All undersized Halibut shall be released to the sea with a minimum of injury by:

(a) hook straightening;

(b) cutting the gangion near the hook; or

(c) carefully removing the hook by twisting it from the Halibut with a gaff.

To facilitate catch sampling by the International Pacific Halibut Commission all Halibut shall either be landed fresh, dressed head-on or fresh, round head-on.

9.4.7 Size limits

The species and sizes of fish that will be eligible for sale will be identified in the conditions of licence issued by DFO for the fishery. There are no size limits for salmon caught by gill net.

Chinook salmon caught by hook and line gear retained for sale must be greater than 45 cm in length measured from the tip of the nose to the fork of the tail.

Coho salmon caught by hook and line gear retained for sale must be greater than 30 cm in length measured from the tip of the nose to the fork of the tail; or 26 cm in length measured along the shortest length of the body to the fork of the tail where the head has been removed.

All Halibut retained for sale must be greater than 81.3 cm (32 inches) head on measured in a straight line, passing over the pectoral fin, from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail or head off more than 61.0 cm (24 inches), measured in a straight line from the base of the pectoral fin at its most anterior point to the extreme end of the middle of the tail.

All Lingcod retained for sale must be greater than 65 cm head on measured from the tip of the nose to the tip of the tail or head off, greater than 53 cm measured along the shortest length of the body to the tip of the tail.

9.4.8 Additional Management Measures

9.4.8.1 Salmon

Salmon

Trip limits or other harvest limitations may be required to ensure TAC's are not exceeded. Further discussion about harvest limitations with the Five Nations will occur prior to the fishery start as well as in-season.

DFO currently generates both a pre-season forecast for Conuma Chinook and an in-season forecast. A fraction of the Five Nations Conuma allocation based on the pre-season forecast will be withheld until the more reliable in-season forecast is available (usually first week of August).

Steelhead

Non-retention of Steelhead will be in place for conservation of local wild Steelhead populations.

9.4.8.2 Non-quota groundfish species

Species	Trip Limit (fresh, round pounds)
"Other Rockfish," as set out in Appendix 1 in the conditions of licence, including Bocaccio.	100 pounds
Bocaccio	25 pounds
Pacific cod	100 pounds
Sole and flounder	No limit

All rockfish caught must be retained and landed. For the purpose of managing trip limits, "Other Rockfish" are defined as

Aurora Rockfish (*Sebastes aurora*)
Bank Rockfish (*Sebastes rufus*)
Black Rockfish (*Sebastes melanops*)
Blackgill (*Sebastes melanostomus*)

Blue Rockfish (*Sebastes mystinus*)
Bocaccio (*Sebastes paucispinis*)
Brown Rockfish (*Sebastes auriculatus*)
Chilipepper Rockfish (*Sebastes goodei*)
Darkblotched Rockfish (*Sebastes crameri*)
Dusky Rockfish (*Sebastes ciliates*)
Greenstriped Rockfish (*Sebastes elongates*)
Harlequin Rockfish (*Sebastes variegatus*)
Northern Rockfish (*Sebastes polyspinis*)
Pacific Ocean Perch (*Sebastes alutus*)
Puget Sound Rockfish (*Sebastes emphaeus*)
Pygmy Rockfish (*Sebastes wilsoni*)
Redstripe Rockfish (*Sebastes proriger*)
Rosethorn Rockfish (*Sebastes helvomaculatus*)
Sharpchin Rockfish (*Sebastes zacentrus*)
Shortbelly Rockfish (*Sebastes jordani*)
Splitnose Rockfish (*Sebastes diploproa*)
Stripetail Rockfish (*Sebastes saxicola*)
Vermilion Rockfish (*Sebastes miniatus*)
Widow Rockfish (*Sebastes entomelas*)
Yellowmouth Rockfish (Sebastes reedi)
Yellowtail Rockfish (*Sebastes flavidus*)
Longspine Thornyhead (*Sebastolobus altivelis*)

9.4.9 Bait

Fishers wishing to use licensed catch as bait may do so, with the exception of rockfish. All such catch must be accurately recorded in the Fishing Log will be accounted for against the allocations provided for the fishery. If a groundfish quota species is used as bait, the vessel will be assessed an average weight for that species as defined in Appendix 2 of the Groundfish IFMP.

Rockfish may not be used as bait, and must be retained and landed.

9.4.10 Fishery Monitoring and Catch Reporting

In addition to the fishery monitoring and catch reporting requirements outlined in Section 2 the following monitoring and reporting requirements for the Nearshore Integrated Hook and Line Fishery are as follows:

- Hail requirements for Offshore Integrated Hook and Line, Nearshore Integrated and Terminal fisheries will require discussion prior to the start of the fishery.

9.5 Terminal Salmon Fishing Opportunities

Dual Fishing is permitted, see Section 6.2 for details.

9.5.1 Terminal Fishing Area

The Terminal fishing area is defined as those portions of the CDA within PFMAs 24-26 in close proximity to the mouths and or within rivers where an available harvest has been identified. Terminal fisheries are intended to target specific stocks and do not include Nearshore areas which are outlined in Section 9.4.

The Conuma Terminal fishing area is located in Tlupana Inlet. Additional discussions with the Five Nations are required to finalize precise boundaries.

The Burman/Gold Chinook Terminal fishing area is:
At the end of Muchalat Inlet in Subarea 25-1 no further seaward than a line drawn from a point located near McCurdy Creek (at 49 degrees 40.264 minutes N and 126 degrees 10.955 minutes W) across Muchalat Inlet to the light on Victor Island then to a point located at 49 degrees 39.496 minutes N and 126 degrees 08.581 minutes W; southerly of a line drawn from a point at 49°40.500'N and 126°07.654'W at the green flashing light to a point located on the opposite side of the Gold River located at 49°40.694'N and 126°06.377'W; and northerly of a line drawn from a point at 49°36.971'N and 126°03.560'W to a point located north of Matchlee Creek at 49°37.129'N and 126°03.006'W.

Terminal fishing area boundaries for Chinook, Chum and Coho for other river systems requires additional discussions with the Five Nations.

The Conuma Surplus to Escapement Terminal fishery area is located in the Conuma River and shoreward of the Conuma Terminal fishing area described above.

9.5.2 Conservation Measures

a) WCVI wild Chinook continues to be a stock of concern. The objective for WCVI Chinook is to manage key Canadian ocean fisheries (as specified in the Southern BC Salmon IFMP) to an exploitation rate of 10%. As a result, management measures may be implemented to protect this stock. These measures may include closures, salmon non-retention and Chinook non-retention provisions. Decisions on these management measures are primarily made pre-season and go into effect based on stock outlook and expected returns. In-season changes can also be made based on local Chinook returns to rivers. Harvests largely target hatchery production and management measures are designed to minimize impact on WCVI wild Chinook populations.
b) It may be necessary to collaboratively discuss SARA allowable harm implications for species, depending on legal listing decisions. In addition, harvesting opportunities in this Five Nations FMP may change due to SARA requirements.

9.5.3 Fishery Access and Allocation

9.5.3.1 Terminal Chinook

When there is a TAC identified for Chinook within a terminal area, targeted Chinook fisheries are permitted. In-season adjustments to the allocation for this fishery may occur based on abundance.

9.5.3.1.1 Terminal Burman/Gold Chinook

The Five Nations fishery allocation for Nearshore Burman/Gold Chinook in this FMP is expressed as a per cent share of the available harvest less the expected FSC catch. See Table 1 in Section 6.2.1 for details.

Any terminal Chinook harvests will be accounted for as part of the total ISBM Chinook catch consistent with Pacific Salmon Treaty reporting requirements.

9.5.3.1.2 Terminal Conuma Chinook

There will be some flexibility for how much of the Conuma allocation is harvested in the Nearshore fishing areas (Nootka Sound and/or Esperanza Inlet) and the Terminal fishing area (Tlupana Inlet), but not all of the Conuma allocation will be permitted to be harvested in the Nearshore fishing areas.

The Nearshore / Terminal Conuma fishery is intended to be directed on hatchery origin Chinook salmon returning to the Conuma River. The intent of this clause is to manage the catch of non-target stocks including other WCVI wild origin Chinook in the fishery. Factors affecting catch of non-target stocks include distance from the Conuma River, location relative to other rivers with Chinook returns, timing of the Conuma Chinook migration, and spatial distribution of non-Conuma origin Chinook. An adaptive approach is proposed, using available information to inform the management approach, and adapting as understanding improves.

The Five Nations combined fishery allocation for Nearshore/Terminal Conuma Chinook in this FMP is expressed as a per cent share of the CTAC. The CTAC for this fishery is the total estimated return to Conuma after accounting for escapement requirements, and FSC (currently 2,250) and Treaty obligations. See Table 1 in Section 6.2.1 for details.

The concept of a variable share remains an option but a fixed share will be used if an agreement with the Five Nations cannot be reached on a variable share approach. A variable share would be based on an average Conuma return of 40,000 and be larger on lower returns and smaller at higher returns.

Additional discussions with the Five Nations are required regarding the way the Conuma allocation is to be divided between the nearshore and terminal fisheries.

9.5.3.2 Terminal Coho

Each year a salmon Outlook is generated by DFO for WCVI Coho. The Outlook is intended to provide an objective and consistent context within which to initiate fisheries planning. In particular, it provides a preliminary indication of salmon production and associated fishing opportunities. Over the last several years, the Outlook has been classified as *low* to *near target* for WCVI Coho.

The Five Nations fishery allocation for terminal Coho is expressed as a per cent share of the available harvest less the expected FSC catch. See Table 1 in Section 6.2.1 for details. This allocation is for terminal surpluses that may be identified in close proximity to the mouths and or within of rivers.

At this time a stock assessment framework for identifying available harvest levels has not been developed.

9.5.3.3 Terminal Chum

The Five Nations fishery allocation for terminal Chum is expressed as a per cent share of the available harvest less the expected FSC catch. See Table 1 in Section 6.2.1 for details. This allocation is for terminal surpluses that may be identified in close proximity to the mouths and or within of rivers.

9.5.3.4 Surplus to Escapement Salmon

For enhanced salmon returning to the Conuma hatchery (Chinook, marked Coho and Chum) there may be a Surplus to Escapement fishery. No TAC is established for this fishery. A fishery may be authorized once DFO is certain that escapement and broodstock collection goals are likely to be achieved. There is no specified allocation for this fishery identified for the Five Nations and it is anticipated that there will also be harvest in the existing recreational fishery that occurs in Moutcha Bay and in the Conuma River. The draft Excess to Salmon Spawning Requirements policy no longer applies to this fishery; therefore DFO is not obligated to open Moutcha Bay to the regular commercial fishery before this fishery can proceed.

The retention of non-target species in the Surplus to Escapement fishery may be permitted subject to escapement and broodstock collection goals being likely to be achieved.

9.5.4 Open Times

Specific open dates and times for the fishery will be planned with the Five Nations. Not all species covered in this fishing plan will be available for harvest throughout the duration of the year. Specifically, time, area, gear type and seasonal closures will apply as required for conservation and for proper control and management of the fishery. It is

expected that hook and line fisheries could be open for the majority of the year and that gill net/beach seine fisheries would be more limited in time and area to target specific stocks.

Anticipated opportunities are as follows:

Chinook/Coho/Chum hook and line – year round subject to close times and areas.

Chinook/Coho/Chum gill net/beach seine fisheries targeting specific stocks – to be determined.

9.5.5 Gear

Gear type will vary by area and target species as required for conservation and for proper control and management of the fishery.

Permitted fishing gear is by rod and reel, handline, gill net or beach seine. Downriggers and multiple rods are permitted. Barbless hooks will be required in order to improve survivals of released non-target or undersize salmon species.

Gill net: the maximum net length is 50 fathoms, and the maximum net depth is 60 meshes. The gill net must be retrieved without the aid of any mechanical or hydraulic device. Gill nets must be attended at all times; a vessel cannot be further than 50 meters from the deployed gill net at any time. The end of the gill net that is not attached to a vessel shall be marked with a lantern that gives a steady white light during the period beginning one hour after sunset and ending one hour before sun rise. The maximum gill net soak time is 60 minutes.

Beach seine: specific description to be determined as this gear type has not been utilized in previous fisheries. In addition, the Five Nations have expressed an interest in the use of traps and/or weirs. Further discussion is required with the Five Nations on the use and potential impacts of such gear prior to authorization.

For the Surplus to Escapement fishery, selective gear may be required so that fish that are not hatchery produced (e.g. wild Coho) or determined to be not in surplus (e.g. Chum) can be released with the least possible harm. If required, selective gear type will be specified by licence condition.

DFO intends to work with the Five Nations to further discuss and determine selective gear types.

9.5.6 Species specific measures

All retained salmon will be accounted for against the Five Nations allocations for sale and FSC as appropriate.

9.5.7 Size Limits

The species and sizes of fish that will be eligible for sale will be identified in the conditions of licence issued by DFO for the fishery.

There are no size limits for Chinook salmon in Terminal or Surplus to Escapement fisheries and no size limits for salmon caught by gill net.

Coho salmon caught by hook and line gear retained for sale must be greater than 30 cm in length measured from the tip of the nose to the fork of the tail; or 26 cm in length measured along the shortest length of the body to the fork of the tail where the head has been removed.

9.5.8 Additional Management Measures

Trip limits or other harvest limitations may be required to ensure TAC's are not exceeded. Further discussion about harvest limitations with the Five Nations will occur prior to the fishery start as well as in-season. In some cases (e.g. Conuma Coho), terminal TAC's may be identified for hatchery marked fish.

