# PACIFIC REGION

# INTEGRATED FISHERIES MANAGEMENT PLAN

# PACIFIC OYSTER

*(Crassostrea gigas)*

# MARCH 1, 2023 TO FEBRUARY 29, 2024

Fisheries and Oceans Canada | Pêches et Océans Canada

Canada

*This Integrated Fisheries Management Plan is intended for general purposes only. Where there is a discrepancy between the Plan and the Fisheries Act and Regulations, the Act and Regulations are the final authority. A description of Areas and Subareas referenced in this Plan can be found in the Pacific Fishery Management Area Regulations.*

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## FOREWORD

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the Pacific Oyster fishery in the Pacific Region, as well as the management measures that will be used to achieve these objectives. This document also serves to communicate the basic information on the fishery and its management to Fisheries and Oceans Canada (DFO, the Department) staff, legislated co-management boards and other stakeholders. This IFMP provides a common understanding of the basic "rules" for the sustainable management of the fisheries resource.

This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the *Fisheries Act.* The Minister can, for reasons of conservation or for any other valid reason, modify any provision of the IFMP in accordance with the powers granted pursuant to the *Fisheries Act*.

Where DFO is responsible for implementing obligations under land claims agreements, the IFMP will be implemented in a manner consistent with these obligations. In the event that the IFMP is inconsistent with obligations under land claims agreements, the provisions of the land claims agreements will prevail to the extent of the inconsistency.

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# 1. OVERVIEW

## 1.1 Introduction

This IFMP for Pacific Oysters covers the period March 1, 2023 to February 29, 2024.

The IFMP provides a broad context to the management and inter-relationships of all fishing sectors. Appendices 1 through 3 contain the information for the commercial, First Nations, and recreational harvest plans.

## 1.2 Commercial Fishery History

The Pacific Oyster is a non-indigenous species purposely introduced into British Columbia starting around 1912 for aquaculture production on licensed tenured aquaculture sites. Introductions continued over the decades, and successful reproduction events onto non-tenured wild foreshore beaches were reported beginning in the early to mid-1900s. Prior to 2012, commercial harvest opportunities for Pacific Oysters on untenured foreshore had been managed by the Province of British Columbia Ministry of Agriculture, Food and Fisheries ("the Province") through a Memorandum of Understanding with the Federal Government. This was due to the direct connection between harvest on non-tenured lands and aquaculture activities managed by the Province. As a result of the 2009 *Morton v. British Columbia (Agriculture and Lands)* decision, where aquaculture was deemed to be a fishery that must be managed by the Federal government, both governments agreed that it would be prudent for Fisheries and Oceans Canada to assume management responsibility of the Pacific Oyster fishery beginning in 2012.

Past commercial harvest opportunities under Provincial management have averaged 40-60 participants annually over the last ten years with a total allowable catch in 2011 of 417 tonnes. During the 2012 and 2013 season, DFO continued the Provincial management model while the transition was underway and the Department consulted and decided upon the future management and assessment frameworks for the fishery. A precautionary total allowable harvest of 155 tonnes (in 2012), and 200 tonnes (in 2013) was provided.

In October 2013 the Department announced future licence eligibility limitation for the commercial Pacific Oyster fishery. Past commercial licence holders having held a licence in at least one year during the period of 2009-2013 were able to apply for an opportunity to establish permanent eligibility (ZWO licence). As part of this process the Department also created 20 new communal commercial licences (FZWO licence) for First Nations. A total of 55 ZWO licences, and 20 FZWO licence eligibilities were established for the 2014 fishing season. One additional ZWO licence eligibility was authorized by the Minister in 2015 following an appeal process. Along with licence limitation, in 2014 the Department announced new assessment and monitoring requirements for the commercial fishery.

As of 2022, five commercial ZWO licences were relinquished/retired due to inactivity and non-payment of licence fees. There are currently 51 regular commercial ZWO licences, and 20 communal commercial FZWO licences.

## 1.3 Type of Fishery and Participants

### 1.3.1 First Nations

Fish and marine resources are central to the culture, society, well-being, and economy of First Nations and provide a critical connection to language, traditional knowledge, and health of communities. Fisheries & Oceans Canada (DFO) remains committed to respecting First Nations' Aboriginal right to fish for food, social and ceremonial (FSC) purposes, or domestic purposes under Treaty which has priority – after conservation – over other users of the resource. Indigenous harvest of oysters for food, social and ceremonial (FSC) or domestic purposes may occur year round in the waters of British Columbia that are open for fishing under the Canadian Shellfish Sanitation Program (CSSP). This harvest must be authorized by a communal licence.

**Nisga'a Domestic Fishing** - The Harvest agreement for domestic (FSC) purposes under the Nisga'a Final Agreement (Treaty) came into effect on May 11, 2000. The Nisga'a territory is located within the Nass River valley on the northwest coast of British Columbia. More information on the Treaty and the Nisga'a annual fishing plan can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100030588/1542730442128

**Tsawwassen Domestic Fishing** - The Tsawwassen fishery for domestic (FSC) purposes under the Tsawwassen Final Agreement (Treaty) came into effect on April 3, 2009. The Tsawwassen First Nation is located in the lower mainland near the city of Vancouver, and their territory spans portions the Strait of Georgia near the mouth of the Fraser River as well as portions of the lower Fraser River and Boundary Bay. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100022706/1617737111330

**Maa-nulth Domestic Fishing** - The Maa-nulth First Nations fishery for domestic (FSC) purposes under the Maa-nulth First Nations Final Agreement (Treaty) came into effect on April 1, 2011. The Maa-nulth First Nations comprise five individual First Nations; Huu-ay-aht First Nations, Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nations, Toquaht Nation, Uchucklesaht Tribe and the Yuułuʔiłʔatḥ First Nation on the west coast of Vancouver Island. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100030588/1542730442128

**Tla'amin Domestic Fishing** - The Tla'amin fishery for domestic (FSC) purposes under the Tla'amin Final Agreement (Treaty) came into effect on April 5, 2016. The Tla'amin Nation is located near the city of Powell River, 130 km northwest of Vancouver. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1397152724601/1542999321074

Five Nuu-chah-nulth First Nations located on the west coast of Vancouver Island - Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht (the Five Nations) – have Aboriginal rights to fish for any species, with the exception of Geoduck, within their Fishing Territories and to sell that fish. The Department has developed a

2022/23 Five Nations Multi-species Fishery Management Plan (FMP). The FMP includes specific details about the fishery, such as allocation/access, licensing and designations, fishing area, harvesting opportunities, and fishery monitoring and catch reporting. Feedback provided by the Five Nations during consultations was considered and incorporated into the 2022/23 FMP by DFO where possible.

The implementation of the Five Nations' right-based sale fishery continues to be an ongoing process. The 2022/23 FMP is the fourth Multi-Species FMP developed to implement the right-based multi-species fishery to accommodate the Five Nations' Aboriginal rights consistent with the British Columbia Supreme Court's 2018 decision. Version 2 of the 2021 FMP, issued on December 2, 2021, was the first Multi-Species FMP developed following the British Columbia Court of Appeal (BCCA) decision of April 19, 2021, in *Ahousaht Indian Band and Nation v. Canada*, 2021 BCCA 155, but it only partially implemented it. The 2022/23 FMP addresses most of the remaining issues raised by the BCCA decision, leaving some items left to review. It is DFO's intention to continue to review the FMP and make further changes in-season and amend the FMP if required.

For further information, the 2022/23 FMP may be obtained online at: https://waves-vagues.dfo-mpo.gc.ca/Library/41047977.pdf

### 1.3.2 Recreational

The recreational fishery for oysters occurs year-round in the tidal waters of British Columbia except those areas that are closed to fishing. Fishing closures are put in place for various reasons often related to concerns for public health and safety. Information on recreational fishing is provided online at http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.html. A British Columbia Tidal Waters Sport Fishing Licence is required for the recreational harvest of all species of fish including shellfish. Tidal Waters Sport Fishing licences may be purchased online at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/application-eng.html

### 1.3.3 Commercial

Pacific Oysters (*Crassostrea gigas*) are harvested commercially in the southern waters of British Columbia that are open for fishing under the CSSP. Licences are limited entry, with 51 current regular ZWO commercial licences, and 20 FZWO communal commercial licence eligibilities.

First Nations have communal access to commercial opportunities through communal commercial licences acquired through the Allocation Transfer Program (ATP). The five First Nations of the Maa-nulth Treaty Society have been provided with a total of five (5) communal commercial licences outside of the Treaty, and outside of the "Maa-nulth First Nation Harvest Agreement". These licences are fished in a manner that is comparable to the general commercial fishery.

### 1.3.4 Aquaculture

The Pacific Oyster is the most widely cultured oyster in the world, and in British Columbia. Licences to cultivate Pacific Oysters in British Columbia are administered by Fisheries and Oceans Canada as authorized through the *Pacific Aquaculture Regulations* (PAR). In British Columbia, provincial legislation manages the leasing of aquaculture site tenures. There are approximately 460 shellfish aquaculture facilities licensed to culture Pacific Oyster in British Columbia. This represents 96% of the shellfish aquaculture sector.

Oyster farmers need a reliable source of seed or spat. Oyster farmers in British Columbia mainly purchase seed from hatcheries, while Atlantic Canada has been using "spat collectors" since the 1950s to culture seed. When the oysters are ready for grow-out, they are spread onto beaches or placed in suspension culture systems. Suspension systems can be floating rafts, floating bags, bags in cages, trays, or bags on racks or tables. Held in suspension, oysters grow more rapidly and develop plumper meats because the water circulation increases the availability of food.

**Harvesting on Aquaculture Facilities**

Licensed aquaculture facilities are considered private property. Under the *Fisheries Act*, fishing within an aquaculture facility already under federal licence (PAR aquaculture licence) is prohibited unless otherwise permitted by the occupant under the licence. The Department recommends that commercial and recreational harvesters familiarize themselves with the location of aquaculture facilities in fishing areas and that permission is sought from the aquaculture licence holders for access.

**Regulatory Regime**

In December 2010 the *Pacific Aquaculture Regulations* (PAR) came into effect, giving DFO the authority to govern the management and regulation of aquaculture activities at marine finfish, shellfish, freshwater/land-based and enhancement facilities. The Province of British Columbia continues to have authority over land tenures and workplace safety related to aquaculture in BC. New applications, amendments and related referrals are coordinated through Front Counter BC. More information is available on the BC government's website: http://www.frontcounterbc.gov.bc.ca/. DFO assesses, makes decisions and issues aquaculture licences.

DFO requires comprehensive environmental monitoring to be undertaken by the marine finfish industry, and the Department also conducts additional monitoring, audits, and investigations (where warranted). Public reporting is undertaken to ensure the transparency and accountability of the management of aquaculture in BC. Associated reporting can be found on the DFO web pages: http://www.pac.dfo-mpo.gc.ca/aquaculture/reporting-rapports/index-eng.html.

Within the BC Aquaculture Regulatory Program, there is a Compliance and Enforcement Unit dedicated to aquaculture compliance, as well as an Aquaculture Environmental Operations Unit, which monitors the activities of industry on an on-going basis. The

Program provides oversight and works to ensure the orderly management of the industry, including planning and licensing, linkages with national and regional policy, as well as consultation and communications. Contact information for staff with responsibilities related to aquaculture management within DFO can be found in the Departmental Contacts section of this plan.

**Integrated Management of Aquaculture Plans**

Integrated Management of Aquaculture Plans (IMAPs) provide an overview of each aquaculture sector and associated management and regulation. https://www.pac.dfo-mpo.gc.ca/aquaculture/regs-eng.html#management. IMAPs are available on the DFO Consultations web pages: IMAPs complement IFMPs and the two are reviewed periodically to ensure consistency of management approaches.

**Aquaculture Management Advisory Committees**

Aquaculture Management Committee Meetings (AMACs) engage the aquaculture industry, First Nations, and other stakeholders in development of IMAPs and on-going feedback relevant to the management of Aquaculture. Information relating to AMAC meetings is posted on the DFO Consultations web pages: http://www.pac.dfo-mpo.gc.ca/consultation/aquaculture/index-eng.html. Meetings are open to the public.

More information on IMAPs and AMACs is available through IMAPS@dfo-mpo.gc.ca.

## 1.4 Location of Fishery

### 1.4.1 First Nations and Recreational

Indigenous and recreational harvest may occur in areas approved for harvest under the CSSP and authorized under either a communal licence, Harvest Document, or recreational licence. The British Columbia coast north of Cape Caution (Areas 1 to 11 inclusive) is closed for the harvest of bivalves, unless the appropriate testing is in place to ensure safe harvest. Several First Nations and some commercial interests have established the necessary sampling required for small-scale harvest openings for all three sectors. See the DFO website for sanitary and biotoxin closures at: http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

### 1.4.2 Commercial

The current commercial fishery occurs within the south coast of British Columbia mainly along the mid portions of the east and west sides of Vancouver Island. Commercial harvest sites are divided into two licence areas, West Coast Vancouver Island (WCVI)

and East Coast Vancouver Island (ECVI).

### 1.4.3. Aquaculture

The Pacific Oyster aquaculture fishery is licensed throughout British Columbia, however ~60% of the oyster culture occurs within in the Strait of Georgia and on the West Coast of Vancouver Island.

## 1.5 Fishery Characteristics

### 1.5.1 First Nations

First Nations' harvest for FSC or domestic purposes may be open year round, subject to available sanitary and biotoxin contamination sampling and results, and is limited to the gear specified for bivalve harvest in the communal licence or Harvest Documents. Harvest should occur in waters that are classified as Approved by the Canadian Shellfish Sanitation Program, as per the *Safe Food for Canadians Regulations*. Approved areas are indicated in green on the maps found at: www.dfo-mpo.gc.ca/CheckBeforeYouHarvest.

Commitment to Reconciliation:

DFO is committed to the recognition and implementation of Indigenous and treaty rights related to fisheries, oceans, aquatic habitat, and marine waterways in a manner consistent with section 35 of the *Constitution Act, 1982*, the United Nations Declaration on the Rights of Indigenous peoples, *the United Nations Declaration on the Rights of Indigenous Peoples Act*, and the federal Principles Respecting the Government of Canada's Relationship with Indigenous peoples. DFO-CCG Reconciliation Strategy provides a guidance document to better understand why and how reconciliation informs the work of the Department.

For further details on the United Nations Declaration on the Rights of Indigenous peoples see https://www.justice.gc.ca/eng/declaration/index.html

For further details on the *United Nations Declaration on the Rights of Indigenous Peoples Act* see https://laws-lois.justice.gc.ca/eng/acts/u-2.2/

For further details on the Principles Respecting the Government of Canada's Relationship with Indigenous peoples see https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html

DFO's Reconciliation Strategy can be found at https://www.dfo-mpo.gc.ca/fisheries-peches/aboriginal-autochtones/reconciliation-eng.html

For further details on reconciliation in British Columbia and Yukon, refer to https://www.pac.dfo-mpo.gc.ca/abor-autoc/reconciliation-pacific-pacifique-eng.html

Information on Indigenous fisheries and reconciliation is available at: http://www.pac.dfo-mpo.gc.ca/abor-autoc/index-eng.html

Information on the Government of Canada work to advance reconciliation can be found here: https://www.rcaanc-cirnac.gc.ca/eng/1400782178444/1529183710887

Fish and marine resources are central to the culture, society, and well-being of First Nations and provide a critical connection to language, traditional knowledge, economies and health of communities.

**FSC Fisheries**

Fisheries & Oceans Canada (DFO) remains committed to respecting First Nations' Aboriginal right to fish for food, social and ceremonial (FSC) purposes, or domestic purposes under Treaty which has priority – after conservation – over other uses of the resource.

Section 35(1) of the *Constitution Act* recognizes and affirms the existing Aboriginal and Treaty rights of the Aboriginal Peoples in Canada. However, it does not specify the nature or content of the rights.. In 1990, the Supreme Court of Canada issued a landmark ruling in the *Sparrow* decision which found that the Musqueam First Nation has an Aboriginal right to fish for food, social and ceremonial (FSC) purposes. The Supreme Court found that where an Aboriginal group has a right to fish for FSC purposes, it takes priority, after conservation, over other uses of the resource. The Supreme Court has also indicated the duty to consult with Aboriginal Peoples when their fishing rights might be affected.

The Aboriginal Fisheries Strategy (AFS) was implemented in 1992 to address several objectives related to First Nations and their access to the resource. These included:

- Improving relations with First Nations
- Providing a framework for the management of the First Nations fishery in a manner that was consistent with the Supreme Court of Canada's 1990 *Sparrow* decision
- Greater involvement of First Nations in the management of fisheries
- Increased participation in commercial fisheries (Allocation Transfer Program (ATP))

AFS continues to be one of the principal mechanisms – in addition to Treaties and reconciliation agreements - to support the development of relationships with First Nations including the consultation, planning and implementation of fisheries, and the development of capacity to undertake fisheries management, stock assessment, enhancement and habitat protection programs.

**Five Nations Right-Based Sale Fishery**

Five Nuu-chah-nulth First Nations located on the west coast of Vancouver Island - Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht (the Five

Nations) – have an Aboriginal right to fish for any species, with the exception of Geoduck, within their fishing territories and to sell that fish. See Section 1.3.1.

### 1.5.2 Recreational

The recreational fishery may be open year round, subject to available sanitary and biotoxin contamination sampling and results, and is limited to hand picking. Harvest should occur in waters that are classified as Approved by the Canadian Shellfish Sanitation Program, as per the *Safe Food for Canadians Regulations*. Approved areas are indicated in green on the maps found at www.dfo-mpo.gc.ca/CheckBeforeYouHarvest.

### 1.5.3 Commercial

The commercial licence year runs from March 1, 2023 to February 29, 2024 for this season. The actual commercial fishery opening time is scheduled to run from March 1, 2023 to June 30, 2023; and then re-open again from September 10, 2023 to December 31, 2023; but may vary during that timeframe based on sanitary and biotoxin contamination conditions and quota harvest completion. The Department may consider modifications to these dates in-season due to unforeseen circumstances. Official opening and closing dates are announced by fishery notice and are available through the DFO website.

The fishery operates under a Total Allowable Catch (TAC) and individual licence quotas.

## 1.6 Governance

The Pacific Oyster fishery is governed by the *Fisheries Act* (R.S., 1985, c. F-14) and regulations made thereunder, including the *Fishery (General) Regulations* (e.g., conditions of licence), the *Pacific Fishery Regulations* (e.g., open times), the *British Columbia Sport Fishing Regulations*, the *Aboriginal Communal Fishing Licences Regulations*, the *Management of Contaminated Fishery Regulations* and the *Pacific Aquaculture Regulations*. Areas and Subareas are described in the *Pacific Fishery Management Area Regulations*.

These documents are available at: https://www.dfo-mpo.gc.ca/acts-lois/index-eng.htm

In addition, the national Sustainable Fisheries Framework (SFF) contains policies for adopting an ecosystem-based approach to fisheries management including:

- A Fishery Decision-Making Framework Incorporating the Precautionary Approach;
- Managing Impacts of Fishing on Benthic Habitat, Communities and Species; and
- Policy on New Fisheries for Forage Species.

Along with existing economic and shared stewardship policies, these help the department meet objectives for long-term sustainability, economic prosperity, and improved governance.

Scientific advice for this fishery is peer-reviewed through a committee called Fisheries and Oceans Canada's Centre for Science Advice Pacific (CSAP), formerly the Pacific Region Scientific Advice Review Committee (PSARC).

DFO engages in a variety of consultation, engagement and collaborative harvest planning processes with First Nations. These exchanges and involvement may include bilateral consultations, advisory processes, management boards, technical groups and other roundtable forums. Consultation is an important part of good governance, sound policy development and decision-making. It is also a component of modern treaties established between First Nations and the provincial and federal governments. In addition to good governance objectives, Canada has statutory, contractual, and common law obligations to consult with Indigenous groups.

### 1.7 Approval Process

The Regional Director General for the Pacific Region approves this plan.

## 2. STOCK ASSESSMENT AND SCIENCE

### 2.1 Biological Synopsis

The Pacific Oyster, *Crassostrea gigas* (Thunberg 1793) is a non-indigenous species introduced to B.C. for aquaculture purposes (Quayle 1964, 1969, 1988; Gillespie et al. 2012). Its native range is from Sakhalin Island and coastal Russia through Japan to Kyushu, China, Korea, Southeast Asia and Pakistan (Coan et al. 2000). They have been introduced and have established populations in many countries worldwide (Ruesink et al. 2005, Gillespie et al. 2012).

The Pacific Oyster was introduced extensively on the west coast of North America in the early 1900s, and was first brought into B.C. in 1912 or 1913 (Bourne 1979, Gillespie et al. 2012). Small-scale introductions continued and large-scale importation of seed oysters began in 1925. Successful reproduction was reported in Ladysmith Harbour in 1925, 1926 and 1932, followed by successful dispersal beyond the harbour in 1936 (Elsey 1932, 1934; Elsey and Quayle 1939; Quayle 1964, 1969, 1988; Bourne 1979). Widespread reproductive success was reported in 1942, 1958 and 1961 resulting in the establishment of Pacific Oysters throughout the Strait of Georgia. They were transplanted to the west coast of Vancouver Island (Esperanza Inlet; Barkley, Clayoquot and Kyuquot Sounds) in 1937 and they are now established in suitable habitats on the west coast of Vancouver Island south of Brooks Peninsula (Gillespie 2007; Gillespie et al. 2012). There is also confirmed reproductive success of Pacific Oysters in Skidegate Inlet, Haida Gwaii (Sloan et al. 2001; Gillespie et al. 2012) and reported occurrence of natural-set Pacific Oysters from Tasu Sound on the west coast of Haida Gwaii (Gillespie, unpublished data).

Pacific Oysters are protandric hermaphrodites, initially spawning as males and then may become females during the winter season (Gillespie et al. 2012). They are broadcast spawners with a pelagic larval period of 3-4 weeks depending on temperature (Gillespie et

al. 2012). Their natural distribution in B.C. is limited to locations with warmer water temperatures that are required to stimulate gonadal development, spawning and the metamorphosis of larvae. Although spawning can occur at temperatures between 16-34°C and salinities ranging from 10-42 ppt., temperatures of 20-25°C and salinities of 35 ppt. are considered optimal (Gillespie et al. 2012). However, the range of Pacific Oysters can be expanded by manual introduction to microhabitats. Adults are sessile and the only exchange between sites is through larval transport or human intervention. Adults grow relatively quickly in the first few years after settlement and growth slows with maturity and senescence.

Longevity and age structure of populations are not documented due to difficulties in establishing aging methods and criteria. Methods for aging Pacific Oysters have been tested on Pacific Oysters in China (Harding and Mann 2006), but these methods still need to be tested for the Pacific Oysters in B.C. Both the literature and local knowledge suggest that Pacific Oysters can live for decades (Quayle 1988, Pauley et al. 1988).

Pacific Oyster populations in B.C. generally occur in mid to high intertidal zones on hard substrates (Bourne 1979, Ruesink et al. 2005) but can vary depending on the environmental conditions of the site. Fishers have noted that Pacific Oysters are lower in the intertidal zone on the west coast of Vancouver Island. A preferred settlement substrate is oyster shell, and large aggregations form if populations are not disturbed. Under appropriate conditions they can form reefs on gravel banks at the tidal mouths of small streams (Gillespie et al. 2012). Harvestable populations of Pacific Oysters may be present on bedrock walls and outcrops where successful larval recruitment occurs on a regular basis.

In all but a few locations in B.C., successful recruitment on a large scale is sporadic. Pacific Oyster populations can exhibit local recruitment events that will sustain populations for a number of years. However, populations can become ephemeral if larval recruitment is irregular.

## 2.2 Ecosystem Interactions

Ecosystem considerations in the fisheries include:

- Avoiding the retention of Olympia Oysters (listed as Special Concern under the *Species At Risk Act*) as potential bycatch while harvesting Pacific Oyster shells.

- Ensuring that discards of other species have the ability to re-establish once discarded.

- Ensuring there are minimal benthic impacts to beaches from the collecting activities as these are highly dynamic environments.

- Expanding our knowledge of the role of Pacific Oysters in the intertidal ecosystem as it becomes available to add to the partial information on predator/prey interactions and environmental changes arising from human activities. It should be noted that information on biological components of primary and secondary productivity is currently limited.

## 2.3 Stock Assessment

A stock assessment protocol has been developed by DFO and provided to the commercial licence holders. Following beach biomass surveys, biomass estimates are calculated and used to help set future harvest quotas. Between 2014 and 2022, a number of biomass surveys were conducted at some of the existing commercial harvest sites on the coast, leading to the allocations available for 2023.

Survey work conducted by industry-funded biologists has completed partial biomass assessments at several harvest sites in recent years. Please see the table below.

| Survey Year | PFMA | Harvest Site/Beach |
|---|---|---|
| 2015 | 15, 16, 23 | Myrtle Rocks, Saltery Bay, Toquaht |
| 2016 | 15 | Stag Bay & Dog Bay (Hernando Island), Portion of Savary Island |
| 2017 | 15, 16, 23 | Atrevida Reef, Seaford, Storm Bay, Sechelt Inlet, Pipestem, Toquaht |
| 2018 | 15 | Savary Island |
| 2019 | 13, 15, 25 | Smelt Bay, Myrtle Rocks, Head Bay |
| 2020 (field season impacted by Covid-19 restrictions and limited safe work options) | 14 | Areas south of Comox Harbour |

DFO also worked with the Tla'amin First Nation in the summer of 2017, 2018, 2019, 2021, and 2022 and to conduct oyster surveys at Okeover Arm Provincial Park beach in PFMA 15-4.

## 2.4 Stock Scenarios

The current stock status in B.C. is unknown and is affected by extremely variable recruitment. However, a number of site specific biomass surveys have been conducted at several of the higher use areas in recent years. (See Table in 2.3).

## 2.5 Precautionary Approach

The Department follows the Sustainable Fisheries Framework (SFF), which 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. See Section 5.7.1 for additional information.

Pacific Oyster is considered to be data limited, and moving forward on establishing precautionary approach components would need to take place over several years.

## 2.6 Research

Research studies were conducted in 2012 to determine the best survey methods for Pacific Oysters. The results from this work were presented and accepted by the Canadian Science Advisory Secretariat (CSAS) in December 2012 (Norgard et al. 2014). This report was developed to assist potential harvesters in conducting surveys and data collection of wild Pacific Oysters on beaches in which discrete beds of oysters are found. Discrete beds are those where well defined beds of oysters can be visually determined on beaches. In general, Pacific Oyster populations may be found in discrete beds of single or clustered oysters loose on the surface of the beach or individual oysters cemented to hard substrate (large rocks or bedrock), including vertical surfaces. This protocol provides key guidance on sampling and data collection methodology, optimal quadrat size and sampling intensity for discrete oyster beds.

The recommendations from this work were:

- Stratified Random Sampling survey methods should be used on relatively high-density discrete beds. Formal adherence to randomization for locating quadrats prevents bias, allows established probability statistics to be used and improves defensibility of third-party or industry assessments.

- A quadrat size of no less than 75x75cm is required. Smaller quadrat sizes exhibited higher variance, more edge effect and appeared to be more affected by small-scale patchiness. Larger quadrat sizes did not exhibit these problems to the same degree, and the 75x75 cm quadrat size outperformed the 100x100cm quadrat in cost effectiveness (and to some extent in practicality).

- A sampling intensity of ten (10) quadrats per hectare with a minimum sample size of five (5) quadrats per stratum is recommended. This sampling intensity will be reviewed as more survey results become available.

A draft beach survey protocol was developed from this work and was distributed for review in 2014. This survey protocol describes the methods for survey and analysis of discrete oyster populations.

# 3. INDIGENOUS KNOWLEDGE

The term Indigenous knowledge may not be universally used, and other terms such as Indigenous Knowledge Systems, Traditional Knowledge, Traditional Ecological Knowledge, or Aboriginal Traditional Knowledge, which all convey similar concepts, may be used instead.

In 2019, the *Fisheries Act* was amended to include provisions for  where the Minister may, or shall consider Indigenous knowledge in making decisions pertaining to fisheries, fish and fish habitat. In 2019, the *Fisheries Act* was amended to include provisions for the where the Minister may or shall consider provided Indigenous knowledge in making decisions pertaining to fisheries, fish and fish habitat. Section 61 of the act ensures this knowledge is protected and can only be provided with consent. There are also provisions under the *Species At Risk Act* (s.10.2, s.15.2, s.16, s.18.1) that support inclusion of Indigenous knowledge to inform the assessment and protection of species at risk. Likewise, the *Oceans Act* (s.42) allows the Minister to consider Indigenous knowledge in oceans related decisions. The Government of Canada and the scientific community acknowledge the need incorporate Indigenous knowledge in meaningful and respectful ways. Work is underway at a National level to develop processes for how DFO receives Indigenous knowledge and applies it to inform decision making. Many outstanding questions remain on how to move forward in a way that respects, meaningfully incorporates, and protects the knowledge that may be shared with DFO, to mutual benefit. For example, how to engage knowledge holders, and how to ensure that the knowledge can be shared and considered in a mutually acceptable manner by both knowledge holders and the broader community of First Nations, stakeholders, managers, and policy makers involved in the fisheries. Given the diversity of knowledge and relationships, regional work will involve an iterative process in collaboration with First Nations, Indigenous groups and knowledge holders, to ensure appropriate inclusion and protection of the knowledge provided. The Department is committed to finding a way forward that respects the knowledge and the knowledge holders, and upholds the Principles respecting the Government of Canada's relationship with Indigenous peoples, which are available online at: https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html.

More information on the updates to the *Fisheries Act*: https://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/reconciliation-eng.html

See Sections 2.5, 34.1, and 61.2 in the *Fisheries Act* (2019): https://laws-lois.justice.gc.ca/eng/acts/f-14/.

Section 61.2 protections for Indigenous knowledge have also been included in the *Access to Information Act*, Schedule 2: https://laws-lois.justice.gc.ca/eng/acts/a-1/page-15.html#h-1230

## 4. SOCIAL, CULTURAL AND ECONOMIC IMPORTANCE

The intent of this section is to provide a socio-economic context of the oyster fisheries in B.C.. An overview of commercial, recreational, and export sectors of the fishery is provided. Information on First Nations activity in this fishery was not available for this analysis.

### 4.1 First Nations

Generally, there are three categories of Indigenous participation in fisheries – food, social, and ceremonial (FSC), commercial, and treaty.

### 4.1.1 Participation in the Food, Social, and Ceremonial Fishery

Fisheries & Oceans Canada (DFO) remains committed to respecting First Nations' Aboriginal right to fish for food, social and ceremonial (FSC) purposes, or domestic purposes under Treaty which has priority – after conservation – over other uses of the resource.

Section 35(1) of the *Constitution Act*, recognizes and affirms the existing Indigenous and treaty rights of the Indigenous peoples in Canada. However, it does not specify the nature or content of the rights. In 1990, the Supreme Court of Canada issued a landmark ruling in the *Sparrow* decision which found that the Musqueam First Nation has an ~~Indigenous~~ Aboriginal right to fish for food, social and ceremonial (FSC) purposes. The Supreme Court found that where an Aboriginal group has a right to fish for FSC purposes, it takes priority, after conservation, over other uses of the resource. The Supreme Court also indicated the duty to consult with Aboriginal Peoples when their fishing rights might be affected.

The Aboriginal Fisheries Strategy (AFS) was implemented in 1992 to address several objectives related to First Nations and their access to the resource. These included: Improving relations with First Nations

- Providing a framework for the management of the First Nations fishery in a manner that was consistent with the Supreme Court of Canada's 1990 *Sparrow* decision
- Greater involvement of First Nations in the management of fisheries
- Increased participation in commercial fisheries (Allocation Transfer Program (ATP))

AFS continues to be one of the principal mechanisms – in addition to Treaties and reconciliation agreements - to support the development of relationships with First Nations including the consultation, planning and implementation of fisheries, and the development of capacity to undertake fisheries management, stock assessment, enhancement and habitat protection programs.

### 4.1.2 Participation in the Commercial Fishery

First Nations' access in the commercial fishery, either communally or individually, is described below in Section 6.1.

### 4.1.3 Participation in Modern Indigenous Treaties

Fisheries chapters in modern First Nation treaties may articulate a treaty fishing right for FSC purposes that are protected under Section 35 of the *Constitution Act, 1982*. Some modern treaty First Nations are provided commercial access either through the general commercial fishery or a Harvest Agreement. While this commercial access may be referenced in the treaty, it is not protected under the *Constitution Act*.

Seven modern treaties (Nisga'a Final Agreement, Tsawwassen First Nation Final Agreement (TFA), Maa-nulth First Nations Final Agreement (MNA), Tla'amin Nation Final Agreement, Sechelt Self-government Act, Westbank First Nation Self-government Agreement, and Yale First

Nation Final Agreement) have been ratified in British Columbia.[1] Information on Modern Treaty access for Pacific Oyster can be found in Section 6.1.

#### 4.1.4 Social and Cultural Significance

Fisheries and the harvest and management of aquatic resources have particular importance to many Indigenous communities. Many Indigenous communities are located adjacent to key fishing sites, oceans and aquatic resources, and consider the management of these resources to be matters important to these communities. There are Indigenous groups who are seeking greater access to economic opportunities from aquatic resources as a potential driver for economic development in their communities; more stability in FSC fisheries; a greater role in the aquatic resource and oceans management decisions that affect them; and a greater role in stewardship, including stock assessment, oceans and habitat management, conservation and protection, and recovery strategy development and implementation.

### 4.2. Commercial

The earliest data available for commercial wild Pacific Oyster harvest is from 2014, when the hail program officially started with DFO. Figure 1 (below) presents Pacific Oyster total (active and inactive) commercial (ZWO) and communal commercial (FZWO) licence eligibilities and total hailed landings (lbs) from 2014-2021. Licence numbers have been fairly stable, with commercial and communal commercial eligibilities averaging 53 and 10 licences respectively over the period. Total landings have varied year to year, with landings increasing from 2014 to 2016 as well as between 2018 and 2019. For the overall period of 2014-2019, hailed landings have averaged over 193,000 lbs. Landings in 2020, however, declined sharply (onset of COVID-19 Pandemic effects), and fell further in 2021 to the lowest level on record, with coastwide landings in 2021 estimated at just over 91,000 lbs (41 metric tonnes). In the same year, however, total licenses (communal and commercial) rose to 2016 levels. Notably, the number of communal licences rose to its highest level (14) in 2021.

The difference in landings between 2019 and 2020 saw a 39% year-over-year decline - largely attributed to the impact of the COVID-19 pandemic on fishery operations. 2021 saw a further decline of almost 18% from the 2020 low. Indeed, the average landings for the last two years fell over 47% compared to the average landings from the previous six years. Landed value and price data is not available at this time due to lack of oyster sale-slip data. The commercial wild Pacific Oyster fishery is minimal in comparison to the aquaculture harvest of oysters which had an annual average of 7,500 metric tonnes harvested (between 2016 and 2020).

