

PACIFIC REGION

INTEGRATED FISHERIES

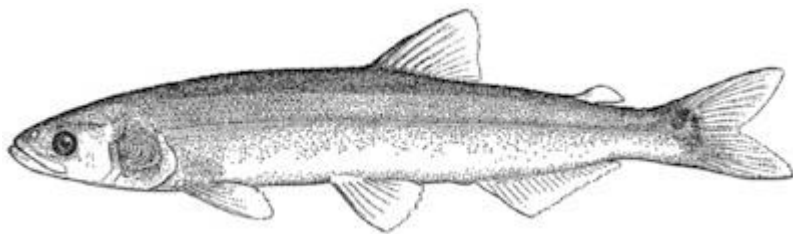
MANAGEMENT PLAN

FRASER RIVER

EULACHON

APRIL 1, 2013 TO

MARCH 31, 2014



Thaleichthys pacificus



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 regulations, the 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.

TABLE OF CONTENTS

FOREWARD	1
1. OVERVIEW	2
1.1. Introduction	2
1.2. History	2
1.3. Type of Fishery and Participants	2
1.3.1. First Nations	2
1.3.2. Recreational	2
1.3.3. Commercial	2
1.4. Location of Fishery	3
First Nations	3
1.5. Fishery Characteristics	3
First Nations	3
1.6. Governance	3
1.7. Consultation	3
1.8. Approval Process	4
2. STOCK ASSESSMENT, SCIENCE AND TRADITIONAL KNOWLEDGE	4
2.1. Biological Synopsis	4
2.2. Ecosystem Interactions	5
2.3. Aboriginal Traditional Knowledge/Traditional Ecological Knowledge	5
2.3.1. Aboriginal Traditional Knowledge (ATK)	5
2.3.2. Traditional Ecological Knowledge (TEK)	5
2.4. Stock Assessment	5
2.4.1. Stock Assessment Overview	5
2.4.2. Data Sources	6
2.5. Precautionary Approach	9
2.6. Research	10
3. MANAGEMENT ISSUES	11
3.1. Limited biological information	11
3.2. By-catch in other fisheries	11
3.3. Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Assessment	12
3.4. Oceans and Habitat Considerations	12
3.4.1. Oceans Act	12
3.4.2. Sustainable Fisheries Framework (SFF)	13
3.4.3. Pacific North Coast Integrated Management Area	13
3.4.4. Marine Protected Areas	14
3.4.5. National Marine Conservation Areas (NMCA)	14
3.4.6. Species at Risk Act (SARA)	14
3.5. Gear Impacts	18
3.6. Aquaculture	18
4. OBJECTIVES	18

4.1. National	18
4.2. Pacific Region	19
4.3. Eulachon Resource Management	19
4.4. Compliance.....	20
5. ACCESS AND ALLOCATION	20
5.1. First Nations	20
5.2. Recreational.....	20
5.3. Commercial	20
6. SHARED STEWARDSHIP ARRANGEMENTS	21
7. COMPLIANCE PLAN	21
7.1. Main Program Activities	21
7.1.1. Priorities for 2013	22
7.1.2. In-season	22
8. PERFORMANCE REVIEW.....	22
8.1. Management Plan Evaluation Criteria	22
8.1.1. National.....	22
8.1.2. Pacific Region.....	22
8.1.3. Eulachon Resource Management.....	22
9. REFERENCES.....	24
10. GLOSSARY	25
APPENDIX 1: POST-SEASON REVIEW OVERVIEW	28
APPENDIX 2: MAP OF FISHING AREAS	29
APPENDIX 3: ABORIGINAL FISHING PLAN	30
APPENDIX 4: RECREATIONAL FISHING PLAN.....	31
APPENDIX 5: COMMERCIAL FISHING PLAN	32
APPENDIX 6: CONTACTS.....	33
APPENDIX 7: FISHING VESSEL SAFETY	35

FOREWARD

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the eulachon fishery in the Fraser River, 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) 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 reasons, 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 an IFMP is inconsistent with obligations under land claims agreements, the provisions of the land claims agreements will prevail to the extent of the inconsistency.

1. OVERVIEW

1.1. Introduction

This Integrated Fisheries Management Plan (IFMP) for eulachon covers the period from April 1, 2013 to March 31, 2014 for the Fraser River area.

The IFMP provides a history and a broad context to the management of the Fraser River eulachon stock and describes broader issues related to conservation. Given the short life cycle of this species, and consecutive poor returns, there are conservation concerns with Fraser River eulachon stocks, resulting in fishery closures and minimal harvest for food, social and ceremonial (FSC) purposes. Long term closures may be required to allow for stock rebuilding.

1.2. History

Eulachon have been commercially harvested on the Fraser River since the 1870's. The only other large commercial fishery of eulachon in BC has been on the Nass River, which ended in the 1940's. From 1903 to 1912, the Fraser River eulachon fishery was the fifth largest commercial fishery in BC (Stacey, 1995).

More recently, average annual catches of eulachon in the Fraser River from the 1980s to the mid 1990s averaged approximately 20 tons per year and peaked in 1996 with an estimated catch of at least 63 tons. Due to increasing catch and effort and low levels of abundance, the commercial fishery was closed in 1997. Licence limitation was introduced in 1998 with the introduction of the ZU eulachon licence category. Since closing in 1997, the commercial eulachon fishery on the Fraser River has only opened in 2002 and 2004.

Eulachon are of continuing importance to First Nations who harvest them for FSC purposes. Eulachon are eaten fresh, or often smoked, dried, salted or made into grease. Eulachon grease is an important First Nations food source and is widely bartered among communities. There was believed to be a minor recreational fishery for eulachon in the Fraser River in past years, which has been closed since 2004.