Steelhead

Non-retention of Steelhead will be in place for conservation of local wild Steelhead populations.

9.5.9 Bait

The use of bait is permitted in this fishery.

Fishers wishing to use licensed catch as bait may do so. All such catch must be accurately recorded in the Fishing Log, and will be accounted for against the allocations provided for the fishery.

9.5.10 Fishery Monitoring and Catch Reporting

In addition to the fishery monitoring and catch reporting requirements outlined in Section 9.1 the following monitoring and reporting requirements for the Terminal Salmon Fishery are as follows:

- Hail requirements for Offshore Integrated Hook and Line, Nearshore Integrated and Terminal fisheries will require discussion with the Five Nations prior to the start of the fishery.

9.6 Crab by Trap Fishing Opportunity

The Five Nations' right-based sale fishery for crab will be managed with minimum size limits, trap limits, soak limits, sex restrictions, soft-shell restrictions, haul restrictions, closure areas, closed periods and gear restrictions.

9.6.1 Crab Fishing Area

The CDA falls within Crab Management Area (CMA) E. However, that portion of the CDA where the majority of the commercial crab is harvested is within CMA E-Tofino and E-Tofino trap limit area, Area 24. The CDA also overlaps with a specific crab trap limit area called the "Amphitrite Hole Trap Limit Area".

The "Amphitrite Hole Trap Limit Area" is described as: Those waters outside Tofino lying within a line that begins at 48°55.268'N 125°32.470'W [Amphitrite Point] then westerly to 48°51.200'N 125°48.000'W then northerly to 49°6.591'N 125°55.377'W [Lennard Island] then southerly to 49°5.680'N 125°53.375'W [Cox Point] then following the shoreline to the beginning point.

Each CMA has a total area trap limit as a trap allocation. The number of traps available to each commercial or communal commercial crab licence is dependent on the overall trap limit in the area they are fishing and the number of other licence eligibility holders that have chosen that same area. The individual trap allocation is the overall trap limit for the area divided by the number of licences in the area.

9.6.2 Conservation Measures

DFO is continually evaluating existing and emergent management measures to ensure the long term sustainability of the crab fishery in the Pacific Region. Since 2017 DFO has been consulting on conservation measures for the fisheries including conservation of female crab, marking of gear (including holding cages), use of escape rings and rot cord on gear and restricting night setting and hauling in the Strait of Georgia and Vancouver Area. It is the intention to standardize conservation management measures across all fisheries and make changes to align all fisheries as an important component of crab management. This consultation will continue to determine the current use, cost, size and appropriate phase-in period.

9.6.3 Fishery Access and Allocation

9.6.3.1 The Main Crab Fishing Opportunity

The overall area trap limit for E-Tofino is 8,400. Within E-Tofino, Area 24 has a specific trap limit of 1,600. The Amphitrite Hole Trap Limit Area has a total commercial trap limit of 3,200.

The Five Nations fishery allocation for crab in this FMP is expressed as a percentage of the total trap limit for E-Tofino-Area 24; and a percentage of the total trap limit for the rest of E-Tofino, both with the corresponding number of traps is traps. The allocation for

Amphitrite hole is also expressed as a percentage of the total trap limit and is part of the E-Tofino-Area 24 trap limit.

See Table 3 in Section 6.2.3 for details.

9.6.3.2 The Exploratory Crab Fishing Opportunities

Similar to the 2019 and 2020 FMPs, and in addition to the main crab fishing opportunity available to all Five Nations, DFO will continue to provide 25 additional traps for specific use in each of the Hesquiaht, Ehattesaht and Mowachaht/Muchalaht First Nations Fishing Territories to support exploratory fishing efforts by the Five Nations for the 2020/21 season.

To augment this exploratory opportunity, the Ehattesaht, Hesquiaht, and Mowachaht / Muchalaht First Nations and DFO have jointly developed and intend to carry out resource assessment surveys in these three Nations' fishing territories, to collect Dungeness crab stock assessment information that will inform future management decisions. Technical staff from the Ehattesaht, Hesquiaht, Mowachaht / Muchalaht First Nations and DFO have worked together to collaboratively develop and implement this project.

See Table 3.

9.6.4 Open times

With exception of those permanent and seasonal closures noted in Section 9.5.4 of this plan, the open time for the harvest of crab will be April 1 to March 31. Harvesters are advised to check local area charts and public notices for no fishing zones or no access zones for navigational and military purposes.

9.6.5 Closures

Navigation Channels and Restricted Areas, *Navigable Waters Protection Act*

The *Navigable Waters Protection Act* (NWPA) is a federal statute designed to protect the public right of navigation by prohibiting the building or placement of works in, on, over, under, through, or across any waterway without approval of the Minister of Transport Canada. The Navigable Waters Protection Division, which is a directorate of Transport Canada - Marine, is responsible for administering the NWPA.

For Navigational issues, contact Navigable Waters Protection Division, Transport Canada-Marine at (604) 775-8867.

Harvesters are reminded to keep navigation channels clear of buoys and lines. The number of complaints to Transport Canada, the Department's Coast Guard, Conservation and Protection and Fishery Management offices, has significantly

increased in recent years. The Tofino area is one area that continues to have issues with respect to the crab fishery and maintaining navigation channels. Maps of these areas are also posted around the Tofino community and specifically at the 4th Street dock. The designated navigation channels in the Tofino area are shown in Appendix 7 of the Crab by Trap IFMP.

West Coast Vancouver Island - Area E

The following areas are closed permanently to Five Nations' right-based sale crab harvesting:

Ahousaht/Millar Channel:

That portion of Subarea 24-4 inside a line that begins at 49°18.030'N 126°04.140'W [northern end of McNeill Peninsula] then to 49°18.030' N 126°03.710' W then to 49°17.483' N 126°03.024' W then to 49°16.814' N 126°02.960' W then to 49°16.439' N 126°02.608' W then to 49°16.226' N 126°02.823' W [Yates Point]. (Navigational and First Nations and Recreational Access Closure)

Tofino Navigation Channel:

No buoys are permitted in those portions of Subareas 24-4, 24-6, 24-8, 24-9 and 124-3 shown in Appendix 7 of the Crab by Trap IFMP. (Navigation Closure)

Muchalat Inlet:

Subarea 25-1

Those waters of Muchalat Inlet lying easterly of the meridian at 126°12.867'W at the Muchalat Inlet south shore Light. (Dioxin Closure)

Subarea 25-2

Those waters of Muchalat Inlet lying westerly of the meridian at 126°12.867'W at the Muchalat Inlet south shore Light and easterly of a line that begins at 49°38.680'N 126°20.888'W [Muchalat Inlet Light] then to 49°38.150'N 126°21.250'W [Ous Point].

Subarea 25-3

Those waters of King and Williamson Passages lying westerly of a line that begins at 49°38.680'N 126°20.888'W [Muchalat Inlet Light] then to 49°38.150'N 126°21.250'W [Ous Point] and easterly of a line that begins at 49°39.178'N 126°26.457'W [Atrevida Point Light] then to 49°38.767'N 126°28.292'W [Anderson Point Light]. (Dioxin Closure)

9.6.6 Gear

Trap Size Limit

The total volume of traps fished for Dungeness crab will not exceed 400 litres.

Escape Holes

All traps fished in all areas must have two escape rings of 105 mm or larger in diameter situated not more than 100mm below the top of the frame.

Biodegradable Escapement Mechanisms

Every trap fished under the licence must be equipped with a biodegradable escape mechanism in the form of a rot cord, rot panel, or rot panel alternative as described below. These mechanisms are designed to minimize the effects of ghost fishing by lost or abandoned traps. In order to be effective these mechanisms must be under tension. These mechanisms do not apply to ring nets.

Rot Cord

Rot cords may only be used on traps with a rigid frame, a freely opening hinged lid, and a volume less than 400 litres. (400 litres is approximately equal to a circular trap 117 cm in diameter and 36 cm high). The trap lid must be secured by a loop of no greater than #120 untreated cotton twine such that the trap lid will open freely when the rot cord is broken. The rot cord must be attached to the rubber strap by a cow hitch and attached to the hook by a cow hitch. If the hook is attached permanently to the trap, the trap lid shall close using a single loop of the rot cord from the rubber strap. The rubber strap shall be under tension. No other fastenings may impede the hinged lid of the trap from opening. The opening area created by the hinged lid must exceed the rot panel area requirement (described below), or exceed the size of the largest trap entrance.

Rot Panel

All traps without hinged lids secured by a rot cord (as described above), must have a biodegradable (rot) panel. The rot panel must consist of a section in a trap side wall that has been laced, sewn, or otherwise secured by a single strand of no greater than #120 untreated cotton twine, such that the entire panel remains under tension when the panel is intact but on deterioration or parting produces an unrestricted opening. The opening must exceed a square 11cm by 11cm.

Rot Panel Alternative

Soft-web traps requiring a rot panel may use the following alternative:

A trap side wall must contain a cut in the web greater than 20cm in length. The cut shall be made in a “V” pattern with each leg of the “V” greater than 11 cm in length. A single strand of no greater than #120 untreated cotton twine, must be used to lace the cut in the web such that the entire panel remains under tension when the panel is intact but on deterioration or parting produces an unrestricted triangular opening no less than 11 cm on each side.

The following requirements may be met through the use of a service provider.

Trap Tags

Approved trap tags are required on all Five Nations’ right-based sale crab traps fished in B.C. These include RFID chips and plastic tags for Crab Management Area E, including the CDA.

Radio Frequency Identification (RFID) Chips

As part of the electronic vessel monitoring program, radio frequency identification (RFID) chips are required. One RFID chip shall be attached to each trap, or to the buoy, when using single buoyed gear. Vessel operators are required to scan every RFID chip as the trap is hauled on-board, with an RFID chip scanner, to record RFID information from each trap hauled. All aspects of RFID chip procurement, distribution, administration, and data entry are the responsibility of the vessel owner/licence holder to arrange with the service provider.

Vessel operators are required to use and scan only those RFID chips registered in the vessel's inventory. Detailed requirements for RFID chip inventory management are provided in the British Columbia Commercial Crab Fishery Monitoring and Catch Reporting Program Standards For the current year (Appendix 9 of the IFMP for Crab by Trap).

Chips shall be replaced if they become unreadable by the scanner. When a trap is taken out of the water and replaced, the vessel master is responsible for switching the RFID chips so that all traps in the water are fitted with RFID chips in that vessel's inventory for the current year.

When RFID chips are replaced, only the valid chip shall remain on the trap. Old chips must be removed and destroyed and replaced with the replacement chips at the first opportunity the gear is hauled. Only traps tagged with working (readable) RFID chips are permitted to be on-board the licensed vessel utilizing electronic monitoring. For vessels utilizing on-board observers instead of EM, only plastic trap tags are required.

Plastic Trap Tags

In order to help ensure vessel trap limits are adhered to in the Five Nations' right-based sale fishery for crab , new DFO approved plastic trap tags that are unique to each vessel are required for each fishing season.

The vessel master shall arrange to have tag numbers for tags that meet the requirements of the Department entered into a database. Data delivery requirements for plastic tags are further described in Appendix 9 of the IFMP for Crab by Trap.

Each vessel will be issued a total number of tags equal to their trap limit plus 10% to allow for replacement of lost traps.

If the vessel master requires more replacement tags than the 10% allotted for lost traps, the vessel master must contact their local area crab manager for instructions on obtaining more tags. The crab manager will then contact the service provider regarding issuing a complete new set of replacement tags. New replacement tags shall be marked with the letters "RP" and be a different colour than the original set issued. New replacement tags shall also indicate the licence year and be unique to each individual vessel. Old tags must be removed and replaced with the replacement tags at the first opportunity the gear is hauled. When trap tags are replaced, only the valid tag shall remain on the trap. All the old tags must be returned to the nearest DFO office within 21 days of the new tags being issued.

<u>Buoys</u>

Buoys must exceed a minimum diameter of 12 cm and have a volume greater than 2.5 litres. (This is approximately equivalent to a cylinder 12 cm in diameter and 22cm long or a sphere 17cm in diameter). All buoy lines, trap lines and groundlines shall be non-floating so that the lines remain below the surface of the water in order to minimize navigational hazards. This regulation is in place to avoid potential gear conflict between resource user groups. Utility cans, bleach bottles and other domestic containers are not permitted.

Buoy Registration

Area E (Tofino): when fishing within Area E-Tofino trap limit area harvesters must register buoys with a unique colour combination with the local DFO C&P office. A colour photograph is required.

Buoy and Trap Lines

All buoy lines must be of a non-floating material so that the lines remain below the surface of the water while fishing, to minimize navigational hazards. String gear is permitted with the following exceptions:

Area E (Tofino Trap Limit Area) – Single Traps and Buoys

A buoy and buoy line shall be attached to each trap fished in Area E-Tofino in Subareas 24-1 to 24-14. The traps must not be connected with lines.

Standard Buoy Marking

The Vessel Registration Number (VRN), or the T'aaq-wiihak decal number, must be painted, branded or affixed to each buoy, such that it is visible at all times without raising the gear from the water. The VRN, or the T'aaq-wiihak decal number, shall be in solid block Arabic numerals, without ornamentation, no less than 75 mm in height and in a colour that contrasts with their background. The VRN or the T'aaq-wiihak decal number on the buoy shall match the registration number or the T'aaq-wiihak registration number of the vessel licensed to fish the gear for crab.

Holding Cages

RFID tags specific to holding cages will be required to be installed and scanned on all holding cages in 2021/22. A unique set of RFID tags for holding cages will be distributed to harvesters in 2021. These RFID tags must be attached to all holding cages and scanned whenever the holding cage is hauled.