1 Details of concluded final agreements can be found at https://www.rcaanc-cirnac.gc.ca/eng/1100100030588/1542730442128

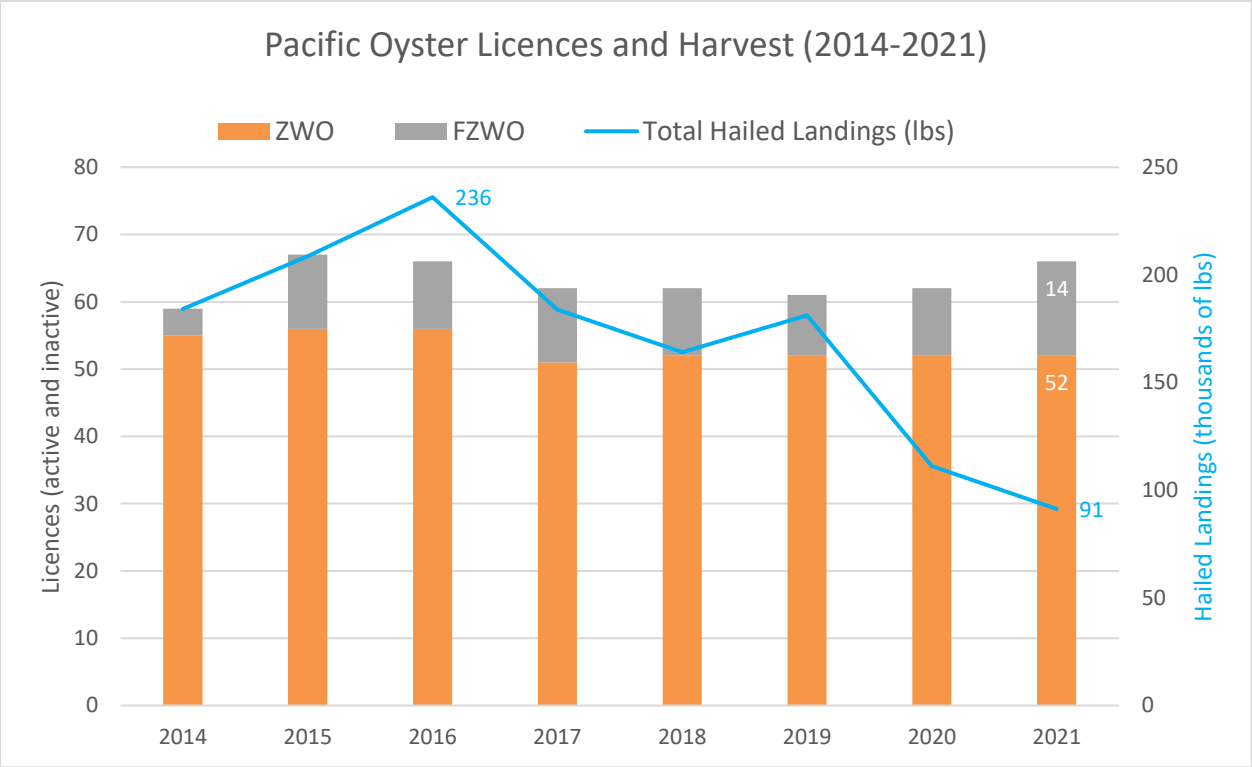



**Figure 1. Total number of licences and harvest of oysters from B.C. 2014-2021**
(Source: Fisheries and Aquaculture Management). **Figures indicated represent high and low landings as well as current licences.**

### 4.2.1 Commercial Quota Use

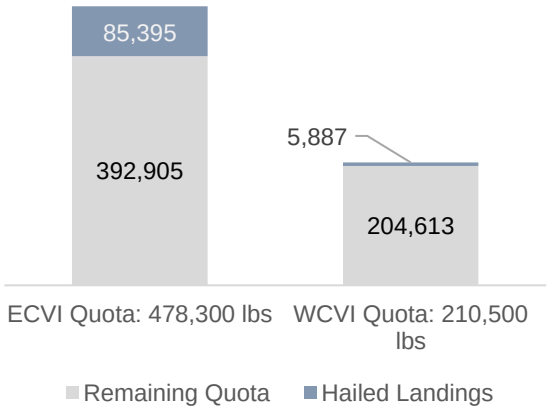
Table 1 (below) shows Pacific Oyster beach quota (lbs) by sub-area for the 2021-2022 fishing season. The sub-areas constitute both West and East Coasts of Vancouver Island. Average hailed landings from 2014-2021 averaged roughly 170,000 lbs (aprox. 76 Tonnes), well below the total quota of 688,800 lbs (aprox. 407 Tonnes). Figure 2 (below – right) shows the landed quota comparison between East Coast Vancouver Island (ECVI), whose landings are aprox. 17.85% of the coast's allowable quota, and the West Coast of Vancouver Island (WCVI), which landed 2.8% of it's coast allowable quota. This clearly shows the disparity between the annual harvest of wild oyster and the remaining un-used quota, and the significantly larger harvest from the East Coast of Vancouver Island. On average, the remaining un-used quota is aprox 86.75% of the total, representing 597,518 lbs.

| STAT-SUB AREA | BEACH QUOTA (lbs) |
|---|---|
| 13 - 15 | 7,500 |
| 13 - 15 | 20,000 |
| 13 - 17 | 3,600 |
| 14 - 11 | 75,000 |
| 15 - 2 | 75,000 |
| 15 - 2 | 15,000 |
| 15 - 3 | 9,000 |

| | |
|---|---|
| 15 - 3 | 78,000 |
| 15 - 3 | 39,000 |
| 15 - 3 | 8,100 |
| 15 - 5 | 12,500 |
| 15 - 5 | 50,000 |
| 15 - 5 | 15,000 |
| 16 - 12 | 6,900 |
| 16 - 13 | 5,000 |
| 16 - 16 | 22,500 |
| 16 - 21 | 15,200 |
| 16 - 21 | 10,000 |
| 16 - 6 | 5,000 |
| 16 - 8 | 6,000 |
| 23 - 10 | 138,000 |
| 23 - 10 | 33,000 |
| 25 - 3 | 9,000 |
| 25 - 4 | 15,500 |
| 25 - 5 | 15,000 |
| **Total** | **688,800** |

**Table 1. Quota (lbs) by Subareas or 2021-2022 Fishing Season**
(Source: Fisheries and Aquaculture Management.)

**Figure 2. Quota (lbs) comparison East and West Coast Vancouver Island for 2021-2022 Fishing Season**
(Source: Fisheries and Aquaculture Management.)




## 4.3. Recreational

A B.C. Tidal Waters Sport Fishing Licence (TWSFL) is required to harvest shellfish – whicincludes all aquatic invertebrates and includes oysters, among others. Recreational fishing can be considered a leisure activity, a source of food for personal use, or a combination of the two. These activities contribute directly and indirectly to the economy through fishery related expenditures. B.C.'s recreational community includes both local residents and visiting anglers. The majority of B.C.'s tidal water sport fishing licences are purchased by Canadian residents (an average of 85% from 2010 to 2020), with non-residents accounting for the remainder (~15%).

Figure 3 below illustrates this general trend, with a drop of approximately 7% from the first decade to the last decade. The total number of B.C. tidal water fishing licenses administered has been fairly constant over the years in our data. Purchase of recreational fishing licenses decreased by 10% between 2007-2008, and remained depressed until 2013, where purchases increased 12% the following year. From 2003-2007, international anglers on average accounted for 23% of sold licenses. This trend may reflect global economic pressures; including the effects that the 2007-2008 financial crisis may have had particularly on visitors from the United States. Even as non-resident figures began to climb, due to the ongoing Covid-19 pandemic, issuance of TWSFL was not permitted until the Canada-US border partially re-opened on 9 August 2021. The result is starkly reflected by nil non-resident licences issued for the 2020-2021 season.

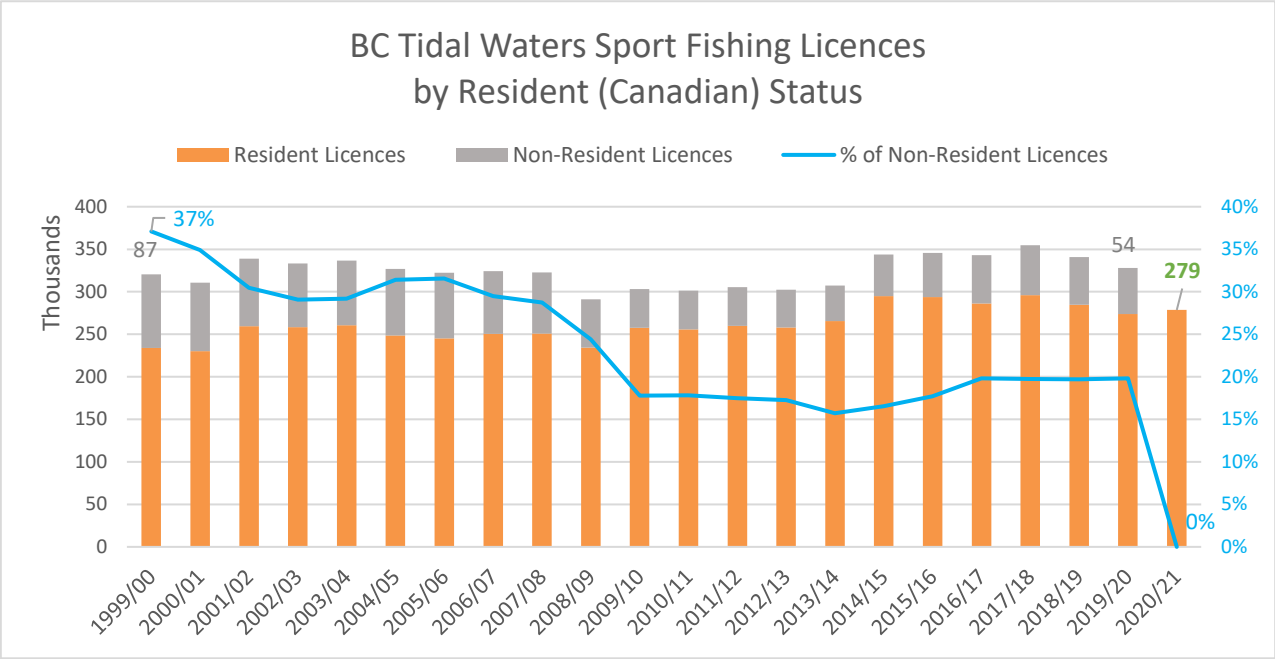



**Figure 3. B.C. tidal water recreational fishing licences sold to Canadians (orange) and non-residents (grey) 1999/2000 to 2020/2021 (in thousands) and percentage of non-resident licences (blue)** Source: DFO Internal Recreational Licensing data**.2**

The DFO National Recreational Fishing Survey provides data on individual expenditures, major purchases, and preferred target species for recreational fishing. According to the 2015 survey, resident and non-resident anglers had expenditures and purchases totalling $583.74 million (2020$). Although only 2.1% of all anglers identified oysters as one of their top three target species in earlier surveys (2010), significantly more B.C. residents preferred oysters (2.6%) than non-resident anglers (0.6%)3. Overall, shellfish fishing made up more than a quarter (573,000) of an estimated 2 million days spent fishing by anglers in B.C. tidal waters in 2015.4 There has not been a more recent survey to update these figures.

2 https://www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/stats-eng.html#wb-auto-7

3 DFO Survey of Recreational Fishing in Canada, 2010

4 DFO Survey of Recreational Fishing in Canada, 2015 – this represents the latest as there has not been an update.

### 4.4. Exports

Anecdotal information provides that much of the annual wild oyster harvest is destined for aquaculture broodstock. Broodstock oysters provide gametes for larvae in varying systems or methods. Since exports do not differentiate between "wild" oyster and aquaculture "farmed" oyster, a simple ratio of wild harvest figures against aquaculture harvest produces an estimate to gauge the value of the annual wild harvest in comparison to the value of the exports that year. 2021 oyster aquaculture harvest data is not available at this time of this update. Export figures are available through Statistics Canada.

Over the last five years, between 2017 and 2021, B.C. exported an average of 1,400 metric tonnes of oysters (wild and aquaculture) annually, with an average total export value of $18.7 million per year (adjusted for 2021 dollars).5 As figures for the 2021 aquaculture harvest are not available for this annual update, the figures used to represent the total export are those of total aquaculture exports (wild and aquaculture) as provided by Statistics Canada. By comparison, oyster aquaculture reported a harvest of 5,149 metric tonnes in 2020, which represents almost half of Canada's oyster aquaculture harvest that year, and was valued at $10.3 million (in 2020 dollars).

Figure 4 below presents the total quantity and value of oyster exports to British Columbia's four largest international markets for the product, as well as to all other destinations combined.6 The United States of America (USA) is the largest purchaser of B.C. oysters, with exports to the country valued at an average of $13.9 million over the past five years (2021 dollars). This constitutes over 74% of total annual exports of oysters over this same period. Value received for

5 Average export values are measured in constant 2021 dollars.

6 Export quantity and value numbers presented are for wild and aquaculture oysters. Since EXIM does not separate aquaculture or wild exports, proportional estimates of wild harvest from total harvest were not available due to the lack of 2021 aquaculture harvest data.

oyster exports from the USA from 2017-2021 was more than 7 times higher than the next country, Singapore, which accounted for an average of 10% of annual export value. Following Singapore, Hong Kong and China made up 7.8% and 4% respectively of average annual Pacific oyster export value.

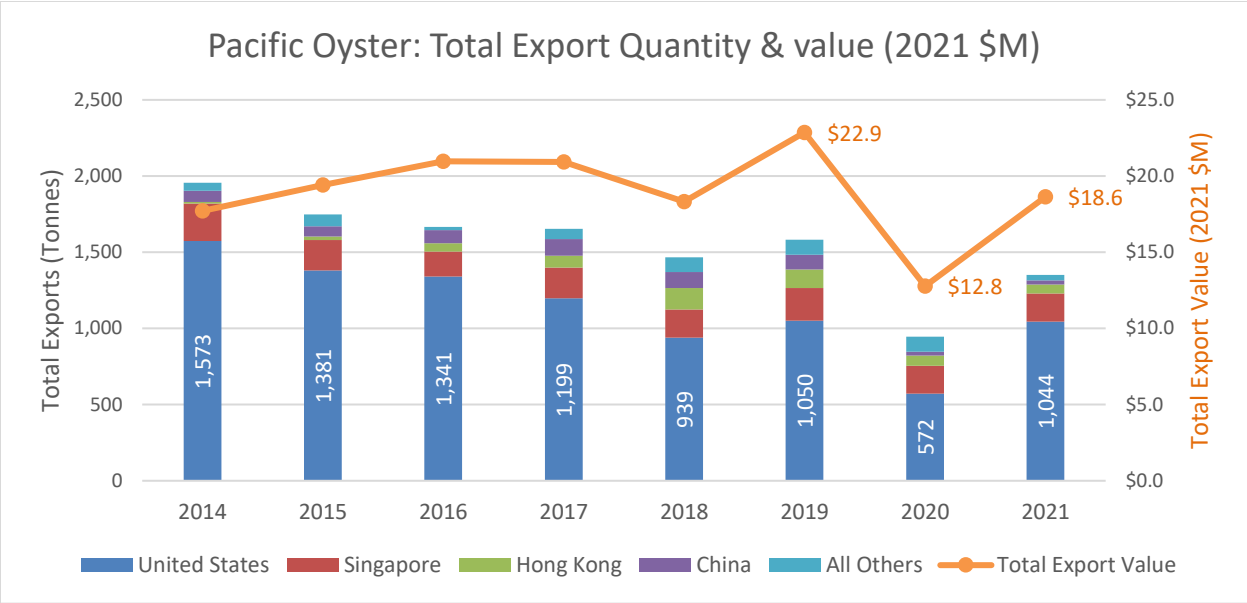



**Figure 4. Total Volume of Oyster Exports and Total Value of Oyster Exports to Importing Countries, 2014-2021 (adjusted to 2021 dollars).** Source: Statistics Canada (EXIM), Accessed on Nov.1 2022.

In 2020, there were large declines in exports to all markets due to the COVID-19 pandemic, with the most notable declines occurring in exports to China, which experienced a fall of 71.6% in export value compared with the previous year. 2021 data in Figure 4 currently portrays a rebound ($18.6 million) to export values closer to the pre-pandemic average (2014-2019) of $20 million from a 2020 average decline of 44% oyster exports. The year-over-year (YOY) data in Table 2 below also notes that the pandemic recovery figures from 2021 are greater in growth percentagthan

the fall due to the Covid-19 pandemic (44.10%) – to which the majority share can be attributed to the large spike in imports by the United States growing by over 72%.

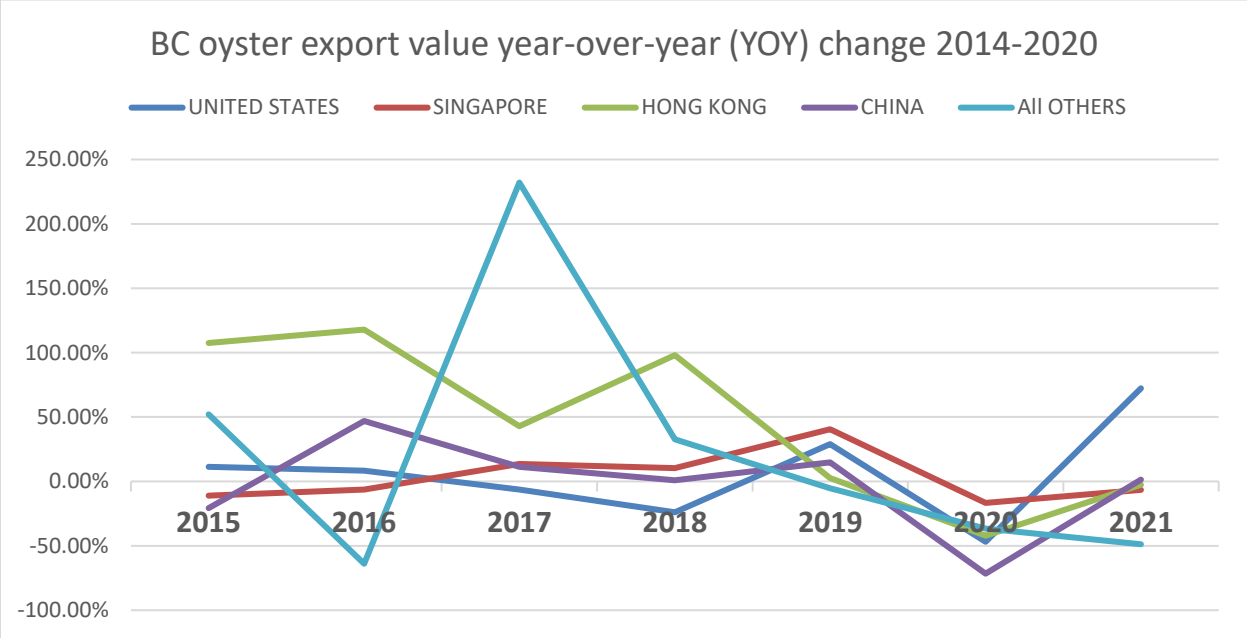



**Figure 5. Graph expressing year-over-year change in BC oyster exports by the top four importers by percentage. Note this is not reflective of volume, only a change compared to the previous year.** Source: Statistics Canada (EXIM), Accessed on Nov 1, 2022.

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| UNITED STATES | 11.38% | 8.29% | -6.36% | -23.88% | 29.10% | -46.85% | 72.28% |
| SINGAPORE | -10.91% | -6.24% | 13.55% | 10.45% | 40.54% | -16.69% | -6.54% |
| HONG KONG | 107.38% | 117.91% | 42.99% | 98.15% | 2.63% | -42.14% | -2.54% |
| CHINA | -20.61% | 46.93% | 11.31% | 0.94% | 14.80% | -71.61% | 1.47% |
| All OTHERS | 52.09% | -63.92% | 232.07% | 32.63% | -5.28% | -36.54% | -48.70% |
| Total Export Value | 9.70% | 7.97% | -0.21% | -12.42% | 24.73% | -44.10% | 45.86% |

**Table 2. Table of year-over-year percentage change in BC oyster exports to the top four importers Negative change (red), improvement by at least 50% (cell in light green), improvement by over 100% (bright green).** Source: Statistics Canada (EXIM), Accessed on Nov 1, 2022.

In spite of the Covid-19 pandemic, Figure 6 below illustrates a general trend toward higher export price by kilogram, based on the relation between export values and the export quantities provided by Statistics Canada (EXIM), led by exports to Hong Kong which in 2021 commanded the market price of $19.56 per kilogram (kg). Additionally of note are that US imports grew, are 7 times larger than the next importer, and when taken into context with Figure 4, which shows that the volume (quantity) of exports has fallen by 306 metric tonnes since 2014, the comparative value in the export has risen by over $932,000. Some of this value increase is evident in the US moving from third to now paying the second highest price by weight to import BC oysters.

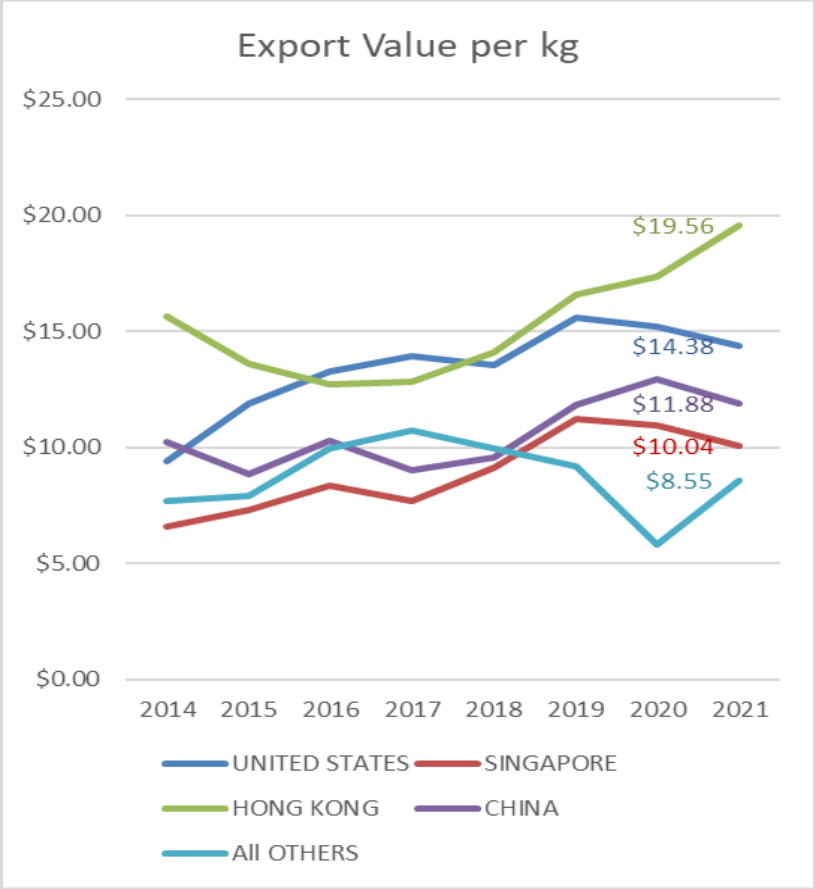



**Figure 6. Graph showing the fluctuation of value of exports per kilogram from 2014 to 2021.** Source: Statistics Canada (EXIM), Accessed on Nov 1, 2022.

## 5. MANAGEMENT ISSUES

The following emerging issues may impact the management measures in place for the Pacific Oyster fishery.

### 5.1. Conservation and Sustainability

#### 5.1.1 Assessment Programs

A limited number of biomass assessments have been organized and funded by licence holders during past seasons. The industry assessment programs for this fishery are still in early development. Quotas for the commercial fishery in 2023 are still relying partially upon previous assessment data conducted by the Province of B.C. This data is becoming dated and commercial harvesters will need to continue to fund new stock assessment surveys in 2023 and future seasons. If these assessments are not completed, the Department will consider reducing the commercial harvest opportunities in the future.

Funding of Stock Assessment and Management Programs

Harvesters have committed to ongoing funding of stock assessment work on harvest beaches. Harvesters are expected to fund stock assessment work that will contribute towards setting biologically-based quotas at commercial harvest sites for this fishery. Difficulties in funding of survey work have continued as only a portion of the licence holders contribute towards the survey program each year.

## 5.2. Sustainable Management Objectives

The Pacific Oyster is a non-indigenous species introduced to British Columbia by humans for the purposes of aquaculture production. Given that Pacific Oyster is not a native species to Canada and it was introduced on purpose, it would not be considered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for assessment regardless of stock status, and thus cannot be considered for listing under SARA. Conservation is not the Department's objective for this species; however the Department does aim to manage Pacific Oyster resources sustainably to provide fishing opportunities for all harvest sectors.

## 5.3. Compliance

Through conditions of licence, DFO ensures traceability of bivalve product from harvest to the point of landing at federally registered plants. In an effort to improve product traceability, DFO is working on stricter controls on reporting and handling of wild bivalves (including oysters) from harvest to landings. Ensuring the safety of consumers is a top priority and by enhancing traceability, DFO remains committed to protecting public health, meeting conservation objectives for bivalves, and maintaining international markets.

## 5.4. Species at Risk

The *Species at Risk Act* (SARA) came into force in 2003 "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."

SARA contains several prohibitions to protect species listed on Schedule 1 of SARA. Under sections 32 and 33 of SARA, it is an offence to: 1) kill, harm, harass, capture or take an individual of a wildlife species listed as extirpated, endangered or threatened under SARA; 2) possess, collect, buy, sell or trade an individual (or any part or derivative of such an individual) of a wildlife species listed as extirpated, endangered or threatened under SARA; and 3) damage or destroy the residence of one or more individuals of a wildlife species that is listed as an endangered or threatened species, or that is listed as an extirpated species if a recovery strategy has recommended its reintroduction into the wild in Canada. 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. Section 58(1) contains provisions to prohibit the destruction of any part of the critical habitat of listed endangered or threatened species or of any listed

extirpated species if a recovery strategy has recommended the reintroduction of the species in the wild in Canada. Critical habitat is the habitat necessary for the survival or recovery of a listed wildlife species and is identified in the recovery strategy or an action plan for the species.

Additional marine species, including marine or anadromous species of fish designated by COSEWIC that are currently under consideration for listing under SARA include:

- Bocaccio Rockfish – Endangered
- Darkblotched Rockfish – Special Concern
- Quillback Rockfish – Threatened
- Yelloweye Rockfish, Outside Population – Threatened (currently listed as Special Concern)
- Yelloweye Rockfish, Inside Population – Threatened (currently listed as Special Concern)
- North Pacific Spiny Dogfish – Special Concern
- Eulachon, Fraser River Population – Endangered
- Eulachon, Central Pacific Coast Population – Endangered
- Eulachon, Nass/Skeena Population – Special Concern
- Grey Whale, Pacific Coast Feeding Group population – Endangered
- Grey Whale, Western Pacific population - Endangered
- Northern Fur Seal – Threatened
- Steelhead Trout
    - Chilcotin River population – Endangered
    - Thompson River population - Endangered
- Sockeye Salmon – Sakinaw population – Endangered
- Fraser Sockeye Salmon
    - Bowron-ES population – Endangered
    - Cultus-L population – Endangered
    - Francois-Fraser-S population – Special Concern
    - Harrison (D/S)-L population – Special Concern
- Harrison (U/S)-L population – Endangered
- Kamloops-ES population – Special Concern
- Lillooet-Harrison-L poppulation – Special Concern
- Nahatlatch-ES population – Special Concern
- North Barriere-ES population – Threatened
- Quesnel-S population – Endangered
- Seton-L population – Endangered
- Takla-Trembleur-EStu population – Endangered
- Takla-Trembleur-Stuart-S population - Endangered
- Taseko-ES population – Endangered
- Widgeon River-Type population – Threatened
- Alouette-ES population – Special Concern
- Coquitlam-ES population – Special Concern
- Fraser-ES population – Endangered
- Momich-ES population - Endangered

- Coho Salmon – Interior Fraser population – Threatened
- Chinook Salmon – Okanagan population – Endangered
  - Southern BC Chinook Salmon
    - East Vancouver Island, Stream, Spring population – Endangered
    - Lower Fraser, Ocean, Fall population – Threatened
    - Lower Fraser Ocean Summer population – Endangered
    - Lower Fraser, Stream, Spring population – Special Concern
    - Lower Fraser, Stream, Summer (Upper Pitt) population – Endangered
    - Lower Fraser, Stream, Summer population – Threatened
    - Middle Fraser, Stream, Fall population – Endangered
    - Middle Fraser, Stream, Summer population - Threatened
    - Middle Fraser, Stream, Spring (MFR+GStr) population – Threatened
    - Middle Fraser, Stream, Spring population – Endangered
    - North Thompson, Stream, Spring population – Endangered
    - North Thompson, Stream, Summer population – Endangered
    - South Thompson, Stream, Summer 1.2 population – Endangered
    - Upper Fraser, Stream, Spring population – Endangered
    - Southern Mainland-Boundary Bay, Ocean, Fall population – Threatened
    - South Thompson, Stream, Summer 1.3 population - Endangered
    - Lower Thompson, Stream, Spring population - Endangered
    - East Vancouver Island, Ocean, Summer population - Endangered
    - East Vancouver Island, Ocean, Fall population – Special Concern
    - West Vancouver Island, Ocean, Fall (South) population - Threatened
    - West Vancouver Island, Ocean, Fall (Nootka & Kyuquot) population - Threatened

A species identification guide for Rockfish can be found here: https://www.pac.dfo-mpo.gc.ca/fm-gp/rec/identify-identifier-eng.html

A sturgeon species identification guide can be found here: https://www.pac.dfo-mpo.gc.ca/fm-gp/rec/identify-identifier-eng.html

**Olympia Oyster**

Olympia Oyster (*Ostrea lurida*, previously *Ostrea chonchaphila*) are listed as a species of Special Concern under SARA primarily due to population declines that were recorded historically. The introduction of exotic parasites, predatory snails, green crabs and fouling ascidians, as well as industrial and domestic pollution, pose significant threats to the oyster. Additionally, limited dispersal and vulnerability to low temperature extremes and sedimentation from floods and landslides may increase its vulnerability, compromising its ability to recover from adverse impacts.

The 2011 COSEWIC Assessment and Status Report on the Olympia Oyster suggests that harvest is likely a low-level threat, but that the Pacific Oyster fishery may have exacerbated other ongoing threats. COSEWIC notes that the limited recovery of the Olympia Oyster population may be due to incidental mortality of Olympia Oysters attached to harvested

Pacific Oysters and poor survival of Olympia Oysters settling on Pacific Oyster shells in the mid- to upper-intertidal zones, rather than low intertidal and subtidal zones, due to increased exposure.

Olympia Oysters may occasionally be harvested by mistake during commercial, recreational, or First Nation harvests. As a species of Special Concern, SARA Sections 32 and 33 prohibitions do not apply to Olympia Oysters, however, commercial and recreational harvest of Olympia Oysters is limited, under the *Fisheries Act*. Harvest has been maintained at zero for both of these sectors in recent years. Mitigation of anthropogenic threats to this species must be considered as part of ongoing conservation efforts for this species. Currently, no commercial or recreational harvest is allowed for Olympia Oysters.

Further information regarding conservation of Olympia Oysters, including details on known threats to the species, and potential management actions, may be found in the Management Plan for the Olympia Oyster in Canada, located at the following link:

http://www.sararegistry.gc.ca/virtual_sara/files/plans/mp_olympia_oyster_0709_e.pdf

As a non-native (or “Alien”) species that was introduced into Canada by humans for aquaculture purposes, Pacific Oysters would not be considered by COSEWIC or under SARA for listing or protection within Canada, regardless of stock status.

### 5.4.1. Shark Codes of Conduct

Out of the fourteen shark species in Canadian Pacific waters, three species are listed under SARA. The Basking Shark (*Cetorhinus maximus*) is listed as Endangered, and the Bluntnose Sixgill Shark (*Hexanchus griseus)* and Tope Shark (*Galeorhinus galeus*) are listed as species of Special Concern. In Canadian waters, the primary threats to shark species have been identified as bycatch and entanglement. In order to address 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, commercial fishing licences have been amended to include a Condition of Licence for Basking Sharks that specify 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, Bluntnose Sixgill, Tope Shark, and other Canadian Pacific shark species resulting from entanglement and bycatch in commercial and recreational fisheries, and aquaculture. These guidelines include boat handling procedures during visual encounters with Basking Sharks, and 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 sharks: https://www.dfo-mpo.gc.ca/species-especes/publications/sharks/coc/coc-sharks/index-eng.html

Code of conduct for Basking Sharks: https://www.dfo-mpo.gc.ca/species-especes/publications/sharks/coc/coc-basking/index-eng.html

## 5.5. Oceans and Habitat Considerations

***For the most up to date information, see website links, advisory board updates, and fisheries notices.***

**Canada's Marine and Coastal Areas Conservation Mandate**

To protect biodiversity and meet its marine conservation targets, Canada is establishing marine protected areas and other effective area-based conservation measures (OECMs), in consultation with First Nations, other levels of government, industry, non-governmental organizations, and the public.

More information is available online for:

Canada's marine conservation targets: https://www.dfo-mpo.gc.ca/oceans/conservation/index-eng.html

Canada's marine protected and conserved areas:

https://www.dfo-mpo.gc.ca/oceans/conservation/areas-zones/index-eng.html

Marine refuges and fisheries management measures that qualify as OECMs: https://www.dfo-mpo.gc.ca/oceans/oecm-amcepz/index-eng.html

**Marine Protected and Conserved Areas**

Canada uses a variety of legislative tools for marine conservation, depending on the lead federal department or agency and their coastal mandates. As goals, objectives, and management plans are finalized for these initiatives, DFO's management of fisheries will be adapted as appropriate, in consultation with interested parties through initiative-specific consultations and annual Integrated Fisheries Management processes. The implementation of spatial marine conservation initiatives is informed by considerations under the *Oceans Act*, *Fisheries Act* and the Sustainable Fisheries Policy suite, and mandate commitments to the Blue Economy Strategy and Reconciliation with First Nations.

For more information on Canada's marine conservation tools: https://www.dfo-mpo.gc.ca/oceans/conservation/plan/index-eng.html

For more information see relevant legislation:

Marine refuges and other measures - *Fisheries Act*: https://laws.justice.gc.ca/eng/acts/f-14/page-1.html

Marine Protected Areas - *Oceans Act*: ~~https://laws-lois.justice.gc.ca/eng/acts/O-2.4/~~ https://laws-lois.justice.gc.ca/eng/acts/O-2.4/

National Wildlife Areas - *Canada Wildlife Act*: https://laws.justice.gc.ca/eng/acts/w-9/page-1.html

National Marine Conservation Areas (Reserves): *National Marine Conservation Areas Act*: https://laws.justice.gc.ca/eng/annualstatutes/2002_18/page-1.html

An overview map of federal marine conservation initiatives in Pacific region is provided in Figure7, followed by a table outlining relevant details by initiative – both established and in progress. Many initiatives are types of marine protected areas (MPAs) or marine refuges (OECMs). See site-specific regulations and management plans for any restrictions on activities, or fisheries notices where applicable.