1.3. Type of Fishery and Participants

1.3.1. First Nations

Aboriginal harvest for FSC purposes is authorized by communal licences in the lower Fraser River. First Nations apply for licences for small amounts of eulachon that are issued on a case by case basis. Fishing is primarily by drift net in the lower Fraser River. The use of dip nets may be authorized as a gear type upstream of Mission in traditional fishing areas upon request.

1.3.2. Recreational

The recreational fishery for eulachon is closed in tidal waters.

1.3.3. Commercial

The commercial eulachon fishery remains closed in the Fraser River.

1.4. Location of Fishery

First Nations

Aboriginal harvest may occur in portions of the lower Fraser River.

1.5. Fishery Characteristics

First Nations

Due to the limited nature of this fishery, fishing times are restricted to 1 day per year for each communal licence and participants must report catches to the Department. A strict monitoring regime to include DFO monitors, Fishery Officers, or First Nation monitors observing all sets directly is a requirement.

1.6. Governance

- The *Fisheries Act* and the regulations made thereunder.
 - ❖ Areas and Subareas, as described in the *Pacific Fishery Management Area Regulations (2007)*, are referenced in describing surf smelt Management Areas.
 - ❖ *Fishery (General) Regulations* (i.e. Conditions of Licence) and the *Pacific Fishery Regulations, 1993* (i.e. open times).
 - ❖ The *British Columbia Sport Fishing Regulations (1996)* and the *Aboriginal Communal Fishing Licences Regulations*.
- The *Oceans Act*.
- The *Species at Risk Act (SARA)*.

These documents are available on the Internet at:

<http://laws-lois.justice.gc.ca/eng/acts/F-14/>

In addition, the new 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;
- Policy on New Fisheries for Forage Species.

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

For more information on these departmental objectives, please visit the following site:

<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

1.7. Consultation

Fisheries and Oceans Canada (DFO) has a broad mandate, with the authority to regulate and enforce activities, develop policy, provide services and manage programs. To help ensure that the department's policies and programs are aligned with its vision and effectively address the interests and preferences of Canadians, DFO supports consultations that are transparent, accessible and accountable.

DFO, Pacific Region, undertakes consultations in order to improve departmental decision-making processes, promote understanding of fisheries, oceans and marine transport issues, and strengthen relationships.

With the assessment of the Fraser River population of eulachon as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in May, 2011 (see section 3.4.6), the Department started extensive consultations in 2012 with First Nations, stakeholders and members of the public who may be affected by the upcoming SARA listing decision and will continue consultations in 2013.

1.8. Approval Process

This plan is approved by the Regional Director General for the Pacific Region.

2. STOCK ASSESSMENT, SCIENCE AND TRADITIONAL KNOWLEDGE

2.1. Biological Synopsis

Eulachon (also known as candlefish or oolichan) belong to the family Osmeridae (smelts). The scientific name for eulachon is *Thaleichthys pacificus*, a name derived from the Greek roots thaleia (rich), ichthys (fish), which refers to the high oil content found in these little fish and pacificus (Pacific [Ocean]), which refers to where these fish live.

Within BC, there are 25 confirmed eulachon spawning rivers and an additional 15 potential spawning rivers based on anecdotal information. All known spawning rivers experience increased spring runoffs known as freshets and most drain snow packs or glaciers. The major river systems where eulachon return to spawn are the Fraser, Skeena, Nass, and Klinaklini.

Eulachon spawning is limited to the lower reaches of rivers. Their adhesive eggs, about 30,000 per female, attach to sand or pebbles and hatch in three to five weeks at ambient temperatures, usually between 3 and 10° Celsius. Spawning begins in April or May on the Fraser River. Once hatched, larvae are rapidly flushed to estuarine or marine waters.

Eulachon live at sea for approximately three years before returning to natal rivers for spawning. Large post-spawning mortalities occur as eulachon die after spawning. Adults reach a length of 15 to 20 cm and weigh between 40 and 60 grams.

In BC, eulachon may be found on the offshore shelf around Dixon Entrance, Hecate Strait, Queen Charlotte Sound, and the West Coast of Vancouver Island (WCVI), generally at depths of 80 to 200 m.

Eulachon populations coast-wide have generally been experiencing a sharp downward trend with some river systems becoming nearly extirpated or severely depleted. The Fraser River population has been at extremely low levels since the mid 2000s.

2.2. Ecosystem Interactions

Eulachon are prey for many species of fish, marine mammals and birds. In-river predators include white sturgeon, steller sea lions, harbour seals and eagles. Salmon and Dolly Varden trout have also been reported to feed on eulachon eggs or larvae. Marine predators include dogfish, pacific cod, hake, salmon, pollock, halibut, rockfish and many other species of fish, marine mammals and birds.

Juvenile eulachon and larvae stomach contents have been found to include phytoplankton, copepod eggs, copepods, mysids, ostracods and barnacle larvae. Limited samples from offshore eulachon suggest that the euphausiid *Thysanoessa spinifera* is their main prey along with other euphausiids, fish and invertebrates.

At this time there is no information available on the appropriate conservation limits for eulachon based on ecosystem considerations. Research is ongoing to better understand these ecosystem processes and the role eulachon play in maintaining the integrity and functioning of the ecosystem.

2.3. Aboriginal Traditional Knowledge/Traditional Ecological Knowledge

2.3.1. Aboriginal Traditional Knowledge (ATK)

ATK has been incorporated into the Recovery Potential Assessment (see section 3.4.6) that will be used to aid in informing the SARA listing decision and is also considered in management decisions.

2.3.2. Traditional Ecological Knowledge (TEK)

TEK in the form of observations and comments collected from commercial fishery participants, fisheries officers, and resource managers over many years contributes to decisions on scientific survey locations and is considered in management decisions.

2.4. Stock Assessment

2.4.1. Stock Assessment Overview

There is limited biological information available to guide management decisions regarding Fraser River eulachon. A 2003 Canadian Scientific Advice Secretariat (CSAS) research document (2003/051) identified four indicators and 'response' points that could be used for management of Fraser River eulachon.