Marking of Holding Cages

All holding cages must be identified with a buoy with the registration number or the T'aaq-wiihak decal number, of the crab licensed vessel which harvested the impounded crabs. Harvesters are encouraged to maintain holding cages so that crab mortalities are minimized. Holding cages must not be left in the water for more than 18 consecutive days without lifting the trap from the water and removing all of the crab from them. If holding cages are unmarked, or if crab mortalities are observed in cages, the crabs may be seized or released by Fishery Officers.

Storage of Holding Cages

Holding cages containing crab may only be left unattended if the area is open to fishing and within an area that the license holder is eligible to fish unless tied to the licensed vessel or to a dock. Holding cages cannot be stored in dioxin and furan closure areas.

There are mandatory reporting requirements of lost and retrieved gear. See Sections 9.1 and 4.3.

9.6.7 Species-specific measures

Species

Fish harvesters are authorized to catch and retain:

Dungeness Crab (*Cancer magister*)

Red Rock Crab (*Cancer productus*)

Fish harvesters are authorized to incidentally catch and retain octopus *Enteroctopus dofleini* while crab trap fishing, except in octopus closure areas. Conditions of Licence require all fish harvesters to accurately complete octopus catch and retention information in the crab trap logbook.

Non-retention of Female Crabs

Every person engaged in Five Nations' right-based sale crab fishing shall immediately return all female crabs to the water in the location from which they were caught, in a manner that will cause least harm, with the exception below.

No person shall catch and retain or possess any female crab unless the crab is infected by the parasite *Briarosaccus callosus* and is being brought ashore to avoid the further spread of that parasite. Dungeness crab found with this parasite should be frozen and shipped to DFO.

Briarosaccus callosus is identified by a reddish-brown, 1 to 2 cm diameter capsule(s), which is the egg sac of the parasite, located under the abdomen (i.e. where the crab eggs would normally be carried).

Retention of female crabs or their roe (eggs or larvae) represents a threat to conservation of crab stocks.

Non-retention of Soft-shell Crabs

Soft-shell crabs may not be retained. A crab is considered soft-shell if the underside of the shell (carapace) yields or flexes under pressure. Crab shell hardness is measured with a durometer, which is a spring driven device specifically designed to measure the shell hardness of Dungeness crab. Durometers are available from PTC Instruments, 2301 Federal Avenue, Los Angeles, CA 90064 (www.ptc1.com). The Dungeness crab durometer is model 307LCRB-4. The appropriate place on a crab to determine if the crab shell is soft is on the underside of the carapace between the widest point of the

carapace and the attachment of the leg bearing the claw. The durometer should be positioned just anterior to the shell suture line as indicated in Appendix 6 of the Crab by Trap IFMP. The durometer shall be applied to this location on the crab as per the manufacturer's instructions. The indenter of the durometer should be pressed to the crab shell until the foot of the durometer is flush with the surrounding shell. Soft-shell crabs are those crabs that do not exceed a durometer measurement of 70 units.

Crab harvesters are generally aware of the difference between hard and soft-shell crabs. Crabs can be tested with digital pressure in the same location on the shell as indicated in Appendix 6 of the Crab by Trap IFMP. The legal hardness standard will be the durometer measurement. If the harvester is unsure whether the crab shell is hard enough the crab shall be returned to the water.

Harvesters should avoid fishing during soft-shell periods in order to minimize damage to crab populations, and to maximize the landed value of harvested product. In-season closures may be implemented in locations where a high incidence of soft-shell is observed. Soft-shell crabs left in traps are subject to increased risk of mortality through cannibalism.

DFO requires that the Five Nations' right-based sale crab harvesters carefully handle and release soft-shell crab. All undersized crab and soft-shell crab must be removed from the trap and released immediately in the location where they were caught, in a manner that will cause least harm. Harvesters are asked to release soft-shell crab back into the water as close to the surface as possible. Dropping soft-shell crab from any height or throwing them over the side will substantially increase damage and mortality.

Size limits

Undersized crab must be returned to the water immediately upon capture with the least possible harm in the location from which they were caught. It is the responsibility of each harvester to ensure that their measuring gauge is accurate.

The minimum size limit for Dungeness crab is 165 mm, measured as the maximum distance in a straight line through the greatest breadth of the shell.

The minimum size limit for Red Rock crab is 115 mm, measured as the maximum distance in a straight line through the greatest breadth of the shell.

9.6.8 Additional Management Measures

9.6.8.1 Service Provider Arrangements

Prior to fishing, all crab harvesters must make arrangements with an approved service provider in order to fulfill fishery monitoring and catch reporting program requirements for biological sampling, electronic monitoring or observing, harvest logbooks, plastic trap tags, and mid-year and year-end summary reports.

9.6.8.2 Trap Limits

Compliance with trap limits is monitored through several programs including electronic monitoring or at-sea observers, plastic trap tags, and on-grounds compliance checks. Harvesters must take an active role in ensuring compliance with trap limits by meeting their trap tagging, reporting and monitoring requirements. Trap limits have been established in each area coast-wide in the 2021/22 Crab Integrated Fisheries Management Plan. Final commercial trap limits per licence are generated excluding the Five Nations access and are subject to confirmation after vessel transfers.

9.6.8.3 Trap Haul Restrictions & Soak Times

Area E

A calendar week is described as 00:01 hours Sunday to 23:59 hours Saturday evening. The following is based on a calendar year;

All Common Areas (Area 21, 22, 25, 26, 121, 123-1, 125 and 126):

- From February 1 to April 30, harvesters may only haul their traps once per calendar week.

Tofino (All Areas unique to the Tofino option: Areas 23, 24, Subareas 123-2 to 123-9, and Area 124)

- From January 1 to March 31 harvesters may only haul their traps once per calendar week.

Area	Dates	Five Nations Right-based Sale Fishery Haul Restrictions:			
		1 Haul / Day	3 Hauls / Week	2 Hauls / Week	1 Haul / Week
E_Tofino option area	Jan 1 - Mar 31				X
	April 1 - Dec 31	X			

9.6.8.4 Maximum Soak Time of 18 days

No person shall set a trap and leave the trap in the water for more than 18 consecutive days without lifting the trap from the water and removing all of the crab from it.

9.6.8.5 Octopus Retention

All harvesters are required to accurately report information about octopus caught and retained in their logbooks. Octopus catch information is included as part of the Crab by Trap Logbook and all octopus catch must be recorded. This information is required to develop a further understanding of the distribution and population strength of octopus species caught by the Five Nations' right-based sale trap harvesters. Octopus may not be retained if caught in octopus closure areas. All octopus caught in octopus closure areas must be removed from the trap and released immediately in the location where they were caught, in a manner that will cause least harm.

9.6.8.6 Navigation Lights

Harvesters are reminded to be familiar with and adhere to the requirements concerning navigational lights as per the *International Regulations for Preventing Collisions at Sea, 1972.*

Fishing vessels and other vessels when underway are required by regulation to travel with high intensity deck lights extinguished. Vessels in contravention are subject to penalties.

9.6.8.7 Packers, Barges and Mother Ships

All crab taken under authority of a crab licence shall be transported to land by the vessel named in the licence. All crab traps, holding cages, lines and buoys used by a designated vessel, shall be transported by the vessel named in the licence to and from land.

9.6.8.8 Best Management Practices

General:

Release all by-catch species with the least possible harm. Retention of flatfish, finfish, and soft, female, and undersized Dungeness crab is prohibited.

To improve First Nations FSC access, avoid setting commercial traps in areas fronting First Nation reserves.

Buoy lines should be appropriate for water depth and tide cycles.

Keep crab buoys brightly painted and in accordance with licence conditions.

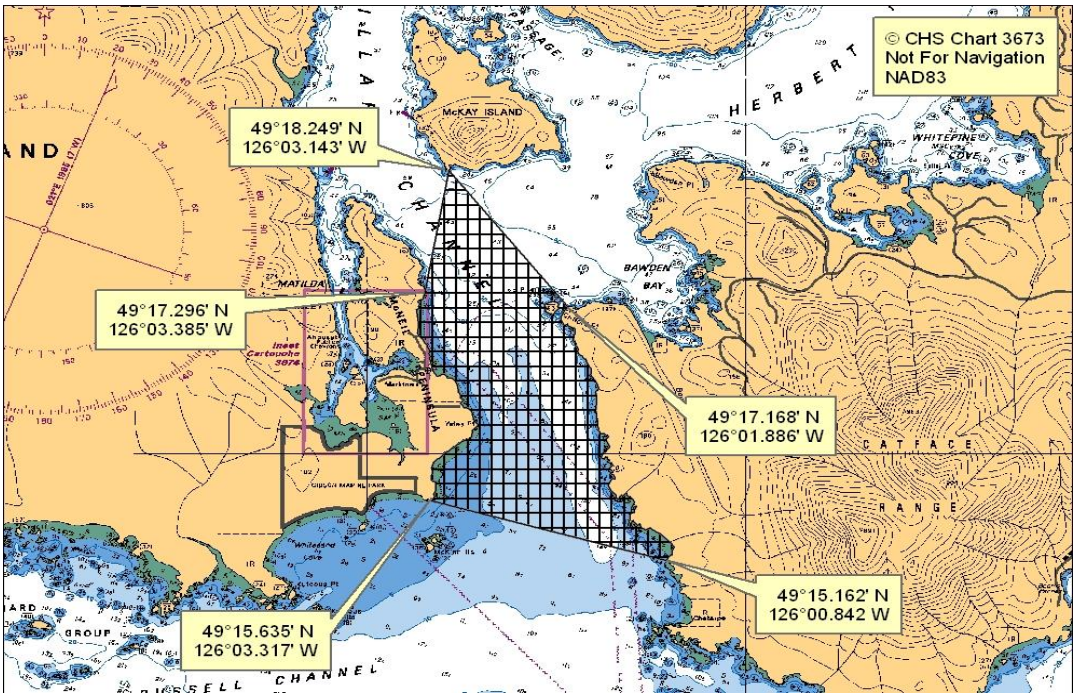
Minimize wake in harbours, particularly at boat launches, marinas and other wharves.

Avoid pulling crab traps through beds of eel grass.

If harvesters are replacing active crab traps with ones that have been inactive for more than 18 days they must transfer the RFID chip from the active trap to the replacement trap. This RFID replacement activity will help minimise violation errors associated with over-soak and trap allocation calculations.

Area E - Tofino

Commercial crab gear is to be removed or not set during the months of June, July, and August in the area indicated on the map below. The purpose of this best practice is to minimize gear conflicts with First Nations FSC Salmon fishing.



Area E Tofino.

To reduce gear impact for vessels leaving or returning to Ucluelet. The Area E crab harvesters have agreed to not place crab floats in the described corridor:

Starts at 48 54.793N 125 32.856W then to 48 54.647N 125 33.011W then to

48 57.407N 125 45.741W then to

48 57.230N125 45.741W then to

the beginning point.

And

Starts at 48 54.793N 125 32.856W then to

48 54.703N 125 32.622W then to

48 51.461N 125 36.075W then to

48 51.562N 125 36.296W then to

the beginning point.

9.6.9 Domoic Acid and Paralytic Shellfish Poison

In some areas, high levels of naturally occurring toxins such as domoic acid (DA) and paralytic shellfish poison (PSP) have been found in the viscera of Dungeness crabs. DA can cause a variety of gastrointestinal symptoms and also fatigue, disorientation, and memory loss. In extreme circumstances, ingestion of high concentrations of PSP and DA can be fatal to humans. Crab harvesters should be aware of the potential for PSP and DA accumulation in crabs harvested in areas where there are concerns or closures due to increased marine biotoxin levels, which could lead to fishery closures. Fishers may be called upon to help prevent fishery closures by contributing to area sampling programs and should always keep accurate harvest information.

9.6.10 Bait

Hanging Bait

The use of hanging bait is prohibited in Area E-Tofino Area 24.

All bait in Area 24 must be placed within a hard plastic bait cup with a screw-top lid. The bait cups may have holes drilled in them but holes can be no larger than 8 mm in diameter.

The use of hanging bait is said to increase trap catches of soft, undersized, and female crab, which could pose a conservation concern.

9.6.11 Fishery Monitoring and Catch Reporting

Fishery monitoring will be conducted by DFO and the First Nations under Fisheries Agreements if applicable.

Full fishery monitoring, either through an at-sea observer or an electronic monitoring (EM) system, is a requirement in the Five Nations' right-based sale fishery for crab. Harvesters may elect one of the following two options for full (100 percent) fishery monitoring:

Participation in an at-sea observer monitoring program; or

Participation in an approved EM program.

In all crab management areas, harvest logbooks and on-grounds biological sampling are also required.

Prior to fishing, the Five Nations must sign up with an approved program service provider. For more information on these programs, please contact a local area crab manager or see the British Columbia Commercial Crab Fishery Monitoring and Catch Reporting Program Standards for the current Licence Year (Appendix 9 of the Crab by Trap IFMP). Electronic Monitoring (EM) information received from right-based sale crab harvesters will only be used to achieve the monitoring objectives for the commercial crab fishery (accurate harvest and effort data, accurate and timely data on vessel activity, data to support compliance with conditions of licence, biological data on target and non-target catch, economic data).

At-sea Fishery Monitoring

If electing to meet the full monitoring requirements by participating in an at-sea fishery monitoring program, the Five Nations must ensure the program includes a method to accurately monitor each individual trap haul, to accurately record trap identification, and to accurately record fishing activity, fishing location, date, and time. At-sea observers must participate in a training program specific to crab trap monitoring, and must be designated under Section 39 of the *Fishery (General) Regulations*. If vessels opt to utilize an at-sea observer program instead of an EM program they must contact the Department for a complete list of requirements. Data delivery requirements for an at-sea observer program are provided in Appendix 9 of the Crab by Trap IFMP.