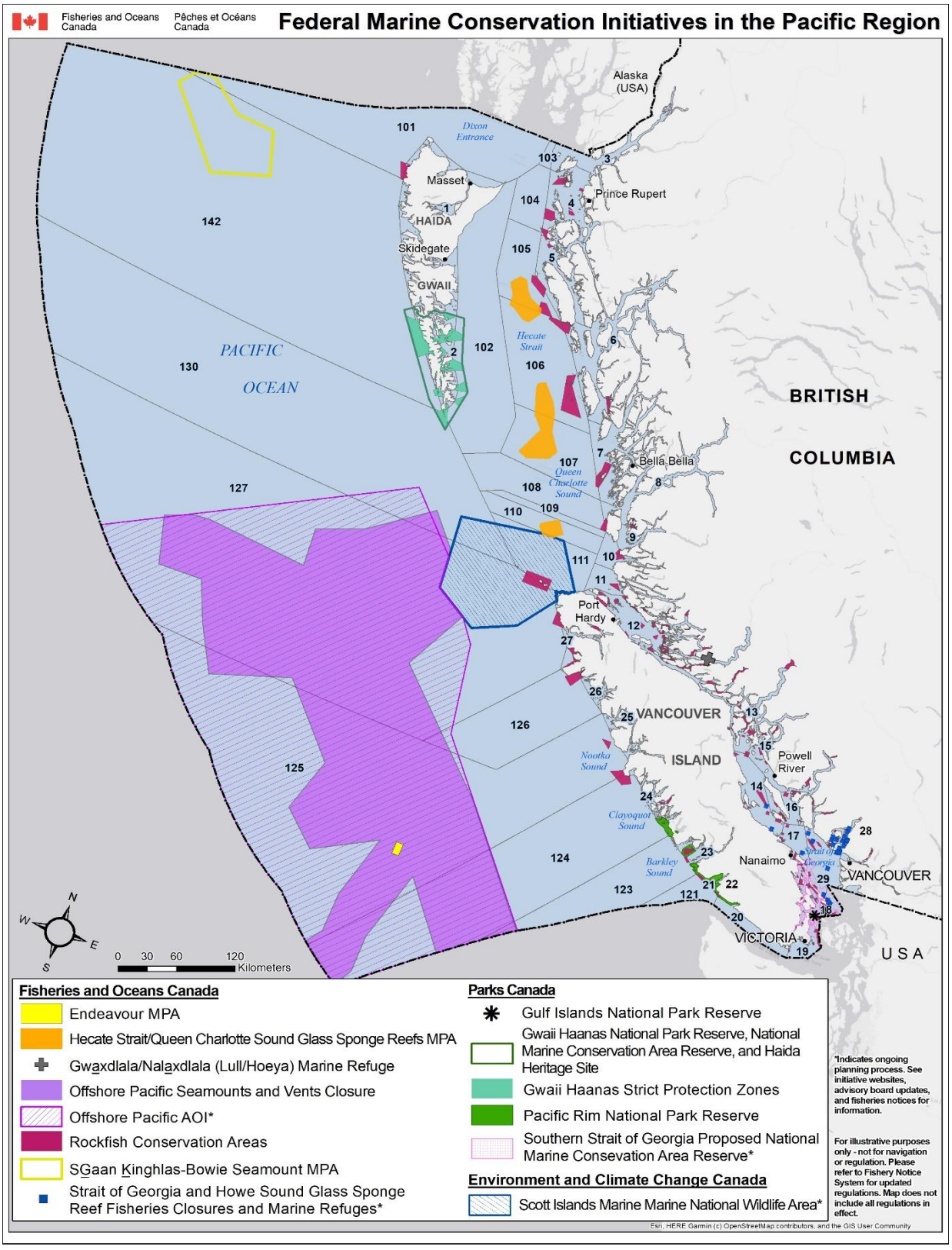



*Figure 7. Pacific Fisheries Management Areas and Federal Marine Conservation Initiatives and Closures*

*Table 3. Overview of Federal Marine Conservation Initiatives in DFO Pacific Region (see Figure 7 map)*

| Name | Type | Lead | Weblinks | Contact | Fishery Considerations |
|---|---|---|---|---|---|
| Fisheries and Oceans Canada, *Ocean's Act* and *Fisheries Act* | | | | | |
| Endeavour Hydrothermal Vents MPA (EHV MPA) | MPA | DFO | http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/endeavour/index-eng.html | | See MPA regulations for details: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2003-87/ The EHV MPA is closed to all commercial and recreational fishing activities. |
| SGaan Kinghlas – Bowie Seamount MPA (SK-B MPA) | MPA | DFO & Council of Haida Nation | http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/bowie-eng.html | Email: DFO.BowieMPA-ZPMBowie.MPO@dfo-mpo.gc.ca> | See MPA regulations for details: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2008-124/ The SK-B MPA is closed to all commercial fishing activities. The SK-B MPA is also closed to recreational and FSC bottom-contact fishing activities. |
| Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs MPA (Hecate MPA) | MPA | DFO | http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/hecate-charlotte/index-eng.html | Email: DFO.HSQCSMPA-ZPMDHBRC.MPO@dfo-mpo.gc.ca> | See MPA regulations for details: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-15/index.html In the Hecate MPA there are 3 different management zone types: The entire MPA is closed to commercial bottom-contact fishing activities. Core Protection Zones (CPZ) are closed to anchoring and all fishing activities. Vertical Adaptative Management Zones (VAMZs) and Adaptive Management Zones (AMZs) are closed to some commercial and recreational fishing activities. |
| Offshore Pacific Area of Interest & Fishery Closure* | Area of Interest for future MPA | DFO | https://www.dfo-mpo.gc.ca/oceans/oecm-amcepz/refuges/offshore-hauturiere-eng.html. | | Specific details of the Offshore Pacific Seamounts and Vents Closure (Offshore Fishery Closure) can be found in the Fishery Notice FN1241 (2017). All bottom-contact commercial and recreational fishing activities are prohibited. |
| Strait of Georgia and Howe Sound Glass Sponge Reef Marine Refuges* | Marine Refuges | DFO | https://www.dfo-mpo.gc.ca/oceans/ceccsr-cerceef/closures-fermetures-eng.html | | Specific details of the closures and restrictions on a site-by-site basis can be found in Fisheries Notices FN0205 (2019), FN0571 (2015), and FN0039* (2022). Prohibited commercial, recreational and Indigenous food, social and ceremonial (FSC) bottom-contact fishing activities include: • prawn and crab by trap |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | • shrimp and groundfish by trawl<br>• groundfish by hook and line<br>• use of downrigger gear in recreational salmon trolling (in select sites via Condition of Licence). (Restrictions vary by site) |
| Rockfish Conservation Areas (RCAs) | RCAs | DFO | https://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-acs/index-eng.html | DFO.RCA-ACS.MPO@dfo-mpo.gc.ca | There are 162 Rockfish Conservation Areas (RCAs) in British Columbia, covering roughly 4,350km$^2$ of the Canadian Pacific Coast. These areas are closed to a range of recreational and commercial fisheries to protect inshore rockfish and their habitat. On website, see individual RCAs by area for details. |
| **Gwaxdlala/Nalaxdlala (Lull/Hoeya)** | Marine refuge | DFO | Gwaxdlala/Nalaxdlala (Lull/Hoeya) marine refuge (dfo-mpo.gc.ca) | Email: Dan.Leus@dfo-mpo.gc.ca | Specific details of the closures and restrictions on a site-by-site basis can be found in Fisheries Notices FN 0118 (2023).<br>The Gwaxdlala/Nalaxdlala (Lull/Hoeya) marine refuge is closed to all fisheries (commercial, recreational and FSC fishing activities). |
| Parks Canada, *National Marine Conservation Areas Act* | | | | | |
| Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site | NMCAR | Parks Canada | https://www.pc.gc.ca/en/pn-np/bc/gwaiihaanas | gwaiihaanas@pc.gc.ca | Refer to Fishery Notice FN0536 (2019), released June 13, 2019 for a detailed description of the Strict Protection Zones.<br>There is "no extraction or harvesting by anyone of the resources of the lands and non-tidal waters of the Archipelago for or in support of commercial enterprise" (s3.3).<br>Contact the Gwaii Haanas administration office: 1-877-559-8818 |
| Pacific Rim National Park Reserve | National park marine area | Parks Canada | https://www.pc.gc.ca/en/pn-np/bc/pacificrim | Pacrim.info@pc.gc.ca | Park regulations can be found at: https://laws-lois.justice.gc.ca/eng/acts/N-14.01/page-8.html#h-362395 |
| Southern Strait of Georgia National Marine Conservation Area Reserve* | NMCAR | Parks Canada | https://www.pc.gc.ca/en/amnc-nmca/cnamnc-cnnmca/dgs-ssg | straitofgeorgianmca@pc.gc.ca | The most up to date information can be found at: https://www.pc.gc.ca/en/amnc-nmca/cnamnc-cnnmca/dgs-ssg/savoir-learn |
| Environment and Climate Change Canada, *Canada Wildlife Act* | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Scott Islands Marine National Wildlife Area* | mNWA | ECCC | https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/scott-islands-marine.html | DFO.ScottIslands-IlesScott_MPO@dfo-mpo.gc.ca | The Scott Islands Protected Marine Area Regulations can be found at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2018-119/index.html |
| **Indicates ongoing planning process. See initiative websites, advisory board updates, and fisheries notices for information.* | | | | | |

## Marine Spatial Planning in Canada

Marine spatial planning aims to improve coordination across jurisdictions and activities in the marine space. It is a practical, internationally recognized process that enables the Government of Canada to plan and coordinate ocean activities in collaboration with provincial, territorial, and Indigenous governments. Marine spatial planning considers the range of human activities planned for a given marine area over time (such as fishing, cultural uses, conservation areas, energy development, etc.) to keep our oceans healthy and productive for generations to come.

For more information on marine spatial planning in Canada: https://www.dfo-mpo.gc.ca/oceans/management-gestion/msp-psm/index-eng.html

### Marine Spatial Planning North

The Northern Shelf Bioregion, which extends from the top of Vancouver Island and reaches north to the Canada - Alaska border, has a long history of marine spatial planning as highlighted below.

More information on marine spatial planning on Pacific's north coast can be found at: https://www.dfo-mpo.gc.ca/oceans/publications/backgrounder-fiche/marinespatialplanning-planificationespacemarin/index-eng.html

#### *Pacific North Coast Integrated Management Area (PNCIMA)*

Endorsed in 2017, the Pacific North Coast Integrated Management Area (PNCIMA) plan was developed, in collaboration with the Province of British Columbia, First Nations and stakeholders to help coordinate various ocean management processes and to complement existing processes and tools, including IFMPs.

The PNCIMA Plan is available online at: https://www.dfo-mpo.gc.ca/oceans/management-gestion/pncima-zgicnp-eng.html

#### *Northern Shelf Bioregion Marine Protected Area Network Planning Process*

The Government of Canada, the Province of BC and First Nations are working together to develop a planned approach for a Network of marine protected areas for the Northern Shelf Bioregion. The planning process is being developed under the policy direction outlined in the National Framework

for Canada's Network of MPAs, the Canada-British Columbia MPA Network Strategy, and is informed by previously developed First Nation marine plans and the BC Marine Planning Process.

More information on the MPA Network planning process is available at:
http://www.mpanetwork.ca

**Marine Spatial Planning Southern BC**

As part of a national marine spatial planning (MSP) initiative, DFO in collaboration with the Province of BC, federal departments (Transport Canada, Natural Resources Canada, Environment and Climate Change Canada, Parks Canada and others), Indigenous groups, and stakeholders are amidst 'early planning' efforts in the Strait of Georgia and Southern Shelf bioregions (Southern BC planning area). Early Planning is focused on gathering information and setting the stage for working collaboratively.

Marine spatial planning is a collaborative process that brings federal and provincial governments, indigenous communities as well as organizations, and stakeholders together to coordinate how we collectively use marine spaces to achieve ecological, cultural, social, and economic objectives. Key deliverables for the Southern BC MSP process include the Canada Marine Planning Atlas (Pacific), and a Framework (or guide) that gathers information from the 'early planning' phases to inform future planning phases.

More information on marine spatial planning can be found at: https://www.dfo-mpo.gc.ca/oceans/management-gestion/msp-psm/index-eng.html

### 5.6. Gear Impacts

The Pacific Oyster fishery is conducted by hand-picking and is highly selective with little impact to the habitat during harvest from the beaches.

The Department will review all fisheries in the coming years against the Policy for Impacts of Fishing on Sensitive Benthic Habitat to determine if any mitigation measures are warranted.

### 5.7. Sustainable Fisheries Framework

The Sustainable Fisheries Framework (SFF) is a toolbox of policies to ensure that Canadian fisheries support conservation and sustainable use of resources.

These policies include:

- A Fishery Decision-Making Framework Incorporating the Precautionary Approach
    - Guidelines for Implementing the Fish Stocks Provisions in the *Fisheries Act*
    - Guidelines for writing rebuilding plans per the Fish Stocks Provisions and A Fishery-Decision-making Framework Incorporating the Precautionary Approach
- Ecological Risk Assessment Framework (ERAF) for Coldwater Corals and Sponge Dominated Communities

- Fishery Monitoring Policy
    - Introduction to the procedural steps for implementing the Fishery Monitoring Policy
- Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas
- Policy on Managing Bycatch
- Policy on New Fisheries for Forage Species

For more information on the Sustainable Fisheries Framework and its policies, visit: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/overview-cadre-eng.htm

***Sustainability Surveys for Fisheries:*** DFO annually tracks the performance of major fish stocks that it manages through the Sustainability Survey for Fisheries. Results of previous Sustainability Surveys are available at: http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/survey-sondage/index-en.html

***Sustainable Fisheries Framework work plans*:** Each year, DFO develops a work plan and reports on priorities and targets regarding the sustainable management of Canada's marine resources. These work plans are available at: https://www.dfo-mpo.gc.ca/about-notre-sujet/publications/work-plan-travail/index-eng.html

### 5.8 Precautionary Approach Framework

The Sustainable Fisheries Framework policy suite 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

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.

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

## 5.9. Fisheries Act: Fish Stock Provisions

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 to develop and implement rebuilding plans for stocks that have declined to their critical zone. Amendments are available at: https://www.parl.ca/LegisInfo/en/bill/42-1/C-68
The associated regulatory amendment to prescribe major fish stocks and describe requirements for rebuilding plans was registered and came into force on April 3, 2022, and published in Canada Gazette, Part II. Available at: https://www.gazette.gc.ca/rp-pr/p2/2022/2022-04-13/html/sor-dors73-eng.html

### 5.9.1 Ecological Risk Assessment Framework & Cold-Water Coral and Sponge Conservation Strategy

The Ecological Risk Assessment Framework for Coldwater Corals and Sponge Dominated Communities (or ERAF) outlines a process for identifying the level of ecological risk of fishing activity and its impacts on sensitive benthic areas in the marine environment. Available at: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/risk-ecolo-risque-eng.htm.

DFO's Pacific Region Cold-water Coral and Sponge Conservation Strategy aims to promote the conservation, health and integrity of Canada's Pacific Ocean cold-water coral and sponge species. For more information, visit: https://www.dfo-mpo.gc.ca/oceans/ceccsr-cerceef/conservation-eng.html

### 5.9.2 Fishery Monitoring and Catch Reporting

DFO released the national Fishery Monitoring Policy in 2019, replacing the regional Strategic Framework for Fisheries Monitoring and Catch Reporting in the Pacific Fisheries (2012). The national policy seeks to provide dependable, timely and accessible fishery information through application of a common set of steps used to establish fishery

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

The previous Pacific Strategic Framework for Fisheries Monitoring and Catch Reporting is available at: https://www.pac.dfo-mpo.gc.ca/fm-gp/docs/framework-monitoring-cadre-surveillance-eng.html

To ensure consistent national application, further guidance is provided through in the Introduction to the Procedural Steps of Implementing the Fishery Monitoring Policy, available at: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/fmp-implementation-psp-mise-en-oeuvre-eng.htm

### 5.9.3 Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas

To avoid serious or irreversible harm to sensitive benthic habitat, species and communities and to otherwise address impacts to benthic habitat, communities and species, this policy outlines a five (5) step process. Available at: http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/benthi-eng.htm

### 5.9.4 Policy on Managing Bycatch

The Policy on Managing Bycatch supports sustainable fisheries management by minimizing the risk of fisheries causing serious or irreversible harm to bycatch species, and by accounting for total catch, including retained and non-retained bycatch. Available at: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/bycatch-policy-prise-access-eng.htm

The Guidance on Implementation of the Policy on Managing Bycatch supports policy implementation: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/bycatch-guide-prise-access-eng.htm

Policy on New Fisheries for Forage Species

While other new fisheries may be started under the New and Emerging Fisheries Policy, this policy outlines the special considerations for new fisheries on forage species, which must not threaten the conservation of other species that depend on the forage species for food. Available at: https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/forage-eng.htm

### 5.9.5 National Fishery Monitoring Policy and Catch Reporting

Robust fishery monitoring information is essential for stock assessment and to effectively implement management measures such as target and bycatch limits, quotas and closed areas. Fishery monitoring information is also needed to support the long-term sustainable use of fish resources for Food, Social, and Ceremonial and other Indigenous fisheries,

commercial fisheries, recreational fisheries, and to support market access for Canadian fish products.

Following multi-sectoral consultations, DFO released the national Fishery Monitoring Policy in 2019, replacing the regional "Strategic Framework for Fisheries Monitoring and Catch Reporting in the Pacific Fisheries" (2012). 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. Finally, a review and evaluation of the fishery monitoring programs against the monitoring objectives will be conducted and reported on.

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.

## 6. OBJECTIVES

### 6.1. National

DFO aims to:

- Meet conservation objectives and ensure healthy and productive fisheries and ecosystems for indigenous species;
- Manage fisheries to provide opportunities for economic prosperity;
- Provide stability, transparency, and predictability in fisheries management and improved governance.

### 6.2. Pacific Region

In 1994, the Biological Objective Working Group of the PSARC identified three biological objectives for management of Pacific Region fish and invertebrate stocks (Rice et al, 1995). The objectives remain relevant today, particularly in light of development of the national objectives around sustainable fisheries:

- For indigenous species, ensure that subpopulations over as broad a geographical and ecological range as possible do not become biologically threatened (in the COSEWIC sense of "threatened").
- Operationally, the above objective requires at least that management allow enough spawners to survive, after accounting for all sources of mortality (including all fisheries and natural mortality), to ensure production of enough progeny that they will, themselves, be able to replace themselves when mature.

Fisheries may have collateral effects on other species, mediated by the ecological relationships of the target species. Fisheries should be managed in ways that do not violate the above objectives for ecologically related species, as well as target species.

### 6.3. Pacific Oyster

#### 6.3.1 Stock Conservation and Sustainability

The Pacific Oyster is a non-indigenous species introduced to British Columbia by humans for the purposes of aquaculture. Therefore, the objective is to spread the harvest of available biomass over a period of time and manage harvest on an individual harvest site basis. The management objectives to accomplish these biological objectives are to:

- Conduct ongoing surveys and research to improve information;
- In most cases the guideline harvest rate of the harvest site biomass used for management planning in this fishery is 10%; and

- Track accurate harvest information for all users.

### 6.3.2 Ecosystem

Harvest and culture activities should occur in a manner that will minimize impacts to eelgrass beds and other sensitive fish habitats. Harvesters should avoid eelgrass beds when anchoring. If commercial harvesters have any concerns or questions that a fishing activity may adversely affect fish habitat, they can find more information at: https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html

### 6.3.3 Social, Cultural, and Economic Considerations

#### *6.3.3.1 First Nations:*

The Department will continue to provide opportunities for First Nations to harvest fish for domestic and FSC purposes, in a manner consistent with the decision of the Supreme Court of Canada in the *Sparrow* Decision, and other court decisions. Additional allocations of Pacific Oysters will be provided to First Nations who demonstrate further requirements for FSC. For more information, see Appendix 2.

#### *6.3.3.2 Recreational:*

DFO's objective is to affirm the social and economic importance of the recreational fishery, provide sustainable recreational harvesting opportunities as part of integrated management plans consistent with DFO's policies, to create an environment within the advisory process in which recreational fishing representatives are welcome to express their concerns and opinions at the table, and to establish working mechanisms in conjunction with the other fishing sectors to reduce conflict and mitigate issues.

#### *6.3.3.3 Commercial:*

The Department will continue to work collaboratively with Industry to:

- Provide for a stable and sustainable fishery;
- Establish and monitor conditions of harvest to develop knowledge of the stock; and
- Ensure safe harvest of shellfish through compliance with the CSSP program.

DFO's objective is to develop standards for catch monitoring for all sectors, including recreational, commercial and First Nations.

### 6.3.4 Compliance Objectives – Food Safety

As partners for delivery of the Canadian Shellfish Sanitation Program (CSSP), Fisheries and Oceans Canada (DFO) and the Canadian Food Inspection Agency (CFIA) collaborate to prevent illegal harvesting and selling of bivalve shellfish, including suspected laundering of illegal products through legitimate aquaculture businesses. DFO also remains committed to meeting conservation objectives for bivalves as well as supporting priority for Food, Social and Ceremonial fisheries. Any harvest occurring in conflict with established management measures and controls has the potential of negatively impacting the conservation of bivalve populations. DFO will investigate reports of illegal harvesting

violations and will take appropriate enforcement actions, including prosecution. Furthermore, DFO may consider more restrictive management approaches if needed to protect public health. Commercial growers and harvesters are reminded that they are required, by law, to follow specific record-keeping and tagging requirements. Records of shellfish movement through the growing cycle and to the point of distribution provide evidence to support public health, regulatory decisions and closure recommendations.

DFO's objective is to pursue opportunities to monitor and enforce these fisheries, in conjunction with the monitoring and enforcement priorities in the Pacific Region. Dedicated patrols by fishery officers are the main enforcement tool for this fishery. In addition, fishery officers respond to complaints from the general public. The general public are encouraged to call the DFO reporting line at 1-800-465-4336.

The CSSP was established to co-ordinate the efforts of federal government agencies concerning the standards for sanitary shellfish practices. The purpose of the CSSP is to ensure that bivalve mollusc shellfish (including oysters) are safe for human consumption. To achieve this, the CSSP:

- sets standards for the harvest and handling of all bivalves within Canadian tidal waters;
- commits by way of the Agreement to improve sanitary practices within the shellfish industry;
- designates the responsibilities of DFO, Environment and Climate Change Canada (ECCC) and Canadian Food Inspection Agency (CFIA) to properly facilitate the mandate of the CSSP to Canadians and foreign governments; and
- strives to increase the efficiency and effectiveness of the CSSP by co-operation, communication, and participation.

The Pacific Region Interdepartmental Shellfish Committee (PRISC) meets biannually to discuss the recommendations that have arisen from water quality survey work conducted by ECCC.

More information is available at: https://www.inspection.gc.ca/preventive-controls/fish/cssp/eng/1563470078092/1563470123546

## 7. ACCESS AND ALLOCATION

The Minister can, for reasons of conservation or for any other valid reasons, modify access, allocations, and sharing arrangements as outlined in this IFMP in accordance with the powers granted pursuant to the *Fisheries Act*.

### 7.1. First Nations

To date, DFO has not specified gear or catch limits in communal licences for food, social and ceremonial harvest. DFO is working together with First Nations to share First Nations' fishing plan details and remains committed to respecting First Nations' Aboriginal right to

fish for food, social and ceremonial purposes, or domestic purposes under treaty, and the conservation and sustainability of the resource.

Pacific Oyster may be allocated under treaty, but were unallocated under the Tsawwassen, Nisga'a and Tla'amin Treaties.

Maa-nulth domestic fisheries - The domestic (FSC) allocations for Pacific Oyster under the Maa-nulth First Nations Final Agreement are provided through set-aside beaches identified for bivalve domestic harvest.

Maa-nulth commercial fisheries - In addition to the allocation of Pacific Oyster for domestic purposes, Maa-nulth has been provided five (5) communal commercial Pacific Oyster licences outside of the Treaty and outside of the "Maa-nulth First Nation Harvest Agreement". See Section 1.3.1 for additional information.

### 7.2. Recreational

Subject to CSSP restrictions, the daily limit for Pacific Oysters in Pacific Fisheries Management Areas (PFMAs) 12 to 29 is 12 per day; the possession limit is twice the daily limit. The daily limit in PFMAs 1 to 11 is zero.

### 7.3. Commercial

The coast-wide commercial Total Allowable Catch (TAC) in the standard fishery for 2023/24 is 688,800 lb. (312,522 kg).

### 7.4. Aquaculture

The first priority in managing fish stocks is conservation, followed by First Nations obligations. Beyond that, the needs of aquaculture licence holders will be given consideration to those of other users in the commercial and recreational sectors.

## 8. MANAGEMENT MEASURES FOR THE DURATION OF THE PLAN

See the Harvest Plans, Appendix 1 to 3 for details on the following:

- TAC
- Fishing Seasons/Areas
- Control and Monitoring of Removals
- Decision Rules
- Licensing

## 9. SHARED STEWARDSHIP ARRANGEMENTS

### 9.1. Commercial

Commercial licence holders are responsible for arranging assessment and in-season fishery monitoring services. Licence holders fund a hail program to collect information on fishing activity, and to track area and licence quotas.

### 9.2. Fisheries and Oceans Canada

Several Stock Assessment and Fisheries Management personnel are directly involved in this fishery for some part of their activities. Contributions to the IFMP are provided by Fisheries Management in area offices and at regional headquarters, the Science Branch, Conservation and Protection (C&P) Branch, the Pacific Fishery Licence Unit, and numerous administrative personnel. Generally, all personnel are multi-tasked.

## 10. COMPLIANCE PLAN

### 10.1. Overview

DFO's C&P program is responsible for enforcing the *Fisheries Act* and pursuant regulations and related legislation. Enforcement activities are carried out by fishery officers across Canada who conduct patrols on land, at sea and in the air.

The Department promotes compliance with the law through a range of activities from education and awareness activities that encourage Canadians to protect fishery resources and habitats, patrol activities to detect violations, and major case management. These activities are further outlined in the C&P National Compliance Framework.

The Conservation and Protection Directorate (C&P) is responsible for delivering the Department's enforcement and compliance program https://www.dfo-mpo.gc.ca/fisheries-peches/enf-loi/index-eng.html. There are approximately 161 Fishery Officers stationed in the Pacific Region which encompasses British Columbia and Yukon. They are designated as "fishery officers" under Section 5 of the *Fisheries Act* and have full enforcement powers and responsibilities outlined in the *Fisheries Act, Coastal Fisheries Protection Act, Oceans Act,* and *Species at Risk* Act. Fishery Officers are also designated as peace officers under Section 2 of the *Criminal Code of Canada*.

Some First Nations employ First Nations Guardians or Watchmen to monitor First Nations food, social and ceremonial fisheries. Some of the Guardians or Watchmen may be designated as Fishery Guardians pursuant to the *Fisheries Act*. They might also carry out activities including stock assessment, catch monitoring, and reporting activities harmful to fish or fish habitat. Enforcement Protocols between C&P and First Nations may be negotiated individually with each First Nation.

Users of the resource have a responsibility to report violations. Any suspected or actual fisheries, wildlife or pollution violations can be quickly and discretely reported to the appropriate enforcement officer by using the toll free observe, record and report hotline. This toll free number is available 24 hours a day.

**OBSERVE, RECORD AND REPORT 1-800-465-4DFO (1-800-465-4336)**

Enforcement enquiries can also be directed to the local field offices during regular office hours.

## 10.2. Enforcement Issues and Strategies

Enforcement of the Pacific Oyster fisheries will be balanced against other commitments to higher priority issues, such as species at risk, CSSP and fisheries that have conservation concerns. C&P staff will pursue opportunities to monitor and enforce issues and problems related to the fishery in conjunction with the monitoring and enforcement activities dedicated to the identified priority fisheries in the Pacific Region.

Fishery officers conduct a range of activities to promote compliance. These activities include attending industry and internal management meetings, defining key enforcement concerns with Fisheries Management prior to the commercial fishery, conducting patrols, at-sea boarding of vessels carrying product, plant inspections during the fishery, and post season reporting.

Hail reporting by harvesters is a key component of the management of the fishery. C&P supports the hail programs through random checks against landing reports and verifications in-season, and by inspecting offloads and monitoring offloading practices at random points during the fishery.

Air surveillance resources will be utilized to patrol boundaries and conduct gear and vessel counts. Charter aircraft as well as DFO aircraft may be utilized for these activities.

C&P strives to meet with First Nations groups to build relationships. Fishery guardians are integral to this process and are very important to the enforcement program. C&P conducts joint patrols of First Nations fisheries and strives to complete enforcement protocols to better define the working relationship.

| ISSUE | SECTION | STRATEGY |
|---|---|---|
| Licensing verification:<br>Vessel licensed.<br>No fishers' registration card (FRC).<br>Fail to produce FRC.<br>Failure to wear high visibility vest | *Pacific Fishery Regulations* (PFR) Section (S) 22,<br>PFR S 25,<br>*Fishery General Regulations* (FGR) S 11 | Beach, at-sea and dockside inspections will occur when opportunities exist. These inspections may include inspection of all licensing documents to ensure compliance with regulations. |

| ISSUE | SECTION | STRATEGY |
|---|---|---|
| Harvest from contaminated area. | *Management of Contaminated Shellfish Regulations* (MCSR) S 3 | Patrols are increased for all bivalve fisheries as part of CSSP patrols and when areas close due to PSP. Due to hail-in requirements, commercial fish harvesters can be notified of closures. |
| Fish during closed time/area. | PFR S 63 | Patrols utilizing program vessels will be made when opportunities exist. May use charter or DFO aircraft. |
| Fail to provide proper landing and hail information, lack of notification for change of area, cancellation of trip, or incorrect reporting of area fished. | FGR S 22(7)<br>(Fail to comply with terms and conditions of licence.) | Beach, at-sea and dockside inspections will occur when opportunities exist. Investigations will occur on an opportunistic basis after notification by Fisheries Management that a violation may have occurred. Charter aircraft may be used in co-ordination with scheduled priority fishery patrols. |
| Fail to use proper tag.<br>Wet Storage without proper permists. | FGR S 22(7) | At-sea and dockside inspections will occur when opportunities exist. Investigations will occur on an opportunistic basis after notification by Fisheries Management that a violation may have occurred. |
| Fail to maintain Harvest Log Book. | FGR S 22(7) | At-sea and dockside inspections will occur when opportunities exist. Investigations will occur on an opportunistic basis after notification by Fisheries Management that a violation may have occurred. |

## 11. PERFORMANCE REVIEW

### 11.1. Management Plan Evaluation Criteria

- Access or allocation decisions will be outlined
- Pacific Oyster harvest levels and fishery values will be outlined
- Research and survey activities conducted will be summarized
- Consultation with First Nations and stakeholders will be summarized
- The commercial Monitoring Programs function will be summarized
- Summary of quota harvest areas that reached total allowable harvest and closed in-season
- Compliance issues and changes will be summarized

## 12. GLOSSARY

| | |
|---|---|
| **Abundance** | Number of individuals in a stock or a population. |
| **Age composition** | Proportion of individuals of different ages in a stock or in the catches. |
| **Aquaculture** | As defined by the United Nations Food and Agriculture Organization (FAO), aquaculture is the culture of aquatic organisms, including fish, molluscs, crustaceans, and aquatic plants. Aquaculture implies some form of intervention in the rearing process to increase production, such as regular stocking, feeding, protection from predators, etc. It also implies individual or corporate ownership of the cultivated stock. |
| **Area and Subarea** | Defined in Section 2 of the *Pacific Fishery Management Area Regulations*. A map of Pacific Fishery Management Areas is available on the Department's internet site at: http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/areas-secteurs/index-eng.html |
| **Biomass** | Total weight of all individuals in a stock or a population. |
| **Bycatch** | The unintentional catch of one species when the target is another. |
| **Chart datum** | The zero tide elevation on a hydrographic chart which usually approximates the lowest tide level for the local area. |
| **Committee on the Status of Endangered Wildlife in Canada (COSEWIC)** | Committee of experts that assess and designate which wild species are in some danger of disappearing from Canada. |
| **Communal commercial licence** | Licence issued to First Nations organizations pursuant to the *Aboriginal Communal Fishing Licences Regulations* for participation in the general commercial fishery. |
| **Communal licence** | A licence issued to First Nations organizations under Section 4 of the *Aboriginal Communal Fishing Licences Regulations*, pursuant to the *Fisheries Act*, to carry on fishing and related activities. |
| **CSSP** | Canadian Shellfish Sanitation Program. A program to classify and monitor shellfish harvest areas to determine whether shellfish are safe for human consumption and to regulate harvesting from those areas. |
| **Domoic Acid Poisoning** | A marine biotoxin sometimes found in bivalves. Also referred to as ASP or Amnesic Shellfish Poisoning. |
| **DSP** | Diarrhetic Shellfish Poisoning. A marine biotoxin sometimes found in bivalves. |
| **Fishing effort** | Quantity of effort using a given fishing gear over a given period of time. |

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|---|---|
| **Food, Social, and Ceremonial (FSC)** | A fishery conducted by Aboriginal groups for food, social and ceremonial purposes. |
| **Harvest Document** | A licence issued to First Nations organizations under Section 4 of the Aboriginal Communal Fishing Licences Regulations, pursuant to the Fisheries Act, to carry on fishing and related activities. |
| **IFMP** | Integrated Fisheries Management Plan |
| **Indigenous Knowledge** | There is no universal definition of Indigenous knowledge, and the composition of Indigenous knowledge is for Indigenous peoples to determine. Indigenous knowledge is intricately tied to Indigenous worldviews and ways of life , and is a complex and dynamic product of the unique cultures, languages, governance systems and histories of the Indigenous peoples of the specific area.<br><br>The term Indigenous knowledge may not be universally used, and other terms such as Indigenous Knowledge Systems, Traditional Knowledge, Traditional Ecological Knowledge, or Aboriginal Traditional Knowledge, which all convey similar concepts, may be used instead. When working with Inuit, the term Inuit Qaujimajatuqangit (IQ) is more likely to be used than Indigenous knowledge. Similarly, when working with Métis knowledge holders, the term Métis Traditional Knowledge is more likely to be used than Indigenous knowledge. The term Indigenous knowledge is used throughout this document in line with the terminology in the *Fisheries Act*. |
| **Intertidal** | The area of the ocean shoreline located between the highest high water and lowest low water tidal levels. |
| **Invertebrate** | An animal without a backbone. |
| **IVQ** | Individual Vessel Quota: a portion of the total allowable catch (TAC) allocated annually to an individual vessel licence. |
| **Landed value** | Value of the product when landed by the licensed vessel. |
| **Landing** | Quantity of a species caught, retained and then landed at shore. |
| **Marine Biotoxin** | Poisonous compounds accumulated by shellfish feeding upon toxin containing dinoflagellates and marine diatoms. |
| **Natural mortality** | Mortality from natural causes, symbolized by the mathematical symbol M. |
| **PSP** | Paralytic Shellfish Poisoning. A marine biotoxin sometimes found in bivalves. Also commonly referred to as “red tide”. |

| | |
|---|---|
| **Quota** | Portion of the total allowable catch that is assigned or permitted to be taken by or from a single unit such as a single licence, beach, or fishing area in a given period of time. |
| **Recruitment** | Amount of individuals becoming part of the exploitable stock e.g. that can be caught in a fishery. The process whereby young animals are added to a fishable stock or population. |
| ***Species at Risk Act* (SARA)** | The purposes of this Act are to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of 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. |
| **Stakeholders** | Individuals or groups with an interest in a particular fishery or activity. |
| **Stock** | Describes a population of individuals of one species found in a particular area, and is used as a unit for fisheries management. |
| **Stock assessments** | Scientific evaluation of the status of a species belonging to a same stock within a particular area in a given time period. Results of analyses of fisheries and research data used to evaluate the effects of fishing on a stock or population and to predict the reactions of populations to alternative management choices. |
| **Subtidal** | A portion of the bottom of the ocean that is not exposed at low tide stages. The ocean bottom at elevations below low water or chart datum. |
| **Tonne** | Metric tonne, which is 1,000kg or 2,204.6 lb. |
| **Total allowable catch (TAC)** | Total allowable catch: the amount of catch that may be taken from a stock, determined by analytical procedures, to achieve management objectives. |

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**APPENDIX 1: 2023/2024 WILD PACIFIC OYSTER COMMERCIAL HARVEST PLAN**

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## MANAGEMENT HIGHLIGHTS AND CHANGES FOR 2023/24

- **Area Licencing:** The licence area selection process for 2023 resulted in 18 licences designated to the West Coast Vancouver Island (WCVI) and 48 licences designated to the East Coast Vancouver Island (ECVI). See Section 1.8.