The four indicators and 'response' points for Fraser River eulachon are:

- **Spawning Stock Biomass (SSB)**
The SSB is based on an annual egg and larval survey and a value of 150 tonnes (for the North and South Arms of the Fraser River combined).
- **Offshore Biomass Index**
An offshore biomass index for Area 124 or Area 125 (off the west coast of Vancouver Island) is 500 and 1,000 tonnes respectively. However, the Recovery Potential Assessment (see section 3.4.6) disregards the marine

indices as an abundance index in favour of the independent in-river indices (egg and larval survey and gill net test fishery) that show a strong positive correlation (even though the gill net test fishery has been discontinued since 2006),

- **Same year Columbia River catches**
A fishery of less than 500 tonnes in the Columbia River: This fishery was closed in 2011 due to listing of the Southern distinct population of eulachon as threatened under the Endangered Species Act on March 18, 2010.
- **New Westminster test fishery**
Gill net test fishery catches of 5,000 and 10,000 pieces for partial and full openings. The test fishery was last conducted in 2005.

The 2003 CSAS document developed a stoplight analogy for management with potential options for opening the fishery if all indicators were positive, closing the fishery if all fisheries were negative or considering partial fisheries if the indicators were mixed.

2.4.2. Data Sources

The four sources of data mentioned above that have been used for the assessment of Fraser River eulachon are described below.

Egg and Larval Survey

To estimate SSB, an intensive sampling process takes place in the Fraser River during the seven to eight weeks following spawning (April/May). This survey uses towed, small mesh nets to gather samples of eulachon eggs and larvae. The number of eggs and larvae gathered in each tow are hand-counted at the Pacific Biological Station. The egg and larval count is then combined with data on the daily Fraser River discharge and historical data on eulachon fecundity (eggs produced/female) to generate an estimate of SSB. This estimate is generally produced in the summer following spawning.

The SSB provides an estimate of how many tonnes of eulachon successfully spawned the previous year. SSB has been estimated this way since 1995 and will continue in 2013. The results of the survey can be found at the following internet address:

<http://www.pac.dfo-mpo.gc.ca/science/species-especes/pelagic-pelagique/herring-hareng/herspaw/pages/river1-eng.htm>

Table 1: Fraser River Eulachon Spawning Stock Biomass 1995 to 2012

Year	South Arm (tonnes)	North Arm (tonnes)	Total (tonnes)
1995	257	45	302
1996	1,582	329	1911

1997	57	17	74
1998	107	29	136
1999	392	26	418
2000	76	54	130
2001	422	187	609
2002	354	141	494
2003	200	66	266
2004	24	9	33
2005	14	2	16
2006	24	5	29
2007	34	7	41
2008	8	2	10
2009	12	2	14
2010	4	<1	4
2011	19	12	31
2012	78	42	120

Annual Trawl Survey

The offshore biomass index is based on an annual trawl survey conducted in late April/early May by DFO, Science Branch. The survey initially was designed to index shrimp abundance but since eulachon also are caught by this survey, an eulachon index is possible. It is important to note that this is a biomass index and not a biomass estimate and that eulachon caught in this survey include stocks from the Fraser River, the Columbia River, and possibly other areas. This survey has been conducted since 1973 and provides an annual index of offshore abundance for the lower WCVI (Areas 121, 23, 123, 124 and 125).

Prior to 1999, the total catch by weight of eulachon taken during the research surveys was the only recorded parameter. Since 1999, eulachon also have been sampled for length and sometimes weight to determine the average number of fish per kilogram and to estimate the age (year 1+ or year 2+) of the fish.

Results from this survey are usually available in June. The surveys can be found at the following internet address:

<http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/shellfish/shrimp/Surveys/surveys.htm>

Table 2: Offshore Biomass Index for Eulachon 1995 to 2011

Year	Area 23, 121, 123	Area 124 (tonnes)	Area 125 (tonnes)
1995		166	115
1996		89	52
1997		168	110
1998		19	125
1999	335	124	28

2000	1,971	846	346
2001	4,896	1340	187
2002	5,862	3993	5343
2003	4,268	2028	1488
2004	3,405	428	343
2005	902	323	336
2006	461	90	42
2007	393	205	52
2008	368	698	185
2009	753	1810	520
2010	500	1469	576
2011	1073	510	129
2012	1369	2147	1375

Columbia River Catch

The total Columbia River eulachon harvest in a given year is considered a pre-season indicator for the same year's Fraser River return, insofar that this fishery may provide an indication of ocean survival. Columbia River eulachon return between January and March. In contrast, Fraser River eulachon return between late March and May.

There have been no eulachon fisheries conducted since 2011 and none are planned for 2013. Columbia River catches declined in previous years: 17,300 lbs in 2008, 17,600 lbs in 2009 and only 3,600 lbs in 2010. The Southern distinct population of eulachon was federally listed as threatened under the Endangered Species Act March 18, 2010. For more information, please reference:

<http://www.nwr.noaa.gov/Other-Marine-Species/Eulachon.cfm>

Fraser River Test Fishery

The Fraser River test fishery was designed to provide an in-season index of eulachon returns to the Fraser River. The test fishery is based on the cumulative catch of eulachon fished daily at a fixed site (New Westminster), with specific gear, at a specific tide level and for a fixed time period. The test fishery has operated from 1995 to 2005 (with the exception of 1999); the test fishery has not operated since 2006 and will not be conducted during the 2013 season.