Electronic Monitoring

The rationale for establishing an EM program was to improve compliance with trap limits and to improve accuracy of fishing location data. The EM program also monitors compliance with a range of licence conditions including maximum soak time, area closures, and weekly trap haul restrictions.

If electing to participate in an EM program, the Five Nations must adhere to the standards provided in detail in Appendix 9 of the Crab by Trap IFMP, which includes requirements for system equipment, data collection, and data delivery including compliance reporting. EM equipment must accurately monitor the vessel 24 hours per day, seven days per week while it is engaged in fishing, where fishing is defined as the entire period of time that traps are in the water. Specifically, equipment must accurately monitor vessel position and activity through a GPS, identify trap-hauling activity, and identify individual traps using a radio frequency identification (RFID) chip on each trap (or on each buoy, when using single buoyed gear), and an RFID chip scanner to record RFID information. On behalf of the licence holder, a service provider will install and maintain EM equipment, carry out the required data analysis, and deliver both raw data and summary data including reports of non-compliance to the Department. The service provider must be trained in the requirements of commercial crab licensed fishing vessels as outlined in the IFMP and Conditions of Licence, and approved by DFO.

The master of a vessel participating in an EM program must ensure the EM system on their vessel is installed and fully operational for the entire period when traps are in the water. The Conditions of Licence reflects the option to participate in these programs and vessel masters must ensure that their Conditions of Licence are met. For a complete description of what meets the requirements for EM programs and data delivery requirements including compliance reporting, please see Appendix 9 of the Crab by Trap IFMP.

Electronic Monitoring data, including vessel position data, hydraulic data, and individual trap haul locations (RFID chip data), are used by the Department in the proper assessment, management and control of the fishery. Upon receipt by the Department of electronic monitoring data supplied by the fish harvester in accordance with the Conditions of Licence, Section 20(1)(b) of the *Access to Information Act* prevents the Department from disclosing to a third party, records containing financial, commercial, scientific or technical information that is confidential information. Further, Section

20(1)(c) of the Act prevents the Department from giving out information, the disclosure of which could reasonably be expected to prejudice the competitive position of the license holder.

The Department can only release EM data to the Five Nations, and only upon written request.

On-Board Biological Sampling

On-board monitoring and biological data collection is a requirement of the commercial crab fishery and must be completed by DFO certified At-Sea Observers. Agents of the service provider will report significant violations of Conditions of Licence immediately to the local crab fishery manager or to the O.R.R. line at 1-800-465-4336.

The biological information collected shall be entered into a Fisheries and Oceans Canada approved database and submitted to the Department in electronic form no later than seven (7) days following the end of the month when data were collected.

For area specific biological sampling details please refer to Appendix 9 of the Crab by Trap IFMP.

Catch and Fishing Data

Catch from the exploratory traps must be reported separately.

Harvest Log Data

The vessel master is responsible for the provision and maintenance of an accurate record, a “log” of daily harvest operations. This log must be completed and a copy submitted in both hard (paper) copy and electronic form in an approved format as defined by DFO Stock Assessment and Research Division’s Shellfish Data Unit.

Vessel masters will be required to print their name and provide a signature and FIN for every line entry.

To fulfil stock assessment objectives, it is imperative that fishing location be reported in this fishery. The vessel master/license holder is responsible for reporting the position on harvest logs in the “location” field for each string or group of traps.

Octopus retention and release information has been incorporated into the crab harvest logbook.

Logbooks meeting the requirements of DFO are available from service providers who, for a fee, will provide the logbook coding and data entry service, thus complying with the requirements for a hard (paper) copy and an electronic copy of harvest data.

The original white page copy of the log and the electronic copy must be forwarded within 28 days following the end of each month in which fishing occurred. This information must be sent to the DFO Shellfish Data Unit.

As an alternative to harvest log provision through a service provider, the vessel master/licence holder may provide a hard copy log in the same form and providing the same particulars. The vessel master/licence holder must also provide an electronic copy of the harvest data, which is required to be a true and accurate transcription of the hard copy data, delivered on a Shellfish Data Unit approved media. The media will remain the property of DFO. The electronic copy must be a database table of specific design created by Microsoft Access 2010 (or earlier version).

Contact the DFO Shellfish Data Unit to obtain the full requirements and acceptable data formats that meet the Conditions of Licence. The hard copy and the electronic copy of the harvest log must be forwarded within 28 days following the end of the month in which fishing occurred. This information must be sent to the above address.

Catch information must be recorded in the harvest log by midnight of the day of fishing. The logbook must be kept aboard the licensed vessel. Logbooks must be produced for examination on demand of a fishery officer, or guardian.

Submission and Release of Harvest Log Data

The Five Nations are responsible to ensure that the vessel master has completed and submitted a copy of the harvest log data. The Department can only release harvest log data to the Five Nations and only upon written request.

DFO reminds harvesters that harvest logs must be completed accurately during fishing operations and submitted to the department in accordance with the timing set out in conditions of licence. Delay of completion or submission of logs is a violation of a condition of licence.

Confidentiality of Harvest Data

Harvest data, including fishing location data supplied through latitude/longitude co-ordinates, collected for use under the harvest logbooks for shellfish fisheries programs, are used by the Department in the proper assessment, management and control of the fisheries. Upon receipt by the Department of harvest log data and/or fishing location information, supplied by the fish harvester in accordance with the Conditions of Licence, Section 20(1)(b) of the *Access to Information Act* prevents the Department from disclosing to a third party, records containing financial, commercial, scientific or technical information that is confidential information. Further, Section 20(1)(c) of the *Act* prevents the Department from giving out information, the disclosure of which could reasonably be expected to prejudice the competitive position of the license holder.

Fish (Sales) Slip Requirements

It is a Condition of Licence that an accurate written report shall be furnished on a Fish (Sales) slip of all fish and shellfish caught under the authority of the licence. A report must be made even if the fish and shellfish landed are used for bait, personal consumption, or otherwise disposed. This includes all crab and octopus retained under authority of the license. The written report shall be posted not later than seven days after the offloading and sent to DFO. Fish (Sales) slips may be downloaded and printed at:

www.pac.dfo-mpo.gc.ca/stats/fishslips-carnets/index-eng.html

9.7 Prawn by Trap Fishing Opportunity

9.7.1 Prawn Fishing Area

Prawn fishing takes place along the BC coastline in near-shore waters in depths of 40 to 100 m.

The Prawn fishing area is confined to the CDA.

Harvesters are advised to avoid fishing in Tahsis Narrows around Mozino Point in waters less than 80 metres depth to avoid cloud sponges and corals (see Area Closures, Octopus Closures and Advisories).

9.7.2 Conservation Measures

The Five Nations' right-based sale fishery for prawn and shrimp by trap will be managed with seasonal and area closures, gear limits, minimum size limits, non-retention of prawns with eggs, daily fishing time restrictions, and a single haul limit.

Spot Prawn stocks are managed and assessed based on an escapement-based model (Boutillier and Bond 2000). During the season, a sub-set of commercial traps hauled are sampled by independent observers to monitor stock status relative to the in-season management targets. A detailed description of the Precautionary Approach for Spot Prawns is available in CSAS Proceedings Series 2008/031 available on the internet at:

http://www.isdm-gdsi.gc.ca/csas-sccs/applications/Publications/index-eng.asp

9.7.3 Fishery Access and Allocation

The Five Nations fishery allocation for prawn in this FMP is expressed as a percentage of the coast-wide trap total with the corresponding number of traps. See Table 3 in Section 6.2.3 for details.

Species

Prawns and other shrimp species (*Pandalus* species and *Pandalopsis dispar* Sidestripe Shrimp). The term prawn refers solely to the Spot Prawn *Pandalus platyceros*, while the term shrimp refers to the other species of shrimp other than prawns.

Bycatch species

Octopus, except in those areas closed for Octopus retention, will be permitted to be retained while prawn and shrimp trap fishing. All fish harvesters are required to accurately report information about the octopus catch in the prawn and shrimp trap logbook.

9.7.4 Open times

The Five Nations' right-based sale fishery for prawn and shrimp by trap opening date is currently under discussion and yet to be determined. The fishery is tentatively set to open 12:00 hours (noon), May 14, 2021.

Other than the first day of any opening, trap gear may only be set, hauled, handled, or re-set between 07:00 hours and 19:00 hours. On the first day of an opening, trap gear may only be set, hauled, handled, or re-set between 12:00 hours (noon) and 19:00 hours. Only one haul per day of each string is permitted.

9.7.4.1 Closures

In-season Closures

There is no fixed date for the closure of the Five Nations' right-based sale fishery within the CDA. In-season commercial fishery closures of local areas will be announced by fishery notice as spawner indices in those areas drops to a level 10% above the minimum monthly index. Sampling coverage, time to next achievable sampling and fishing effort are also considered. Subareas adjacent to sampled areas may also close.

Closure of the fishery occurs when the remaining open fishing grounds are considered by DFO fishery managers to be too limited in extent to support continued fishing by the remainder of the fleet.

All closures will take effect at 19:00 hours unless otherwise announced.

Procedure for In-season Decision Making

During the fishery, there are twice weekly in-season conference calls at which time DFO fishery managers, Science (Stock Assessment and Research Division) personnel and a representative of the industry service provider co-ordinating at-sea observers review the available spawner index sample results and fishing effort (set/haul and vessel position reports). Comments that have been received from the at-sea observers, fish harvesters, and buyers are considered. Vessel movement patterns in the past week are summarized to assess changing distribution of effort. The ability to sample areas showing signs of fishing effort is determined. Decisions are made by DFO about areas

for closure and sampling. Subareas close in-season as required on the basis of the following:

a.) Approaching spawner index values;
b.) Approaching spawner index values in an adjacent Subarea where prawn grounds are contiguous;
c.) To provide a stock reservoir for adjacent areas having low spawner indices;
d.) Adequacy of spawner index sampling and time to next achievable sampling by at-sea observers;
e.) If DFO is of the opinion that there is too great a concentration of vessels such that the fishery in an area is considered to be unmanageable;
f.) If non-compliance is occurring and enforcement cannot be achieved;
g.) If there are insufficient funds to continue to manage and monitor the fishery, or to continue in a specific remote coastal area;
h.) At the end of the season as determined by DFO.

The time from sampling to closure is usually four to six days. On occasion, closures may be put into effect within a week of sampling and in some cases within 48 hours.

As individual coastal areas close during the season, fleet mobility increases, and vessel effort is concentrated into the remaining open areas. The effect of fishing may be seen as more variable spawner index results. Manageability of the remaining fishing effort becomes increasingly challenging due to the concentration of gear contributing to the decision for a final coast-wide closure. A coast-wide closure decision is made when the remaining open coastal areas are showing signs of being fished to the target index. Fish harvesters' and buyers' comments from the fishing grounds may also be considered to direct sampling and inform the decision for final closure of the prawn fishing season.

Areas remain closed until the prawn spawning cycle completes and the fishery opens in the following year.

Area Closures, Octopus Closures and Advisories

In areas noted for octopus closures, all octopus must be released unharmed.

Area 25 Sponge Reef Advisory

Tahsis Narrows: It is recommended that gear should avoid cloud sponges and corals in Tahsis Narrows around Mozino Point in waters less than 80 metres depth.

Closure Notifications and Announcements

It is the fish harvesters' responsibility to ensure that an area is open before setting gear and to ensure that the area has not closed while their gear remains in the water.

Routine Notification Procedures

Fishery notices of variation orders that open and close fisheries are available on the internet at:

http://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm

Information about closures is also available from DFO. DFO enforcement vessels and industry service provider vessels may also have information about impending closures.

Recorded Announcements

Telephone answering machine recordings are available after office hours and on weekends for South Coast waters (including the CDA) at (250) 756-7233.

Canadian Coast Guard Announcements

Once a week, Canadian Coast Guard will announce current prawn fishery openings and closures. This announcement will only be made if time permits, following regular WX scheduled broadcasts. The announcement may be interrupted or delayed for Search and Rescue (SAR) priorities. Broadcast times are as follows:

Prince Rupert MCTS (south coast – west coast Vancouver Island)	Tuesdays	1915 UTC	1215 DST
Victoria MCTS (south coast – Nanaimo to Juan de Fuca)	Tuesdays	1510 UTC	0710 DST

9.7.5 Gear

Trap Limits and Groundlines

All traps must be tagged with numbered tags authorized by DFO. Tag numbers must correspond to numbers registered with DFO for that vessel. Registration is accomplished by entry of the information into a DFO database, by means of an internet page provided for this purpose. Vessel owners may make arrangements with the DFO-approved service provider for tags and registration of trap tag numbers. The trap tag number shall be registered with DFO within 24 hours of issuance of a trap tag set by the service provider.

A maximum of 300 traps set on a maximum of six groundlines was fished by each designated vessel in 2020. The number of traps and groundlines each designated vessel may fish in 2021 is in discussion with DFO and the Five Nations.

Maximum Groundline Length

The maximum allowable length of groundline between each buoy line is two skates (1,100 metres or 3,600 feet).

Gear Hauling Limits

Trap gear may be hauled only once per day. This applies to all parts of the gear.

Holding cages may be hung on the same buoy and line as trap gear. However, the stipulation that the fishing gear may only be handled once daily also applies to the holding cages if they are on the same buoys and lines as trap gear.