- **Fishing Season:** The 2023/24 fishing season is scheduled to include two separate harvest periods. The first commercial opening is tentatively scheduled to occur from March 1, 2023 to June 30, 2023. The second commercial opening is tentatively scheduled to occur from September 10, 2023 to December 31, 2023. Harvesters are reminded to check the DFO fishery notice system for official openings and closures prior to fishing.

- **Updated Commercial Harvest Site Boundaries:** Several commercial quota harvest sites have new legal boundary descriptions. See Section 4.4.3.

- **Canadian Shellfish Sanitation Program:** As partners for delivery of the Canadian Shellfish Sanitation Program (CSSP), Fisheries and Oceans Canada (DFO) and the Canadian Food Inspection Agency (CFIA) collaborate to prevent illegal harvesting and selling of bivalve shellfish, including suspected laundering of illegal products through legitimate aquaculture businesses. DFO also remains committed to meeting conservation objectives for bivalves as well as supporting priority for Food, Social and Ceremonial fisheries. Any harvest occurring in conflict with established management measures and controls has the potential of negatively impacting the conservation of bivalve populations. DFO reminds harvesters of the requirements for Legal Sourcing and Harvest of Bivalve Shellfish. Information has been updated. See Sections 2 & 3.

- **Licence Fees:** In accordance with the *Service Fees Act*, annual licence renewal fees will be adjusted by the annual rate of inflation determined by Consumer Price Index (CPI) published by Statistics Canada.

- **Total Allowable Catch:** The total allowable catch (TAC) for the 2023/24 season has been set at 312,522 kg (688,800 lb). A total of 217,014 kg (478,300 lb) is allocated to the ECVI, and 95,481kg (210,500 lb) allocated to the WCVI. See Sections 4.6 and 4.7.

- **Individual Licence Quotas:** The individual licence quota assigned to each licence designated to the WCVI is 11,694 lb. The individual licence quota assigned to each licence designated to the ECVI (Inside Waters) is 9,965 lb. See Section 4.3.

- **Harvest Locations:** A total of 25 quota harvest sites have been approved for harvest in the 2023 fishing season. A full list of the harvest sites opening for commercial harvest is provided in Section 4.4.3.

- **Quota Management by Harvest Site:** The Pacific Oyster fishery will be managed to individual harvest site quotas. Closures of individual harvest sites will be implemented in-season as quotas are achieved. Quotas have been adjusted at some harvest sites. See Sections 4.6 and 4.7.

- **New Hours Fishing Activity Hails (Office Hours only Monday to Friday 9am to 4pm ):** In order to monitor fishing activity an industry-funded hail program has been established to ensure the Department is able to track daily fishing activity. Licence holders are required to hail to a service provider a minimum of 24 hours prior to starting any harvesting. Hails must be provided during office hours from Monday to Friday 9am to 4pm. The service provider will document the hail, and ensure the intended fishing location has remaining quota available for harvest. Harvesters must hail and receive a hail out number prior to fishing. Failure to hail is a violation of licence conditions. See Section 5.

- **Maximum period for a hail-in set at 8 days:** Harvesters may not hail-in to a harvest area indicating that they plan to fish for a period greater than 8 days. The maximum hail period is eight (8) days. Harvesters are required to re-hail at the end of their initial hail period if they plan to stay and fish at a harvest site beyond the initial hail period.

- **Harvest Quota Monitoring Program Requirements:** In order to monitor individual licence quotas and harvest area quotas an industry-funded program for quota tracking has been established. Licence holders must hail their catch (harvest) information to the approved service provider within 16 hours of the harvested oysters being removed or transported from the harvest site. The hail will ensure harvest amounts will be counted against the harvest site quota, and individual licence quota. Failure to hail harvest information following fishing activity is a violation of licence conditions. See Section 5.1.2.

- **Harvest Logbook Program Requirements:** Licence holders are responsible for completing and submitting an accurate harvest logbook record. See Section 5.2.1.

- **Service Provider:** The service provider selected by licence holders to be the designated provider for the 2023 season is D&D Pacific Fisheries Ltd. Contact information: 1-604-886-4819.

- **Canadian Shellfish Sanitation Program**: DFO is reviewing all commercial management measures and controls related to conservation, the effective delivery of the Canadian Shellfish Sanitation Program and the protection of public health, and priority for Food, Social and Ceremonial fisheries. See Section 2.

- **Wet Storage**: As of January 15, 2019 DFO Aquaculture Management is the lead authorizing agent for wet storage activities. Conditions of licence have been amended to reflect new approval requirements for wet storage of product. Harvesters are reminded that commercially harvested oysters cannot be left on wild beaches unattended without wet storage permits.

- **Wearing of High Visibility Vest**: All licence holders and harvesters must wear a high visibility vest to help identify those person operating in the commercial Pacific oyster fishery. See Section 6.3.

## 1. LICENCE REQUIREMENTS

## 1.1 Commercial Licensing

National Online Licensing System (NOLS) Client Support - Licensing Services

All fish harvesters/Licence Holders/vessel owners are required to use the National Online Licensing System (NOLS) to view, pay for and print their commercial fishing licences, licence conditions and/or receipts.

Training materials, including step-by-step guides and a detailed user training manual, are available online (http://www.dfo-mpo.gc.ca/FM-GP/SDC-CPS/licence-permis-eng.htm) to guide users of the system in completing their licensing transactions. The Department also provides client support and assistance on how to use the system via e-mail at fishing-peche@dfo-mpo.gc.ca or by calling toll-free at 1-877-535-7307 (7:00 AM to 7:00 PM Eastern, Monday to Friday).

For more information on how to register and use the system, visit the Department's website at the address above, or contact our client support.

## 1.2 Licence Category

A commercial Pacific Oyster Category ZWO or FZWO licence eligibility is required to commercially harvest wild Pacific Oysters. Category ZWO licence eligibilities are limited entry and party based. FZWO licence eligibilities are limited entry and party based; a First Nation is the licence eligibility holder.

ZWO – This licence designates the authorized harvester named on the licence to harvest under the authority of the licence. Additional harvesters are allowed to assist the licence holder in harvesting on the beach. The licence holder and any additional harvesters must be in possession of a valid Fishers Registration Card (FRC). The licence holder must be present, at the harvest, and have the ZWO licence available for presentation upon request, when additional harvesters are active.

FZWO – The First Nation is the licence eligibility holder. The First Nation may designate an individual who may fish under the authority of the licence. The designation must be made in writing and include at a minimum the communal commercial licence number, the name of individual designated to fish, name and signature of the person authorized to provide designation on behalf of the First Nation and the effective date of the designation. While engaged in fishing under the communal commercial licence the designated party must be in possession of the designation document, proof of designation (identification that can verify identity of the individual), and have the FZWO licence available for presentation upon request of a DFO fishery officer.

## 1.3 Licence Renewal Fees

In accordance with the *Service Fees Act*, annual licence renewal fees will be adjusted by the annual rate of inflation determined by Consumer Price Index (CPI) published by Statistics Canada. The commercial Wild Pacific Oyster (Category ZWO) licence renewal

fee may be found on the following link: https://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.html.

There is no annual licence renewal fee for communal commercial category FZWO licence.

### 1.4 Licence Issuance

Renewal of a Category ZWO licence and payment of the fees must be done on an annual basis to retain the privilege to be issued the licence in the future, regardless of whether or not fishing is carried out. Those category ZWO not renewed by February 28th (February 29th in Leap Years) of the current fishing year will cease and licence issuance requests will be unable to be considered in future.

Prior to annual licence issuance, licence eligibility holders are required to:

a) Meet any Ministerial conditions placed on the licence eligibility.

b) Ensure all conditions of the previous year's licence have been met.

The licence eligibility holder of record for ZWO licences may annually choose to participate or re-designate another harvester to be named on the licence for the period of the annual licence. The annual licence fee must be paid and the licence obtained prior to requesting re-designation. Logbook/fish slip requirements must be met prior to re-designation**.** A request for re-designation must be submitted by the licence holder to DFO using the NOLS 'Submit a request' function. The commercial licence eligibility will return to the licence-holder-on-record upon expiration of the annual licence.

### 1.5 Licence Documents

Pacific Oyster licence documents are valid from the date of issue until February 28th (February 29th in Leap Years) of the following calendar year.

Replacements for lost or destroyed licence documents may be obtained by reprinting the licence document through the National Online Licensing System.

ZWO - The oyster licence and FRC must be carried at all times by the licence eligibility holder when harvesting oysters and must be produced upon the demand of a fishery officer or guardian. In addition to the oyster licence and the FRC, licence holders shall ensure that government issued photo identification is in their possession at all times during harvesting and is available for inspection upon request of a fishery officer or fishery guardian.

FZWO - The oyster licence and designation document must be carried at all times by the designated party when harvesting oysters and must be produced upon the demand of a fishery officer or guardian. In addition to the oyster licence and the designation document, the harvester shall ensure that a proof of designation (driver's licence, status card, certificate of designation issued by the First Nation, or other government issued photo identification) is in their possession at all times during harvesting and is available for inspection upon request of a fishery officer or fishery guardian.

Communal Commercial licence holders may obtain sample designation templates by contacting their local DFO Resource Manager.

### 1.6 Licence Eligibility Nominations

Category ZWO Pacific Oyster licence eligibilities may be nominated from one party to another. Nominations must be completed and submitted to the Pacific Fishery Licence Unit via the NOLS by the licence holder. Notarized application 'Nomination for Party-Based Licence Eligibility'. Scan the document and attach it to a 'Submit Request' in NOLS. PDF or standard picture formats are accepted (jpg, etc.).

The following requirements must be met:

a) Meet any Ministerial conditions placed on the licence eligibility;

b) Ensure all Conditions of Licence such as the completion of logbooks have been submitted and approved by G. Parker, Resource Manager, Fisheries & Oceans Canada.

Communal commercial (category FZWO) licence eligibilities may not be nominated as these are allocated annually to First Nations groups.

### 1.7 Fisher Identification Number (FIN)

A unique Fisher Identification Number (FIN) is assigned to each vessel owner and holders of commercial licence eligibilities, or FRC in the Pacific Region. This allows for quick and accurate identification. (The FIN is printed on your FRC and both party and vessel based licences.)

Licence holders may be asked to provide their FIN when applying for a licence, or for dockside monitoring, or for enforcement purposes.

For further information, please contact a Pacific Fisheries Licencing Unit (PFLU) or a resource manager (see Contacts, Appendix 7).

### 1.8 Licence Areas

The current open harvest areas have been divided into two licence management areas; the WCVI; and ECVI. Only specific harvest areas/sites (see Section 4.4.3.) within these licence areas will be open for commercial harvest.

- ECVI Waters: Areas 12 through 19; and 28 and 29.
- WCVI Waters: Areas 21 through 27.

## 2. CANADIAN SHELLFISH SANITATION PROGRAM

## 2.1 General Information on Closures under the Canadian Shellfish Sanitation Program

Closures may be implemented on short notice in the event of changes to contamination status, including sanitary and biotoxin events. Licence holders, vessel masters, and harvesters are reminded that:

- It remains the responsibility of the licence holders and harvesters to ensure that an area is not closed for harvest due to sanitary or biotoxin contamination. Fishing in a closed area is an offence under the *Fisheries Act*. Consumption of product harvested from within a closed area poses a serious health risk.

- Prior to commencement of each day's fishing, the licence holder must take care to confirm that an area is open for harvesting either through the DFO website at:

https://www.pac.dfo-mpo.gc.ca/fm-gp/shellfish-mollusques/contamination/index-eng.html

or by checking the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://www.dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm ), or by contacting a local DFO office directly. Contact information is available in Appendix 7

**Sanitary Contamination Closures**

Shellfish may not be harvested from closed contaminated areas except by special permit licence under the *Management of Contaminated Fisheries Regulations* (MCFR). Currently there is not an approved depuration process for oysters. There are both seasonal and permanent sanitary contamination closures. Descriptions and maps of contaminated closures may be found at the following DFO website:

www.pac.dfo-mpo.gc.ca/fm-gp/shellfish-mollusques/contamination/index-eng.html

- Additional sanitary closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

A copy of this list may also be obtained from the resource managers (see Contacts, Appendix 7). Sanitary closures are amended annually in May and November, and may also be amended in-season. Consequently, harvesters are advised to check the internet, prior to harvesting in an area, to ensure that they have the most recent contamination closure information.

Permanent bivalve harvesting closures are in place for Canadian fisheries waters of the Pacific Ocean within:

1. 300 m radius around industrial, municipal and sewage treatment plant outfall discharges;

2. 125 m radius of any marina, ferry wharf, any floating living accommodation facility (other than a floating living accommodation described in subsection (3)) or finfish net pen described in subsection (4);

3. 25 m radius of any floating living accommodation facility located within a shellfish aquaculture tenure where a zero-discharge waste management plan is a condition of the aquaculture licence and is approved by the Regional Interdepartmental Shellfish Committee; and

4. Zero (0) metres of any finfish net pen within an aquaculture tenure where an Integrated Multi-trophic Aquaculture Management Plan approved by the Regional Interdepartmental Committee is in operation.

Biotoxin Contamination Closures

Shellfish may not be harvested from closed areas except by special permit licence issued under the *Management of Contaminated Fisheries Regulations*. Shellfish may not be harvested for consumption from any area closed due to biotoxin contamination. Descriptions of biotoxin closures may be found at the following DFO internet site:

http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

- Additional biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Areas will be opened and fished according to protocols required by the Biotoxin Monitoring Program, approved by the Canadian Food Inspection Agency (CFIA).

Three consecutive weekly samples containing acceptable levels of biotoxin must be received in order to lift a harvest restriction in an area. CFIA will make recommendation to lift the biotoxin (Paralytic Shellfish Poison (PSP)/red tide, Domoic Acid Poisoning) (ASP) or Diarrhetic Shellfish Poisoning (DSP) prohibition and a harvest site can then be considered by DFO for First Nation, commercial or recreational harvesting. The resource manager will prepare the documentation necessary for an area opening for approval by the Regional Director General. For further details on the CSSP, see the internet at:

https://www.inspection.gc.ca/food/food-specific-requirements-and-guidance/fish/canadian-shellfish-sanitation-program/eng/1527251566006/1527251566942?chap=0

Closures due to biotoxin closure (Paralytic Shellfish Poisoning (PSP/Red Tide), Domoic Acid Poisoning and Diarrhetic Shellfish Poisoning (DSP)) are frequent and often encompass large areas. These closures can occur on very short notice with the closure taking effect immediately. Consumption of shellfish that contain the toxins causing PSP and Domoic Acid Poisoning can cause paralysis, memory loss or death.

Check to ensure that the area where you intend to harvest is open prior to harvesting using the following site: www.dfo-mpo.gc.ca/CheckBeforeYouHarvest.

## 2.2 Requirements for Legal Sourcing and Harvest of Bivalve Shellfish

DFO is reviewing all wild bivalve conditions of licence, and will increase / clarify management controls around product movement, i.e. selling of products to buyers/receivers, and implement changes to notification, tagging and reporting requirements. Consultation and engagement will be focused on increasing awareness of traceability requirements followed by changes to conditions of licence.

In addition, DFO will commence intensive enforcement operations on bivalve fisheries, targeting tagging, landing and reporting, and complete major C&P investigations regarding extensive bivalve laundering.

Over the longer term, DFO will continue to work with industry and BC to: improve industry traceability management, processes and technology, including access to funding; build and improve relationships with our Indigenous partners aimed at ensuring access, opportunity and monitoring of FSC fisheries meets all needs; reassess the impacts of focused and concerted enforcement on the bivalve fisheries aimed at assessing effectiveness of management control measures and informing future management control measures.

The safety of consumers is a top priority for the Government of Canada. The reputation of Canada's food supply is a responsibility shared by all parties, including industry and federal and provincial governments.

As partners for delivery of the Canadian Shellfish Sanitation Program (CSSP), Fisheries and Oceans Canada (DFO) and the Canadian Food Inspection Agency (CFIA) collaborate to prevent illegal harvesting and selling of bivalve shellfish, including suspected laundering of illegal products through legitimate aquaculture businesses. DFO also remains committed to meeting conservation objectives for bivalves as well as supporting priority for Food, Social and Ceremonial fisheries. Any harvest occurring in conflict with established management measures and controls has the potential of negatively impacting the conservation of bivalve populations.

DFO will investigate reports of illegal harvesting violations and will take appropriate enforcement actions, including prosecution. Furthermore, DFO may consider more restrictive management approaches if needed to protect public health. Commercial growers and harvesters are reminded that they are required, by law, to follow specific record-keeping and tagging requirements. Records of shellfish movement through the growing cycle and to the point of distribution provide evidence to support public health, regulatory decisions and closure recommendations.

Commercial harvesters and aquaculture operators are required to:

- Understand and abide by the conditions of licence;

- Keep complete, clear and legible records and be able to produce them to a DFO fishery officer when requested;
- Ensure bivalve product destined for market sale is appropriately tagged with complete and accurate harvest information and is processed by an operator licensed by the Canadian Food Inspection Agency to process shellfish;
- Harvest only from open and approved areas and check our website before heading out for the latest information (www.dfo-mpo.gc.ca/CheckBeforeYouHarvest).

If you are aware of illegal bivalve harvest activities and/or are aware of violations, please call the DFO Observe, Record and Report (ORR) phone line at 1-800-465-4336.

More information on the policies and criteria for harvesting shellfish can be found in the CSSP manual. See also Fishery Notice FN1142 (2019): https://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm?pg=view_notice&DOC_ID=227228&ID=all

## 2.3 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

### Harvesting Bivalves in the Vicinity of Wastewater Treatment Plants

Concerns have been raised regarding bivalve shellfish harvested in the vicinity of wastewater treatment plants. Increased controls were implemented in 2009 to prevent shellfish harvest in areas where a trigger event at a wastewater treatment plant may potentially cause contamination.

Conditional Management Plans have being developed at some of the priority wastewater treatment plants to manage harvest activities in the vicinity of the wastewater treatment plants.

DFO will consult with shellfish harvesters in areas where Conditional Management Plans must be developed.

For further information, contact Erin Milligan at (250) 327-4606.

## 3. CLOSURES

Closures to the commercial fishery may be in place for a variety of reasons: First Nation and recreational access, parks, marine reserves, research, navigation, or sanitary and marine biotoxin contamination.

### 3.1 Seasonal Area Closures

Check the DFO website and Fishery Notices for updates. The commercial harvest site listed below is subject to seasonal sanitary closures from May 31 to September 30. Check for openings and closures prior to harvesting.

*Area 15 Sanitary Closure 15.B. -- Tenedos Bay: A seasonal sanitary closure is in place at this commercial harvest site during the summer months. Please confirm opening and closure dates for this area on the DFO Fisheries Notice system prior to harvesting.*

## 4. PACIFIC OYSTER MANAGEMENT MEASURES

### 4.1 Species

Pacific Oysters (*Crassostrea gigas*).

The Department would like to remind harvesters that commercial and recreational harvest of Olympia Oysters (*Ostrea lurida*, previously *Ostrea chonchaphila*) is set to zero (0). Olympia Oysters are listed as a species of Special Concern under the *Species at Risk Act*.

### 4.2 Gear

Hand-picking only.

Diving, and other forms of harvest are not authorized under the ZWO or FZWO licence conditions.

## 4.3 Individual Licence Quotas

The individual licence quota is determined by dividing the allowable harvest in the licence area equally by the number of eligible licences electing that licence area for that particular year.

Based on the Area Licence Selection forms submitted by licence holders for the 2023 licence year the individual licence quota for the WCVI licence area is set at 11,694 lb. The individual licence quota for the ECVI licence area is set at 9,965 lb.

## 4.4 Fishing Areas and Openings

### 4.4.1 Canadian Shellfish Sanitation Program

Check to ensure the fishing area is classified and open prior to harvesting any bivalves. See Section 3.

### 4.4.2 Open Times (Fisheries and Oceans Canada)

The commercial Pacific Oyster fishery is tentatively scheduled to open at 00:01 hours March 1, 2023, biotoxin monitoring permitting. The commercial fishing season will close effective 23:59 hours June 30, 2023. Specific harvest sites will close in-season as the beach quota for that specific beach is achieved. For harvest sites with remaining quota a second commercial harvesting opening will occur September 10, 2023 and remain open until December 31, 2023. Harvest sites will close in-season as the beach quota for that specific beach is achieved. Prior to harvesting, harvesters must check for official openings and closures through Fishery Notices issued by the Department. At the Department's discretion adjustments to the opening and closing dates may be considered under some circumstances.

No product may be removed from the harvest site when the fishery is closed. This includes product already contained in bags or containers.

### 4.4.3 Descriptions for Commercial Harvest Sites

**There may be smaller closures defined within the following area descriptions for aquaculture tenures, sanitary or biotoxin closures, parks, or conservation reserves. It is the responsibility of the harvesters to ensure they are harvesting within an area open for harvesting.**

#### *4.4.3.1 Area 13*

Harvest Area: Shark Spit -- That portion of Subarea 13-15 along the northern intertidal foreshore of Marina Island north of the parallel passing through 50°04.938' north latitude. [NAD83] [Shark Spit]

Harvest Area: Smelt Bay -- That portion of Subarea 13-15 on the western intertidal foreshore of Cortes Island, south of the parallel passing through 50°02.900' north latitude and north of the parallel passing through 50°02.00' north latitude. [NAD83] [Smelt Bay]

Harvest Area: Bird Cove -- The waters and intertidal foreshore of that portion of Subarea 13-17 inside a line that commences at 50°11.956' N and 125°5.063' W [Read Is], then in a straight line to 50°11.788' N and 125°5.316' W, then following the shoreline to the point of commencement. [NAD 83] New Description for 2023.

*4.4.3.2 Area 14*

Harvest Area: Portion of PFMA 14-11 -- Those waters and intertidal foreshore of the East Coast of Vancouver Island north of a line at latitude $49^{0}$36.26’ and south of a line at latitude $49^{0}$37.399’ [NAD83] [Portion of PFMA 14-11]

*4.4.3.3 Area 15*

Harvest Area: Savary Island Part A -- The waters and intertidal foreshore of that portion of Subarea 15-2 inside a line that commences at 49°57.044' N and 124°45.797' W [Savary Is], then following the N shoreline to 49°56.965' N and 24°51.638' W, then in a straight line to 49°57.318' N and 124°48.376' W [in water], then in a straight line to 49°57.190' N and 124°45.620' W [in water], then in a straight line to the point of commencement. [NAD 83] New Boundary Description for 2023.

Harvest Area: Savary Island Part B -- The waters and intertidal foreshore of that portion of Subarea 15-2 inside a line that commences at 49°57.190' N and 124°45.620' W [in water], then in a straight line to 49°54.875' N and 124°45.675' W [in water], then in a straight line to 49°54.452' N and 124°49.278' W [in water], then in a straight line to 49°55.381' N and 124°51.499' W [in water], then in a straight line to 49°56.093' N and 124°51.037' W [Savary Is], then following the shoreline to 49°57.044' N and 124°45.797' W, then in a straight line to the point of commencement. [NAD 83] New Boundary Description for 2023.

Harvest Area: Hernando Reef -- That portion of Subareas 15-2 and 15-3 along the southern intertidal foreshore of Hernando Island, south of the parallel passing through 49°57.798’ north latitude. [NAD83] [Hernando Reef]

Harvest Area: East Hernando -- That portion of Subarea 15-3 along the eastern intertidal foreshore of Hernando Island, south of a line 49°59.256’ north latitude and north of a line 49°57.798’ north latitude. [NAD83] [East Hernando]

Harvest Area: West Hernando -- That portion of Subarea 15-3 along the western intertidal foreshore of Hernando Island south of the parallel passing through 50°00.194’ north latitude and west of the meridian passing through 124°55.027’ west longitude. [NAD83] [West Hernando]

Harvest Area: Stag and Dog Bays -- The waters and intertidal foreshore in Subarea 15-3 known as Stag Bay and Dog Bay along the northern portion of Hernando Island east of the meridian passing through $124^{0}$56.649’ west longitude and west of the meridian passing through $124^{0}$53.397’ west longitude. [NAD83] [Stag and Dog Bays]

Harvest Area: Lloyd Point -- The waters and intertidal foreshore of that portion of Subarea 15-5 inside a line that commences at 50°11.686' N and 124°36.490' W, then following the shoreline to 50°10.094' N and 124°37.840' W, then in a straight line to 50°10.146' N and 124°37.849' W [in water], then in a straight line to 50°11.688' N and 124°36.648' W [in water], then in a straight line to the point of commencement. [NAD 83] New Boundary Description for 2023.

Harvest Area: Seaford – That portion of Subarea 15-5 on the eastern intertidal foreshore of Cortes Island, south of the parallel passing through 50°07.015' north latitude and north of the parallel passing through 50°05.658'north latitude. [NAD83][Seaford]

Harvest Area: Tenedos Bay -- Those waters and intertidal foreshore known as Tenedos Bay within Subarea 15-5 inside a line drawn from a point at $50^{0}$07.062' north latitude and $124^{0}$42.477' west longitude to a point at $50^{0}$07.283' north latitude and $124^{0}$41.772' west longitude. [NAD83] [Tenedos Bay]

Harvest Area: Atrevida Reef – The waters and intertidal foreshore of that portion of Subarea 15-2 inside a line that commences at 49°55.492' N and 124°40.032' W [Malaspina Peninsula], then following the shoreline to 49°54.943' N and 124°38.816' W, then in a straight line to 49°54.953' N and 124°39.981' W [in water], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

#### *4.4.3.4 Area 16*

Harvest Area: Killam Bay – The waters and intertidal foreshore of that portion of Subarea 16-13 inside a line that commences at 49°47.189' N and 123°55.261' [Killam Bay], then following the shoreline to 49°46.991' N and 123°55.582' W, then in a straight line to the point of commencement. [NAD 83] New Boundary Description for 2023.

Harvest Area: Blind Bay – Part A -- The waters and intertidal foreshore of those portions of Subareas 16-11 and 16-16 inside a line that commences at 49°45.470' N and 124°8.701' W [Nelson Is], then following the shoreline to 49°44.552' N and 124°9.224' W, then in a straight line to 49°44.751' N and 124°9.563' W [Hardy Is], then following the shoreline to 49°45.309' N and 124°10.166' W, then in a straight line to 49°45.696' N and 124°9.494' W [in water], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Blind Bay – Part B -- The waters and intertidal foreshore of that portion of Subarea 16-16 inside a line that commences at 49°43.376' N and 124°10.453' W [in water], then in a straight line to 49°43.295' N and 124°10.322' W [in water], then in a straight line to 49°43.247' N and 124°10.396' W [unnamed island], then following the shoreline to 49°43.234' N and 124°10.457' W, then in a straight line to 49°43.230' N and 124°10.512' W [unnamed island], then following the shoreline to 49°43.220' N and 124°10.552' W, then in a straight line to 49°43.050' N and 124°11.351' W [Clio Is], then in a straight line to 49°43.006' N and 124°11.728' W [in water], then in a straight line to 49°43.144' N and 124°11.844' W [in water], then in a straight line to 49°43.432' N and 124°11.375' W [in

water], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Blind Bay – Part C -- The waters and intertidal foreshore of that portion of Subarea 16-16 inside a line that commences at 49°44.052' N and 124°9.683' W [Nelson Is], then following the shoreline to 49°43.490' N and 124°10.089' W, then in a straight line to 49°43.481' N and 124°10.172' W[ in water], then in a straight line to 49°44.034' N and 124°9.933' W [in water], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Blind Bay – Part D -- The waters and intertidal foreshore of that portion of Subarea 16-16 inside a line that commences at 49°44.490' N and 124°9.841' W [Hardy Is], then in a straight line to 49°44.310' N and 124°10.510' W [in water], then in a straight line to 49°44.218' N and 124°11.366' W, then following the shoreline to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Davie Bay – The waters and intertidal foreshore of that portion of Subarea 16-21 inside a line that commences at 49°37.028' N and 124°25.657' W [Texada Is], then following the shoreline to 49°35.806' N and 124°22.896' W, then in a straight line to 49°35.657' N and 124°23.016' W [in water], then in a straight line to 49°35.980' N and 124°23.812' W [unnamed islet], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Mouat Bay -- That portion of Subarea 16-21 along the southern intertidal foreshore of Texada Island known as Mouat Bay, south of the parallel passing through 49°38.800’ north latitude and north of the parallel passing through 49°38.087’ north latitude. [NAD83] [Mouat Bay]

Harvest Area: St. Vincent Bay Part A – The waters and intertidal foreshore of that portion of Subarea 16-12 inside a line that commences at 49°50.261' N and 124°4.551' W [St Vincent Bay], then in a straight line to 49°50.284' N and 124°5.154' W [in water], then in a straight line to 49°49.315' N and 124°5.453' W [in water], then in a straight line to 49°49.344' N and 124°5.585' W then following the shoreline to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: St. Vincent Bay Part B – The waters and intertidal foreshore of that portion of Subarea 16-12 inside a line that commences at 49°49.315' N and 124°5.453' W [in water, St Vincent Bay], then in a straight line to 49°49.154' N and 124°4.690' W [in water], then in a straight line to 49°48.854' N and 124°4.784' W [Sykes Is], then following the W shoreline to 49°48.549' N and 124°4.801' W, then in a straight line to 49°48.577' N and 124°5.567' W [on shore], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: St. Vincent Bay Part C -- The waters and intertidal foreshore of that portion of Subarea 16-12 inside a line that commences at 49°50.277' N and 124°4.425' W [St Vincent Bay], then following the shoreline to 49°50.205' N and 124°4.196' W, then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Storm Bay – Those waters and intertidal foreshore of Subarea 16-8 inside a line running from $49^0$39.596' north latitude and $123^0$49.112' west longitude to a point at $49^0$39.924' north latitude and $123^0$49.766' west longitude, then to a point at $49^0$39.914' north latitude and $123^0$49.889', and thence along the foreshore of British Columbia mainland back to a point at $49^0$39.437' north latitude and $123^0$49.369' west longitude, and then running along a straight line to the point of commencement. [NAD83] [Storm Bay].

Harvest Area: Sechelt Inlet Part A – The waters and intertidal foreshore of that portion of Subarea 16-6 inside a line that commences at 49°42.200' N and 123°53.403' W [Sechelt Inlet], then in a straight line to 49°41.819' N and 123°53.178' W, then following the shoreline to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Sechelt Inlet Part B – The waters and intertidal foreshore of that portion of Subarea 16-6 inside a line that commences at 49°42.350' N and 123°51.514' W [Sechelt Inlet], then following the shoreline to 49°41.796' N and 123°50.962' W, then in a straight line to 49°42.248' N and 123°51.639' [in water], then in a straight line to the point of commencement. [NAD 83]

*4.4.3.5 Area 23*

Harvest Area: Pipestem Inlet – The waters and intertidal foreshore of that portion of Subarea 23-10 inside a line that commences at 49°2.164' N and 125°12.846' W [Vancouver Is.], then following the shoreline to 49°2.059' N and 125°12.844' W, then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Toquaht Part A – The waters and intertidal foreshore of that portion of Subarea 23-10 inside a line that commences at 49°1.463' N and 125°18.054' W, then in a straight line 49°1.228' N and 125°18.027' W [Bazett Is.], then in a straight line to 49°1.249' N and 125°17.252' W [unnamed islet], then following the S shoreline to 49°1.238' N and 125°17.169' W, then in a straight line to 49°1.296' N and 125°16.785' W [unnamed islet], then following the S shoreline to 49°1.281' N and 125°16.724' W, then in a straight line to 49°1.280' N and 125°16.744' W, then following the shoreline to 49°0.883' N and 125°19.180' W, then in a straight line to 49°1.514' N and 125°18.989' W [Refuge Is.], then in a straight line to 49°1.782' N and 125°19.919' W [in water], then in a straight line to 49°2.033' N and 125°20.377' W [unnamed islet], then in a straight line to 49°02.150' N and 125°20.627' W [in water], then in a straight line to 49°02.283' N and 125°20.581' W, then following the shoreline to the point of commencement. [NAD 83] New Boundary Description for 2023.

Harvest Area: Toquaht Part B -- The waters and intertidal foreshore of those portions of Subareas 23-9 and 23-10 inside a line that commences at 49°0.446' N and 125°20.390' W

[unnamed islet], then following the S shoreline to 49°0.430' N and 125°20.348' W, then in a straight line to 48°59.701' N and 125°19.657' W [in water], then in a straight line to 48°59.009' N and 125°20.200' W [unnamed islet], then following the W shoreline to 48°58.966' N and 125°20.230' W, then in a straight line to 48°58.696' N and 125°20.901' W [in water], then in a straight line to 48°59.238' N and 125°22.030' W [in water], then in a straight line to 49°00.237' N and 125°21.095' W [in water], then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

#### *4.4.3.6 Area 25*

Harvest Area: Tlupana Inlet Part A – The waters and intertidal foreshore of that portion of Subarea 25-5 inside a line that commences at 49°48.081' N and 126°29.409' W [Head Bay, Vancouver Is.], then in a straight line to 49°47.813' N and 126°29.649' W then following the shoreline to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Tlupana Inlet Part B – The waters and intertidal foreshore of that portion of Subarea 25-5 inside a line that commences at 49°47.740' N and 126°28.793' W [Head Bay, Vancouver Is.], then following the shoreline to 49°47.413' N and 126°28.116' W then in a straight line to 49°46.476' N and 126°28.144' W [in water], then in a straight line to 49°46.172' N and 126°28.693' W [Vancouver Is.], then following the shoreline to 49°47.273' N and 126°29.332' W then in a straight line to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Hisnit Inlet -- The waters and intertidal foreshore of that portion of Subarea 25-4 inside a line that commences at 49°43.900' N and 126°29.647' W [Hisnit Inlet, Vancouver Is.], then in a straight line to 49°43.235' N and 126°29.473' W, then following the shoreline to the point of commencement. [NAD 83]. New Boundary Description for 2023.

Harvest Area: Mooyah Bay – The waters and intertidal foreshore of that portion of Subarea 25-3 inside a line that commences at 49°38.656' N and 126°27.746' W [Mooyah Bay, Vancouver Is.], then in a straight line to 49°38.304' N and 126°25.674' W, then following the shoreline to the point of commencement. Except that portion within 125 m of the point where the dock meets the land at 49°37.87’ N and 126°27.35’ W. [Sanitary Closure Map 25.14] [NAD 83]

## 4.5 Beach Management

### 4.5.1 Calculation of Beach Quotas

#### *4.5.1.1 Surveyed Beaches*

Where oyster biomass information from past years surveys is available, an estimate of current biomass using this survey data is used to establish a harvest quota. A guideline harvest rate of 10% of the estimated biomass is used for most beaches.

#### *4.5.1.2 Unsurveyed Beaches*

Where biomass estimates are not available, DFO has applied minimal quotas to some beaches so as to allow for a small commercial harvest opportunity.

### 4.5.2 Fishing Assigned Beach Quotas

It is the responsibility of the licence holder to hail to the fishery service provider prior to each fishing trip. The service provider will notify the licence holder if remaining quota exists on a specific beach.

Licences do not guarantee licence holders access to specific beaches for obtaining their quotas. Once beach quotas have been achieved for the fishing season, harvesters with remaining individual quotas will be required to harvest from other beaches with remaining quota available.

See section 4.6. and 4.7. for a full list of the individual beach quotas.

See section 5.1. for notification requirements prior to, and after fishing.

### 4.5.3 Quota Monitoring

Licence holders must hail their harvest information at the end of each fishing trip or off-load of product. Hail information will be provided to the service provider hired by the licence holders to monitor harvest levels against individual and beach quotas for the season.