Table 3: Fraser River Test Fishery Final Catches for 1995 to 2005

Year(s)	Final Catch (pieces)
1995	11,651
1996	42,071
1997	3,116
1998	2,052
1999	No Test Fishery
2000	12,991

2001	14,578
2002	14,754
2003	7,758
2004	12,433
2005	886
2006 - 2012	No Test Fishery

2.5. Precautionary Approach

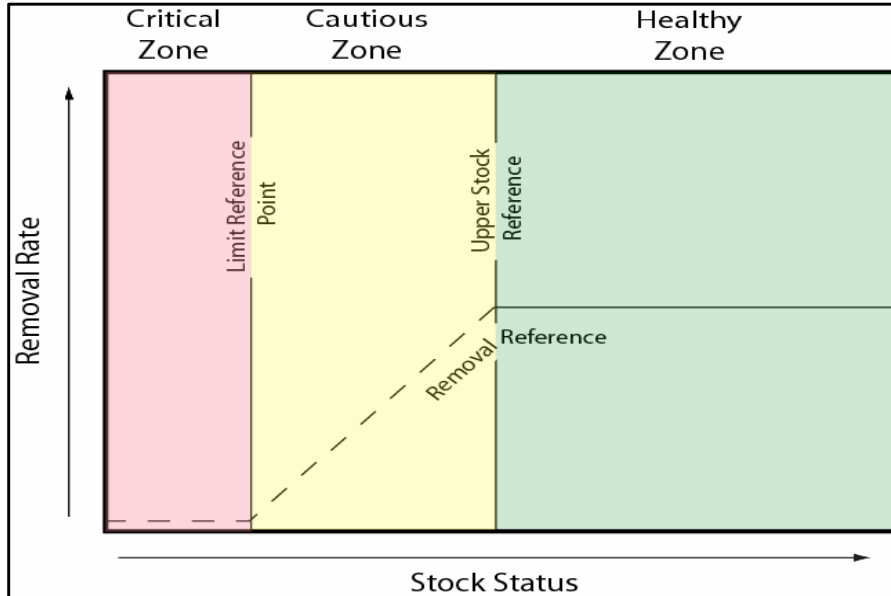
In general, the precautionary approach in fisheries management is about being cautious when scientific knowledge is uncertain, and not using the absence of adequate scientific information as a reason to postpone or fail to take action to avoid serious harm to fish stocks or their ecosystem. This approach is widely accepted as an essential part of sustainable fisheries management (see <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>.)

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

- Identifies three stock status zones – healthy, cautious, and critical – according to upper stock reference points and limit reference points;
- Sets the removal rate at which fish may be harvested within each stock status zone;
- Adjusts the removal rate according to fish stock status variations (i.e., spawning stock biomass or another index/metric relevant to population productivity), based on pre-agreed decision rules (Figure 1)

In this figure, the limit reference point separates the critical and cautious stock zones while the upper stock reference point separates the cautious and healthy stock zones. The removal reference (harvest control rule) defines the maximum acceptable removal rate which is constant in the healthy zone, reduced in the cautious zone and negligible (little or no targeted catch) in the critical zone.

Figure 1: The DFO harvest strategy compliant with the precautionary approach.



The 2003 CSAS document identifies only a single reference point for Fraser River eulachon. The decision rules are based on this reference point as well as other indicators that have associated response points. The Department is evaluating the compliance of the current harvest control rules with the DFO harvest strategy.

For more information on DFO's decision-making framework, please visit the following site:

<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/precaution-eng.htm>

2.6. Research

The most recent scientific information on the biology, distribution and fishery data of eulachon (*Thaleichthys pacificus*) was compiled in *The Recovery Potential Assessment of Eulachon (Thaleichthys pacificus) in Canada* that was published December 7, 2012 (Schweigert et al. 2012).

To view the Recovery Potential Assessment (RPA) (Schweigert et al. 2012), please visit the following site:

http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2012/2012_098-eng.html

The 2011 CSAS research document (CSAS 2011/101) provides background information on eulachon in support of a Recovery Potential Assessment (RPA) (see section 3.4.6).

To view the CSAS paper, please visit the following site:

3. MANAGEMENT ISSUES

The following sections highlight the on-going or longer-term management issues that are being addressed in this fishery.

3.1. Limited biological information

At present, there is limited biological information available for Fraser River eulachon. The biological indicators described in the 2003 CSAS paper and used for the management of Fraser River eulachon are limited by their short time series. It is important to continue to collect and refine these indicators.

Additionally, the RPA (Schweigert et al. 2012) identifies many gaps in our knowledge of eulachon biology and ecology such as limited information on ages, growth rates and mortality. The ability to identify genetic differences between populations including the ability to identify the origins of offshore mixed stock samples is required. The current size of most populations of individual rivers as well as their un-fished biomass is unknown. Habitat requirements for all life history stages needs to be better understood as well as adult and juvenile prey requirements.

3.2. By-catch in other fisheries

Fraser River eulachon are incidentally caught throughout BC; in both shrimp trawl and groundfish trawl fisheries. It is estimated that an average of thirty-nine percent of the eulachon caught off the WCVI in the shrimp trawl fishery are derived from Fraser River stocks based on genetic information (Schweigert et al. 2012).

The Department has been working with the shrimp trawl industry to minimize eulachon by-catch. A Departmental policy to address by-catch issues is in development. The following management measures have been implemented in the WCVI shrimp trawl fishery to monitor and mitigate impacts of incidental catch of eulachon:

1. Mandatory by-catch reduction devices in shrimp trawl nets: A grid designed to prevent eulachon from entering the shrimp trawl net is mandatory for all shrimp trawlers. Maximum spacing between the grates is 44.5 mm (1.75 inches). When fishing pink shrimp in offshore areas, 25 mm spacing can be used.
2. Eulachon Action Levels (EAL): A precautionary approach has been taken to deal with eulachon by-catch and an action level has been set for WCVI. This action level has historically been set at one percent of the offshore abundance index for eulachon from the WCVI shrimp survey up to a maximum of 20 tonnes. If estimated eulachon by-catch meets or exceeds this level, further management actions may be implemented. Management actions could include: closure of the shrimp trawl fishery, closure of certain areas to shrimp trawling, or restricting trawling to beam trawlers which have been found to have a lower impact on eulachon than otter trawlers.