Marking of Gear

Following the opening of the season, all prawn traps on board the fishing vessel, with the exception of replacement gear described in the subsequent paragraph, must be tagged with prawn trap tags. Tag numbers must correspond to numbers registered with DFO for use by that vessel, by means of the DFO internet page and database established for that purpose. Tags must be securely fastened and attached to the frame or webbing of the trap such that it is visible from the outside, without opening the trap. New tags issued by the service provider will be required each year.

Trap tags are only available from the service provider. DFO does not issue tags and does not issue replacement tags in-season.

All previous trap tags shall be removed from the traps when new trap tags are attached. Once tag replacement begins, no trap may be returned to the water until the tag has been replaced and all previous tags removed. Once tag replacement begins, all tags are required to be replaced within 96 hours.

Replacement Traps on Board

Replacement traps may be carried provided that they are in a non-fishable condition as follows: no tags are to be attached and there must be no snaps on the bridles or any other means of immediately attaching the replacement trap to the groundline, until such time as it is needed for replacement purposes.

Buoys

Prawn and shrimp trap gear must be marked at both ends of the groundlines by 127 centimetre (50 inch) circumference or larger, red, or orange buoys or by 10 centimetre diameter x 122 centimetre (4 inch x 48 inch) white PVC pipe weighted at one end and painted orange at the other. The latter has been recommended by industry representatives for use in areas of frequent boat traffic.

The commercial fishing vessel registration number (VRN), or the T’aaq-wiihak decal number, and the letters PRNT must be painted or otherwise affixed to each buoy such that it is visible at all times without raising the gear from the water. PRNT is required to identify gear being fished from a vessel operating in the Five Nations fishery. The VRN, or the T’aaq-wiihak decal number, shall be in solid black Arabic numerals, without ornamentation. Numbers and characters shall not be less than 75 millimetres in height. Improperly marked gear may be removed by a fishery officer from the water.

The vessel name may also be displayed. The Transport Canada licence number shall not be displayed on buoys or PVC pipes, in order to avoid confusion with the VRN or the T’aaq-wiihak decal number.

Fish harvesters may add single identifying numbers, letters or symbols to pairs of buoys so that other vessels can better tell where groundlines are located if this may help to

reduce oversetting. Any marking shall not obscure the VRN or the T'aaq-wiihak decal number.

Buoys or PVC pipe labelled, as described above, shall only be attached to groundlines that have prawn and shrimp traps attached. At the request of the prawn industry and to reduce conflicts between harvesters, setting additional buoys to stake ground is not permitted.

Holding cages hung on separate buoys must be marked with vessel name, VRN or the T'aaq-wiihak decal number, and the word "CAGE". The VRN, or the T'aaq-wiihak decal number, shall be in solid black Arabic numerals, without ornamentation. Numbers and characters shall not be less than 75 millimetres in height.

Trap Mesh Size and Biodegradable Escape Mechanism

Traps shall include the following trap escapement modifications.

Other than the frame, trap mesh must be unobstructed.

The trap escapement modifications described below will significantly reduce the capture of undersize prawns but will not totally eliminate them from the catch, particularly in areas when there are high concentrations of small prawns. Fish harvesters are required to sort their catch as each trap comes on board and to release undersized prawns immediately, before the next trap is recovered. Sorting must occur prior to any transfer of catch to live tanks, buckets or other holding devices.

Web or Soft Mesh Traps

Web or soft mesh traps shall be covered with a single layer of mesh. The mesh shall measure a minimum of 38.1 millimetres (1 1/2 inch). Mesh size is measured as described in the definition section of the *Pacific Fishery Regulations, 1993* as follows: "means the total length of twine measured along two contiguous sides of a single mesh, including the distance across the knot joining those sides but not including any other knots." All mesh used in the trap including the tunnels must conform to this minimum size. Other than the trap frame, trap mesh must be unobstructed.

Industry representatives have recommended tools for fish harvesters to make a quick assessment of soft web mesh size. This is a "flat slat" made out of high-density nylon or other equivalent material 38 millimetres wide (1.5 inch), 3 millimetres thick (1/8 inch), and as long as may be convenient (6 inch), tapered at one end. If the flat slat cannot be pushed through the mesh, or if it is difficult to do so, then the mesh is likely too small. This is not a legal measuring device; however, fish harvesters can use the flat slat as a quick check. A ruler may also be used. Vernier callipers are the legal measuring tool for determination of legal mesh size. Fish harvesters are encouraged to check their gear in advance of the fishing season and to check the web when receiving new traps or re-webbed traps from suppliers. If the trap mesh appears to be undersize when checked by DFO personnel during the fishing season, traps may be collected for further testing and for legal procedures, or the fish harvester may be requested to remove all gear from the water for inspection.

DFO is concerned about fish harvesters using stretched and distorted web to reduce the sorting efficiency of web traps.

The sort area on these traps is considered to be the lower 15 centimetres of the side wall above the bottom ring. It is recommended that mesh on the trap be constructed, so that upon insertion, a high density round plastic peg that is 19 millimetres (3/4 inch) in diameter and 20.3 centimetres (8 inch) long, weighing no less than 50 grams and no more than 60 grams, will drop completely through the web by its own weight. The bottom of the trap may also be important for sorting. DFO will continue to assess this and additional measures will be introduced if sorting appears to be compromised by mesh stretching or bunching.

Wire Mesh Traps

These traps must have either/or:

Four opposing tunnels constructed of an unobstructed rigid square mesh material having a minimum dimension (after dip coating) that will allow the passage of a 22.2 millimetre (7/8 inch) square peg through the mesh without altering the shape of the mesh opening. The lower side of each tunnel must extend to the bottom edge of the trap and must be at least one-half the length of the trap side.

The bottom and two opposing sides must be constructed of an unobstructed square mesh material that will allow the passage of a 19 millimetre (3/4 inch) square peg through the mesh without altering the shape of the mesh opening.

The bottom and all sides must be constructed of an unobstructed square mesh material that will allow the passage of a 22.2 millimetre (7/8 inch) square peg through the mesh without altering the shape of the mesh opening.

Biodegradable (“Rot”) Cord

All prawn traps shall contain a biodegradable escape mechanism to allow bycatch to escape in the event traps are lost.

Web and soft mesh traps shall contain an opening equal to or exceeding 30 cm in length. The opening shall be within 15 cm of the bottom of the trap and parallel with the bottom frame. The opening shall be laced, sewn, or otherwise secured by a single strand of no greater than #30 untreated cotton twine. The cotton twine shall be knotted at each end only. The twine shall not be tied or looped around the frame of the trap.

Wire or hard mesh traps shall have a biodegradable (“rot”) panel. The rot panel shall consist of a section in a trap side wall that has been laced, sewn, or otherwise secured by a single strand of no greater than #30 untreated cotton twine, such that the entire panel remains under tension when the panel is intact but on deterioration or parting produces an unrestricted opening. The opening shall exceed a square 11cm by 11cm.

Maximum Allowable Trap Size

No web or soft mesh trap with a volume greater than 170 litres is permitted. No wire or hard mesh trap with a volume greater than 100 litres is permitted except those traps constructed with the bottom and all sides with a mesh that will pass a 22.2 millimetre

square peg, which may have a volume no greater than 170 litres. All measures are determined from the outside dimensions of the trap. These measures include tunnel volumes.

Maximum volumes by trap type have been adopted to prevent the practice of “trap doubling,” which is the practice of tying two traps together to be fished as a single unit. This practice was deemed to circumvent the intent of the trap limitation management provisions in this fishery.

The Transportation Safety Board has expressed concern for large diameter heavier traps. The future use of traps with a wet weight greater than 7 kg (rigged, no bait) may be prohibited. Fish harvesters should make sure they have registered their number of “heavy traps” with DFO.

Recovery of Lost Trap Gear

In-season, a vessel participating in the fishery may not carry, set or recover tagged traps for another vessel participating in the fishery.

If a fish harvester locates and recovers their own lost gear, all catch must be released. Recovered traps must be emptied and rendered non-fishable immediately as they come on board. Alternatively, the fish harvester may attach a marker and line to the gear and advise a DFO fishery manager or fishery officer of the location of the gear. Lost gear may not be recovered after the area has closed. Contact the local DFO fishery office.

There are mandatory reporting requirements of lost and retrieved gear. See Sections 9.1 and 4.3 .

Fishing Gear Conflicts

Harvesters are required to exercise care when setting gear near recreational and First Nations’ FSC fishing gear. Fouled gear should be untangled without cutting and returned to the water intact. If a line must be cut, it should be the harvester’s own line that is cut.

Continued gear conflict with recreational and First Nations harvesters will lead to closure requests from that sector or First Nations. DFO’s preference is to provide a mutually satisfactory harvest experience for all user groups through respect of the other person’s gear and fishing practices, rather than invoking closures to separate fishing effort.

Extra and Replacement Sets of Trap Tags

Additional Tags

The Five Nations and/or vessel master may receive additional tags with the main tag set. These additional tags are only to be used as required to replace tags on traps lost on the grounds. A fishery officer or guardian may request to see the unused tags. Vessels are permitted to fish only the maximum number of traps specified on the licence, and may not use the additional tags to increase gear in the water greater than the licence limits.

Full Replacement Sets

In-season full replacement tag sets are available from the service provider. They are not available from DFO. Once installation of the new tags has commenced, all tags must be replaced and no traps can be returned to the water with old tags attached to them. All previously issued tags must be removed from the gear.

9.7.6 Species-specific measures

Fish harvesters are authorized to catch and retain Prawns and other shrimp species (*Pandalus* species and *Pandalopsis dispar* Sidestripe Shrimp). In this plan, the term prawn refers solely to the Spot Prawn *Pandalus platyceros*, while the term shrimp refers to the other species of shrimp other than prawns.

Fish harvesters are authorized to incidentally catch and retain Octopus *Enteroctopus dofleini* while prawn and shrimp trap fishing except in octopus closure areas. Conditions of Licence require all fish harvesters to accurately complete octopus catch and retention information in the prawn and shrimp trap logbook.

Berried Females

All prawns carrying eggs externally on the underside of the tail shall be returned to the water immediately and in the manner that causes the least harm. Prawns carrying eggs may not be kept and eggs may not be removed from the underside of prawns carrying eggs. Catch must be sorted as it comes on board and the females released on a trap by trap basis and in the manner that causes the least harm. Waiting until the entire string is pulled before sorting is illegal. It is recommended that fish harvesters relocate to other grounds if they find that they are catching large numbers of berried females. High proportions of berried females may result in closure.

Catch Prohibited On Board While Fishing

No prawns or shrimp that are not permitted to be retained under the authority of the Five Nations' licence shall be on board the designated vessel.

9.7.7 Size limits

The minimum legal size limit for prawns is 33 millimetres carapace length measured from the most posterior part of the eye orbit to the posterior mid-dorsal margin of the carapace (see Appendix 4 of the Prawn and Shrimp by Trap IFMP for a diagram). Catch shall be sorted and undersized prawns released immediately.

The minimum legal size limit for headed prawns is 22 millimetres telson length, measured along the mid-dorsal line of the telson from the anterior margin to the posterior margin. The telson is the central piece of the tail "fan." This size limit applies only to product that has had the head and thorax removed including the carapace. The telson should be measured before "tailing" to ensure that the product will meet the size limit.

Do not assume that a prawn that met the carapace length requirement will also meet the telson length requirement once it is headed. Due to natural variability, some will not. If you will be tailing, measure the telson on the prawn tails before removing the head. Release prawns with undersize telsons, unharmed, immediately.

There is no minimum size for species of shrimp other than the prawn, *Pandalus platyceros*.

Undersized prawns shall be returned to the water immediately. Traps shall be pulled, emptied and undersized prawns sorted out for release, on a trap by trap basis. Waiting until the entire string is pulled before sorting begins is illegal. Prawns may not be kept in a tank or bucket for later sorting and release. All undersized prawns must be released in the area of capture and shall not be removed from the general location of capture, prior to release, for any reason. In no instance are prawns to be chemically treated or "dipped" prior to sorting and release of the undersized prawns.

Industry representatives have discussed various means of releasing undersized and berried prawns to increase their survival. In particular, those locations with fresh water runoff on the surface and increased water temperatures may increase mortality. Prawn vessels should have sorting tables to improve the speed with which undersized and berried prawns may be released. Survival may be increased if prawns are released into a bucket or tube on the side of the boat, which extends below the surface through the fresh water layer.

DFO is concerned about those fish harvesters who are not using accurate measuring devices or not measuring their prawns at all. Fish harvesters should measure small prawns with a set of inexpensive Vernier callipers to ensure that no undersize are retained. DFO recommends that buyers also check product size upon delivery, that undersize prawns are sorted out and not boxed. Investigations by DFO to correct problems will prove disruptive to fish harvesters and buyers. If reports of dumping small legal sized prawns following landing are received, it will be investigated.

9.7.8 Additional Management Measures

Rockfish and Assistance to At-Sea Observers

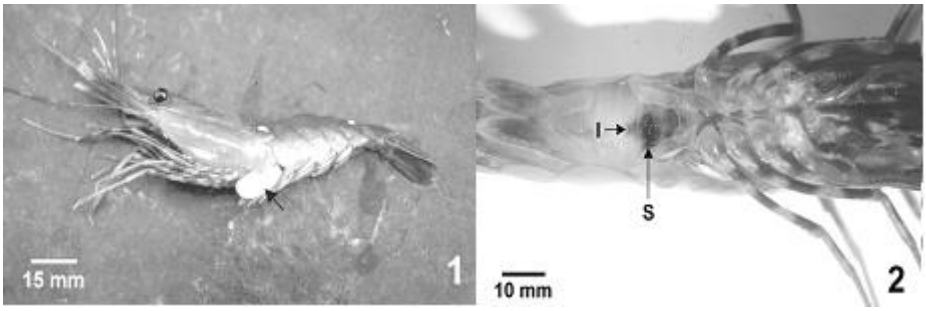
Observers are required to identify and record all of the rockfish caught in strings of gear that are sampled for spawner index data. This applies coast-wide. To accomplish this, while an observer is on board, the vessel master or crew is requested to put all rockfish from the sample string into a holding bucket for later identification and counts by the observer. Vessel masters or crew who are experienced in rockfish identification are requested to assist the observer. Additional strings may not be hauled until the rockfish data recording is complete, unless other arrangements have been made with the observer.