The service provider hired by licence holders for the 2023 season is D&D Pacific Fisheries Ltd. Hails must be made to 1-888-730-8709 (Monday to Friday from 9am to 4pm only) and must be made within 16 hours of the oysters being transported from, or removed from the harvest site. All product harvested must be accounted for in the hailed harvest to the service provider, even if product from an earlier day is removed by someone other than the licence holder.

The service provider must provide weekly updates to DFO, or as requested.

#### *4.5.3.1 Possible Quota Transfers Due to Marine Biotoxin Closures*

The Department may, at its discretion, transfer quotas in-season between harvest areas, or to new harvest sites in order to mitigate access problems and/or harvest delays resulting from biotoxin closures. Transfers will only occur in extreme situations that harvesters would not be able to plan for in advance. Harvesters deciding to leave fishing until the end of the season and then encountering biotoxin issues should not expect quota transfers or fishing season extensions. In-season quota adjustments will not result in an increase in the annual commercial quota.

### 4.5.4 Role of the Service Provider

The approved service provider for the 2023 season is D&D Pacific Fisheries Ltd. The office hours for the service provider are Monday to Friday 9am to 4pm. The service provider is responsible for receiving fishing hails from licence holders, providing up-to-date

information on beach and licence quota status, and providing reporting services to DFO on behalf of licence holders. It remains the responsibility of the licence holder to ensure that all licence conditions are met.

For information on hail program requirements and contact phone numbers see section 5.1.

### 4.6 Harvest Opportunities for East Coast Vancouver Island (ECVI)

The 2023/24 wild Pacific Oyster quota for the ECVI waters is 478,300 lb. This has been subdivided and assigned to the beaches shown in Table 1. A total of 20 harvest sites have been assigned. At the Department's discretion adjustments to harvest quotas, harvest sites, or harvest site boundaries may be considered under some circumstances.

**Table 1**: 2023/24 Pacific Oyster Harvest Sites and Quotas - ECVI Waters

| Site | Harvest Site Name | PFMA / Description | Quota (lb) |
|---|---|---|---|
| 5031 | Bird Cove | 13-17 | 3,600 |
| 1411 | South of Comox Harbour | 14-11 | 75,000 |
| 5032 | Blind Bay | 16-16 | 22,500 |
| 5036 | Davie Bay | 16-21 | 15,200 |
| 5037 | East Hernando | 15-3 | 9,000 |
| 5042 | Hernando Reef | 15-3 | 78,000 |
| 5045 | Killam Bay | 16-13 | 5,000 |
| 5047 | Lloyd Point | 15-5 | 12,500 |
| 5052 | Mouat Bay | 16-21 | 10,000 |
| 5058 | Seaford | 15-5 | 50,000 |
| 5061 | Smelt Bay | 13-15 | 7,500 |
| 5062 | St. Vincent Bay (Part A, B, & C combined) | 16-12 | 6,900 |
| 5063 | Stag and Dog Bays | 15-3 | 39,000 |
| 5071 | West Hernando | 15-3 | 8,100 |
| 5122 | Shark Spit | 13-15 | 20,000 |
| 7000 | Sechelt Inlet (Part A & B combined) | 16-6 | 5,000 |

| Site | Harvest Site Name | PFMA / Description | Quota (lb) |
|---|---|---|---|
| 6001 | Tenedos Bay * | 15-5 | 15,000 |
| 7001 | Atrevida Reef | 15-2 | 15,000 |
| 7002 | Storm Bay | 16-8 | 6,000 |
| 6005 | Savary Island (Part A & B combined) | 15-2 | 75,000 |
| **Total Allowable** | **Catch (lb)** | | 478,300 |
| **Note: Tenedos Bay - Seasonal water quality closures in place due to summer boating traffic.* | | | |

### 4.7 Harvest Opportunities for West Coast of Vancouver Island (WCVI)

The 2023/24 wild Pacific Oyster quota for the WCVI waters is 210,500 lb. This has been subdivided and assigned to the beaches shown in Table 2. A total of 5 harvest sites have been assigned. At the Department's discretion adjustments to harvest quotas, harvest sites, or harvest site boundaries may be considered under some circumstances.

**Table 2**: 2023/24 Pacific Oyster Harvest Site Areas and Quotas – WCVI

| Beach | Harvest Site Name | PFMA/Description | Quota (lb.) |
|---|---|---|---|
| 5068 | Toquaht (Part A, B) | 23-9 and 23-10 | 150,000 |
| 6007 | Pipestem Inlet | 23-10 | 21,000 |
| 5043 | Hisnit | 25-4 | 15,500 |
| 5118 | Mooyah Bay | 25-3 | 9,000 |
| 7003 | Tlapana Inlet | 25-5 | 15,000 |
| **Total Allowable Catch (lb)** | | | **210,500** |

Additional information about the Five Nations Multi-species Fishery Management Plan can be found in Section 1.3.1 of this IFMP.

## 5. CONTROL AND MONITORING OF COMMERCIAL FISHING ACTIVITIES

Control and monitoring of the commercial fishery is achieved largely through the Catch Monitoring Programs (Fishing Hail, Catch Hail, and Logbook). Commercial fish harvesters contract with D&D Pacific Fisheries Ltd. to track the commercial landings of oysters.

Licence holders are required to notify the service provider prior to engaging in fishing, and provide harvest information prior to the end of the day of harvesting. Each licence holders must also carry and fill out a harvest logbook with details of harvest activity.

The Department has been notified by licence holders that the service provider contracted for the purpose of notification, catch monitoring, and data submission for the 2023/24 season will be D&D Pacific Fisheries Ltd. The service provider can be reached Monday to Friday at 1-604-886-4819 from 9am to 4pm.

## 5.1 Notification Procedure

The following are responsibilities of notification for holders of a ZWO or FZWO category licence, as detailed in the Conditions of Licence.

### 5.1.1 Notification by a Licence Holder prior to Fishing

24 hours prior to fishing Pacific Oysters, or upon cancellation of a fishing trip, licence holders must notify the service provider of the following information:

- Licence holder name and licence number;
- Caller's name;
- Vessel Name – (only if vessel used and vessel has a name);
- Pacific Fisheries Management Area/Subarea;
- Beach name on which harvesting will occur (harvesting site); and
- Date and time of arrival on, or departure from, the fishing area.

Notification may be completed through the service provider at 1-888-730-8709 during office hours only (Monday to Friday 9am to 4pm) or by emailing to pacificoyster@d-dpacificfisheries.com.

The maximum period for which a pre-harvest hail may be valid for is eight days. A harvester may not hail-in to a harvest site indicating that they plan to harvest for a period longer than eight days. If the harvester plans to fish an area for a period longer than eight days they must re-hail into the area after the initial eight days.

### 5.1.2 Notification by a Licence Holder after Fishing

Within 16 hours of transporting the product from the harvest site licence holders must notify the service provider of the following;

- Licence holder name
- Hail Out Number provided prior to fishing
- Beach name (harvest site) on which harvesting occurred on
- Pacific Fisheries Management Area/Subarea
- Date and time of landing, landing port and location at the port.
- Accurate Estimated Weight of oysters harvested
- Destination of oysters (lease or processor)

Notification may be completed through the service provider at 1-888-730-8709 during office hours of Monday to Friday only (9am to 4pm) or by emailing to pacificoyster@d-dpacificfisheries.com.

If for any reason product harvested under the authority of the ZWO or FZWO licence is missing or stolen off the beach before the licence holder can transport the product, the harvested product must still be hailed and reported against the licence holder's quota.

## 5.2 Recording of Harvest Product

### 5.2.1 Harvest Logbooks

It is the responsibility of the vessel owner for the provision and maintenance of an accurate record, a "log" of daily harvest operations. This log must be completed and a copy submitted to Fisheries and Oceans Canada in both hard copy (paper) and electronic form in an approved format as defined by the 2023/24 Fishery Monitoring and Catch Reporting Program Standards. The harvest logbook supplied by the service provider under contract is an approved format harvest log.

A copy of the Fishery Monitoring and Catch Reporting Program Standards document for the 2023/24 season is found in Appendix 11.

The original copy of the log, the fishing location information, must be forwarded within 28 days following the end of each month in which fishing occurred. This information must be sent to:

Guy Parker
Fisheries and Oceans Canada
65 Front Street
Nanaimo, B.C., V9R 5H9

Catch information must be recorded in the harvest log prior to leaving the fishing locations on the day of fishing. The logbook must be at the harvest site. Logbooks must be produced for examination on demand of a fishery officer, guardian, or a fishery observer designated under the *Fisheries Act*.

Fisheries and Oceans Canada wishes to remind commercial fish harvesters that harvest logbooks must be completed accurately during fishing operations and submitted to Fisheries and Oceans Canada 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.

The licence eligibility holder of record, as reported to the PFLU, is responsible to ensure that the harvest information has been completed and a submitted copy of the harvest log data. The Department can only release harvest log data to the reported licence holder, and only upon written request.

### 5.2.2 Tagging of Oyster Containers

All containers holding oysters shall be marked or tagged with the following information;

- Harvester's name;
- Licence Holder's name;
- Oyster Licence number;
- Harvest date;
- Commercial Harvest Site; and
- Pacific Fisheries Management Subarea (example: Subarea 24-4).

Tags shall be waterproof and information shall be written in water resistant ink.

All oyster containers shall be tagged prior to placing any oysters in them.

No container of oysters shall remain untagged during transport to market sale or a wet storage location in preparation for market sale.

#### 1.1.1. Lost, Seized or Destroyed Product

Oysters harvested and then lost, seized, destroyed, or wasted for any reason shall be counted against the individual licence holder's quota and the beach quota where the product was harvested.

### 5.2.3 Wet Storage of Commercial Wild Harvest Pacific Oyster

As of January 15, 2019 DFO Aquaculture Management is the lead authorizing agent for wet storage activities. Conditions of licence have been amended to reflect new approval requirements for wet storage of product. Harvesters are reminded that commercially harvested oysters cannot be left on wild beaches unattended without wet storage permits.

If harvesters are unable to retrieve oysters from the beach that were harvested during the fishery due to unforeseen circumstances (ex. Vessel breakdown) then harvesters should contact the local DFO office to inform Conservation and Protection staff of the situation.

## 5.3 Catch and Fishing Data

### 5.3.1 Nil Report for Validation & Harvest Log

In the event that a licence is issued but not fished, the vessel owner is responsible for submitting a Nil Report for the season. The Nil report must be submitted prior to the issuing of approval for licence renewal. One page from the Validation & Harvest Logbook identifying the vessel, licence tab number, and the year with "Nil" entered in the body of the log and signed by the vessel owner constitutes a Nil Report.

### 5.3.2 Confidentiality of Harvest Data

Harvest data, including fishing location data supplied through latitude and longitude co-ordinates or chart records, collected under the harvest logbooks for shellfish fisheries

programs, are collected for use 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 fish harvesters in accordance with Conditions of Licence, 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 result in material financial loss or could reasonably be expected to prejudice the competitive position of the licence eligibility holder.

#### 5.3.3 Fish Slip Requirements

An accurate written report shall be furnished on a fish slip of all fish and shellfish caught under the authority of this licence. A report must be made even if the fish and shellfish landed are used for bait, personal consumption, or otherwise disposed. The written report shall be posted *no later than seven days after harvest* and sent to:

Fisheries and Oceans Canada
Regional Data Unit

Suite 200 - 401 Burrard Street
Vancouver, B.C., V6C 3S4

Information on obtaining Fish Slips may be found at: https://www.dfo-mpo.gc.ca/fisheries-peches/sdc-cps/fishslips-carnets/index-eng.html

## 6. GENERAL INFORMATION

### 6.1 WORKSAFE BC

The oyster fishery, and other fisheries, are legislated by the requirements for occupational divers, found in Part 24 of the *Occupational Health and Safety Regulation* (OHSR) and as commercial fishing ventures, also found in Part 24 of the OHSR. Many of the general sections of the Regulation also apply, for example: Part 8 - Personal Protective Equipment, addresses issues related to safety head gear, safety footwear, and personal floatation devices. Part 17 addresses issues on rigging and Part 5 addresses issues of exposure to chemical and biological substances. The entire regulation can be acquired from the Provincial Crown Printers or by visiting the WorkSafeBC Internet Site at: www.worksafebc.com. See Appendix 8 for more information.

### 6.2 Sale and Transfers of Pacific Oysters

The *B.C. Provincial Fish and Seafood Regulations* Section 21 states: A person must not possess, store or transport fish the person receives directly from a commercial fisher and that may be distributed to the public for human consumption unless the person (a) holds a

fish receiver licence, (b) is exempt under subsection (2), or (c) is an employee, acting in the course of his or her employment, of a person referred to in paragraph (a) or (b).

Oyster harvesters may cultivate their harvested oysters on a licenced aquaculture facility.

### 6.3 Wearing High Visibility Vests While Harvesting

Licence holders and all persons harvesting Pacific oysters under the authority of a ZWO or FZWO commercial licence shall wear a high visibility vest during fishing activities.

# APPENDIX 2: 2023/2024 PACIFIC OYSTER FIRST NATION HARVEST PLAN

## 1. OPEN TIMES AND AREAS

First Nation harvest for food, social and ceremonial (FSC) or domestic purposes is open year round if authorized by a communal licence or Harvest Document and the area is not closed for sanitary or biotoxin (e.g., paralytic shellfish poisoning (PSP) or red tide) contamination.

## 2. CLOSURES

### 2.1 Canadian Shellfish Sanitation Program

Closures may be implemented on short notice in the event of changes to contamination status, including sanitary and biotoxin events. Licence holders, vessel masters, and harvesters are reminded that:

- It remains the responsibility of the licence holders and harvesters to ensure that an area is not closed for harvest due to sanitary or biotoxin contamination. Fishing in a closed area is an offence under the *Fisheries Act*. Consumption of product harvested from within a closed area poses a serious health risk.
- Prior to commencement of each day's fishing, the licence holder must take care to confirm that an area is open for harvesting either through the DFO website at:

  http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

  or the toll-free information line at 1-866-431-3474, or by contacting a local DFO office directly. Contact information is available in Appendix 7.
- Additional sanitary and biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Remember to check for both types of contamination closures that may affect bivalves: sanitary closures and biotoxin closures (PSP/red tide, Domoic Acid Poisoning and Diarrhetic Shellfish Poisoning (DSP)).

#### 2.1.1 Sanitary Contamination Closures

Shellfish may not be harvested from closed contaminated areas except by special permit licence under the *Management of Contaminated Fisheries Regulations* (MCFR). Currently there is not an approved depuration process for oysters. Sanitary closures occur in areas that have been tested and found to contain unacceptable levels of contaminants. There are both seasonal and permanent sanitary contamination closures. Descriptions and maps of contaminated closures may be found at the following DFO website:

http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

- Additional sanitary closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

A copy of this list may also be obtained from the resource managers (see Contacts, Appendix 7). Sanitary closures are amended annually in May and November, and may also be amended in-season. Consequently, harvesters are advised to check the internet, prior to harvesting in an area, to ensure that they have the most recent contamination closure information.

Permanent bivalve harvesting closures are in place for Canadian fisheries waters of the Pacific Ocean within:

1. 300 m radius around industrial, municipal and sewage treatment plant outfall discharges;
2. 125 m radius of any marina, ferry wharf, any floating living accommodation facility (other than a floating living accommodation described in subsection (3)) or finfish net pen described in subsection (4);
3. 25 m radius of any floating living accommodation facility located within a shellfish aquaculture tenure where a zero-discharge waste management plan is a condition of the aquaculture licence and is approved by the Regional Interdepartmental Shellfish Committee.
4. Zero (0) metres of any finfish net pen within an aquaculture tenure where an Integrated Multi-trophic Aquaculture Management Plan approved by the Regional Interdepartmental Committee is in operation.

### 2.1.2 Biotoxin Contamination Closures

Shellfish may not be harvested from closed areas except by special permit licence issued under the *Management of Contaminated Fisheries Regulations*. Shellfish may not be harvested for consumption from any area closed due to biotoxin contamination. Descriptions of biotoxin closures may be found at the following DFO internet site:

http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

- Additional biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Areas will be opened and fished according to protocols required by the Biotoxin Monitoring Program, approved by the Canadian Food Inspection Agency (CFIA).

Three consecutive weekly samples containing acceptable levels of biotoxin must be received in order to lift a harvest restriction in an area. CFIA will make recommendation to lift the biotoxin (Paralytic Shellfish Poison (PSP)/red tide, Domoic Acid Poisoning) (ASP) or Diarrhetic Shellfish Poisoning (DSP) prohibition and a harvest site can then be considered by DFO for First Nations, commercial or recreational harvesting. The resource manager will prepare the documentation necessary for an area opening for approval by the Regional Director General. For further details on the CSSP, see the internet at:

https://www.inspection.gc.ca/food/food-specific-requirements-and-guidance/fish/canadian-shellfish-sanitation-program/eng/1527251566006/1527251566942?chap=0

## 2.2 Requirements for Legal Sourcing and Harvest of Bivalve Shellfish

DFO is reviewing all wild bivalve conditions of licence, and will increase /clarify management controls around product movement, i.e. selling of products to buyers/receivers, and implement changes to notification, tagging and reporting requirements. Consultation and engagement will be focused on increasing awareness of traceability requirements, followed by changes to conditions of licence.

In addition, DFO will commence intensive enforcement operations on bivalve fisheries, targeting tagging, landing and reporting, and complete major C&P investigations regarding extensive bivalve laundering.

Over the longer term, DFO will continue to work with industry and BC to: improve industry traceability management, processes and technology, including access to funding; build and improve relationships with our Indigenous partners aimed at ensuring access, opportunity and monitoring of FSC fisheries meets all needs; reassess the impacts of focused and concerted enforcement on the bivalve fisheries aimed at assessing effectiveness of management control measures and informing future management control measures.

The safety of consumers is a top priority for the Government of Canada. The reputation of Canada's food supply is a responsibility shared by all parties, including industry and federal and provincial governments.

As partners for delivery of the Canadian Shellfish Sanitation Program (CSSP), Fisheries and Oceans Canada (DFO) and the Canadian Food Inspection Agency (CFIA) collaborate to prevent illegal harvesting and selling of bivalve shellfish, including suspected laundering of illegal products through legitimate aquaculture businesses. DFO also remains committed to meeting conservation objectives for bivalves as well as supporting priority for Food, Social and Ceremonial fisheries. Any harvest occurring in conflict with established management measures and controls has the potential of negatively impacting the conservation of bivalve populations.

DFO will investigate reports of illegal harvesting violations and will take appropriate enforcement actions, including prosecution. Furthermore, DFO may consider more restrictive management approaches if needed to protect public health. Commercial growers and harvesters are reminded that they are required, by law, to follow specific record-keeping and tagging requirements. Records of shellfish movement through the growing cycle and to the point of distribution provide evidence to support public health, regulatory decisions and closure recommendations.

Commercial harvesters and aquaculture operators are required to:

- Understand and abide by the conditions of licence;
- Keep complete, clear and legible records and be able to produce them to a DFO fishery officer when requested;
- Ensure bivalve product destined for market sale is appropriately tagged with complete and accurate harvest information and is processed by an operator licensed by the Canadian Food Inspection Agency to process shellfish;
- Harvest only from open and approved areas and check our website before heading out for the latest information (www.dfo-mpo.gc.ca/CheckBeforeYouHarvest).

If you are aware of illegal bivalve harvest activities and/or are aware of violations, please call the DFO Observe, Record and Report (ORR) phone line at 1-800-465-4336.

More information on the policies and criteria for harvesting shellfish can be found in the CSSP manual. See also Fishery Notice FN1142 (2019): https://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm?pg=view_notice&DOC_ID=227228&ID=all

## 2.3 Harvesting on Aquaculture Tenures

Aquaculture facilities are considered private property. Aquaculture licences of occupation are activity (or species) specific and do not legally restrict access unless there are impacts to the species being cultured. The Department recommends that oyster harvesters familiarize themselves with the location of aquaculture tenures in fishing areas and that explicit permission be sought from the aquaculture licence holders. All tenures must be marked with standard red-dyed concrete markers.

## 2.4 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 Transport Canada Regulations, 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, Transport Canada's *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 can be found at the following CFIA internet site: https://www.inspection.gc.ca/preventive-controls/fish/cssp/questions-and-answers/eng/1563470479199/1563470589053

### 2.5 Harvesting Bivalves in the Vicinity of Wastewater Treatment Plants

Concerns have been raised regarding bivalve shellfish harvested in the vicinity of wastewater treatment plants. Increased controls were implemented in 2009 to prevent shellfish harvest in areas where a non-permitted sewage overflow at a wastewater treatment plant may potentially cause contamination.

Conditional Management Plans are being developed at some of the priority based wastewater treatment plants to manage harvest activities in the vicinity of the wastewater treatment plants.

DFO will be consulting with shellfish harvesters in areas where Conditional Management Plans must be developed.

For further information, contact Erin Milligan at (250) 327-4606.

## 3. CONTROL AND MONITORING OF FIRST NATIONS FISHING ACTIVITIES

First Nations harvests for FSC purposes are the first priority after conservation. This fishery is regulated through the issuance of communal licences/Harvest Document to First Nations organizations. These licences are issued under the authority of the *Aboriginal Communal Fishing Licence Regulations*. Further arrangements for First Nations fishing may be identified in agreements between the Department and individual First Nations organizations.

Communal licences and Fisheries Agreements may contain provisions for the designation of individuals by the First Nations organization to access the allocation provided under the communal

licence, as well as provisions for monitoring and reporting by the group of the First Nation fishery in co-operation with the Department.

First Nations access to fish for FSC or domestic purposes is managed through a communal licence or Harvest Document, respectively, which can permit the harvest of Pacific Oysters.

For additional information on communal licences, see the internet at: http://www.pac.dfo-mpo.gc.ca/abor-autoc/licences-permis-eng.html

Nisga'a Domestic Fishing

The Harvest agreement for domestic (FSC) purposes under the Nisga'a Final Agreement (Treaty) came into effect on May 11, 2000. The Nisga'a territory is located within the Nass River valley on the northwest coast of British Columbia. More information on the Treaty and the Nisga'a annual fishing plan can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100030588/1542730442128

Tsawwassen Domestic Fishing

The Tsawwassen fishery for domestic (FSC) purposes under the Tsawwassen Final Agreement (Treaty) came into effect on April 3, 2009. The Tsawwassen First Nation is located in the lower mainland near the city of Vancouver, and their territory spans portions the Strait of Georgia near the mouth of the Fraser River as well as portions of the lower Fraser River and Boundary Bay. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100022706/1617737111330

Maa-nulth Domestic Fishing

The Maa-nulth First Nations fishery for domestic (FSC) purposes under the Maa-nulth First Nations Final Agreement (Treaty) came into effect on April 1, 2011. The Maa-nulth First Nations comprise five individual First Nations; Huu-ay-aht First Nations, Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nations, Toquaht Nation, Uchucklesaht Tribe and the Yuułuʔiłʔatḥ First Nation on the west coast of Vancouver Island. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1100100030588/1542730442128

Maa-nulth domestic fisheries -The domestic (FSC) allocations for Pacific Oyster under the Maa-nulth First Nations Final Agreement are provided through set-aside beaches identified for bivalve domestic harvest.

Maa-nulth commercial fisheries - In addition to the allocation of Pacific Oyster for domestic purposes, Maa-nulth has been provided five (5) communal commercial Pacific Oyster licences outside of the Treaty and outside of the "Maa-nulth First Nation Harvest Agreement".

Tla'amin Domestic Fishing

The Tla'amin fishery for domestic (FSC) purposes under the Tla'amin Final Agreement (Treaty) came into effect on April 5, 2016. The Tla'amin Nation is located near the City of Powell River, 130 km northwest of Vancouver. More information on the Treaty can be found at: https://www.rcaanc-cirnac.gc.ca/eng/1397152724601/1542999321074

Five Nuu-chah-nulth First Nations

Five Nuu-chah-nulth First Nations located on the west coast of Vancouver Island - Ahousaht, Ehattesaht, Hesquiaht, Mowachaht/Muchalaht, and Tla-o-qui-aht (the Five Nations) – have Aboriginal rights to fish for any species, with the exception of Geoduck, within their Fishing Territories and to sell that fish. The Department has developed a 2022/23 Five Nations Multi-species Fishery Management Plan (FMP). The FMP includes specific details about the fishery, such as allocation/access, licensing and designations, fishing area, harvesting opportunities, and fishery monitoring and catch reporting. Feedback provided by the Five Nations during consultations was considered and incorporated into the 2022/23 FMP by DFO where possible.

The implementation of the Five Nations' right-based sale fishery continues to be an ongoing process. The 2022/23 FMP is the fourth Multi-Species FMP developed to implement the right-based multi-species fishery to accommodate the Five Nations' Aboriginal rights consistent with the British Columbia Supreme Court's 2018 decision. Version 2 of the 2021 FMP, issued on December 2, 2021, was the first Multi-Species FMP developed following the British Columbia Court of Appeal (BCCA) decision of April 19, 2021, in *Ahousaht Indian Band and Nation v. Canada*, 2021 BCCA 155, but it only partially implemented it. The 2022/23 FMP addresses most of the remaining issues raised by the BCCA decision, leaving some items left to review. It is DFO's intention to continue to review the FMP and make further changes in-season and amend the FMP if required.

For further information, the 2022/23 FMP may be obtained online at: https://waves-vagues.dfo-mpo.gc.ca/Library/41047977.pdf

## APPENDIX 3: 2023/24 WILD PACIFIC OYSTER RECREATIONAL HARVEST PLAN

## 1. INTRODUCTION

Tidal Water Sport Fishing - Licensing and Regulations

The recreational harvest of various fish and invertebrate species in BC is regulated via the *British Columbia Sport Fishing Regulations*, 1996 made under the *Fisheries Act*. A DFO Tidal Waters Sport Fishing licence is required for the recreational harvest of all species of fish and marine invertebrates.

Tidal Waters Sport Fishing licences may be purchased for a 1 day, 3 day, or 5 day period, or as an annual licence, covering the period April 1 (or date of purchase, whichever is later) to March 31 the following year. The annual licence fee is not pro-rated for annual licences purchased mid-season. Fees depend on licence duration, age (senior, adult, juvenile) and residency status. Licences for juveniles (ages 15 and under) are free. Concessionary fees are not otherwise available. There were over 272,800 adult fishers participating in BC's tidal waters recreational fishery in 2021/22.

Alternatively licences may be purchased over the counter at Independent Access Providers (IAPs) in many areas (note that the IAP may charge an additional service fee).

Licences may be purchased online via the National Recreational Licensing System:

http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/application-eng.html.

A list of IAPs is available at:

http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/iap-fai-eng.html.

Online Regulations

The regulations for recreational fishing are provided online in the British Columbia Tidal Waters Sport Fishing Guide, which lists open and closed times, catch limits, size limits (where applicable), and open and closed areas.

Changes to regulations are issued in Fishery Notices which are posted online and sent to subscribers by email.

The printed Sport Fishing Guide booklet is no longer being produced or distributed to reduce costs and environmental impacts. The online Sport Fish Guide allows for in-season regulations to be accurately provided and ensures all the regulations are up to date. Staff at local DFO fishery offices can also provide regulatory information for an area of interest.

The British Columbia Tidal Waters Sport Fishing Guide is available at:

http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.html

To view or subscribe to receive Fishery Notice notifications by email is available at:

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

Local DFO fishery office contact information is available at:

https://www.dfo-mpo.gc.ca/contact/regions/pacific-pacifique-eng.html

or call 604-666-0384 or email info@dfo-mpo.gc.ca

**Using Mobile Devices and the FishingBC App**

The FishingBC App, developed by the Sport Fishing Institute of BC, can be downloaded to a mobile device to assist with having access to regulatory information for species, areas, fishing gear while out on the water (along with other functionalities).

Please note: the DFO Sport Fishing Guide website is the official site for regulatory information in the event of a discrepancy with the FishingBC App.

The FishingBC App may be downloaded at:

http://www.fishingbcapp.ca/

The online DFO Sport Fishing Guide is available at:

https://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.html

**E-licences and Paper licences**

At this time most fishers continue to use the traditional paper copy of their licence; however, an e-licence, which is an electronic/pdf copy of the licence, may be used on a mobile device but there are restrictions on its use.

Please consider these licensing requirements before a fishing trip:

- For all recreational tidal waters fishers that do not have an electronic copy of their licence on their mobile device, fishers must have a paper copy of their licence with proof of licence purchase to show to a fishery officer;

- For users of the FishingBC App or on any electronic device, a PDF copy of their licence on the device is acceptable and must be immediately presented to a fishery officer upon request. Please note catch recording requirements below;

- Immediately upon retention of Chinook, Halibut, or Lingcod, fishers must record these catches on their paper licence (preferred) or in their National Recreational Licensing System account (requires internet access).

- For all fishers retaining Chinook, Halibut, or Lingcod, even with an e-licence and catch details in the FishingBC App or in their mobile device, fishers must immediately record

catch for these three species on their paper licence or in their National Recreational Licensing System Account and show these records to a fishery officer upon request.

- a paper copy of their licence; or
- their National Recreational Licensing System account (where internet access for their mobile device is available). Fishers may find it helpful to immediately take a screenshot of their catch records when they have internet access should they subsequently move out of cell range.

**Supporting Sustainable Fisheries - Catch Reporting**

The Sport Fishing Advisory Board (SFAB) is the primary consultative body for the recreational fishing community, and includes individual representatives from all geographic regions in BC as well as delegates from a number of fishing and service provider organizations. The SFAB and the recreational fishing sector strongly support effective fishery monitoring and catch reporting programs in recreational fisheries. The SFAB has been working with DFO on initiatives to strengthen fishing monitoring and catch reporting in the recreational fishery for a number of years.

Recreational fishers are required as a condition of the Tidal Waters Sport Fishing Licence to report accurate information on their recreational fishing activity and catch upon request of DFO representatives including creel surveyors, fishery officers and fishery guardians and if selected to the online iREC reporting program (see below).

**Internet Recreational Effort and Catch (iREC) Reporting program**

The internet Recreational Effort and Catch (iREC) reporting program is an online program that has been collecting effort and catch information from Tidal Waters Sport Fishing licence holders since July 2012. All 2022/23 adult Tidal Water Recreational Fishing licences will be selected to iREC reporting program and randomly assigned to report for one month. Licence holders are required to report for only one month to limit the reporting burden. Information regarding completing the iREC report, including the month selected for reporting, the website at which to report, a unique iREC Access ID and reporting deadline are printed on each licence. Further, licence holders with a valid email address in the National Recreational Licencing system will receive emails reminding them to complete their iREC reports. Providing complete and accurate information to the iREC program when selected is a condition of licence (i.e. mandatory requirement).

The iREC reporting program is one of the sources used in developing DFO official catch and effort estimates. The iREC reporting program methodology was peer reviewed and published by the Canadian Science Advisory Secretariat (CSAS) in 2015. This program provides monthly estimates of effort for 6 fishing methods and catch for over 80 species of sport caught finfish and invertebrates in all Pacific Fishery Management Areas based on responses by Tidal Waters Sport Fishing Licence holders. The recreational fishing methods covered by the iREC reporting program

include boat-based angling, angling from shore, shellfish trapping from boat and shore, beach collecting, and diving. iREC estimates are developed for methods and species not covered by the marine creel surveys, which cover only boat-based angling, and for months and areas not covered by marine creel surveys.

More information about the iREC reporting program is available at:

http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/irec/index-eng.html

### Internet Annual Recreational Catch (iARC) Reporting program

A separate online reporting program - the internet Annual Recreational Catch (iARC) reporting program – was held at the end of the season to collect the catch records of Chinook, Lingcod, and Halibut from Tidal Waters Sport Fishing Licence holders as written on their licence(s). This program ran for 8 years between 2014/15 and 2021/22. It provided information for Chinook, Lingcod and Halibut on annual quota, annual and monthly catch estimates, and Halibut length statistics.

More information about the iARC reporting program is available at:

http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/irec/iarc-eng.html

## 2. OPEN TIMES AND AREAS

The recreational fishery for oysters occurs year-round in the tidal waters of British Columbia except those areas that are closed to fishing. Fishing closures are put in place for various reasons, often related to concerns for public health and safety. Please refer to section 4 for details.

## 3. CLOSURES

### 3.1 Canadian Shellfish Sanitation Program

Closures may be implemented on short notice in the event of changes to contamination status, including sanitary and biotoxin events. Licence holders, vessel masters, and harvesters are reminded that:

- It remains the responsibility of the licence holders and harvesters to ensure that an area is not closed for harvest due to sanitary or biotoxin contamination. Fishing in a closed area is an offence under the *Fisheries Act*. Consumption of product harvested from within a closed area poses a serious health risk.
- Prior to commencement of each day's fishing, the licence holder must take care to confirm that an area is open for harvesting either through the DFO website at:

  https://www.pac.dfo-mpo.gc.ca/fm-gp/shellfish-mollusques/contamination/index-eng.html

or by checking the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://www.dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm), or by contacting a local DFO office directly. Contact information is available in Appendix 7.

Remember to check for both types of contamination closures that may affect bivalves: sanitary closures and biotoxin closures (PSP/red tide, Domoic Acid Poisoning and Diarrhetic Shellfish Poisoning (DSP)).

### 3.1.1 Sanitary Contamination Closures

Shellfish may not be harvested from closed contaminated areas except by special permit licence under the *Management of Contaminated Fisheries Regulations* (MCFR). Currently there is not an approved depuration process for oysters. Sanitary closures occur in areas that have been tested and found to contain unacceptable levels of contaminants. There are both seasonal and permanent sanitary contamination closures. Descriptions and maps of contaminated closures may be found at the following DFO website:

https://www.pac.dfo-mpo.gc.ca/fm-gp/shellfish-mollusques/contamination/index-eng.html

- Additional sanitary closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

A copy of this list may also be obtained from the resource managers (see Contacts, Appendix 7). Sanitary closures are amended annually in May and November, and may also be amended in-season. Consequently, harvesters are advised to check the internet, prior to harvesting in an area, to ensure that they have the most recent contamination closure information.

Permanent bivalve harvesting closures are in place for Canadian fisheries waters of the Pacific Ocean within:

1. 300 m radius around industrial, municipal and sewage treatment plant outfall discharges;
2. 125 m radius of any marina, ferry wharf, any floating living accommodation facility (other than a floating living accommodation described in subsection (3)) or finfish net pen described in subsection (4);
3. 25 m radius of any floating living accommodation facility located within a shellfish aquaculture tenure where a zero-discharge waste management plan is a condition of the aquaculture licence and is approved by the Regional Interdepartmental Shellfish Committee; and

4. Zero (0) metres of any finfish net pen within an aquaculture tenure where an Integrated Multi-trophic Aquaculture Management Plan approved by the Regional Interdepartmental Committee is in operation.

### 3.1.2 Biotoxin Contamination Closures

Shellfish may not be harvested from closed areas except by special permit licence issued under the *Management of Contaminated Fisheries Regulations*. Shellfish may not be harvested for consumption from any area closed due to biotoxin contamination. Descriptions of biotoxin closures may be found at the following DFO internet site: https://www.pac.dfo-mpo.gc.ca/fm-gp/shellfish-mollusques/contamination/index-eng.html

- Additional biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Areas will be opened and fished according to protocols required by the Biotoxin Monitoring Program, approved by the Canadian Food Inspection Agency (CFIA).