The 2013/14 EAL for the WCVI will be 8 tonnes based on the 2012 eulachon biomass index. This is reduced from the previous year's EAL of 17.1 tonnes. The estimated by-catch of Eulachon in the WCVI shrimp trawl fishery from 2007 to 2012 is 110 to 1,102 pounds. There will be no in-season adjustment to the eulachon action level as in previous years.

Table 4: Eulachon Action Levels for West Coast Vancouver Island

SMA Group	2012 Eulachon Biomass Index (t)	2013 Eulachon Action Level (t)
124OFF, 125OFF and 126OFF	3521.7	4.0
23OFF+21OFF and 23IN	1368.7	4.0

In season eulachon by-catch estimates for WCVI SMA (Shrimp Management Area) groups are based on data collected by at-sea observers, following the Pooled In-season (PI) method, defined by Hay (1999). The eulachon to shrimp ratio from at-sea observations are applied to total estimated shrimp catch (hails) to generate an estimate of in season eulachon by-catch. If estimated eulachon by-catch meets or exceeds the initial eulachon action level, further management actions may be implemented.

For further information on the shrimp trawl fishery, please reference the 2013/2014 Shrimp Trawl IFMP.

<http://www.pac.dfo-mpo.gc.ca/fm-gp/ifmp-eng.htm>

3.3. Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Assessment

In May 2011, COSEWIC assessed eulachon in British Columbia as three Designatable Units (DU), including the Fraser River DU, which was assessed as endangered. The Central Pacific Coast DU was also assessed as endangered and the Nass/Skeena DU is currently being reassessed by COSEWIC based on new information. It is anticipated that this reassessment will be reviewed in spring 2013.

In accordance with the Federal Government's listing process, an assessment of the recovery potential for eulachon is required to inform the listing recommendation decision and recovery planning processes for species at risk under the SARA. This decision will be informed by analysis based on the Recovery Potential Assessment (RPA) published December 2012 (Schweigert et al., 2012) and consultations carried out with First Nations, stakeholders and the general public (see section 3.4.6).

For further information on the RPA, the published document can be found at:

http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2012/2012_098-eng.html

3.4. Oceans and Habitat Considerations

3.4.1. Oceans Act

In 1997, the Government of Canada enacted the *Oceans Act*. This legislation provides a foundation for an integrated and balanced national oceans policy framework supported by regional management and implementation strategies. In 2002, Canada's Oceans Strategy was released to provide the policy framework and strategic approach for modern oceans management in estuarine, coastal, and marine ecosystems. As set out in the *Oceans Act*, the strategy is based on the three principles of sustainable development, integrated management, and the precautionary approach.

For more information on the *Oceans Act*, please visit the following site:
<http://www.dfo-mpo.gc.ca/oceans/oceans-eng.htm>

3.4.2. Sustainable Fisheries Framework (SFF)

Fisheries worldwide are under increasing pressure, creating challenges for policy makers, resource managers and industry leaders to make informed decisions regarding the conservation, recovery and wise management of these resources. The SFF is a toolbox of existing and new policies for DFO to sustainably manage Canadian fisheries by conserving fish stocks while supporting the industries that rely on healthy fish populations. The SFF provides planning and operational tools that allow these goals to be achieved in a clear, predictable, transparent, and inclusive manner.

The SFF was created through a Canada-wide consultative process led by DFO in 2007-08, to find ways of easing ecosystem pressures while meeting growing industry needs. From this process, new conservation policies were completed in early 2009 to implement the ecosystem and precautionary approaches to fisheries management. These new policies include;

- Managing the impacts of fishing on sensitive benthic areas;
- New fisheries for forage species; and,
- A fishery decision-making framework incorporating the precautionary approach.

Starting in 2009, these new policies, in addition to revised IFMP templates, will be phased-in through the normal IFMP processes based on regional priorities and in consultation with First Nations and stakeholders. In this way they will join existing policies and tools in a new framework to promote sustainable fisheries.

For more information on the SFF and its policies, please visit:
<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

3.4.3. Pacific North Coast Integrated Management Area

As part of Canada's Oceans Strategy, DFO is initiating an integrated management planning process for the Pacific North Coast Integrated Management Area (PNCIMA). The PNCIMA is bounded by the BC-Alaska border, the base of the

shelf slope and the mainland, stretching south as far as Campbell River and the Brooks Peninsula. The PNCIMA initiative marks a shift toward a broader ecosystem approach to ocean management. This is consistent with the Government of Canada's overall direction and with DFO's new Wild Salmon Policy. The PNCIMA initiative will bring the area's stakeholders together to develop an integrated management plan for the region that achieves conservation, sustainable resource use, and economic development goals for oceans and coastal areas. The PNCIMA initiative will also function as an umbrella for various ocean management processes, complementing and linking existing processes and tools, including IFMPs.

For more information on PNCIMA, please visit:

<http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/loma-zego/index-eng.htm>

3.4.4. Marine Protected Areas

Fisheries and Oceans Canada is also responsible for designating Marine Protected Areas (MPAs) under Canada's *Oceans Act*. Under this authority, DFO has designated two MPAs in the Pacific Region. The Endeavour Hydrothermal Vents, designated in 2003, lie in waters 2,250m deep 250 km southeast of Vancouver Island. The Bowie Seamount, designated in 2008, is 180 km west of Queen Charlotte Islands (Haida Gwaii) rising from a depth of over 3,000 m to within 25 m of the sea surface. Work is ongoing to consider MPA designations for other areas along the Pacific Coast, including the Race Rocks area off Rocky Point south of Victoria (currently designated as a Provincial Ecological Reserve) and the Hecate Strait / Queen Charlotte Sound Glass Sponge Reefs.