Maps of RCAs are available at:

www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-acs/index-eng.html

Sylon Parasites and Live Transport of Prawns

Live transport of prawns from northern and central coast areas could result in the unintentional introduction of a parasitic barnacle, *Sylon sp.* (see pictures below), to southern waters where it is currently not known to occur on prawns. Introduction of this parasite could occur through the release of viable larvae in water discharged from live holding tanks. Precautions can be taken by disinfecting all seawater in which prawns are transported, prior to discharging holding tanks.



Examples of sylon parasites on prawns.

Contact DFO for more information.

Prawn and Shrimp Sanitary Guidelines

Potential contamination of fish products may occur if adequate controls over sanitation and hygiene are not followed during the fishing and handling, both on board the vessel, and during holding and transporting to the processing plant. In the past, prawn/shrimp have been found to be contaminated with *E. coli,* and more recently, there have been reports of suspected norovirus contamination.

For information on the sanitary requirements and preventive controls that apply to fishers, please see the Canadian Food Inspection Agency website at: https://inspection.gc.ca/food/requirements-and-guidance/preventive-controls/fish/information-on-the-requirements-that-apply-to-fish/eng/1564699982413/1564699982647

and

https://inspection.gc.ca/food/requirements-and-guidance/preventive-controls/fish/maintenance-and-operation-of-a-vessel/eng/1564717053871/1564717054137

On-Board Freezing and Glazed Prawn Sale Requirements

Fish harvesters are reminded of licensing requirements under the *Safe Food for Canadians Act* and *Safe Food for Canadians Regulations*. As explained in section 5.11 of "Food business activities that require a licence under the *Safe Food for Canadians Regulations*" (https://inspection.gc.ca/food/requirements-and-guidance/food-

licences/food-business-activities/eng/1524074697160/1524074697425#a511) a license is required by fishers (fish harvesters) to:

- manufacture, process, treat, preserve or grade fish, and/or if you;
- package and label fish (unless it is not consumer prepackaged, and will be subsequently manufactured, processed, treated, preserved, graded, packaged or labelled by a licence holder in another province)

Please note that treating shrimp/prawns, such as applying a preservative, is considered a licensable activity, and you will need to obtain a license unless the shrimp/prawns are not consumer prepackaged and are subsequently manufactured, processed, treated, preserved, graded, packaged or labelled by a licence holder in another province.

A license is not required to conduct activities that are necessary to protect the fish you catch or harvest from contamination, damage and spoilage. These are handling practices associated with catching, harvesting, unloading, holding and moving fish. With respect to shrimp and prawns, this includes:

- freezing whole shrimp/prawns on a vessel
- holding fish in containers
- icing whole shrimp/prawns
- refrigerating
- rinsing whole shrimp/prawns

Where additives have been used, the additive must be declared in the label's list of ingredients. In the case of sulphites, the name of the actual sulphite used must be declared on the label or box.

Information on labelling requirements is available at:
http://inspection.gc.ca/food/general-food-requirements-and-guidance/labelling/eng/1299879892810/1299879939872

For further information, contact the local CFIA fish inspection office:
Burnaby: (604) 666-9904
Victoria: 250-363-3618
Parksville: (250) 248-4772

Octopus Retention

All fish harvesters are required to accurately report information about the octopus catch. This information is required to develop a further understanding of the distribution and population strength of octopus species caught by commercial trap harvesters.

9.7.9 Fishery Monitoring and Catch Reporting

Fishery monitoring will be conducted by DFO and the First Nations under Fisheries Agreements if applicable.

Requirement to hail out

Vessel masters must arrange for fishing commencement information, or hail out, to be provided by the service provider, Monday to Friday 8:00 a.m. to 4:00 p.m. to DFO by means of an internet reporting system established for this purpose.

The vessel master shall have the service provider notify DFO prior to commencement of fishing of the following:

a) Vessel name, vessel master's name, and VRN or T'aaq-wiihak decal number;
b) The time and date the report was made;
c) The name of the person supplying the information from the vessel;
d) The name of the person who entered the information into DFO's Internet Access database on the vessel master's behalf;
e) The date for which the report is effective;
f) Management Subareas (as defined in the *Pacific Fishery Management Area Regulations, 2007*) to be fished;
g) Time and date that fishing will commence;
h) Set and haul validation number; and
i) The hail verification number issued by the service provider to the vessel master.

Fishing may not commence until a hail has been made and a hail verification number received.

Vessel masters must provide set and haul information for in-season assessment of effort and for the deployment of service provider observers (see Information Reports from Sea). Prior to fishing, vessel masters must acquire a set and haul validation number from the service provider.

Vessel masters using a DFO-approved Vessel Monitoring System (VMS) which integrates the set and haul programming will obtain a set and haul validation number from the service provider.

Vessel masters using a DFO-approved VMS which does not integrate the set and haul programming, must contact their service provider to obtain a set and haul validation number and arrange for set and haul information to be transmitted to the service provider within five minutes of each set and haul throughout the fishing season.

Fishing Activity Location Reports

All vessels are required to have a fully operational DFO-approved VMS and to report the geographic position (latitude and longitude) of the vessel, date and time corresponding to this position, and Communication Service Provider identifier for the VMS unit. This information shall be reported automatically to the DFO Vessel Monitoring Operations Centre (Newfoundland) every 15 minutes throughout the season, from the time the vessel leaves port for the first fishing trip until it returns to port and all catch on board the vessel is offloaded after its last fishing trip. A list of DFO-approved VMS units can be found at: http://www.nfl.dfo-mpo.gc.ca/e0011108 or by contacting DFO by telephone at 1 (709) 772-5789 or Toll Free at 1 (888) 772-8225.

A completed DFO National VMS Form shall be faxed to DFO at 1 (709) 772-5787 not less than two business days before commencing fishing for each VMS unit installation, replacement, transfer, or change to the licence holder.

The DFO National VMS Form is available on the internet at: http://dfo-mpo.gc.ca/fisheries-peches/sdc-cps/vessel-monitoring-surveillance-navire/index-eng.html

In the event that the VMS unit or equipment becomes inoperative, is turned off, or malfunctions, the service provider must be notified immediately by telephone at 1-866-930-4000 Monday to Friday 8:00 a.m. to 4:00 p.m. and provide the following information:

i. Vessel name, vessel master's name, and VRN or T'aaq-wiihak decal number;
ii. The date and time of sailing;
iii. The port of landing; and
iv. The telephone number where the vessel master can be reached.

A back-up VMS unit must be activated within 72 hours of the malfunction. A back-up VMS unit may be obtained by phoning 1-866-930-4000 and provide the following information:

- Vessel name, vessel master's name, and VRN or T'aaq-wiihak decal number;
- The telephone number where the vessel master can be reached.

Once 72 hours from the malfunction has elapsed, fishing may only resume once the VMS unit is turned on and fully operational or when the vessel master has received approval from DFO.

In the event of a VMS unit failure where a vessel carries two or more approved VMS units on board, it is the responsibility of the vessel master to immediately notify DFO that a secondary unit is being activated and subsequently ensure it is fully operational, turned on and in use before resuming fishing activity.

Information Reports from Sea (Spawner Index Sampling)

Vessel masters shall arrange to have information about fishing operations and spawner index information reported to DFO or the service provider as required.

During the course of the season, each vessel must provide a Fishing Operations At-sea Report and data from spawner index samples collected by the service provider observers during fishing operations. Each spawner index sample consists of a sample of one complete string of gear which has been set for a minimum of 12 hours, with a minimum of every fourth trap contributing to the sample. A minimum of 12 traps is sampled from each string of gear. Species, number and weight of all rockfish bycatch caught in the string that is sampled for spawner index data and the species and number of any marine mammal bycatch must also be provided. A minimum of 45 traps shall be hauled from the water and examined for the purposes of completing the Fishing Operations At-sea Report.

Set and haul data must be provided to the service provider during fishing operations. The set and haul data must include:

- Vessel name;
- VRN or T'aaq-wiihak decal number;
- Activity: set or haul
- GPS source: GPS device or manual entry;
- Vessel GPS location (latitude and longitude);
- String GPS location (latitude and longitude);
- Subarea of string location;
- Communication Service Provider Number;
- UTC date and time (yyyy-mm-dd, HH:MM:SS);
- Speed (knots);
- Heading; and
- International Mobile Station Equipment Identifier (IMEI).

Set and haul data must be transmitted to the service provider not later than five minutes following the setting or retrieval of each string of gear.

A DFO-approved VMS unit which integrates the set and haul programming shall automatically provide vessel location data every 15 minutes to the service provider, and the vessel master shall enter the set and haul data of a given set or haul activity using the facilities of the VMS unit.

The vessel master using a DFO-approved VMS unit which does not integrate the set and haul programming, shall provide the set and haul data by sending the information by electronic mail to the service provider and providing the information verbally. The Communication Service Provider Number and IMEI are not required for verbal reports. Contact the service provider to make arrangements to provide vessel location.

Providing this information will reduce search time, improve opportunities for sampling, and avoid unnecessary closures by DFO due to lack of information. Fish harvesters are encouraged also to maintain communications with their service provider's local observer vessels when they are fishing. DFO will close fishing areas if there is insufficient sampling because observers cannot locate vessels and gear.

Harvest Logs

The vessel master is responsible for the provision and maintenance of an accurate record, a "log" of daily harvest operations. This log must be completed and a copy submitted in both hard (paper) copy and electronic form in an approved format as defined by DFO Stock Assessment and Research Division's Shellfish Data Unit.

To fulfil stock assessment objectives it is imperative that a fine resolution of fishing location be reported in this fishery. The vessel master is responsible for reporting latitude/longitude position on harvest logs in the "location" field for each string of traps fished.

Logbooks meeting the requirements of DFO are available from service providers who, for a fee, will provide the logbook coding and data entry service, thus complying with the requirements for a hard (paper) copy and an electronic copy of harvest data.

The original white page copy of the log and the electronic copy must be forwarded within 28 days following the end of each month in which fishing occurred. This information must be sent to the DFO Shellfish Data Unit.

As an alternative to harvest log provision through a service provider, the vessel master may provide a hard copy log in the same form and providing the same particulars as shown in the fishing log sample Appendix 5 of the Prawn by Trap IFMP (Example of Prawn and Shrimp by Trap Harvest Log). The vessel master must also provide an electronic copy of the harvest data, which is required to be a true and accurate transcription of the hard copy data, delivered to DFO on Shellfish Data Unit approved media. All media will remain the property of DFO. The electronic copy must be a database table of specific design created by Microsoft Access 2010 (or earlier version).

Contact the DFO Shellfish Data Unit to obtain the full requirements and acceptable data formats that meet the Conditions of License. The hard copy and the electronic copy of the harvest log must be forwarded within 28 days following the end of the month in which fishing occurred. This information must be sent to the above address.

For enforcement purposes, information regarding the latitude and longitude of each string of fishing gear, and the haul time of that gear shall be entered in the logbook within ½ hour (30 minutes) of the string being hauled and prior to any additional hauling of gear. The latitude and longitude shall be entered in the “location” field of the harvest log. The time of haul shall be entered in the “time of haul” field. This information shall be entered on a string by string basis.

The remaining logbook harvest information must be recorded in the harvest log by 23:59 hours of the day of fishing. The logbook must be kept aboard the licensed vessel. Logbooks must be produced for examination on demand of a fishery officer, guardian, or a fishery observer designated under the *Fisheries Act.*

Submission and Release of Harvest Log Data

The Five Nations are responsible to ensure that the vessel master has completed and submitted a copy of the harvest log data. DFO can only release harvest log data to the Five Nations, and only upon written request.

DFO reminds harvesters that harvest logs must be completed accurately during fishing operations and submitted to DFO in accordance with the timing set out in Conditions of License. Delay of completion or submission of logs is a violation of the Conditions of License.

Confidentiality of Harvest Data

Harvest data, including fishing location data supplied through latitude/longitude co-ordinates, collected for use under the harvest logbooks for shellfish fisheries programs are used by DFO in the proper assessment, management and control of the fisheries. Upon receipt by DFO of harvest log data and/or fishing location information, supplied by the harvester in accordance with Conditions of License, Section 20(1)(b) of the *Access to Information Act* prevents DFO from disclosing to a third party records containing financial, commercial, scientific or technical information that is confidential information.

Further, Section 20(1)(c) of the *Act* prevents DFO from giving out information, the disclosure of which could reasonably be expected to prejudice the competitive position of the license holder.

Fish (Sales) Slip Requirements

An accurate written report shall be submitted by the vessel master on a Fish (Sales) slip of all fish and shellfish caught. A written report must be submitted even if the fish and shellfish landed are used for bait, personal consumption, or otherwise disposed. The written report shall be posted not later than seven days after the offloading and sent to DFO.