Three consecutive weekly or biweekly samples containing acceptable levels of biotoxin must be received in order to lift a harvest restriction in an area. CFIA will make recommendation to lift the biotoxin prohibition and a harvest site can then be considered by DFO for Aboriginal, commercial or recreational harvesting. The resource manager will prepare the documentation necessary for an area opening for approval by the Regional Director General. For further details on the CSSP, see the internet at:

https://inspection.canada.ca/food-guidance-by-commodity/fish/canadian-shellfish-sanitation-program/eng/1527251566006/1527251566942?chap=0

Requirements for Legal Sourcing and Harvest of Bivalve Shellfish

DFO is reviewing all wild bivalve conditions of licence, and will increase /clarify management controls around product movement, i.e. selling of products to buyers/receivers, and implement changes to notification, tagging and reporting requirements. Consultation and engagement will be focused on increasing awareness of traceability requirements, followed by changes to conditions of licence.

In addition, DFO will commence intensive enforcement operations on bivalve fisheries, targeting tagging, landing and reporting, and complete major C&P investigations regarding extensive bivalve laundering.

Over the longer term, DFO will continue to work with industry and BC to: improve industry traceability management, processes and technology, including access to funding; build and improve relationships with our Indigenous partners aimed at ensuring access, opportunity and monitoring of FSC fisheries meets all needs; reassess the impacts of

focused and concerted enforcement on the bivalve fisheries aimed at assessing effectiveness of management control measures and informing future management control measures.

The safety of consumers is a top priority for the Government of Canada. The reputation of Canada's food supply is a responsibility shared by all parties, including industry and federal and provincial governments.

As partners for delivery of the Canadian Shellfish Sanitation Program (CSSP), Fisheries and Oceans Canada (DFO) and the Canadian Food Inspection Agency (CFIA) collaborate to prevent illegal harvesting and selling of bivalve shellfish, including suspected laundering of illegal products through legitimate aquaculture businesses. DFO also remains committed to meeting conservation objectives for bivalves as well as supporting priority for Food, Social and Ceremonial fisheries. Any harvest occurring in conflict with established management measures and controls has the potential of negatively impacting the conservation of bivalve populations.

DFO will investigate reports of illegal harvesting violations and will take appropriate enforcement actions, including prosecution. Furthermore, DFO may consider more restrictive management approaches if needed to protect public health. Commercial growers and harvesters are reminded that they are required, by law, to follow specific record-keeping and tagging requirements. Records of shellfish movement through the growing cycle and to the point of distribution provide evidence to support public health, regulatory decisions and closure recommendations.

Commercial harvesters and aquaculture operators are required to:

- Understand and abide by the conditions of licence;
- Keep complete, clear and legible records and be able to produce them to a DFO fishery officer when requested;
- Ensure bivalve product destined for market sale is appropriately tagged with complete and accurate harvest information and is processed by an operator licensed by the Canadian Food Inspection Agency to process shellfish; and
- Harvest only from open and approved areas and check our website before heading out for the latest information. https://gisp.dfo-mpo.gc.ca/Html5Viewer/Index.html?viewer=CSSP_Public_En_Site&locale=en

If you are aware of illegal bivalve harvest activities and/or are aware of violations, please call the DFO Observe, Record and Report (ORR) phone line at 1-800-465-4336.

More information on the policies and criteria for harvesting shellfish can be found in the CSSP manual. See also Fishery Notice FN1142 (2019): https://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm?pg=view_notice&DOC_ID=227228&ID=all

### 3.2 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 Transport Canada Regulations, 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, Transport Canada's *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 can be found at the following CFIA internet site: https://www.inspection.gc.ca/preventive-controls/fish/cssp/questions-and-answers/eng/1563470479199/1563470589053

### 3.3 Harvesting Bivalves in the Vicinity of Wastewater Treatment Plants

Concerns have been raised regarding bivalve shellfish harvested in the vicinity of wastewater treatment plants. Increased controls were implemented in 2009 to prevent shellfish harvest in areas where a trigger event at a wastewater treatment plant may potentially cause contamination.

Conditional Management Plans have being developed at some of the priority wastewater treatment plants to manage harvest activities in the vicinity of the wastewater treatment plants.

DFO will consult with shellfish harvesters in areas where Conditional Management Plans must be developed.

For further information, contact DFO.PAC.CSSP-PCAM.PAC.MPO@dfo-mpo.gc.ca.

### 3.4 Harvesting on Aquaculture Facilities

Aquaculture facilities are considered private property. Aquaculture licences of occupation are activity (or species) specific and do not legally restrict access unless there are impacts to the species being cultured. The Department recommends that recreational fishers familiarize themselves with the location of aquaculture facilities in fishing areas and that explicit permission be sought from the aquaculture licence holder for access. All aquaculture facilities must be marked as per the shellfish aquaculture conditions of licence.

## 4. CONTROL AND REGULATION OF RECREATIONAL FISHING ACTIVITIES

The recreational harvest of shellfish is regulated via the *British Columbia Sport Fishing Regulations* made under the *Fisheries Act*. The regulations are summarized in the British Columbia Sport Fishing Guide. Critical information, such as updates to closed areas, is provided online at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.html

### 4.1 Gear

Pacific Oysters may be harvested by handpicking.

### 4.2 Daily Limits

Recreational harvest may occur in areas approved for harvest under the CSSP and authorized under a recreational licence. Pacific Fisheries Management Areas 1 through 11 are closed to bivalve harvest unless the appropriate testing is in place to ensure safe harvest.

Pacific Oysters:

- The daily limit in Areas 12 to 29 is twelve (12).
- The daily limit in Areas 1 to 11 is zero.

### 4.3 Possession Limits

Possession limits are two times the daily limit.

### 4.4 Voluntary Minimum Size Limit

The Department recommends a voluntary minimum size limit of 5 cm for Pacific Oysters be followed during harvesting. This minimum size limit is recommended in order to avoid inadvertently harvesting Olympia Oysters. Olympia Oysters are listed as a Species of Special Concern under the *Species at Risk Act*.

## 5. MONITORING AND REPORTING OF RECREATIONAL FISHING ACTIVITIES

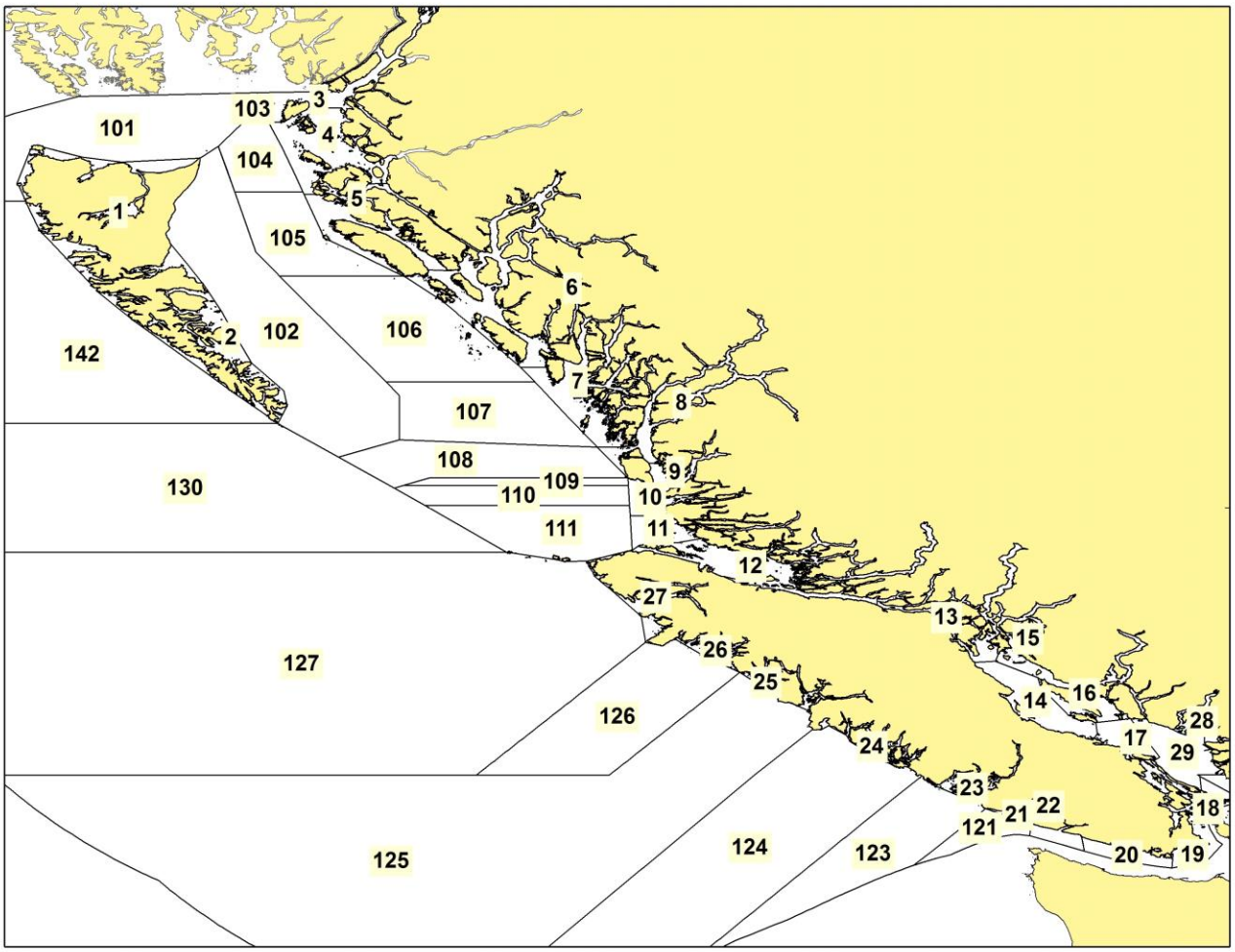
The SFAB and the recreational fishing sector strongly support effective fishery monitoring and catch reporting programs in recreational fisheries. The SFAB has been working with DFO on initiatives to strengthen fishing monitoring and catch reporting in the recreational fishery for a number of years.

As of 2013 recreational harvesters are required, as a condition of the Tidal Waters Sport Fishing Licence, to report information on their recreational fishing activity and catch to DFO representatives when requested. Commonly, recreational harvesters may be requested by a Fishery Officer or designated DFO representative at the dock or through a creel survey to provide important catch and effort information. A recreational phone survey is also conducted nationally by DFO every five years. In 2012, a new internet survey was initiated to provide monthly estimates of effort for all methods of recreational fishing, including angling, trapping, beach collecting, and diving, and to provide monthly estimates of catch for all sport caught species.

The internet survey contacts participants by email in advance of the survey period and allows for the selected participants to record their information periodically (preferred if several fishing trips occur in the month), or to complete the survey on a single visit to the website after the month ends. Participants who do not fish during the month are also surveyed as well, as an important component of the catch and effort estimation. Since participants in the survey are selected randomly, some licence holders will be selected to participate for more than one month during a licensing year (April to March).

Information on the internet recreational survey is available at: http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/irec/index-eng.html

## APPENDIX 4: MAP OF PACIFIC FISHERY MANAGEMENT AREAS




Inshore fishery areas include Pacific Fishery Management Areas 1 to 29. Offshore areas include PFMAs 101 to 111, 121 to 127, 130 and 142.

## APPENDIX 5: REFERENCE MAPS FOR PACIFIC OYSTER COMMERCIAL HARVEST BEACH AREAS

Commercial harvesters are reminded that these maps are to be used for general reference only. The final authority of these descriptions of Areas, Subareas and portions thereof is as set out in the *Pacific Fishery Management Area Regulations*, and the written descriptions of DFO Fisheries Notices for the official openings and closures.

## 1. PACIFIC FISHERIES MANAGEMENT AREA MAPS

See Management Area descriptions for complete details.
For more detail on Pacific Fishery Management Areas and Subareas, see the Internet at:
www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/areas-secteurs/index-eng.html

## 2. CLOSURES TO COMMERCIAL FISHERIES

Closures to the commercial fishery may be in place for a variety of reasons: Aboriginal and recreational access, parks, marine reserves, research, navigation, contamination or biotoxins.

### 2.1. General Information on Closures under the Canadian Shellfish Sanitation Program

Closures may be implemented on short notice in the event of changes to contamination status, including sanitary and biotoxin events. Licence holders, vessel masters, and harvesters are reminded that:

- It remains the responsibility of the licence holders and harvesters to ensure that an area is not closed for harvest due to sanitary or biotoxin contamination. Fishing in a closed area is an offence under the *Fisheries Act*. Consumption of product harvested from within a closed area poses a serious health risk.

- Prior to commencement of each day's fishing, the licence holder must take care to confirm that an area is open for harvesting either through the DFO website at:
  http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html
  or the toll-free information line at 1-866-431-3474, or by contacting a local DFO office directly. Contact information is available in Appendix 7.

- Additional sanitary and biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Remember to check for both types of contamination closures that may affect bivalves: sanitary closures and biotoxin closures (PSP/red tide, Domoic Acid Poisoning and Diarrhetic Shellfish Poisoning (DSP)).

## 2.2. Sanitary (Contamination) Closures

Shellfish may not be harvested from closed contaminated areas except by special permit licence under the *Management of Contaminated Fisheries Regulations* (MCFR*)*. Currently there is not an approved depuration process for oysters. Sanitary closures occur in areas that have been tested and found to contain unacceptable levels of contaminants. There are both seasonal and permanent sanitary contamination closures. Descriptions and maps of contaminated closures may be found at the following DFO website:
http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

- Additional sanitary closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

A copy of this list may also be obtained from the resource managers (see Contacts, Appendix 7). Sanitary closures are amended annually in May and November, and may also be amended in-season. Consequently, harvesters are advised to check the internet, prior to harvesting in an area, to ensure that they have the most recent contamination closure information.

Permanent bivalve harvesting closures are in place for Canadian fisheries waters of the Pacific Ocean within:

1. 300 m radius around industrial, municipal and sewage treatment plant outfall discharges;
2. 125 m radius of any marina, ferry wharf, any floating living accommodation facility (other than a floating living accommodation described in subsection (3)) or finfish net pen described in subsection (4);
3. 25 m radius of any floating living accommodation facility located within a shellfish aquaculture tenure where a zero-discharge waste management plan is a condition of the aquaculture licence and is approved by the Regional Interdepartmental Shellfish Committee; and
4. Zero (0) metres of any finfish net pen within an aquaculture tenure where an Integrated Multi-trophic Aquaculture Management Plan approved by the Regional Interdepartmental Committee is in operation.

### Biotoxin Contamination Closures

Shellfish may not be harvested from closed areas except by special permit licence issued under the *Management of Contaminated Fisheries Regulations*. Shellfish may not be harvested for consumption from any area closed due to biotoxin contamination.

Descriptions of biotoxin closures may be found at the following DFO internet site:
http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.html

- Additional biotoxin closure information can be found on the national Canadian Shellfish Sanitation Program mapping application, SHELLI (https://dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm).

Areas will be opened and fished according to protocols required by the Biotoxin Monitoring Program, approved by the Canadian Food Inspection Agency (CFIA).

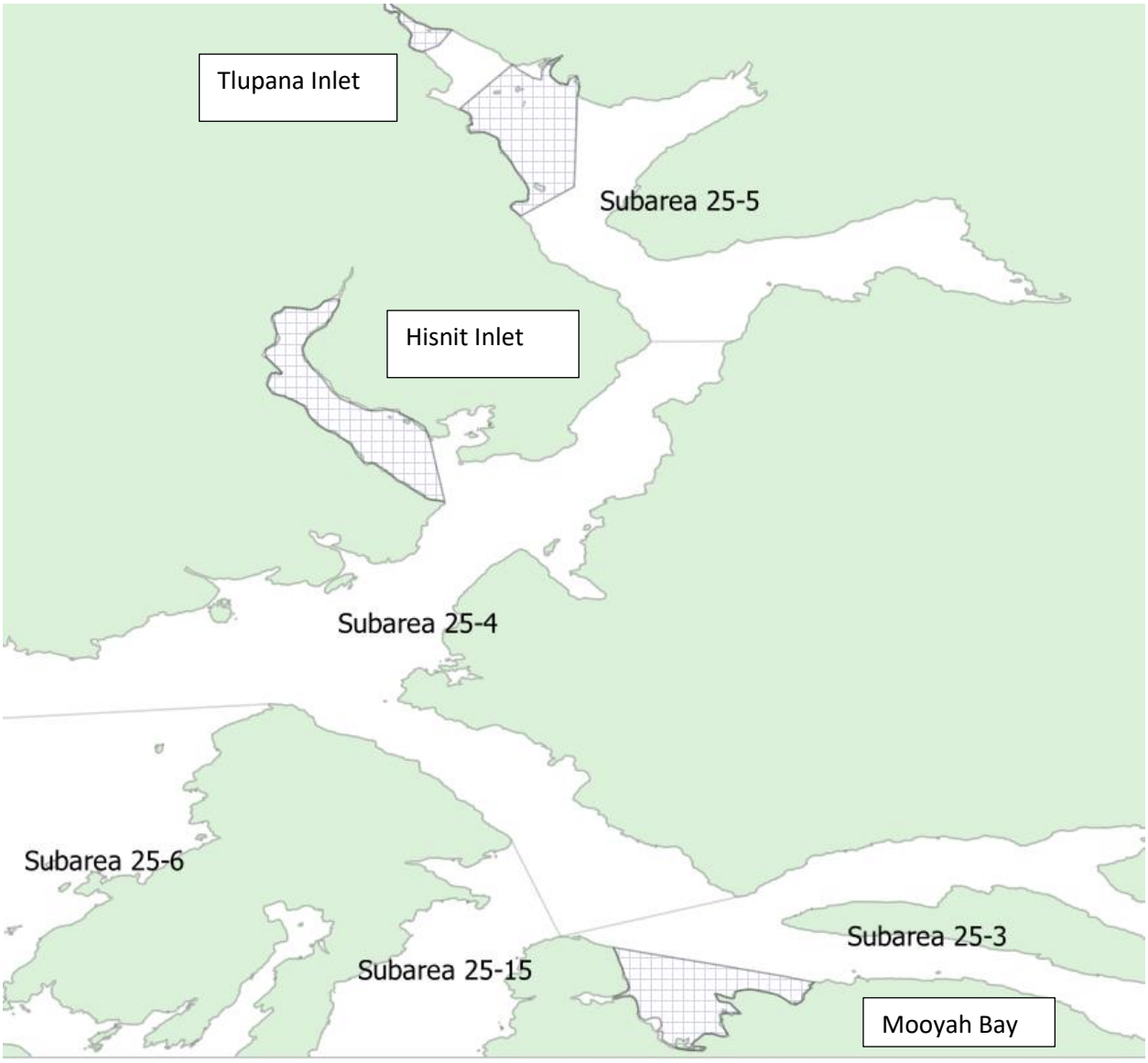
Three consecutive weekly samples containing acceptable levels of biotoxin must be received in order to lift a harvest restriction in an area. CFIA will make recommendation to lift the biotoxin (Paralytic Shellfish Poison (PSP)/red tide, Domoic Acid Poisoning) (ASP) or Diarrhetic Shellfish Poisoning (DSP) prohibition and a harvest site can then be considered by DFO for First Nations, commercial or recreational harvesting. The resource manager will prepare the documentation necessary for an area opening for approval by the Regional Director General. For further details on the CSSP, see the internet at:

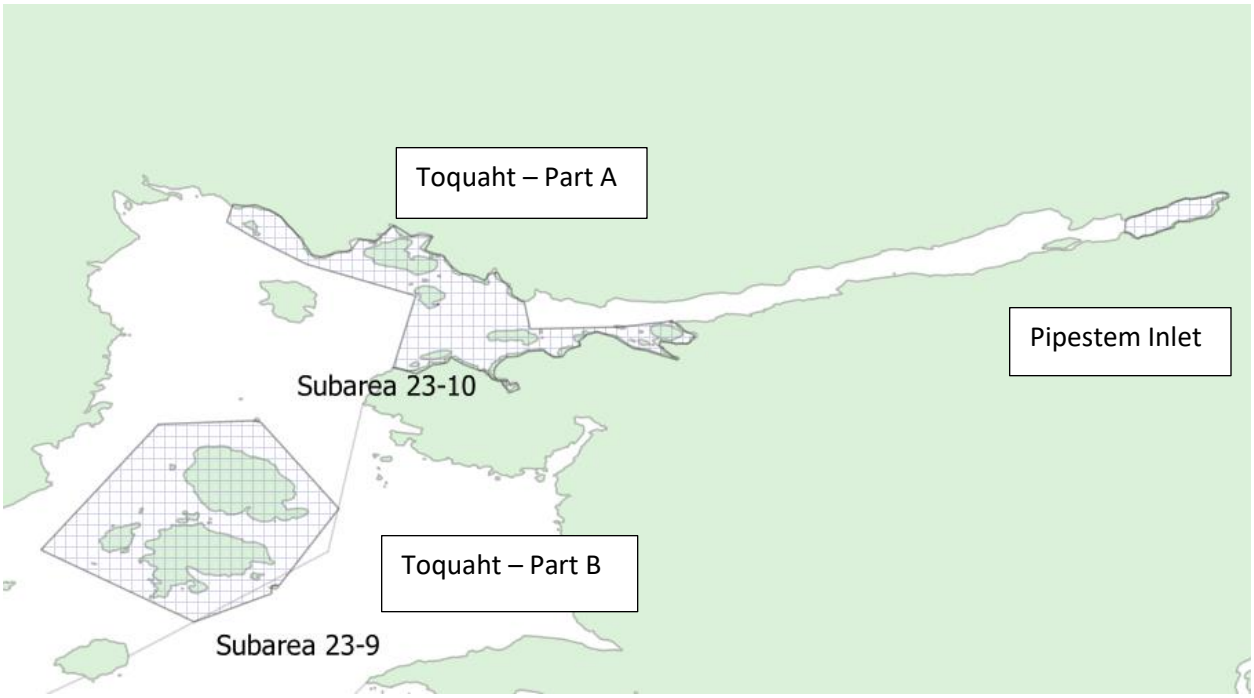
https://www.inspection.gc.ca/food/food-specific-requirements-and-guidance/fish/canadian-shellfish-sanitation-program/eng/1527251566006/1527251566942?chap=0

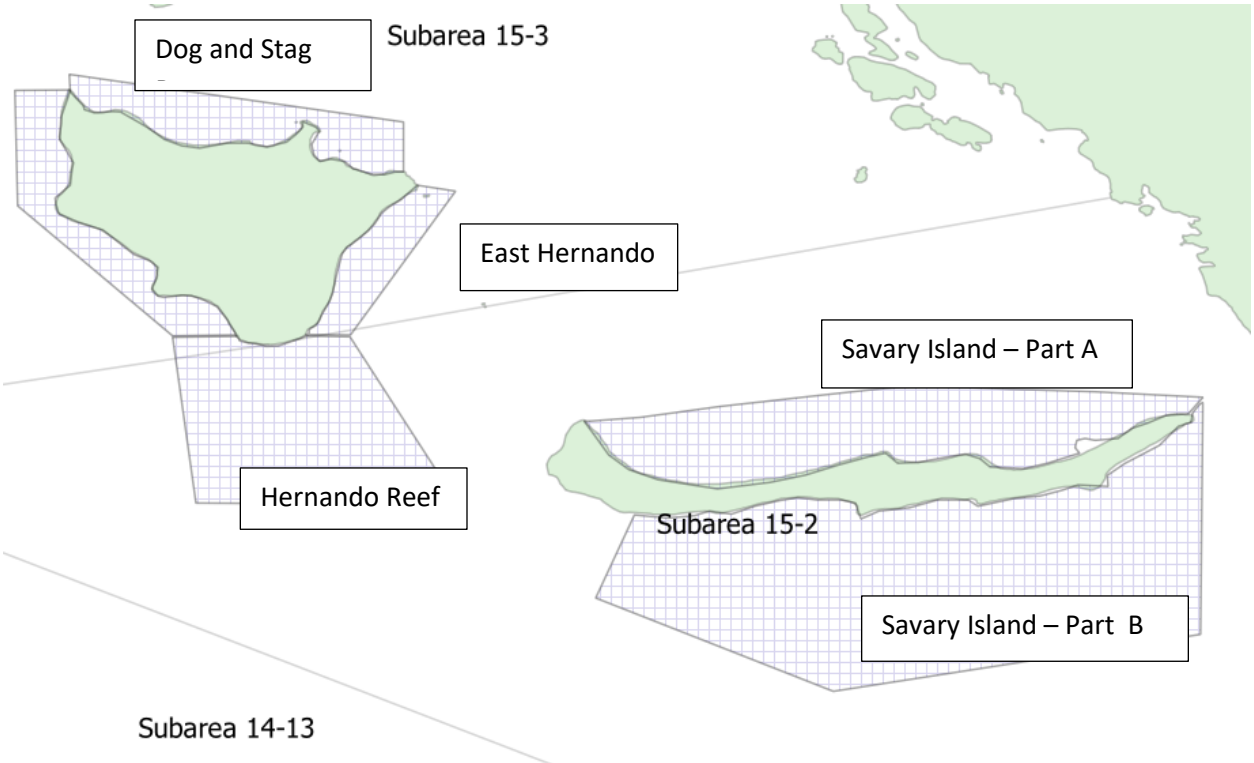
## 2.3. Aquaculture Facilities and Sites

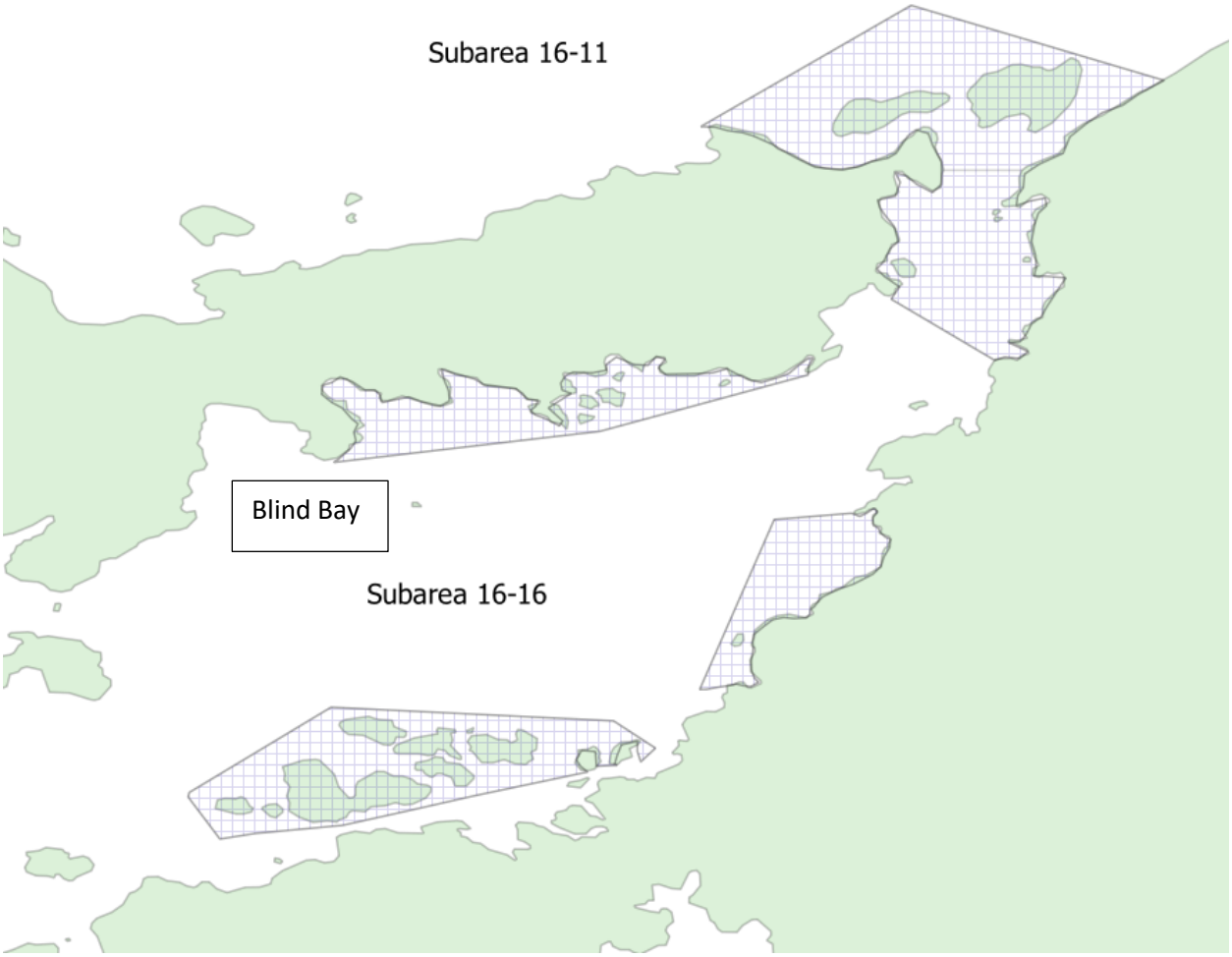
Harvesters are advised to observe the boundaries of any intertidal tenures. Harvesting on any aquaculture facilities is prohibited under this fishery unless authorized by the licence holder.

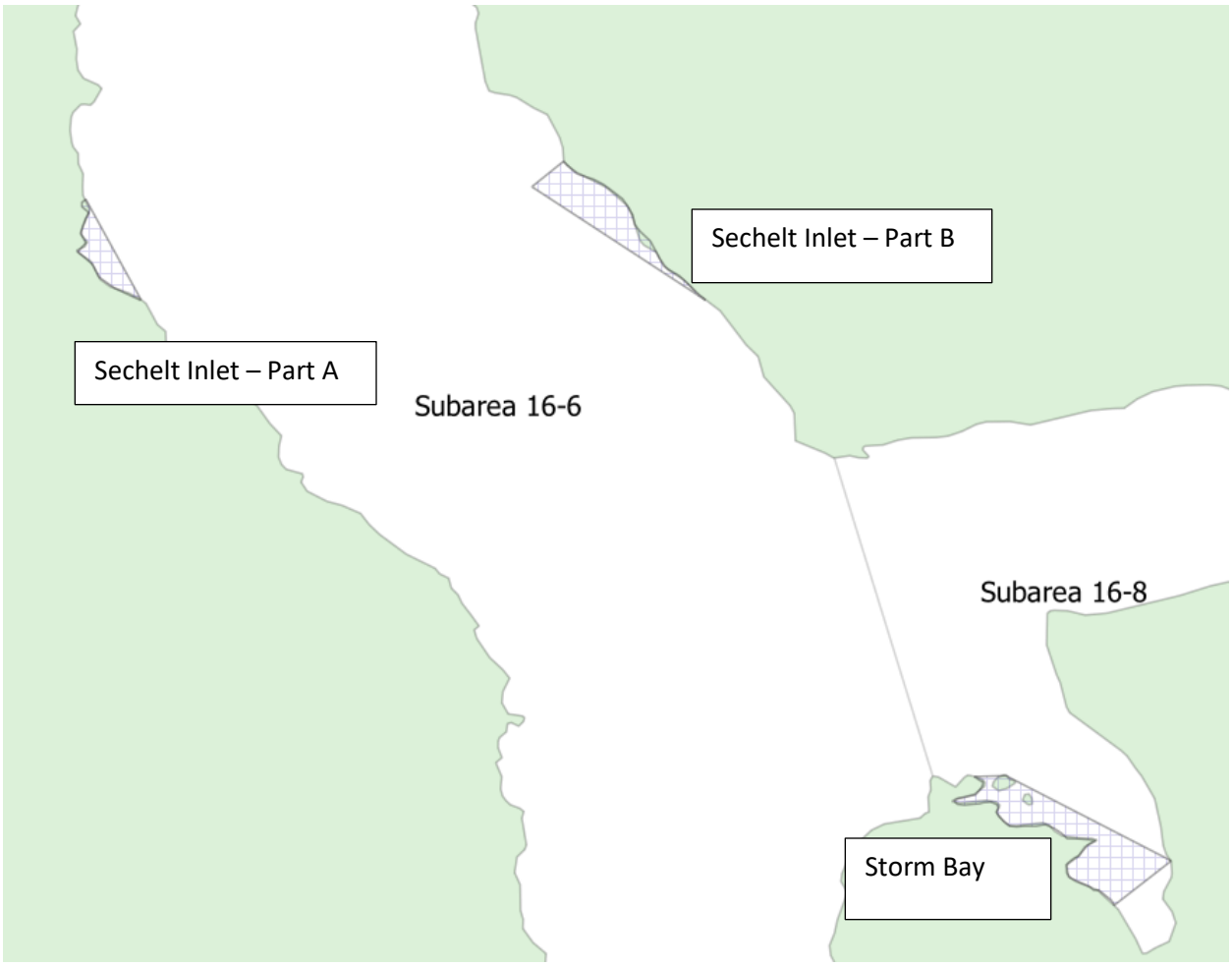
**The following maps are intended for general reference only and provide the <u>approximate</u> boundaries for the commercial oyster quota harvest sites. It is the responsibility of the harvester to confirm all commercial quota harvest site boundaries using the legal boundary latitude and longitude coordinate descriptions provided in the DFO Fishery Notices prior to harvesting. Harvesters must also be aware of any commercial closures within these harvest areas such as licenced aquaculture site tenures, sanitary closures, biotoxin closures, and other restricted closures that may fall within the larger quota area.**