3.4.5. National Marine Conservation Areas (NMCA)

The Canada *National Marine Conservation Areas Act* provides for the establishment of NMCAs. Parks Canada, DFO and the Council of the Haida Nation are currently working together to establish the Gwaii Haanas NMCA through the exchange of information on marine resources, fisheries and cultural data and coordinated consultations. Following establishment, measures respecting the management of the Gwaii Haanas NMCA will be articulated in future IFMPs.

DFO is also working with other federal and provincial agencies to coordinate efforts towards establishing a national system of MPAs to fulfill Canada's commitments to the UN Convention on Biological Diversity.

For more information on NMCAs, please visit:

<http://www.pc.gc.ca/eng/progs/amnc-nmca/index.aspx>

3.4.6. Species at Risk Act (SARA)

The SARA came into force in 2003. The purposes of the Act are "to prevent wildlife species from being extirpated or becoming extinct, and to provide for the

recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened.”

To view the list of Endangered, Threatened, and Special Concern species currently listed under Schedule 1 of SARA, please visit:

http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1

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

The formal SARA legal listing process begins when the Minister of Environment issues a response statement, detailing how he intends to proceed with the COSEWIC species designations. Response statements can be found at:

http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?styp=doc&docID=19

Future Committee on the Status of Endangered Wildlife Species Assessments

COSEWIC was formed in 1977 to provide Canadians with a single, scientifically sound classification of wildlife species at risk of extinction. COSEWIC began its assessments in 1978 and has met each year since then to assess wildlife species.

With the implementation of SARA, COSEWIC has been established as an independent body of experts responsible for identifying and assessing wildlife species considered being at risk. This is the first step towards protecting wildlife species at risk. Subsequent steps include COSEWIC reporting its results to the Canadian government and the public, and the Minister of the Environment's official response to the assessment results. Wildlife species that have been designated by COSEWIC may then qualify for legal protection and recovery under SARA.

For a full list of species identified and assessed by COSEWIC, please visit:

<http://www.cosewic.gc.ca/>

SARA listing process for Fraser River (and Central Pacific Coast) Eulachon

COSEWIC Assessment May 2011

In May 2011, COSEWIC assessed Eulachon in BC as three designatable units based on their criteria for discreteness and evolutionary significance; both the Fraser River and Central Pacific Coast units were assessed as Endangered, and the

Nass/Skeena Rivers unit was originally assessed as Threatened, but is currently being reassessed based on new information. It is anticipated that this reassessment will be reviewed in spring 2013.

SARA Listing Process

In developing the SARA listing recommendation, DFO will consider the following components: best scientific advice (e.g. Recovery Potential Assessment, COSEWIC Assessment); development of management scenarios; a Socio-Economic Analysis; and consultation with First Nations, affected stakeholders and the Canadian public. It is anticipated that this listing process will be completed in 2015, but may be extended dependent on extent of consultation.

In recognition of the cultural significance of eulachon, a First Nation specific consultation plan was developed in Fall 2011. Initial consultations were conducted in February to June 2012 with First Nations throughout the coast to clarify the process and create an opportunity for discussion on the topic. Consultations will continue in 2013.

The 2011 CSAS research document (CSAS 2011/101), *Information in Support of a Recovery Potential Assessment of Eulachon (Thaleichthys pacificus) in Canada* has been produced to help inform the SARA listing process.

The *Recovery Potential Assessment of Eulachon (Thaleichthys pacificus) in Canada* was published December 7, 2012 and can be located at http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2012/2012_098-eng.html. The draft *Recovery Potential Assessment of Eulachon (Thaleichthys pacificus) in Canada* was peer-reviewed through a Centre for Science Advice Pacific (CSAP) Regional Advisory Process (RAP) meeting held in Nanaimo, BC on January 26 and 27, 2012.

Management Scenarios

The Department is currently drafting management scenarios which outline actions the Department will take in the event that eulachon are listed under SARA as well as those actions that will be taken under existing legislation (e.g. the *Fisheries Act*) in the event that eulachon are not listed under SARA. The Department is seeking input into these management scenarios by First Nations, commercial and recreational sector representatives. It is anticipated that this process will be completed in 2013.

Socio-Economic Analysis

Once the management scenarios have been finalized, a socio-economic analysis will be carried out, with the scope of the analysis being outlined in the Management Scenarios document. The methodology and Cost-Benefit Analysis (CBA) framework used for all regulatory changes, including SARA listings, are pre-determined and are based on Treasury Board guidelines (<http://www.tbs->

sct.gc.ca/tbs-sct/index-eng.asp). Where appropriate, the CBA will quantify potential changes in species use (as outlined in the Management Scenarios) in monetary terms through examining economic indicators and will report on the economic impacts, where possible. The economic impacts captured in the CBA will then be further explored to report on social impacts, specifically examining measurable impacts such as employment and income impacts across affected parties and regions. It is anticipated that this will be completed in 2014.

Listing Consultations

The Department will consult extensively on the results of the RPA, Management Scenarios, and Socio-Economic Analysis once these components are finalized. These extensive consultations will be planned with First Nations, stakeholders and members of the public who may be affected by the SARA listing decision. It is anticipated that this stage will occur in 2014-2015.

Whale, Leatherback Turtle and Basking Shark Sightings

The Department welcomes assistance in the reporting of any whale, turtle, or Basking Shark sightings or entanglement. Sightings for Basking Shark, Leatherback and other turtle species, as well as many whale species are infrequent in Pacific Canadian waters, and the collection of sightings data is very useful to scientists in determining population size and distribution. Establishing this information can in turn help in the recovery planning under SARA.

To report a whale sighting, contact the BC Cetacean Sighting Network:

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

Fax: (604) 659-3599

Email: sightings@vanaqua.org

Internet: <http://wildwhales.org/sightings/>

To report a turtle sighting, contact the Sea Turtle Sighting Network:

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

Fax: (604) 659-3599

Email: turtles@vanaqua.org

Internet: <http://bcreptiles.ca/reportsightings/.htm#1>

To report a Basking Shark sighting, contact the Basking Shark Sightings Network:

Toll free: 1-877-50-SHARK

Email: BaskingShark@dfo-mpo.gc.ca

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

3.5. Gear Impacts

Under normal operating circumstances, there is minimal to no environmental impact from gear types used in the eulachon fishery.