Fish (Sales) slips may be downloaded and printed at:
http://dfo-mpo.gc.ca/fisheries-peches/sdc-cps/fishslips-carnets/index-eng.html

9.8 Gooseneck Barnacle (Caʔinwa) Fishing Opportunity

9.8.1 Fishery Access and Allocation

Since 2010, Five Nations representatives, Uu-a-thluk (the aquatic resource management organization administered through the Nuu-chah-nulth Tribal Council) and DFO staff have been reviewing the information from the 2003-2005 experimental fishery and planning the re-opening of the WCVI goose barnacle fishery. A limited fishery re-opened in September 2013 as a market-test fishery and will grow and expand as markets and harvester capacity are developed.

In 2016, a publication updating the existing gooseneck Framework from 1999 (Lauzier 1999) was produced by T'aaq-wiihaak and DFO staff (Gagne et al. 2016). The updated Frameworks outlines a method for assessing gooseneck population density in Clayoquot Sound using Local Ecological Knowledge and gooseneck bed area mapping (Gagne et al. 2016). This publication supports the recommended 7.5% harvest rate from Lauzier (1999) calculated using the Gulland model (Gulland 1971).

Goose barnacles are harvested and sold by the Five Nations. Ha'oom staff work closely with DFO on stock assessment and fishery management. The annual allocation is very precautionary and harvesting is currently restricted to Clayoquot Sound. The annual quota is determined by DFO following consultations with Ha'oom staff.

Regular Commercial Goose Barnacle Regime – Context

A commercial fishery for goose barnacles on the west coast of Vancouver Island (WCVI) in the 1980s and continued through to 1999 when it was closed by DFO due to concerns about lack of management control and ecological sustainability. After the fishery was closed, several experimental harvests were undertaken to assess the potential for re-opening the commercial fishery under a new management regime.

The commercial goose barnacle fishery was re-opened in 2003 – 2005 with the DFO designation of “experimental fishery” under DFO’s New and Emerging Fisheries Policy. This fishery was a unique example in British Columbia of co-management between multiple parties, including DFO, the provincial government, WCVI communities, First Nations, non–governmental organizations, harvesters, processors and buyers. This community-based fishery developed relatively quickly and then ended in 2005, mainly due to the inability to sustain market demand and the lack of on-going funding for fishery management and assessment costs required by DFO at the time.

Five Nations

DFO proposes to continue the experimental fishery opportunity for the Five Nations through the issuance of an Aboriginal Communal Fishing Licence (renewed on 6 month timeline).

9.8.2 Open times

Harvesting is limited by tides, weather, and the quality and size of the product on chosen harvest rocks. It has been estimated that approximately 10% of a rock’s goose barnacle population is of ‘marketable’ size. This estimate was based on desired marketable barnacle attributes for the European market, which was approximately two to eight cm in length, one to four cm width and with a maximum rostral-carinal (white “shell” part at the top) length of four cm. A goose barnacle is considered ‘harvestable when they:

1. Fall within the preferred market size range (peduncle length of 2 to 8 cm)
2. Are accessible; not found in places such as deep rock fissures or cracks or areas that are not accessible due to safety; and
3. Can be removed live. This requires growth to occur on biological substrates such as Acorn Barnacles or mussels as opposed to bare rock. Goose Barnacle removed from bare rock will rupture and die during removal.

9.8.3 Closures

<u>Management closures</u>

Harvest rocks are closed once a harvest threshold is met for that rock. After six months the rock is re-opened for harvest. At any given-time there are 0 to 3 rocks closed to harvest. Harvesters are all individually informed about rock closures.

<u>Park Closures</u>

There are Goose Barnacle harvest sites both north and south of one major park area, Pacific Rim National Park Reserve, surrounding Vargas Island (Figure 5). Given the

wide dispersal and recruitment of Goose Barnacles, the park area is thought to be a significant refugia, and contributor to Goose Barnacle recruitment on harvest rocks.

9.8.4 Gear

Caʔinwa harvesters mostly use long flat steel bar (sharpened car leaf spring with a handle) to pry barnacle clumps from sea mussel. It is the responsibility of the harvester to acquire their own harvest tool (tools vary slightly based on harvester preferences for height, width and weight). Harvested caʔinwa awaiting shipment are hung in sacs or oyster boxes off of docks in the Tofino Harbour to keep the product alive and fresh for market. Caʔinwa are only hung for a maximum of approximately two weeks. Dead or poor quality goose barnacles are removed regularly to ensure product quality.

9.8.5 Species-specific measures

Species

Goose Barnacle (Pollicipes polymerus)

9.8.6 Additional Management Measures

Location

Currently the Goose Barnacle fishery occurs on 52 rocks in Areas 24/124 in Clayoquot Sound on the west coast of Vancouver Island, the traditional territories of the Tla-o-qui-aht and Ahousaht First Nations.

Quota Management

Quota is approved through the Five Nations Goose Barnacle Sub-Committee, made up of Ha'oom staff, Ha'oom Fisheries Managers and Fisheries and Oceans Canada Science and Management staff. The quota approval process takes into consideration the precautionary approach and the most up-to-date stock assessment information. Quota is assigned on an annual basis with regular DFO reviews of the harvest rate.

Gooseneck harvest is managed on a rock-by-rock basis for the 52 harvest rocks in Clayoquot Sound. Currently a very small quota (12,000lbs) for Clayoquot Sound is authorized by Fisheries and Oceans Canada on an annual basis, this could change in-season dependent on biological assessment information. There are 52 harvest rocks in Clayoquot Sound.

Best Management Practices and Safety

The Ha'oom harvest plan is designed around the Nuu-chah-nulth principles Hishukish Tsa'walk (everything is connected, everything is one) and Iisaak (respect). Experienced Five Nations caʔinwa harvesters promote and employ sustainable harvest methods.

Harvesters know that unsustainable practices can quickly decrease harvest opportunities whereas selective harvest is thought to boost goose barnacle productivity. Currently there is one Ha'oom harvest team that harvest and sell goose barnacles. When the fishery expands an education and training program will train new harvesters in sustainable and safe harvest methods.

All harvesters commit to the following Harvest Rules:

1. Removing marketable barnacles only. A marketable barnacle is approximately two to eight cm in length, one to four cm width and with a maximum rostral-carinal (white "shell" part at the top) length of four cm. This is not a size-limit, just a guideline based on average marketable barnacle size.
2. Limiting harvest divot sizes to under 1m to the best of their ability. Large harvest divots are thought to increase the recovery period of a goose barnacle bed, this a disadvantage to the harvester as well as the ecosystem. Further research on goose barnacle post-harvest recovery will occur in collaboration with Simon Fraser University and DFO in 2017 to 2019 to determine appropriate recovery periods.
3. Limiting discards. Some non-marketable goose barnacle, acorn barnacle and mussel discards do occur. At each landing event, harvesters estimate the proportion discarded and this is recorded by monitors. Discards are estimated at under 10% of the total harvest weight on average.

Safety priorities for Goose Barnacle Harvesters include:

1. Ensuring all appropriate safety gear is on board
2. Wearing PFDs on the boat and while harvesting on the rock
3. Harvesting with at least one wave spotter and boat tender
4. Hand-held radios for harvesters on the rock
5. Avoiding harvest in dangerous conditions

9.8.7 Fishery Monitoring and Catch Reporting

Fishery monitoring will be conducted by DFO and the First Nations under Fisheries Agreements if applicable.

Conservation and ecological sustainability are key considerations in the development of the Five Nations' Goose Barnacle harvest strategy. There are 52 Harvest rocks in Clayoquot Sound and the total biomass harvested off of each rock is recorded with each harvest event. The Ha'oom harvest plan includes only harvesting barnacles that are suitable for the marketplace in small clumps or swaths smaller than 1m.

The primary monitoring tools for the fishery are the fisher's logbook and 100% monitored landings. Every designated fisher must complete the required logbook information before the harvest can be landed. Fishers can only land at designated sites and must have all harvest validated by a Designated monitor. The dockside monitor verifies and records the weight, rock ID, date, time and harvester's T'aaq-wiihak number

on a Landing Slip. No landing of any product is to commence until a Designated dockside monitor or Ha'oom employee is on-site and approves the commencement of the landing.

Hail-in / Hail-out Process

Harvesters hail-out to the monitoring company and then hail-in after harvest to arrange a landing time. All product is checked, weighed and a landing slip is issued to the harvester by a Designated Monitor or a Ha'oom employee before the product is sold.

At-Sea Monitoring

100% of landings will be monitored either during harvest or at dockside by a Designated monitor or a Ha'oom employee.

All Participants must obtain a Landing Slip in order to retain or sell any fish caught under authority of this Licence. The Landing Slips must be issued by a designated Monitor and shall specify:

(a) the name and signature of the Participant landing the fish;
(b) date and time of landing;
(c) location of landing site;
(d) the Participant's Identification Card number;
(e) vessel name and identification number;
(f) the area of catch;
(g) weight of fish landed for the intent of sale;
(h) name and signature of designated Monitor (holder of Landing Slip book);

A Participant must carry a Landing Slip when in possession of fish caught under the authority of this Licence, except when fishing or transporting fish to a Landing Site by water.

The Participant shall show Landing Slips to a fishery officer or fishery guardian upon request.

Landing Slips issued by fishery monitors will be forwarded to the Ha'oom Fisheries Coordinator who will submit data in electronic form to Program Coordinator - Invertebrates, DFO South Coast Area, following each fishery.

The Ha'oom Fisheries Coordinator will provide a hard copy of all Landing Slips to DFO upon request.

The Ha'oom Fisheries Coordinator shall provide a report containing the following information:

- Vessel name and Vessel Registration Number (VRN) where applicable;

- Vessel master name;
- Trip I.D. (Landing Slip number);
- Date of offload;
- Rock I.D. and corresponding Pacific Fishery Management Area and Subarea
- Weight by species;
- Landing port and time of landing;
- Time of offload; and
- Monitor identification number/name.

Reports shall be forwarded from the Ha'oom Fisheries Coordinator to the Program Coordinator – Invertebrates, DFO South Coast Area following each fishery.

Biological Sampling

Harvesters will permit Fishery Monitors access to catch for the purposes of sampling as required. Sampling protocols have been developed with Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht First Nations and DFO.

Harvesting and Tagging of Product

The licence holder shall provide sacks for the harvest of goose barnacles harvested by each harvester so that they can be kept separate for record keeping purposes. Tags will be provided by the Monitor. Prior to leaving the harvest site, each sack of Goose Barnacles shall be labelled with a tag which shall include the following information:

- Pacific Fishery Management Area and Subarea
- Location code (Rock ID)
- Rock Name
- Date of harvest
- Harvester's name
- Licence number

Catch and Fishing Data

Harvest Log Data

Daily Catch Reports – each Participant will keep a complete Ha'oom Logbook that remains with the harvester at all times during the duration of this fishery. See example attached to this licence.

Each Participant will complete a Logbook report by midnight of the day of fishing.

All Participants will submit a hard copy of the Logbook to the Ha'oom Implementation Coordinator who will submit data in electronic form to the Fisheries and Oceans Canada Stock Assessment and Research Division's Shellfish Data Unit at the end of each month during which fishing occurred. The content and format of this log (paper and

electronic) shall meet the requirements as defined by Fisheries and Oceans Canada Stock Assessment and Research Division's Shellfish Data Unit for the current licence year. The Ha'oom Implementation Coordinator will ensure the completed log pages (original copy) and electronic copy of the log are forwarded not later than 28 days following the end of each month in which fishing occurred to:

Fisheries and Oceans Canada
Shellfish Data Unit
Pacific Biological Station
3190 Hammond Bay Road
Nanaimo BC V9T 6N7
Tel: (250) 756-7022 or (250) 756-7306

Submission and Release of Harvest Log Data

The licence eligibility holder is responsible to ensure that the vessel master has completed and submitted a copy of the harvest log data. DFO can only release harvest log data to the licence eligibility holder of record reported with the Pacific Fishery Licence Unit, and only upon written request.

Confidentiality of Harvest Data

Harvest data, including fishing location data supplied through latitude/longitude co-ordinates, collected for use under the harvest logbooks for shellfish fisheries programs are used by DFO in the proper assessment, management and control of the fisheries. Upon receipt by DFO of harvest log data and/or fishing location information, supplied by the harvester in accordance with Conditions of License, Section 20(1)(b) of the Access to Information Act prevents DFO from disclosing to a third party records containing financial, commercial, scientific or technical information that is confidential information. Further, Section 20(1)(c) of the Act prevents DFO from giving out information, the disclosure of which could reasonably be expected to prejudice the competitive position of the license holder.

Fish (Sales) Slip Requirements

An accurate written report shall be submitted by the vessel master on a fish slip of all fish and shellfish caught. A written report must be submitted even if the fish and shellfish landed are used for bait, personal consumption, or otherwise disposed. The written report shall be posted not later than seven days after the offloading and sent to:

Fisheries and Oceans Canada
Fisheries Management Branch, Regional Data Unit
200 - 401 Burrard St.
Vancouver, B.C. V6C 3S4

Fish slips may be downloaded and printed or may also be ordered from the printer at user cost at:
http://dfo-mpo.gc.ca/fisheries-peches/sdc-cps/fishslips-carnets/index-eng.html

Phone (604) 666-2716 for more information.

9.9 Sea Cucumber Fishing Opportunity

9.9.1 Sea Cucumber Fishing Area

Sea Cucumber may be harvested within the CDA within the following QMAs

QMA 24A North Clayoquot: Subareas 24-4 to 24-6 and 24-14.

QMA 24B South Clayoquot: Subareas 24-7, 24-10.

QMA 25A Nootka/Tahsis: Subareas 25-6, 25-8, 25-9, 25-12 and 25-15.