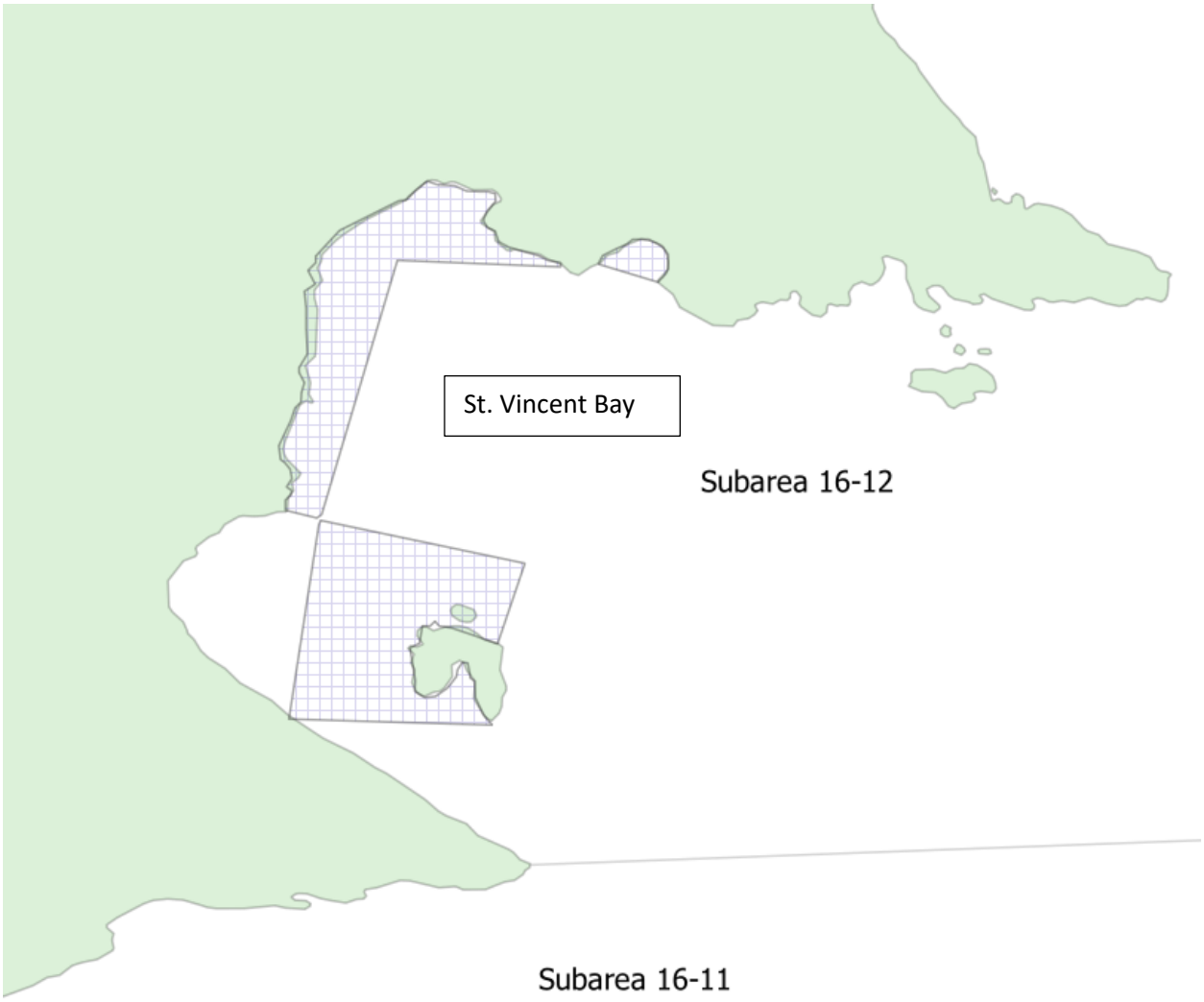


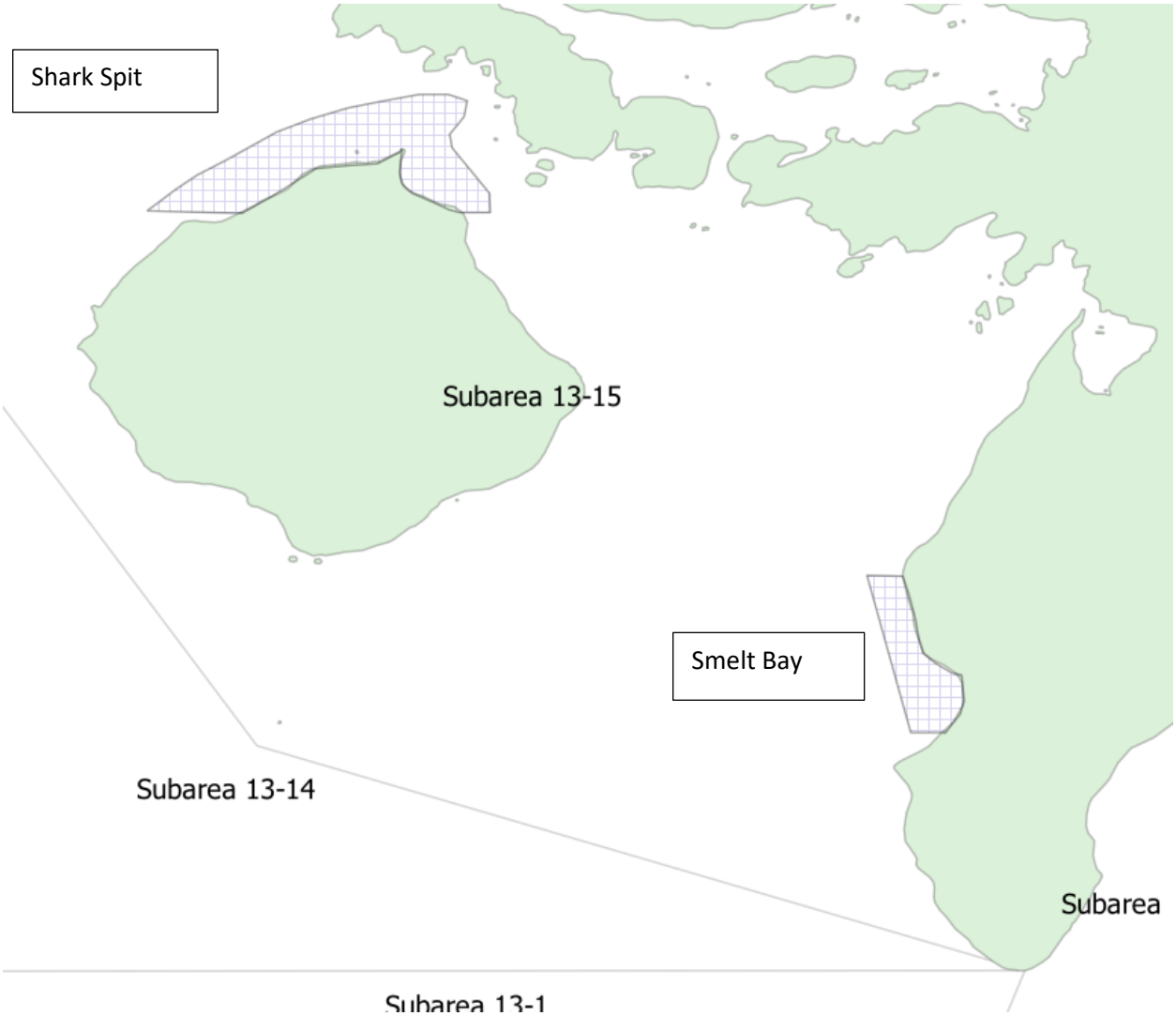

Toquaht – Part A
Pipestem Inlet
Subarea 23-10
Toquaht – Part B
Subarea 23-9

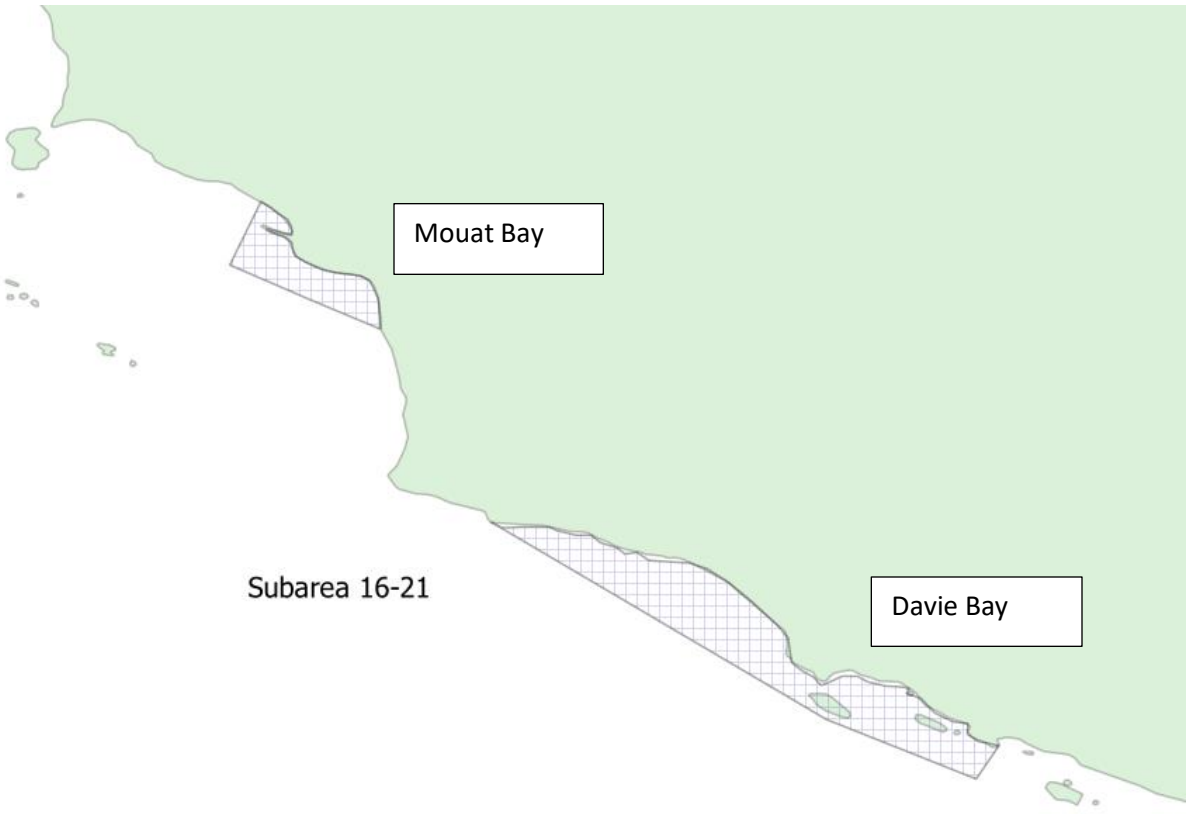

Dog and Stag
Subarea 15-3
East Hernando
Savary Island – Part A
Hernando Reef
Subarea 15-2
Savary Island – Part B
Subarea 14-13


Subarea 16-11
Blind Bay
Subarea 16-16


Sechelt Inlet – Part B
Sechelt Inlet – Part A
Subarea 16-6
Subarea 16-8
Storm Bay


St. Vincent Bay
Subarea 16-12
Subarea 16-11


Shark Spit
Subarea 13-15
Smelt Bay
Subarea 13-14
Subarea
Subarea 13-1


Mouat Bay
Subarea 16-21
Davie Bay

# Appendix 6: Example Conditions of Licence

20xx/20xx EXAMPLE CONDITIONS OF PACIFIC OYSTER LICENCE – example only
Licence Period: March 1, 20xx to February 29, 20xx

Authority

The Department of Fisheries and Oceans has authority to set licence conditions under subsection 22(1) of the *Fishery (General) Regulations* for the proper management and control of fisheries and the conservation and protection of fish.

Persons fishing under authority of this licence may only do so in accordance with the conditions stated below.

In addition to these conditions, it is the responsibility of individual fishers to be informed of, and comply with, the Fisheries Act and the regulations made thereunder. This includes, but is not limited to, subsection 36(3) of the *Fisheries Act* which prohibits the deposit of deleterious substances, such as derelict fishing gear, plastics, and hydrocarbon fuels and lubricants, into water frequented by fish.

Definitions:

"Area" and "Subarea" have the same meaning as in the *Pacific Fishery Management Area Regulations, 2007.*

"CFIA" means Canadian Food Inspection Agency.

"Department" means the Department of Fisheries and Oceans.

"harvester" means a person who fishes for or takes oysters, by any means, in the defined locations of harvest authorized by this licence.

"log" means the Harvest Log or an alternative log approved by the Department.

"wet storage" means the temporary storage of live shellfish from approved sources, intended for marketing, in containers or floats in natural bodies of seawater or in tanks containing natural or synthetic seawater or otherwise meeting the requirements of the CFIA.

1. Species of fish permitted to be taken:

Pacific Oyster *(Crassostrea gigas)*

2. Quantities permitted to be taken:

The maximum allowable harvest is as set out on the current Pacific Oyster licence.

3. Waters in which fishing is permitted:

Area of fishing is as set out on the current Pacific Oyster licence.

# Appendix 6: Example Conditions of Licence

4. Fishing gear permitted to be used:

Handpicking only. Diving or other forms of harvest are not permitted.

5. Marking of bags or containers to hold or transport Pacific Oysters:

(1) All containers holding oysters shall be marked with the following information using waterproof tags and written in water resistant ink.
(a) Harvester's Name;
(b) Licence Holder's Name;
(c) Oyster Licence number;
(d) Harvest date;
(e) Commercial Harvest Quota Site; and
(f) Pacific Fisheries Management Subarea (example: Subarea 24-4).

(2) Flagging tape may not be used as the water-proof tag.

(3) All oyster containers shall be tagged prior to placing any oysters in them.

(4) No container of oysters shall remain untagged during transport to market sale or a wet storage location in preparation for market sale.

6. Harvester Identification:

(1) Licence holders and harvesters shall ensure that a government-issued photo identification is in their possession at all times during harvesting and is available for inspection upon request of a fishery officer or fisheries guardian.

(2) Each harvester shall wear a 'HIGH VISIBILITY VEST' at all times while engaged in the commercial Pacific Oyster fishery.

7. Sale and Transfer of Product:

Pacific oysters harvested under this licence shall be sold only to persons holding a federal licence to process bivalve shellfish in British Columbia, persons holding a Fish Receiver's Licence issued pursuant to the *Fish and* Seafood *Act* (B.C.), or delivered to a licensed aquaculture facility.

8. Oral reports:

(1) The licence holder shall report the information set out below by telephoning the approved Service Provider between the hours of 9:00 a.m. and 4:00 p.m. Pacific time Monday to Friday only at 1-888-730-8709 or by emailing to pacificoyster@d-dpacificfisheries.com . Hails must be made not less than 24 hours prior to harvesting:
(a) Licence holder's name and licence number;
(b) Commercial Harvest Quota Site name where harvesting will occur;
(c) Pacific Fisheries Management Subarea;
(d) Date and time of arrival at the fishing location; and
(e) Caller's name

(2) The licence holder shall report the information set out below by telephoning the approved Service Provider between the hours of 9:00 a.m. and 4:00 p.m. Pacific time Monday to Friday only at 1-888-730-8709 or by emailing to pacificoyster@d-dpacificfisheries.com. Hails must be made within 16 hours following the oysters being removed from the harvest site:
(a) Licence holder's name;
(b) Hail out number;
(c) Caller's name;
(d) Commercial Oyster Harvest Site name where harvesting occurred;
(e) Subarea; and
(f) Accurate estimated weight of harvested oysters

(3) Upon failure to arrive at the fishing location within 24 hours of the time stated in subsection 8(1), the licence holder shall report the following information to the designated service provider:
(a) licence number; and
(b) details of change in fishing plans.

(4) The licence holder shall arrange to have an updated summary report of all hails provided to the Service Provider sent to the Department within 7 days of the data being received by the Service Provider.

9. Harvest logs:

(1) The licence holder shall maintain a log of all harvest operations. The content and format of this log shall meet the requirements set out by the Department in the Pacific Oyster Commercial Fishery Monitoring and Catch Reporting Program Standards for the current licence year.

(2) The harvest and fishing location information recorded in the log shall be complete and accurate.

(3) The information for each day's harvest operations shall be recorded in the log prior to leaving the harvest site each day.

(4) The log shall be in the possession of the harvester and produced for examination on demand of a fishery officer or a fishery guardian.

(5) The completed log pages (original copy) shall be forwarded within 28 days following the end of each month in which fishing occurred to:

Guy Parker
Fisheries and Oceans Canada
65 Front Street
Nanaimo, B.C.
V9R 5H9

10. Fish slips:

(1) An accurate written report shall be provided on a fish slip of all fish and shellfish caught and retained under the authority of this licence.

(2) A report shall be made even if the fish or shellfish harvested are used for personal consumption or disposed of otherwise.

(3) The report shall be mailed not later than seven days after harvest and sent to:

Fisheries and Oceans Canada
Regional Data Unit
Suite 200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

(4) This report shall be made within seven days of harvest regardless of whether or not the catch has been sold within that period.

Fish slips may be downloaded and printed at http://www.pac.dfo-mpo.gc.ca/stats/fishslips-carnets/index-eng.html .
Fish slip books may also be ordered from the printer at user cost at https://www.dfo-mpo.gc.ca/fisheries-peches/sdc-cps/fishslips-carnets/index-eng.html .
Phone (604)666-2716 for more information.

11. Contaminated fisheries:

(1) This licence does not authorize harvesting during paralytic shellfish poisoning (PSP) closures, domoic acid (ASP) closures, or other prohibitions made pursuant to the *Management of Contaminated Fisheries Regulations*.

(2) When notified of closure of the licensed harvest area due to biotoxin, sewage or other contamination, harvesting authorized by this licence shall cease forthwith.

(3) The following methods may be used to notify the licence holders and harvesters that they are to stop fishing:
(a) Broadcasting the notice over a commercial or marine radio station, a radio station operated by DFO or a radio station located on a vessel under contract to DFO that broadcasts in the area or vicinity of the area affected by the closure notice; or
(b) Transmitting the notice by electronic means to affected persons; or
(c) Having the area posted with signage by authorized person(s);
(d) Having a fishery officer or fishery guardian give oral notice thereof; or
(e) DFO fishery notice.

12. Licence available:

Licence holders and harvesters shall ensure that a copy of this licence is available at the harvest location at all times during harvesting and is available for inspection upon request of a fishery officer or fishery guardian.

13. Fisher’s Registration Card:

# Appendix 6: Example Conditions of Licence

Persons shall hold and be in possession of a valid Fisher's Registration Card and be authorized by the licence holder to harvest under the authority of this licence.

14. Wet Storage of harvested product:

Wet storage of product shall occur only on licensed aquaculture facilities that are specifically approved for the activity of wet storage in their Pacific Aquaculture Regulations aquaculture licence. Commercially harvested oysters may not be left on non-tenured beaches unattended without a wet storage permit.

15. No Removal of Product from harvest site after a closure notice:

(1) No oysters shall be removed from the harvest site after a closure notice has been issued by the Department.

(2) Any oysters collected into bags prior to a closure notice shall not be removed from the site following a closure notice.

15. Marine Mammal Reporting:

(1) The vessel master shall provide information regarding all interactions with marine mammals during fishing trips;

(2) For the purpose of subsection 15(1), interactions refer to cases of incidental mortality and serious injury to marine mammals. This includes accidental drowning, bycatch, entanglements, collisions, and fatalities.

(3) The vessel master shall immediately phone the Marine Mammal Incident Hotline at 1-800-465-4336 to report cases of mortality and serious harm.

(4) The vessel master shall report all marine mammal interactions during fishing trips in the Fishing Log. For the purpose of defining lethal and non-lethal marine mammal interactions, interactions include bycatch, collision, and all sightings of marine mammals entangled in fishing gear.

(5) The information shall be recorded in the Fishing Log not later than 24 hours after midnight local time for each day fished and prior to the landing of any fish taken under authority of this licence.

16. Loss and retrieval of previously lost fishing gear

For the purpose of this section only the following definitions apply:

"landing" means the offloading of the catch onto land.

"lost fishing gear" is defined as any active fishing gear previously set by the licence holder / vessel master that was sought but not found

# Appendix 6: Example Conditions of Licence

"retrieved fishing gear" is defined as any fishing gear previously reported lost by the licence holder / vessel master that has been subsequently found

(1) The vessel master shall report the loss of any fishing gear not later than 24 hours after landing catch. Reports of lost fishing gear shall be submitted to DFO through the Fishing Gear Reporting System or Lost Fishing Gear Form available online at http://www.dfo-mpo.gc.ca/reporting.

(2) The vessel master shall report the retrieval of any fishing gear not later than 24 hours after landing catch. Reports of retrieved gear shall be submitted to DFO through the Fishing Gear Reporting System or by completing the Retrieval of Previously Reported Lost Fishing Gear Form available online at http://www.dfo-mpo.gc.ca/reporting.

(3) Retrieval shall only occur subject to variation of the close times set out in the *Pacific Fishery Regulations, 1993*.

(4) Only fishing gear that is permitted to be used under the authority of this licence may be retrieved by the vessel.

## APPENDIX 7: WILD PACIFIC OYSTER FISHERY CONTACTS

| | | |
|---|---|---|
| **Observe, Record and Report (Enforcement Line)** | | **(800) 465-4336** |
| Fisheries Information and Shellfish Contamination Closure Update (24 Hours) | | (866) 431-3474 |
| | (Greater Vancouver) | (604) 666-2828 |

Invertebrate Internet Page
http://www.pac.dfo-mpo.gc.ca/fm-gp/commercial/shellfish-mollusques/index-eng.html

### Fisheries Management

| | | |
|---|---|---|
| Regional Resource Manager - Invertebrates | Lisa Mijacika | (604) 666-3869 |
| Resource Manager | Guy Parker | (250) 756-7163 |
| Regional Recreational Fisheries Co-ordinator | Greg Hornby | (250) 286-5886 |
| Resource Manager – Canadian Shellfish Sanitation Coordinator | Erin Milligan | (250) 327-4606 |
| | | |
| North Coast Area, Areas 1 to 10 | General Inquiries | (250) 627-3499 |
| 417 2nd Avenue West | Fax | (250) 627-3427 |
| Prince Rupert, BC V8J 1G8 | | |
| Resource Management Biologist | Coral Cargill | (250) 627-3021 |
| Resource Manager - First Nations Fisheries | Melanie Anthony | DFO.NCAP-PACN.MPO@dfo-mpo.gc.ca |
| | | |
| South Coast Area, Areas 11 to 26 | General Inquiries | (250) 756-7270 |
| 65 Front Street | Fax | (250) 756-7162 |
| Nanaimo, BC V9R 5H9 | | |
| Resource Manager - First Nations Fisheries (South) | Jorn Meier | (250) 616-4885 |
| Resource Manager - First Nations Fisheries (WCVI) | Kevin Conley | (250) 756-7196 |
| Resource Manager - First Nations Fisheries(North) | Kent Spencer | (250) 268-5885 |
| | | |
| Lower Fraser Area, Areas 28 and 29 | General Inquiries | (604) 666-8266 |
| Unit 3, 100 Annacis Parkway | Fax | (604) 666-7112 |
| Delta, BC V3M 6A2 | | |
| Resource Management Biologist | Hong Tjhie | (604) 666-6390 |

### Conservation and Protection

| | | |
|---|---|---|
| Enforcement Plan | Matt Conley | (604) 485-7562 |

### Science Branch

| | | |
|---|---|---|
| Pacific Biological Station | | |
| 3190 Hammond Bay Road Nanaimo, BC V9T 6N7 | | |
| Mollusc Program Head | Dominique Bureau | (250) 756-7114 |
| Intertidal Bivalve Biologist | Alex Dalton | |

### Commercial Licensing

Pacific Fishery Licence Unit (by appointment only) 1-877-535-7307
200 - 401 Burrard Street fishing-peche@dfo-mpo.gc.ca
Vancouver, BC V6C 3S4

**Aquaculture Resource Management**

| | | |
|---|---|---|
| General Inquiries Shellfish Aquaculture | Shellfish.Aquaculture@dfo-mpo.gc.ca | |
| Shellfish Coordinator | Kristen Daniel | (250) 327-1047 |

**Environment and Climate Change Canada**

| | | |
|---|---|---|
| Growing Water Quality Classification/Surveys | Elizabeth Graca | (604) 903-4475 |

**Canadian Food Inspection Agency**

| | | |
|---|---|---|
| Pacific Shellfish Desk | | (604) 666-3737 |

**BC Ministry of Agriculture, Food and Fisheries**

| | | |
|---|---|---|
| Kevin Romanin | | |
| Industry Specialist – Marine Fisheries & Seafood | | (778) 974-4884 |
| Fisheries, Aquaculture and Wild Salmon Branch | | |

**WorkSafe BC**

| | | |
|---|---|---|
| Occupational Safety Officer, Field Services: | | |
| Vancouver / Richmond / Delta | Bruce Logan | (604) 244 6477 |
| Courtenay | Cody King | (250) 334 8733 |
| Courtenay | Paul Matthews | (250) 334 8741 |
| Central | Wayne Tracey | (604) 232 1939 |
| Manager of Interest for Marine and Fishing | Pat Olsen | (250) 334 8777 |
| Projects Related to Commercial Fishing | Tom Pawlowski | (604) 233 4062 |
| | Helen Chandler | (604) 276 3174 |

**Service Provider**

D&D Pacific Fisheries Ltd.
PO Box 1445 Gibsons, B.C.
V0N 1V0
(604) 886-4819
Email -- ddpacific@dccnet.com

| | |
|---|---|
| Fishing Activity (prior to harvest) Hail line - | 1-888-730-8709 |
| Harvest Reporting (following harvest) Hail Line | 1-888-730-8709 |

**Commercial Licence Eligibility Holder Representatives**

Kevin Vautier 250-248-8786

| | |
|---|---|
| Joe Tarnowski Jr. | 250-897-9290 |
| Stephan Morgenstern | 604-413-2675 |
| West Sampson | 604-483-9007 |

**Sighting Networks**

BC Cetacean and Sea Turtle Sighting Network (866) 472-9663
Email: sightings@vanaqua.org or turtles@vanaqua.org
On the internet at:
www.wildwhales.org/sightings/ or www.bcreptiles.ca/reportsightings.htm#1

**Basking Shark Sighting Network** 1 (877) 50 SHARK
Email: sharks@dfo-mpo.gc.ca
On the internet at:
www.dfo-mpo.gc.ca/species-especes/sharks/report-eng.html

# Appendix 8: Fishing Vessel Safety

## TABLE OF CONTENTS

## 1. OVERVIEW – 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 owner, 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
- Fish Safe *Safe At Sea* DVD Series – Fish Safe
- Fish Safe Stability Handbook – *Safe at Sea* and *Safest Catch* – DVD Series
- Fish Safe *Safest Catch* Log Book
- Fish Safe *Safety Quiz*
- First Aid training
- Radio Operators Course (Subsidized rate for BC commercial fishers provided)
- Fishing Masters Certificate training
- Small Vessel Operators Certificate training

Publications:

- *Gearing Up for Safety* - WorkSafeBC
- https://tc.canada.ca/en/marine-transportation/marine-safety/tp-15393e-adequate-stability-safety-guidelines-fishing-vessels TP 15393E - Adequate stability and safety guidelines for fishing vessels
- TP 15392E - Guidelines for fishing vessel major modification or a change in activity. https://tc.canada.ca/en/marine-transportation/marine-safety/tp-15392e-guidelines-fishing-vessel-major-modification-change-activity
- 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)
- Safety Issues Investigation into Fishing Safety in Canada report can be accessed: https://www.tsb.gc.ca/eng/rapports-reports/marine/etudes-studies/M09Z0001/M09Z0001.html

For further information see: https://tc.canada.ca/en/marine-transportation
www.fishsafebc.com
www.worksafebc.com
www.tsb.gc.ca/eng/rapports-reports/marine/index.html

## 2. IMPORTANT PRIORITIES FOR VESSEL SAFETY

There are three areas of fishing vessel safety that should be considered a priority. These are: vessel stability, emergency preparedness, and cold water immersion.

### 2.1. Fishing Vessel Stability

Vessel stability is paramount for safety. Care must be given to the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies, and to correct ballasting. Fish harvesters must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability (e.g. loose water or fish on deck), loading and unloading operations, watertight integrity and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact aa naval architect, marine surveyor or the local Transport Canada Marine Safety Office.

Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. These instructions must include detailed safe operation documentation kept on board the vessel.

In 2017, Transport Canada Marine Safety (TC) issued Ship Safety Bulletin (SSB) No. 03/2017 announcing the coming into force of the New Fishing Vessel Safety Regulations. The initial regulations were published in the Canada Gazette Part II on July 13, 2016 and came into force on July 13, 2017. The bulletin includes important information on changes to requirements for Written Safety Procedures, Safety Equipment and Vessel Stability.

As of July 13, 2017, new regulations pertaining to stability assessments to be performed by a competent person came into effect, as follows:

- A new fishing vessel that has a hull length of more than 9 m where the vessel construction was started or that a contract was signed for the construction after July 13, 2018;
- A fishing vessel more than 9 m and that has undergone a major modification or a change in activity that is likely to adversely affect its stability;
- A fishing vessel that is fitted with an anti-roll tank at any time;
- A fishing vessel more than 15 gross tonnage and used for catching herring or capelin during the period beginning on July 6, 1977 and ending on July 13, 2017
- For an existing fishing vessel that is not required to undergo a stability assessment, the owner shall be capable of demonstrating that their vessel has adequate stability to safely carry out the vessel's intended operations. Guidelines have been developed and are available online to help small fishing vessel owners and operators meet their regulatory requirements
- Two good resources can be found here: TP 15393 - Adequate stability and safety guidelines for fishing vessels (2018) and TP 15392 – Guidelines for fishing vessel major modification or a change in activity (2018)

Further, the new Regulation requires a "Stability Notice" to be developed after a stability assessment. This notice includes a simple diagrammatic of the vessel, its tanks and fish holds, or deck storage as the case may be. It is intended to assist fishing vessel crews in quickly determining the safe carriage limits of the vessel without having to reference a complicated Trim and Stability Book.

Additionally, Transport Canada published a Stability Questionnaire (SSB No. 04/2006) and Fishing Vessel Modifications Form (SSB No. 01/2008) which enable operators to identify the criteria which will trigger a stability assessment. Please contact the nearest Transport Canada office if you need to determine whether your vessel requires a stability assessment, or to receive guidance on obtaining competent assessor.

In 2019, TC provided an updated SSB 03/2019, which sets out a voluntary record of modifications for the benefit of owners/masters of any fishing vessels. For vessels of more than 15 gross tons, the record of modifications was to be reviewed by TC inspectors during regular inspections and entered on the vessel's inspection record. However, information gathered during the Transportation Safety Board's (TSB) Safety Issues Investigation into the fishing industry showed minimal recording of vessel modifications prior to this date.

The TSB has investigated several fishing vessel accidents since 2005 and found a variety of factors that effected the vessel's stability were identified as contributing factors in vessels capsizing, such as with: M05W0110 - *Morning Sunrise*, M07M0088 - *Big Sisters*, M08W0189 - *Love and Anarchy*, M09L0074 – *Le Marsouin I*, M10M0014 - *Craig and Justin*, M12W0054 – *Jessie G*, M12W0062 - *Pacific Siren*, M14P0121 – *Five Star*, M15P0286 – *Caledonian*, M16A0140 – *C19496NB*, M17C0061 – *Emma Joan*,

*M*17P0052 – *Miss Cory*, M18P0073 – *Western Commander*,M18A0425 – *Charlene A* and M18A0454 – *Atlantic Sapphire.*

Vessel masters are advised to carefully consider stability when transporting gear. Care must be given to the stowage and securing of all traps, cargo, skiffs, equipment, fuel containers and supplies and also to correct ballasting. Know the limitations of your vessel; if you are unsure contact a reputable marine surveyor, naval architect or the local Transport Canada Marine Safety office.

WorkSafeBC's Occupational Health and Safety Regulations (OHSR) require owners of fishing vessels to provide documentation on board, readily accessible to crew members, which describes vessel characteristics, including stability.

Fish Safe has developed a code of best practices for the food and bait/roe herring fisheries and the prawn fishery: These Best Practices are available on Fish Safe's website for convenient download here: https://www.fishsafebc.com/best-practices Please contact Ryan Ford at Fish Safe for a copy of the program materials they developed to address safety and vessel stability in these fisheries. Ryan Ford – office: (604) 261261-9700 - Email: ryan@fishsafebc.com.

## 2.2. Emergency Drill Requirements

The *Canada Shipping Act, 2001* requires that the Authorized Representative of a Canadian Vessel shall develop procedures for the safe operation of the vessel and for dealing with emergencies. The Act also requires that crew and passengers receive safety training. The Marine Personnel Regulations require that all personnel on board required to meet the minimum safe manning levels have received MED (Marine Emergency Duties) training to an A1 or A3 level, depending on the vessel's voyage limits, within 6 months of serving aboard. MED A3 training is 8 hours in duration and is applicable to seafarers on fishing vessels less than 150 GRT that are within 25 miles from shore (NC2). MED A1 training is 19.5 hours duration and is applicable to all other fishing vessels.

To assist fishers in meeting their crew training requirements, Fish Safe has created a downloadable '*New Crew Orientation Form and How To Guide'* available on Fish Safe's website here: https://www.fishsafebc.com/downloadable-tools

MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents; raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

WorkSafeBC's Occupational Health and Safety Regulation (OHSR) requires written rescue and evacuation procedures for work on or over water. Additionally, fishing vessel masters must establish procedures and assign responsibilities to each crew member to cover all emergencies, including the following: crew member overboard, fire on board, flooding of the vessel, abandoning ship, and calling for help. Fishing vessel masters are also required to conduct emergency drills at the start of each fishing season, when there is a change of

crew, and at periodic intervals to ensure that crewmembers are familiar with emergency procedures.

Between 2011 and 2015 the TSB investigated 17 fishing vessel accidents which resulted in 17 fatalities. The report's findings highlighted the lack of safety drills and safety procedures and practices. The *Safest Catch* program, delivered by Fish Safe and free to BC commercial fishers, includes comprehensive practice of drills such as abandon ship, man overboard and firefighting drills.

## 2.3. Cold Water Immersion

Drowning is the number one cause of death in BC's fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees C. BC waters are usually below 15 degrees C. Normal body temperature is around 37 degrees Celsius; cold water rapidly draws heat away from the body. The effects of cold water on the body occur in four stages: cold shock, swimming failure, hypothermia and post-rescue collapse. Know what to do to prevent you or your crew from falling into the water and what to do if that occurs. More information is available in the WorkSafeBC Bulletin Cold Water Immersion (available from the WorkSafeBC website at www.worksafebc.com).

Under the recently amended (June 2019) OHS Regulation, section 24.96.1, a crewmember must wear a PFD or lifejacket when on board a fishing vessel that has no deck or deck structure or when on the deck of a fishing vessel that has a deck or deck structure. The use of a PFD will prepare a crewmember to remain afloat, to survive the effects of cold shock, reduce the need to swim and give rescuers time to respond.

Section 8.26, which requires workers to wear a PFD or lifejacket when working "under conditions which involve a risk of drowning", would continue to apply to fishing crewmembers and other workers (e.g. when they are working on shore, docks and other vessels). The specific requirements can be found on WorkSafeBC's PFD Primer provided on Fish Safe's website here: https://www.fishsafebc.com/cold-water-survival.

It has been demonstrated time and again that, when worn, PFD's save lives - and the chance of surviving a mishap increases significantly when these devices are worn while working on deck.

Resulting from the TSB investigations into the *Diane Louise* - M14P0110 and the *Caledonian* – M15P0286 fishing vessel accidents the Board recommended that both TC and WorkSafeBC require that persons wear a suitable personal flotation devices (PFDs) at all times when: on the deck of a commercial fishing vessel; or, when on board a commercial fishing vessel without a deck or deck structure, and ensure that programs are developed to confirm compliance.

## 2.4. Other Issues

### 2.4.1. Weather

Vessel owners and masters are reminded of the importance of paying close attention to current weather trends and forecasts during the voyage. Marine weather information and forecasts can be obtained on VHF channels 21B, Wx1, Wx2, Wx3, or Wx4. Weather information is also available from Environment Canada website at: http://www.weatheroffice.gc.ca/marine/index_e.html

### 2.4.2. Emergency Radio Procedures, EPIRB's and AIS

Vessel owners and masters should ensure that all crew are able to activate the Search and Rescue (SAR) system early rather than later by contacting the Canadian Coast Guard (CCG). All fishing vessels greater than 20m in length must carry a Class A AIS, as well as a float free 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons must be registered with the Canadian Beacon Registry. When activated, an EPIRB transmits a distress call that is picked up or relayed by satellites and transmitted via land earth stations to the Joint Rescue Co-ordination Centre (JRCC), which will task and co-ordinate rescue resources. The TSB notes that there have been several recent occurrences on board vessels not equipped with an EPIRB, and that were either unable or did not use any other means of emergency signaling distress (e.g. M14P0121, M14A0289, M15A0189, M16A0327, M18A0076, M18A0303, M18A0078, M18P0184, M19A0082, M19P0242, M20A0258, M20A0160, M21A0315) which resulted in 26 fatalities. The carriage of both AIS and EPIRB is strongly encouraged for all fishing vessels who do not fall under the mandatory threshold.