3.6. Aquaculture

In 2009, the British Columbia Supreme Court (BCSC) ruled that the activity of aquaculture is a fishery which falls under exclusive federal jurisdiction pursuant to subsection 91(12) of the Constitution Act, 1867 - Sea Coast and Inland Fisheries and, in effect, struck down substantial portions of the provincial regulatory regime governing aquaculture. In response to the BCSC decision, the Minister of Fisheries and Oceans has confirmed the commitment of the Government of Canada to establish a federal regulatory regime governing aquaculture pursuant to the Fisheries Act in the geographic area of British Columbia.

On December 19, 2010 DFO assumed the role of lead federal department for sustainable management of fisheries and aquaculture. Under the *Fisheries Act* the *Pacific Aquaculture Regulations* and the *Fishery General Regulations* will govern finfish, shellfish and freshwater aquaculture operations in BC. Cultivation of fish within the province will require a federal aquaculture licence issued under the *Pacific Aquaculture Regulations*, and, where applicable, a federal *Navigable Waters Protection Act* permit and a provincial Crown Lands tenure. Other government agency approvals may also be necessary.

To view the *Pacific Aquaculture Regulations*, beginning on page 2326:
<http://canadagazette.gc.ca/rp-pr/p2/2010/2010-12-08/pdf/g2-14425.pdf>

As part of the new aquaculture regulatory framework in British Columbia, DFO is developing Integrated Management of Aquaculture Plans (IMAPs). IMAPS will be modelled after IFMPs, which are used to govern wild harvest fisheries. Consultations with First Nations, interested parties, and stakeholders will be important to the IMAP development process, allowing for the integration of advice, as well as environmental and social interests, into the management objectives for each aquaculture sector.

For further information refer to the following web link:

<http://www.dfo-mpo.gc.ca/aquaculture/aquaculture-eng.htm>

4. OBJECTIVES

4.1. National

Fisheries and Oceans Canada aims to:

- Meet conservation objectives and ensure healthy and productive fisheries and ecosystems;
- Provide stability, transparency, and predictability in fisheries management and improved governance.

4.2. Pacific Region

In 1994, the Biological Objective Working Group of the Pacific Scientific Advice Review Committee (PSARC) identified three biological objectives for management of Pacific Region fish and invertebrate stocks (Rice et al, 1995):

- Ensure that subpopulations over as broad a geographical and ecological range as possible do not become biologically threatened (in the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) sense of “threatened”).
- Operationally, Objective 1 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.

The objectives remain relevant today, particularly in light of development of the national objectives around sustainable fisheries.

4.3. Eulachon Resource Management

The overall objective of the current eulachon fishery is to respond to conservation concerns with Fraser River eulachon stocks and introduce measures to allow for stock rebuilding. Specific objectives are detailed below, and respective performance measures are further described in the management measures for the aboriginal, recreational and commercial fishing plans (Appendices 3, 4 and 5):

Environmental and Ecological Conservation

To ensure conservation and protection of eulachon stocks and their habitat, and manage for ecosystem impacts through the application of scientific management principles applied in a risk averse and precautionary manner based on the best scientific advice available.

Consultation Process

Conduct an open and transparent consultation process for discussions of harvest management issues related to eulachon harvest. DFO currently does not have a consultative body related to harvest planning for this fishery, but is conducting extensive consultation with First Nations, stakeholders and members of the public who may be affected by the SARA listing process for eulachon.

First Nations

To ensure that, subject to conservation needs, first priority is accorded to First Nations for opportunities to harvest eulachon for food, social and ceremonial purposes. Feedback from consultations sessions is relied on to measure the performance of providing priority to First Nations for opportunities to catch fish for food, social and ceremonial purposes.

Limited harvest opportunities will provide access to First Nations for FSC purposes while meeting conservations objectives. Maintaining harvest at low levels will increase the

probability of rebuilding Fraser River eulachon stocks. The Department will manage the LFA eulachon fisheries to a target of 800 pounds of maximum harvest in 2013.

Licence Conditions in FSC Fisheries

DFO is implementing new measures in communal licences such as gear restrictions, shorter opening times, and increased monitoring. These licence conditions are designed for the department to control over-harvest of eulachon and also facilitate achievement of shared objectives between First Nations by allowing all First Nations groups an opportunity to catch their harvest targets. Changes to licence conditions are as follows:

- Reduce gillnet length from 275 m to a considerably shorter length;
- Reduce length of fishing time
- Restrict length of time the net is set
- Consideration of dip nets as a gear type upstream of Mission in traditional fishing areas
- Stricter monitoring regime to include DFO monitors, Fishery Officers, and First Nation monitors observing all sets directly – on board vessel fishing or on board monitoring vessel adjacent to vessel fishing.

4.4. Compliance

C&P staff monitors and enforces issues and problems related to all eulachon fisheries in conjunction with the monitoring and enforcement activities dedicated to the identified priority fisheries in the Pacific Region.

For more information see the Compliance Plan, Section 7.

5. 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*.

5.1. First Nations

Aboriginal harvest of eulachon for FSC purposes may occur coast wide where authorized by a communal licence. The Department will provide First Nations with priority access to the resource for FSC purposes, and FSC quotas may be determined through bilateral discussions.

5.2. Recreational

Recreational harvest of eulachon is closed coast wide in tidal waters.

5.3. Commercial

The commercial harvest of eulachon is a limited entry fishery. There are currently 16 party-based ZU licence eligibilities however the fishery has been closed since 2004.