QMA 25B Muchalat/Tlupana: Subareas 25-1 to 25-5.

9.9.2 Conservation Measures

The Sea Cucumber by Dive fishery will be conducted in a manner consistent with current conservation-related requirements applicable in the general commercial Sea Cucumber by dive fishery. This includes controlling harvest by adhering to both the individual quota assigned to the licence and to Quota Management Area (QMA) quotas and prohibiting fishing in times and areas closed for conservation purposes.

9.9.3 Fishery Access and Allocation

The Five Nations fishery allocation for sea cucumber in this FMP will be outlined in Table 3 in Section 6.2.3. Additional discussions are required with the Five Nations on this opportunity.

9.9.4 Open times

The sea cucumber season occurs for approximately an 8 week period from October to December when product quality is highest.

9.9.5 Gear

Handpicking by SCUBA diving will be the only gear permitted on participating vessels. Harvesters must have a valid commercial dive certification or a Worker’s Compensation Board Seafood Harvesting Diving Certificate.

9.9.6 Species-specific measures

Management control measures will include:

The number of vessels authorized to participate in the fishery is under discussion with DFO and the Five Nations. The Five Nations allocation will be distributed between the authorized vessels.

Area quotas: The service provider will coordinate harvest activities with the general commercial fishery to ensure that each QMA quota is not exceeded.

Fishing multiple QMAs: All Sea Cucumbers caught in a QMA must be landed or transshipped prior to the commencement of fishing in a new QMA in order to avoid over-harvest.

9.9.7 Fishery Monitoring and Catch Reporting

Requirements for the sea cucumber fishery include logbooks, harvest charts that indicate harvest locations, 100% hail and dockside monitoring for all vessels participating in the fishery. This enables confirmation of all catch and fishing area, and facilitates on-water spot checks.

Harvest Logbooks and fish slips: Harvesters participating in the fishery will be individually accountability for all catch and economic value through the requirement to submit individual logbooks and fish slips from all fishing, directly to DFO following each fishing trip, or via the service provider. The logbooks will contain the information required by DFO's Shellfish Data Unit (as outlined in the Sea Cucumber by Dive Integrated Fisheries Management Plan) and will be supplied by the service provider.

Harvest location: Participants will be required to provide accurate harvest location by providing the latitude/longitude of each harvest location in the harvest logbook and by recording the harvest location on a harvest chart. Harvest charts will be supplied by the service provider.

Oral Reports (Hails): Participants will be required to hail out before commencing fishing. Hail out information will be provided to DFO to facilitate compliance, enforcement, and monitoring. Predefined landing sites and times will be established to organize dockside monitoring and manage its costs. All participants will be required to obtain a landing slip and sales slip in order to retain or sell any fish caught in the fishery.

Validation of catch: Independent dockside monitoring will be required for all landed catch for sale.

a. All Sea Cucumbers harvested or removed from the sea bed floor must be validated by a Fisheries and Oceans Canada certified observer at the point and time the Sea Cucumbers are landed, to track daily harvests and ensure that area quotas are not exceeded.

b. At the first point of offloading, all Sea Cucumbers will be weighed with a government certified scale, by a Fisheries and Oceans certified observer, and the weight entered on the Validation and Harvest log.

10 PERFORMANCE REVIEW OF FIVE NATIONS' RIGHT-BASED SALE FISHERY

The Department intends to work collaboratively with the Five Nations and stakeholders to review the performance of this management plan and associated management measures in the post-season and discuss potential adjustments for subsequent years.

This is the third multi-species FMP and DFO expects there may be a need for management adjustments in subsequent years to satisfy the implementation of the right.

DFO also seeks to examine and evaluate the approaches taken through the lens of predictability, practicality and whether the implementation of the right was satisfied, including but not limited to:

1. *Collecting and analyzing essential fishery data, including level of participation, level of effort, catch, and other key parameters necessary for building understanding regarding the management of the fishery.*
2. *Examining appropriate approaches to collecting and analyzing fishery data.*
3. *Testing new techniques and technologies, for various parameters of fishery management.*
4. *Evaluating the performance of the multi-species fishery including the objective of achieving wide community participation.*

11 ENFORCEMENT AND COMPLIANCE

DFO is responsible for, and will carry out enforcement and compliance activities throughout the season. This fishery will be licensed based on this FMP.

Once an Enforcement and Compliance Protocol has been agreed to, it may support on-going enforcement and collaborative compliance activities.

It is anticipated that the Joint Enforcement Working Group will continue engaging on enforcement and compliance issues.

12 FISHING VESSEL SAFETY

Vessel owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, prevent vessel damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), WorkSafeBC, and other applicable agencies. Vessels subject to inspection should ensure that the certificate of inspection is valid for the area of intended operation.

In the federal government, responsibility for shipping, navigation, and vessel safety regulations and inspections lies with TC; emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. The Transportation Safety Board is an independent agency that advances transportation safety by investigating selected occurrences in the air, marine, pipeline and rail modes of transportation including fishing vessel occurrences. In BC, WorkSafeBC exercises jurisdiction over workplace health and safety and conducts

inspections on commercial fishing vessels in order to ascertain compliance with the Workers Compensation Act (WCA) and the Occupational Health and Safety Regulation (OHSR).

Before departing on a voyage the master or operator must ensure that the fishing vessel is capable of and safe for the intended voyage and fishing operations. Critical factors for a safe voyage include the seaworthiness of the vessel, having the required personal protective and life-saving equipment in good working order, adequate number of properly trained crew, and knowledge of current and forecasted weather conditions. As safety requirements and guidelines may change, the vessel owner, crew, and other workers must be aware of the latest legislation, policies and guidelines prior to each trip. There are many useful tools available for ensuring a safe voyage. These include:

- Education and training programs
- Marine emergency duties training
- Fish Safe – Stability Education Program & 1 Day Stability Workshop
- Fish Safe – SVOP (Subsidized rate for BC commercial fishers provided) Fish Safe – Safest Catch Program – FREE for BC commercial fishers
- First Aid training
- Radio Operators Course (Subsidized rate for BC commercial fishers provided)
- Fishing Masters Certificate training
- Small Vessel Operators Certificate training
- Publications:
    - Transport Canada Publication TP 10038 Small Fishing Vessel Safety Manual (can be obtained at Transport Canada Offices from their website at: http://www.tc.gc.ca/eng/marinesafety/tp-tp10038-menu-548.htm
    - Amendments to the Small Fishing Vessel Inspection Regulations (can be obtained from: http://www.gazette.gc.ca/rp-pr/p2/2016/2016-07-13/html/sor-dors163-eng.php)
    - Gearing Up for Safety – WorkSafeBC
    - Safe At Sea DVD Series – Fish Safe
    - Stability Handbook – Safe at Sea and Safest Catch – DVD Series
    - Safest Catch Log Book
    - Safety Quick

For further information see:

Marine transportation (canada.ca)

www.fishsafebc.com

www.worksafebc.com

Marine transportation safety investigations and reports - Transportation Safety Board of Canada (tsb.gc.ca)

Note that the full Fishing Vessel Safety appendix can be found in the IFMPs for salmon, groundfish, crab and prawn.

13 CONSULTATION

DFO undertakes consultations on the FMP with the Five Nations, other First Nations and stakeholders.

Consultations on the 2021/22 FMP began with technical post-season meetings with the Five Nations in November 2020 (November 10 and 13, 2020) and pre-season meetings in December 2020 (December 14 and 15, 2020). A working copy of the FMP in Track Changes was sent to the Five Nations on December 4, 2020. Written feedback on the draft FMP was received from the Five Nations on January 21, 2021.

The public draft of the FMP was released on February 1, 2021 with a deadline for comments by March 1, 2021. DFO met with the Area G Harvest Committee upon request on February 25, 2021. No other meetings within the public consultation period were requested.

Consultations also included the exchange of written correspondence (letters and emails) with the Five Nations following the 2020/21 FMP.

DFO and Five Nations technical representatives will continue to meet on a regular basis during the 2021/22 fishing season to plan, implement and review the fisheries identified in the FMP.

14 APPENDICES

1. Total Commercial Fishing Access Provided in 2021 to the Five Nations

APPENDIX 1: TOTAL COMMERCIAL FISHING ACCESS PROVIDED IN 2021 TO THE FIVE NATIONS

Additional Commercial Fisheries Access Available in 2021

The tables below summarize the commercial fishing licences and quota available to the Five Nations, on top of the fishing opportunities that DFO is providing under the 2021-2022 FMP. DFO views this access as contributing to the accommodation of the Five Nations' rights.

Table 1
Non-FMP Commercial Fishing Licences Available to the Five Nations in 2021 (in addition to harvesting opportunities under 2021 FMP)

Licence Distribution - All Programs*			
Licence Type	**Only available outside the FMP in 2021**	**Chosen by Five Nations to be outside the FMP in 2021 ****	**Total**
Clam	123		123
Crab		**2**	2
Geoduck	0.29		0.29
Halibut	19		19
Herring Gillnet	55		55
Herring Seine	1		1
Herring Spawn on Kelp	2		2
Oyster	5		5
Prawn	1	**4**	5
Red Sea Urchin	5		5
Green Sea Urchin	1		1
Rockfish	10		10
Sablefish	1		1
Salmon Gillnet		**3**	3
Salmon Seine		**1**	1
Salmon Troll		**5**	5
Sardine	5		5
Sea Cucumber		**TBD**	TBD
Schedule II	3		3
Shrimp	1		1
Total			**247.29**

*Where commercial fishing licences are provided to an aggregate that includes Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht or Tla-o-qui-aht, those licences are divided equally among the individual First Nations for the purpose of calculating the number of commercial fishing licences available to Five Nations. This calculation results in the fractions of

licences presented. Table 1 no longer includes access held by the Mowachaht/Muchalaht through the Nuu-chah-nulth Seafood Limited Partnership (NSLP); the Nation withdrew from this PICFI CFE.

** These licences were chosen by the Five Nations to be fished outside the FMP in 2021.

Table 2
Commercial Invertebrate Access Available to the Five Nations in 2021

Species	Area	Allocation
Geoduck	-	0.519481%

Table 3
Non-FMP Commercial Groundfish Access Available to the Five Nations in 2021 (in addition to harvesting opportunities under 2021 FMP)

Species	Area	**Allocation (ITQ %) by sector****				
		Dogfish	Lingcod	Rockfish outside	Sablefish	Halibut
Halibut*	Coastwide	-	-	-	-	0.9199%
Sablefish	Coastwide	-	-	-	2.4566%	-
Spiny Dogfish	3C/D, 5A/B/C/D/E	0.9265%	-	-	-	-
	4B	0.0000%	-	-	-	-
Big Skate	3C/D	0.9265%	-	1.0471%	1.6813%	0.9199%
	5A/B	1.0932%	-	5.2356%	2.4566%	2.0019%
	5C/D/E	1.0932%	-	5.2356%	2.4566%	2.0019%
Longnose Skate	3C/D	0.9265%	-	1.0471%	1.6813%	0.9199%
	5A/B	1.0932%	-	5.2356%	2.4566%	2.0019%
	5C/D/E	1.0932%	-	5.2356%	2.4566%	2.0019%
Lingcod	3C	-	1.1133%	-	-	-
	3D	-	0.9863%	-	-	-
	5A/B	-	0.0000%	-	-	-
	5C/D/E	-	0.0000%	-	-	-
Canary rockfish	3C/D	-	-	1.0471%	-	0.9199%
	5A/B	-	-	5.2356%	-	2.0019%
	5C/D	-	-	5.2356%	-	2.0019%
	5E	-	-	5.2356%	-	2.0019%
Silvergray rockfish	3C/D	-	-	1.0471%	-	0.9199%
	5A/B	-	-	5.2356%	-	2.0019%
	5C/D	-	-	5.2356%	-	2.0019%
	5E	-	-	5.2356%	-	2.0019%
Yelloweye rockfish	3C/D, 5A	-	-	0.0000%	-	0.0000%
	5B	-	-	5.2356%	-	2.0019%
	5C/5D	-	-	5.2356%	-	2.0019%
	5E	-	-	5.2356%	-	2.0019%
	4B	-	-	-	-	-
Quillback rockfish	3C/D, 5A	-	-	1.0471%	-	0.9199%
	5B	-	-	5.2356%	-	2.0019%
	5C/5D	-	-	5.2356%	-	2.0019%

Species	Area	Allocation (ITQ %) by sector**				
		Dogfish	Lingcod	Rockfish outside	Sablefish	Halibut
	5E	-	-	5.2356%	-	2.0019%
	4B	-	-	-	-	-
Copper, China, and Tiger rockfish	3C/D, 5A	-	-	1.0471%	-	0.9199%
	5B	-	-	5.2356%	-	2.0019%
	5C/5D	-	-	5.2356%	-	2.0019%
	5E	-	-	5.2356%	-	2.0019%
	4B	-	-	-	-	-
Rougheye/ Blackspotted rockfish	3C/D, 5A/B	-	-	1.0471%	-	0.9199%
Rougheye/ Blackspotted rockfish	5C/D/E			5.2356%	-	2.0019%
Shortraker rockfish	Coastwide	-	-	1.0471%	-	0.9199%
Shortspine thornyheads	Coastwide	-	-	1.0471%	-	0.9199%
Redbanded rockfish	Coastwide	-	-	1.0471%	-	0.9199%

*The units of Pacific Halibut weight are reported as fresh, dress, head-off (net) pounds. All other units are fresh, round pounds.

** Some of which is only available outside the FMP and some of which is chosen by the Five Nations to be outside the FMP