Fish harvesters should monitor VHF channel 16 or MF 2182 KHz and make themselves and their crews familiar with other radio frequencies. All crew should know how to make a distress call and should obtain their restricted operator certificate from Industry Canada. However, whenever possible, masters should contact the nearest Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) station (on VHF channel 16 or MF 2182 kHz) prior to a distress situation developing. Correct radio procedures are important for communications in an emergency. Incorrect or misunderstood communications may hinder a rescue response. Further information is available at Radio Aids to Marine Navigation General

Since August 1, 2003 all commercial vessels greater than 8 metres in length are required to carry a Class D VHF Digital Selective Calling (DSC) radio. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in your immediate area and MCTS that your vessel is in distress. Masters should be aware that they should register their DSC radios with Industry Canada to obtain a Marine Mobile Services Identity (MMSI) number or the automatic distress calling feature of the radio may not work. For further information see the Coast Guard website at: http://www.ccg-gcc.gc.ca/eng/CCG/Home or go directly to the Industry Canada web page: www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01032.html

A DSC radio that is connected to a GPS unit will also automatically include your vessel's current position in the distress message. More detailed information on DSC can be found

here: TC DSC Safety Bulletin. Questions regarding Coast Guard DSC capabilities can be obtained by contacting your local MCTS centre (Prince Rupert MCTS (250)627-3070 or Victoria MCTS (250)363-6333).

### 2.4.3. Collision Regulations

Fish harvesters must be knowledgeable of the *Collision Regulations* and the responsibilities between vessels where risk of collision exists. Navigation lights must be kept in good working order and must be displayed from sunset to sunrise and during all times of restricted visibility. To help reduce the potential for collision or close quarters situations which may also result in the loss of fishing gear, fish harvesters are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel when travelling or fishing near shipping lanes or other areas frequented by large commercial vessels. Vessels required to participate in VTS include:

a) every ship twenty metres or more in length,
b) every ship engaged in towing or pushing any vessel or object, other than fishing gear,
c) where the combined length of the ship and any vessel or object towed or pushed by the ship is forty five metres or more in length; or
d) where the length of the vessel or object being towed or pushed by the ship is twenty metres or more in length.

Exceptions include:

a) a ship towing or pushing inside a log booming ground,
b) a pleasure yacht **less than** 30 metres in length, and
c) a fishing vessel that is **less than** 24 metres in length and not **more than** 150 tons gross.

More detailed information on VTS can be obtained by calling either Prince Rupert MCTS (250)627-3070 or Victoria MCTS (250)363-6333 or from the Coast Guard website: https://www.ccg-gcc.gc.ca/publications/mcts-sctm/ramn-arnm/part3-eng.html

### 2.4.4. Buddy System

Fish harvesters are encouraged to use the buddy system when transiting and fishing as this allows for the ability to provide mutual aid. An important trip consideration is the use of a sail/voyage plan which includes the particulars of the vessel, crew and voyage. The sail plan should be left with a responsible person on shore or filed with the local MCTS. After leaving port the fish harvester should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

## 3. WORKSAFEBC

WorkSafeBC exercises jurisdiction over workplace health and safety, including the activities of crews of fishing vessels. Commercial fishing, diving and other marine operations are subject to the provisions of the *Workers Compensation Act* (WCA*)* and requirements in Part 24 of the Occupational Health and Safety Regulation (OHSR). Examples of Part 24 regulatory requirements related to fishing include, but are not limited to, the requirement to establish emergency procedures, to conduct emergency drills, to provide immersion suits for the crew, to provide stability documentation for the vessel, safe work procedures, injury reporting, correction of unsafe working conditions, the requirement to wear personal floatation devices (PFDs), etc.

Other sections of the OHSR also apply to commercial fishing operations. For example, Part 3 addresses training of young and new workers, first aid, and employer incident/accident investigations. Part 4 addresses general conditions such as maintenance of equipment, workplace conduct and impairment. Part 8 addresses issues related to safety headgear, safety footwear, eye and face protection, limb and body protection and personal flotation devices (PFDs) when working on the dock. Part 12 addresses issues related to tools, machinery and equipment, including safeguarding. Part 15 addresses issues related to rigging.

Both owners and masters of fishing vessels are considered to be employers. Under the *Workers Compensation Act* and the OHS Regulation (OHSR) they have varying and overlapping duties and responsibilities. Masters, because they have the most control during fishing and related activities, are considered to be the employer with primary responsibility for the health and safety of the crew.

The OHSR and the WCA are available from the Provincial Crown Printers or by visiting the WorkSafeBC website: www.worksafebc.com

NOTE: Regarding the OHSR requirement to wear PFD's, WorkSafeBC has produced a video entitled "Turning the Tide – PFD's in the Fishing Industry". For more information on PFD use, including a link to the video, please access the following site:

https://www.worksafebc.com/en/about-us/news-events/news-releases/2018/November/new-fishing-industry-safety-video?origin=s&returnurl=https%3A%2F%2Fwww.worksafebc.com%2Fen%2Fsearch%23q%3DTurning%2520the%2520Tide%26sort%3Drelevancy%26f%3Alanguage-facet%3D%5BEnglish%5D

For further information, contact an Occupational Safety Officer:

| | | |
|---|---|---|
| Bruce Logan | Field Services | Vancouver/Richmond/Delta (604) 244-6477 |
| Cody King | Field Services | Courtenay (250) 334-8733 |
| Paul Matthews | Field Services | Courtenay (250) 334-8741 |
| Wayne Tracey | Field Services | Central (604) 232-1939 |

or the Manager of Interest for Marine and Fishing, Pat Olsen (250) 334-8777

For information on projects and initiatives related to commercial fishing health and safety please contact Tom Pawlowski, Manager, OHS Consultation and Education Services, at (604) 233-4062 or by email: tom.pawlowski@worksafebc.com or Helen Chandler, OHS Consultant at (604) 276-3174 or by email: helen.chandler@worksafebc.com.

## 4. FISH SAFE BC

Fish Safe encourages Vessel masters and crew to take ownership of fishing vessel safety. Through this industry driven and funded program Fish Safe provides fishing relevant tools and programs to assist fishers in this goal. The Fish Safe Stability Education Program and 1 Day Stability Workshop are available to all fishers who want to improve their understanding of stability and find practical application to their vessel's operation. The SVOP (Small Vessel Operator Proficiency) Course is designed to equip crew with the skills they need to safely navigate during their wheel watch. The *Safest Catch* Program, along with fisher-trained Safety Advisors, is designed to give fishers the tools they need to create a vessel specific safety management system.

As referenced throughout the above documentation, Fish Safe provides a broad range of courses, programs and services that are either free for BC commercial fishers or highly subsidized.

Fish Safe is managed by Ryan Ford, Program Manager and support staff including John Krgovich, Program Coordinator, Stephanie Nguyen, Program Assistant, Rhoda Huey, Bookkeeper/Administrative Assistant, and an experienced team of fisher Safety Advisors. All activities and program development is directed by the Fish Safe Advisory Committee (membership is open to all interested in improving safety on board fishing vessels). The Advisory Committee meets two to three times annually to discuss safety issues and give direction to Fish Safe in the development of education and tools for fish harvesters.

Fish Safe also works closely with WorkSafeBC to improve the fishing injury claims process. For further information contact:

| | |
|---|---|
| Ryan Ford | |
| Program Manager | Cell: (604) 739-0540 |
| Fish Safe | Office: (604) 261-9700 |
| #100, 12051 Horseshoe Way | Email: ryan@fishsafebc.com |
| Richmond, BC V7A 4V4 | www.fishsafebc.com |

## 5. TRANSPORTATION SAFETY BOARD

The Transportation Safety Board (TSB) is not a regulatory board. The TSB is an independent agency that investigates marine, pipeline, railway and aviation transportation

occurrences to determine the underlying risks and contributing factors. Its sole aim is the advancement of transportation safety by reporting publicly through Accident Investigation Reports or Marine Safety Information Letters or Advisors. It is not the function of the Board to assign fault or determine civil or criminal liability. Under the TSB Act, all information collected during an investigation is completely confidential.

In 2014 the TSB pacific region released three investigation reports:

- the collision between trawl fishing vessel *Viking Storm* and US long line fishing vessel *Maverick* and the subsequent fatality,
- the person over board off the prawn fishing vessel *Diane Louise* and the subsequent fatality, and
- the capsizing of the crab fishing vessel *Five Star* and subsequent fatality.

In 2016 the TSB pacific region released one investigation report:

- the capsizing of the trawl *Caledonian* and subsequent fatalities.

In 2018 the TSB pacific region released two investigation reports:

- the capsizing and sinking of the *Miss Cory* and subsequent fatality
- the sinking of the *Western Commander* and loss of life

In 2020 the TSB Pacific Region is currently investigating the fatal accident involving the *Arctic Fox II* on August 11.

The TSB issued five recommendations following the *Caledonian* report. Three recommendations issued are aimed at ensuring all crews have access to adequate stability information that meets their needs. That means:

- All commercial fishing vessels should have a stability assessment appropriate for their size and operation.
- The information from that assessment must then be kept current, and it must be used to determine safe operating limits.

Moreover, these operating limits must be easily measurable, and relevant to the vessel's operation. For example, that could mean marking the sides of a vessel's hull to indicate the maximum operating waterline, or maximum permitted loads can be specified in the most relevant unit of measure—total catch weight for instance, or the safe number of traps. Regardless, for it to be of real, practical use, the information must be presented in a format that is clearly understood and easily accessible to crew.

The other two recommendations address the most basic step that harvesters can take: wearing a personal flotation device. Here in British Columbia, roughly 70 percent of all fishing-related fatalities in the past decade came while not wearing a PFD. Yet many harvesters still do not wear them. TC regulations currently require that PFDs be worn only if harvesters identify a risk, however; you never know when you could end up in the water. So the TSB is recommending to TC to require persons to wear suitable personal flotation devices at all times when on the deck of a commercial fishing vessel or when on board a commercial fishing vessel without a deck or deck structure and that programs are

developed to confirm compliance. In June 2019, WorksafeBC amended its fishing regulation related to the use of PFDs. Under the amendments, crewmembers must wear a PFD or lifejacket when on board a fishing vessel that has no deck or deck structure, or when on the deck of a fishing vessel that has a deck or deck structure. Crewmembers are not required to wear lifejackets or PFDs below deck or when inside a deck structure where there is risk of entrapment. This amendment removes the need for a risk of drowning to be present before a PFD must be worn.

For more information about the TSB, visit the website at www.tsb.gc.ca
For information about the TSB's investigation into fishing safety, or to view a brief video, visit:
http://www.tsb.gc.ca/eng/medias-media/videos/marine/m09z0001/index.asp

To view information on the TSB's recent safety Watchlist, visit:
http://www.tsb.gc.ca/eng/surveillance-watchlist/marine/2020/marine-01.html

Reporting an Occurrence: www.tsb.gc.ca/eng/incidents-occurrence/marine/
After a reportable occurrence happens; you can fill out the TSB 1808 form or call the TSB at the contact information below.

Recently the TSB produced a Safe at Sea: Activity book on fishing safety intended for the next generation of fish harvesters (ages 4-7). Download a copy.
www.tsb.gc.ca › eng › medias-media › prudence-safe › safe-at-sea

Glenn Budden, Investigator, Marine - Fishing Vessels
Transportation Safety Board of Canada
4 - 3071 No. 5 Road
Richmond, BC, V6X 2T4
Telephone: (604) 619-6090
Email: glenn.budden@tsb-bst.gc.ca

## APPENDIX 9: CONSULTATION

A more formalized consultative process was developed in 2014 to help organize and coordinate the Pacific Oyster fishery. A call for nominations was made in 2014 for a three-year term on the Sectoral Committee. In 2017 and again in 2020 nominations were requested for commercial representatives to serve on the committee. A total of five seats were available for commercial representatives on the Sectoral Committee. In both 2017 and 2020 only four nominations were received, and those four people were appointed by the Department as representatives for a three-year period. An additional seat may be filled in the future if a nominee is identified. Additional seats are also available on the Sectoral Committee for representatives from First Nations, BC Ministry of Agriculture, Food and Fisheries, and recreational harvesters.

It is expected future advisory committee members will meet at least once annually in the late fall period to review and provide advice to the Department regarding management issues pertaining to the fishery and advice on the proposed IFMP for the following season.

Each year the preliminary draft IFMP, which incorporates new science advice and advice on quota options and the upcoming fishery, is made available to all interested parties: First Nations, commercial licence holders, recreational organizations, DFO (Science Branch, Conservation and Protection, Commercial Licensing, the Oceans Directorate, the Aquaculture Division, Fisheries Management and Policy Branch), other Federal agencies such as CFIA, ECCC and the Province Ministry of Agriculture, Food and Fisheries for review and comment prior to the IFMP being finalized and approved by the Department.

## APPENDIX 10: POST-SEASON REVIEW

During the 2021/22 season 25 commercial harvest sites were approved in the Integrated Fisheries Management Plan (IFMP) for commercial harvest. Fourteen (14) of the 71 commercial licences were active in the fishery. However, the proportion of the over-all total allowable catch that was harvested remained low. Hail reports indicate approximately ~91,000 lb of product was harvested out of the coast wide Total Allowable Catch (TAC) of 688,800 lb.

The 2021/22 season was the eighth year that the fishery was conducted using a third-party service provider (D&D Pacific Fisheries Ltd.) for monitoring the licence and area quotas, in-season, through a mandatory hail reporting program.

The commercial fishery opened on March 1, 2021 until June 30, 2021; and then re-opened for a second opening from September 15, 2021 to December 15, 2021. None of the individual harvest sites exceeded their maximum allowable quota in-season.

### Pacific Region Objectives:

- All commercial harvest was controlled within the allocated quotas approved in the IFMP. Few public complaints were received by the Department.
- Harvest of Pacific Oysters is limited to harvesting by hand-picking, and thus is believed to reduce any ecological impacts on habitat due to harvesting activity.

### Invertebrate Resource Management Objectives:

- There continues to be interest by First Nations to engage in the harvest of Pacific Oysters from wild product and through aquaculture.
- The Department has created a total of 20 FZWO communal commercial licences for First Nations. First Nations with an interest in the fishery may apply through the ATP program for access.
- Arrangements were successfully made with licence holders to implement the required in-season management hail, catch monitoring and tracking, and logbook reporting programs as outlined in the DFO data reporting standards for the 2021/22 season. This program was carried out by the service provider selected for the season by licence holders, D&D Pacific Fisheries Ltd.
- Recreational harvest opportunities were provided in most South Coast areas year-round, in areas with the approved water-quality and biotoxin monitoring in place. Opportunities for harvesting continued under the recreational sport fishing licence.

### Pacific Oyster Objectives:

- During 2021 the field season for biomass surveys was impacted by Covid-19. No biomass surveys were conducted.
- Commercial harvest at all sites was limited to the allocated quota amounts identified in the IFMP.

- The catch monitoring and tracking programs for the commercial fishery were believed to function fairly well. Several vessels failed to submit logbooks within the required timelines outlined in their licence conditions.
- No harvest sites exceeded their harvest limit during the 2021/22 season.

# APPENDIX 11: REPORTING STANDARDS

## Pacific Oyster Commercial Fishery
## Monitoring and Catch Reporting Program Standards
## For the Licence Year 2023/24

**TABLE OF CONTENTS**

## 1. PURPOSE OF THIS DOCUMENT

This document describes the official Fisheries and Oceans Canada standards for fishery monitoring and catch reporting in the commercial Pacific Oyster fishery, including data collection, data submission, and reporting. The document defines the requirements for the 2023/24 licence year and will be adapted for subsequent seasons as necessary. Through conditions of licence, commercial harvesters are required to establish programs for:

- Fishery activity monitoring;
- Harvest logbook reporting;
- Harvest hail reporting; and
- Fish Slip reporting;

This document is intended to provide information to licence holders regarding their obligations for reporting during the 2023/24 season, and may be used by commercial licence holders in discussions with third-party service providers who may be interested in bidding on the opportunity to provide these programs and requirements on behalf of licence holders.

Persons applying for a licence for the 2023/24 season will be required to ensure that they have made arrangements, either individually or through an area association, for each element of these programs to be completed on their behalf.

Prior to the Department opening the fishery for the 2023/24 season all commercial licence holders, or associations acting on their behalf, are required to submit a detailed proposal to the Department on behalf of the licence holders represented outlining how each of the fishery monitoring and catch reporting program requirements will be met. It is essential that proposals demonstrate how programs will function to meet the minimum program standards of the Department described in this document. These proposals are due a minimum of nine (9) weeks prior to the department opening the fishery. The Department will review proposals to ensure they meet all program standards, and may request discussion with proponents for clarification. Departmental approval of programs will be provided in writing. The Department recommends that licence holders refrain from committing to any contract arrangements with service providers prior to the Department confirming, in writing, approval for the proposal(s) submitted on their behalf.

All program components, as outlined in the proposal, and approved by the Department, must be in place for the start of the fishery.

The Department requires that all licence holders within a single oyster licence area choose a single service provider for the fishing activity hail program and for the harvest report hail program. Individual licence holders within a licence area may choose to select a different or multiple service providers to provide logbook services or to complete stock assessment surveys, provided submission of data and reports meet DFO format standards.

## 2. MONITORING OBJECTIVES FOR COMMERCIAL OYSTER FISHERY

Over-arching objectives for the fishery include:

- Collect accurate harvest and effort data;
- Collect accurate and timely data on fishing activity;
- Collect data to support compliance with conditions of licence;
- Collect data on stock abundance and structure; and
- Collect economic data from the fishery

## 3. MONITORING PROGRAMS

The monitoring of the commercial oyster fishery during the 2023/24 fishing season will be accomplished through four programs. It is expected that most harvesters will meet the monitoring requirements through the fishing activity hail, harvest logbook, harvest report hail, and fish slip programs. Detailed reporting standards for the fishing activity hail, harvest logbook and harvest report hail are provided in Annex 1 thru 3.

### 3.1. Fishing Activity Hail Program

#### 3.1.1. Phone-in Hails – prior to fishing

Harvesters may choose to use a phone-in hail program to meet the objectives of collecting accurate and timely data on fishing activity. All licence holders must hail-in a minimum of 24 hours prior to each fishing trip. Hails must be made during regular business hours (between 09:00 hrs. and 16:00 hrs Monday to Friday only) or by emailing to pacificoyster@d-dpacificfisheries.com. Fishers may hail for multiple days at a time, up to a maximum of eight (8) days. Licence holders must phone and make arrangement to have all the detailed data outlined in Annex 1 uploaded to a DFO approved database. Individuals may not phone DFO directly. All data must be provided through a DFO approved service provider (see Annex 1).

Licence holders electing not to participate in the fishing activity phone hail program must arrange for a DFO designated observer, designated by the Regional Director General for monitoring, to be present during harvesting and must ensure the observer accurately monitors and reports on all the detailed standards outlined in this document. Observers must participate in a training program specific to the oyster fishery monitoring, and must be designated under Section 39 of the *Fishery (General) Regulations*. Details on required information reports are provided in Annex 1. Contact a Resource Manager for more information (see Section 4**).**

### 3.2. Catch Reporting

#### 3.2.1. Harvest Logbooks

The goal of this program is to obtain accurate harvest and effort data in the commercial oyster fishery. As a Condition of Licence, the licence holder 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 Fisheries and Oceans Canada. Licence holders may use a service provider to meet the requirement for provision of electronic data (see Annex 2). Alternately, licence holders may elect to meet this requirement independent of a service provider.

### 3.2.2. Fish Slips

The fish slip program is intended to collect economic data from the fishery. Service providers are not required in order to fulfill program requirements. Licence holders are responsible for ensuring fish slips are submitted. It is a Condition of Licence that an accurate written report shall be furnished on a fish slip of all fish and shellfish caught under the authority of this licence. A report must be made 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
Regional Data Unit
Suite 200 - 401 Burrard Street
Vancouver, B.C., V6C 3S4
(604) 666-3784

Fish slip books may be purchased at most Fisheries and Oceans Canada offices. Phone (604) 666-2716 for more information.

### 3.2.3. Harvest Report Hail

Licence holders shall arrange to have catch information on fishing harvest reported within 16 hours of the product leaving the harvest location. Within 16 hours of the oysters being removed from the harvest site the licence holder shall contact the approved service provider and provide all the detailed data outlined in Annex 3. The licence holder shall arrange to have all data outlined in Annex 3 uploaded to the DFO database on a weekly basis. Individuals may not phone DFO directly. All data must be provided through a DFO approved service provider (see Annex 3).

Licence holders electing not to participate in the harvest report phone hail program must arrange for a DFO designated observer, designated by the Regional Director General for monitoring, to be present during harvesting and must ensure the observer accurately monitors and reports on all the detailed standards outlined in this document. Observers must participate in a training program specific to the

oyster fishery monitoring, and must be designated under Section 39 of the *Fishery (General) Regulations*. Details on required information reports are provided in Annex 3. Contact a Resource Manager for more information (see Section 4**)**.

### 3.3. Stock Assessment Program

Licence holders are responsible for participating in new biomass surveys annually to collect data on oyster abundances to be used for establishing quotas at commercial harvest sites. Representatives from industry will participate in a survey subcommittee to help plans and organize surveys.

It the responsibility of the Licence holders to make arrangements for biomass assessments to be conducted, analyzed, and the data provided to DFO based on the work plans established by the survey subcommittee. Licence holder representatives may propose new harvest sites to be surveyed to replace existing harvest sites. All new proposed harvest sites will need to be reviewed and evaluated by DFO, and it is recommended that proposals for new harvest sites be submitted to DFO several months in advance of anticipated survey dates.

The objective of the surveys will be to collect information on the biomass of oyster populations which will be used to help determine harvest quotas.

The assessment protocol to be followed has been developed and peer-reviewed through the Canadian Scientific Advice Committee within DFO. The detailed survey manual outlining the steps and reporting standards was prepared by DFO science and made available in early 2014. The manual includes a requirement for surveys to be coordinated by an independent third-party biologist capable of running the survey and completing the necessary analysis of data. Harvesters or others may assist in the surveys to reduce personnel and other costs.

## 4. CONTACTS FOR MORE INFORMATION

| | | |
|---|---|---|
| Stock Assessment | Dominique Bureau | (250) 756-7114 |
| Resource Manager | Guy Parker | (250) 756-7163 |
| Aquaculture Management | Kristen Daniel | (250) 327-1047 |

## Annex 1 - Fishing Activity Hail Reporting Specifications

| | |
|---|---|
| **Project Name:** | PacFISH Information Management Framework |
| **Document Title** | DFO Data Transfer Specifications: Fishery Activity Hail Programs |
| **Author:** | DFO |
| **Organization:** | Fisheries and Oceans Canada |
| **Date:** | September 29, 2016 |

This document provides information on the data requirements and specifications for programs collecting data for transfer to Fisheries and Oceans Canada, Pacific Region. The intended audience is both DFO staff and external groups involved in collecting, transferring or managing fisheries data. All data submitted becomes the exclusive property of Fisheries and Oceans Canada

**Fishery(s):** Commercial Pacific Oyster (code – PACOYST)
**Fishery Season:** 2023
**Data Collection Program Name:** Fishery Activity Hail
**Associated Fishery Data Manager:** Resource Management – Invertebrates, Pacific Region

**Rationale:** This hail program is integral to the following activities:

Monitoring and tracking fishing activity
Tracking and monitoring harvest against beach and individual licence quotas

**Data Transfer Requirements**

**Format:** Microsoft Excel (2010 or earlier versions)
**Medium:** DFO ftp site or Email to Local Area Oyster Manager
**Timeliness:** The vessel master shall arrange to have a fishing activity report entered into the DFO database by the end of business every Monday:

- All data shall be made available to DFO no more than 7 days after the data has been received by the service provider.
- The file must be a running update of all data for the season. (i.e. the file must include all previous records as well as the new information being provided to DFO).
- The vessel master shall arrange for the service provider to send updated hail reports to DFO during the course of the week if requested to do so.

**File Naming Conventions:** Oyster_Act_Hail_2023

The following information shall be recorded for each fishing activity report:

| FIELD NAME | DESCRIPTION | FIELD TYPE/SIZE |
|---|---|---|
| HAIL_OUT_NUM | Hail out number at start of trip | Number |
| CALL_DATE | Date call made | Short Date (month/day/year, e.g. 12/31/13) |
| CALL_TIME | Time call made | Short Time (e.g. 23:59) |
| CALLER_NAME | Name of caller | Text |
| LICENCE_NUMBER | Licence number | Number |
| LICENCE_HOLDER_NAME | Licence holder's name | Text |
| TRIP_STATUS | Trip Status[1] | Text |
| TRIP_TYPE | Type of Trip[2] | Text |
| PFMA | PFMA[3] | Number |
| PFM_SUB_AREA | PFM Subarea[3] | Number |
| BEACH NUMBER | Beach Number from IFMP | Number |
| COMMENTS | Comments | Memo |
| HAIL_OP | Hail Operator | Memo |
| VESSEL NAME | Name of Vessel Used (if available) | Text |
| | | |

| [1] TRIP STATUS |
|---|
| START |
| END |
| LOCATION CHANGE |
| UPDATE |
| CANCEL |

| [2] TRIP TYPE |
|---|
| COMMERCIAL |
| COMMERCIAL W/ SURVEYS |
| SURVEYS |

[3] Areas and Subareas are described in the Pacific Fishery Management Area Regulation. The hail operator shall provide additional sub-areas and beach numbers intended to be fished during the same trip.

## Annex 2 - Pacific Oyster Harvest Logbook Program (Paper) Data Specifications

| | |
|---|---|
| **Project Name**: | PacFish Information Management Framework |
| **Document Title:** | DFO Data Transfer Specifications: Harvest Logbooks |
| **File Number:** | |
| **Author:** | Fisheries Management |
| **Organization:** | Fisheries and Oceans Canada |
| **Version:** | 1.0 |
| **Date:** | September 29, 2016 |

This document provides information on the data requirements and specifications for programs collecting data for transfer to Fisheries and Oceans Canada, Pacific Region. The intended audience is both DFO staff and external groups involved in collecting, transferring or managing fisheries data, including Service Providers hired by harvesters or harvester associations to support compliance with Conditions of Licence.

**Fishery(s):** Commercial Pacific Oyster (code – PACOYST)
**Fishery Season:** 2023
**Data Collection Program Name:** Pacific Oyster Harvest Log Program (paper-based)
**Associated Fishery Data Service:**

**Data Transfer Requirements**

**Format:** MS Access 2010 (or earlier version) database file following the prescribed data transfer format (below) + hardcopy (paper) from which electronic data were transcribed.

- A separate file must be created for each calendar year.
- Hardcopy (paper) must be separated by calendar year.
- Hardcopy (paper) must be accompanied by a batch summary report, consisting of a listing of the licence numbers contained in the batch, sorted in ascending order, with a count of records associated with each licence number. The total number of records associated with the batch must also be provided.

**Conduit:** Data transfer to DFO to be effected via the DFO Contractor Data Exchange FTP site or email. Service Provider is to notify the resource manager via email each time a file is posted to an FTP site.

**Medium:** In the absence of data transfer via FTP, an acceptable physical medium is a Windows compatible mini CD. The CD must be accompanied by a batch summary report (described above).

**Hardcopy delivery**: All deliveries of hardcopy and physical media must be via courier service, in-person or by an approved alternative. Hardcopy logbooks must be submitted

to the Department at the address below. Licence holders are responsible for ensuring delivery of the physical hard copy of their logs to the Department within 21 days following the end of the month in which fishing occurred. The mailing address is:

Fisheries and Oceans Canada
Guy Parker
65 Front Street
Nanaimo, B.C. V9R 5H9

**Timeliness:** An electronic copy must be provided to the Department by January 31, 2024.

**Data Ownership:** All data submitted becomes the exclusive property of Fisheries and Oceans Canada.

**File Naming Conventions:** Files should be named such that the Service Provider, Fishery, Origin (paper-based [P]) Unique Batch number and year (YYYY) are all present in the file name (e.g. ABCCo_Pacific_oyster_P_B42_2023).

**Special Requirements:**

- The electronic version must be a true and accurate transcription of the hardcopy data. Each record will represent, at a minimum, one day's harvest from a single harvest beach.
- The file submitted must consist of only one table), with the fields and field characteristics as shown in the 'DATA TRANSFER FORMAT' section in this document. Regardless of the table design and relationships defined by the external group or Service Provider system for proprietary purposes, data transferred to DFO must be extracted in a manner which conforms to the design described in the 'DATA TRANSFER FORMAT' section.
- The file must be a running update of all data for the season (i.e. the file must include all previous records as well as the new information being provided to DFO).

### Data Transfer Format

More extensive descriptions of data fields marked with an asterisk are available following the table.

| Field Name | Description | Mandatory? | Field Type/Size | Value if N/A or Unknown | Validation Rules |
|---|---|---|---|---|---|
| LICENCE_NUM | Licence Number | Yes | Integer | | |
| FIN | Vessel Master Fisher Identification Number (FIN) | Yes | Long Integer | Null | |
| YEAR | Year of fishing event | Yes | Integer – 4 digits | | |
| MONTH | Month of fishing event | Yes | Integer or byte | | 1-12 |
| DAY | Day of fishing event | Yes | Integer or byte | | Valid calendar day (1-31) |
| STAT_AREA | *Statistical Area (Pacific Fishery Management Area; PFMA) | | Integer or byte | 0 | Valid PFM Area from PacFish Data Standard list |
| SUB_AREA | *Statistical Sub-area (PFM sub-area) | | Integer or byte | 0 | Valid PFM Sub-area from PacFish Data Standard list |
| NAME_BEACH | Common name of harvest beach location | Yes | Text – 40 characters | U | |
| SPECIES_CODE | * Species Code | Yes | Text – 3 characters | | Valid PacCode from PacFish Data Standard list |
| NUM_CONTAINERS | Number of containers | Yes | Integer | 0 | |
| WEIGHT | Weight of Total landings | Yes | Integer | 0 | |
| WEIGHT_UNIT | *Weight Unit | Yes | Text – 1 character | U | |
| PBS_CODE | *Remarks Code | | Integer or byte | 0 | |
| REC_STATUS | *Status of Record | Yes | Integer or byte | | |

### Statistical Area / Sub-Area

This is the Pacific Fisheries Management Area (PFMA) and Sub-Area as specified in the *Fisheries Act, Pacific Fishery Management Area Regulations 2007.*

### Species Codes

Use the following codes for Pacific oyster being reported.

| Species | Species | Code |
|---|---|---|
| Crassostrea gigas | | 69F |

### Weight Unit

Enter **'P'** for weights reported in Pounds, or **'K'** for Kilograms, **'U'** if Unknown.

### Remarks Code

Use code 99 to indicate that the data entry person has a problem (interpretation or other) with the record. Data entry person is to use pencil to write '99' in the REMARKS column of the paper log and include a sticky note affixed to the log page with a brief description of the issue. The sticky

note must project up from the page such that it is easily seen. Example problems: “handwriting hard to interpret”, “damage to page”, etc.
Occasionally Shellfish FDS staff will enter a numeric code in the Remarks field of the harvest log (identified by red pen). These codes are to be transcribed to the electronic version of the data.

## Annex 3 - Harvest Hail Reporting Specifications

| | |
|---|---|
| **Project Name:** | PacFISH Information Management Framework |
| **Document Title** | DFO Data Transfer Specifications: Harvest Reporting Hail Programs |
| **Author:** | DFO |
| **Organization:** | Fisheries and Oceans Canada |
| **Date:** | August 31, 2016 |

This document provides information on the data requirements and specifications for programs collecting data for transfer to Fisheries and Oceans Canada, Pacific Region. The intended audience is both DFO staff and external groups involved in collecting, transferring or managing fisheries data. All data submitted becomes the exclusive property of Fisheries and Oceans Canada

**Fishery(s):** Commercial Pacific Oyster (code – PACOYST)
**Fishery Season:** 2023
**Data Collection Program Name:** Harvest Report Hail
**Associated Fishery Data Manager:** Resource Management – Invertebrates, Pacific Region

**Rationale:** This hail program is integral to the following activities:
Monitoring and tracking fishing activity
Tracking and monitoring harvest against beach and individual licence quotas

**Data Transfer Requirements**

**Format:** Microsoft Excel (2010 or earlier versions)
**Medium:** DFO ftp site or Email to Local Area Oyster Manager
**Timeliness:** The vessel master shall arrange to have a fishing harvest hail report entered into the DFO database by the close of business every Monday:

- All data shall be made available to DFO no more than 7 days after the data has been received by the service provider.
- The file must be a running update of all data for the season. (i.e. the file must include all previous records as well as the new information being provided to DFO).
- The vessel master shall arrange for the service provider to send updated Harvest Reports to DFO during the course of the week if requested to do so.

**File Naming Conventions:** Oyster_Harvest_Hail_2023

REPORTING STANDARDS

The following information shall be recorded for each fishing activity report:

| FIELD NAME | DESCRIPTION | FIELD TYPE/SIZE |
|---|---|---|
| HAIL_NUM | Hail Number | Number |
| HAIL_OUT_NUM | Fishing activity hail out number | Number |
| CALL_DATE | Date call made | Short Date (month/day/year, e.g. 12/31/13) |
| CALL_TIME | Time call made | Short Time (e.g. 23:59) |
| CALLER_NAME | Name of caller | Text |
| LICENCE_NUMBER | Licence number | Number |
| LICENCE_HOLDER_NAME | Licence holder's name | Text |
| TRIP_STATUS | Trip Status[1] | Text |
| TRIP_TYPE | Type of Trip[2] | Text |
| PFMA | PFMA[3] | Number |
| PFM_SUB_AREA | PFM Subarea[3] | Number |
| BEACH NUMBER | Beach Number from IFMP | Number |
| HARVEST_AMT | Trip amount (lb) | Number |
| REMAIN_QUOTA | Remaining quota on licence (lb) | Number |
| COMMENTS | Comments | Memo |
| HAIL_OP | Hail Operator | Memo |
| | | |
| | | |

| [1] TRIP STATUS |
|---|
| START |
| END |
| LOCATION CHANGE |
| UPDATE |
| CANCEL |

| [2] TRIP TYPE |
|---|
| COMMERCIAL |
| COMMERCIAL W/ SURVEYS |
| SURVEYS |

[3] Areas and Subareas are described in the Pacific Fishery Management Area Regulation. The hail operator shall provide additional sub-areas and beach numbers intended to be fished during the same trip.

## WEEKLY SUMMARY REPORTS

Licence holders will ensure that the Department receives a weekly fishery summary by facsimile or email transmission. The summary will include the following information in tabular form:

- Table of landings by Licence Area showing, **for each licence area**: landings for the period (week); cumulative landings; number of licences fishing.
- Table of landings by Beach (Quota) Management Area showing, **for each beach (quota) area**: landings for the period (week); cumulative landings; remaining area quota; number of licences fishing.
- Table of landings by "ZWO" and "FZWO" Licence Tab Number, showing, **for each tab**: name; Areas and Subareas fished; landings for the period (week); cumulative landings; remaining quota on licence.

These weekly summaries are to be sent to:

Guy Parker
Fisheries and Oceans Canada
Phone: (250) 714-8379

## APPENDIX 12: EXAMPLE OF PACIFIC OYSTER TAG

To increase traceability of product, harvesters must attach water-proof tags to their bags or containers of oysters. All information as outlined in the requirements under the conditions of licence should be included on the tags. In addition, it is recommended to transcribe the Variation Order Number from the fishery notice that announces the opening onto the tag so as to provide harvesters and plant operators with additional verification that product is coming out of areas that have been opened by CFIA and DFO.

Harvesters are responsible for producing their own tags for the fishery.

Example of Tag:

| | | | |
|---|---|---|---|
| **Harvester Name:** | | | |
| **Oyster Licence No. :** | | **Harvest Date:** | |
| **Commercial Oyster Harvest Site:** | | | |
| **Pacific Fisheries Management Area:** | | **Subarea:** | |
| **Licence Holder's Name:** | | | |

The container tags must be waterproof and provide the following information written in water resistant ink:

- Harvester's Name;
- Licence Holder's Name
- Oyster Licence number;
- Harvest date;
- Commercial Oyster Harvest Site (fishery quota area); and
- Pacific Fisheries Management Subarea (example: Subarea 24-4).