6. **SHARED STEWARDSHIP ARRANGEMENTS**

In the past, some co-operative work has been done coast-wide, including donations of time, money, vessels, gear, samples and offshore surveys. These measures have all contributed to our knowledge about eulachon in the Pacific Region. The First Nations and stakeholders have provided assistance in spawner distribution and the in-season test fisheries. Also, the commercial shrimp trawl industry provided survey assistance for the offshore index (WCVI and Queen Charlotte Sound).

The Department's AFS has provided funds to assist in the spawner distribution work and the egg and larval surveys including the egg and larval survey that provides the annual SSB estimate for the Fraser River area.

7. **COMPLIANCE PLAN**

Conservation and Protection Program Description

DFO's Conservation and Protection (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.

There are approximately 173 fishery officers stationed in the Pacific Region, which encompasses British Columbia and Yukon Territory. They are designated as "Fishery Officers" under Section 5 of the *Fisheries Act*. The *Fisheries Act* and the *Criminal Code of Canada* are the primary pieces of legislation outlining the powers and responsibilities of Fishery Officers. Officers are designated under other Acts as well, such as the *Coastal Fisheries Protection Act* and *Species at Risk Act*.

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.

7.1. Main Program Activities

7.1.1. Priorities for 2013

Enforcement priorities and strategies for the 2013 eulachon fisheries will be developed and coordinated with local C&P and Fisheries Management staff. In-season and post season reviews will be conducted to ensure the best approach and strategies are used in the management of this fishery.

7.1.2. In-season

Fishery Officers will conduct directed and opportunistic patrols of the fishing area. Patrols during open and closed times will be conducted taking into consideration competing priorities and resources.

Illegal fishing activity is often reported through the Observe, Report, and Record line at (800) 465-4336. Fishery Officers attempt to follow through on the reports as often as time and resources allow.

Table 5: Enforcement Issues and Strategies

Issue	Strategy
Fishing during closed time/area	Enforcement patrols will be conducted when opportunities exist.
Purchase, sell or possess any fish without a licence	Investigations will occur when violations are encountered or reported.

8. PERFORMANCE REVIEW

8.1. Management Plan Evaluation Criteria

8.1.1. National

- Eulachon conservation objectives are met.
- Reasonable effort has been made to provide harvest opportunities and still maintain conservation objectives.
- Consultation and management processes are stable, transparent, and predictable.

8.1.2. Pacific Region

- The Fraser River eulachon DU was assessed by COSEWIC as endangered in May, 2011.
- Both the commercial and recreational fisheries remain closed and First Nations may apply for harvest of small amounts of eulachon for Food, Social and Ceremonial purposes that are considered on a case by case basis.

8.1.3. Eulachon Resource Management Environmental and Ecological Conservation

- Conservation and protection of eulachon stocks will be carried out by applying a conservative management regime in light of the limited biological information available for Fraser River eulachon
- Collect relevant information by geographic location and time period when possible.

Consultation

- Where possible, facilitate consensus building among stakeholders on issues related to the management of the fishery.

First Nations

- DFO will consult with First Nations in order to determine their FSC requirements. First Nations will be authorized to fish for FSC purposes on a priority basis for small amounts for Fraser River eulachon through use of a communal licence.

Commercial

- Maintain a precautionary closure of the fishery to all for stock rebuilding.

Recreational

- Closure of the fishery in tidal waters.

9. REFERENCES

COSEWIC. 2011. COSEWIC assessment and status report on the Eulachon, Nass/Skeena Rivers population, Central Pacific Coast population and the Fraser River population *Thaleichthys pacificus* in Canada. Ottawa. xv + 88 pp.

Hay, D.E., West, K.C., and Anderson, A.D. 2003. Indicators and 'response' points for management of Fraser River eulachon: a comparison and discussion with recommendations. CSAS Document 2003/051.

Levesque, C. A. and Therriault, T.W. 2011. Information in Support of a Recovery Potential Assessment of Eulachon (*Thaleichthys pacificus*). DFO Can. Sci. Advis. Sec. Res. Doc. 2011/101 viii + 71 p.

Schweigert, J., Wood, C., Hay, D., M. McAllister, Boldt, J., McCarter, B., Therriault, T.W., and H. Brekke. 2012. Recovery Potential Assessment of Eulachon (*Thaleichthys pacificus*) in Canada. DFO Can. Sci. Advis. Sec. Res. Doc. 2012/098. vii + 121 p.

Stacey, D. A. 1995. Eulachon a historical overview. Common Resources Fishery Research, Report prepared for Department of Fisheries and Oceans Canada. 75 p.

Therriault T. W., McCarter P.B. 2005. Using an Eulachon Indicator Framework to Provide Advice on Fraser River Harvest Opportunities for 2006. DFO Can. Sci. Advis. Sec. Res. Doc. 2005/077: 15pp.

10. GLOSSARY

Aboriginal Traditional Knowledge (ATK)	Knowledge that is held by, and unique to Aboriginal peoples. It is a living body of knowledge that is cumulative and dynamic and adapted over time to reflect changes in the social, economic, environmental, spiritual, and political spheres of the Aboriginal knowledge holders. It often includes knowledge about the land and its resources, spiritual beliefs, language, mythology, culture, laws, customs and medicines.
Abundance	Number of individuals in a stock or a population.
AFS	Aboriginal Fisheries Strategy
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.htm
Biomass	Total weight of all individuals in a stock or a population.
By-catch	The unintentional catch of one species when the target is another.
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 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.
CSAP	Centre for Scientific Advice - Pacific, chaired by DFO and including other federal and provincial government agency representatives and external participants (formerly PSARC).
Ecosystem-Based Management	Taking into account of species interactions and the interdependencies between species and their habitats when making resource management decisions.
Fishing Effort	Quantity of effort using a given fishing gear over a given period of time.

Fishing Mortality	Death caused by fishing, often symbolized by the mathematical symbol F.
Food, Social and Ceremonial (FSC)	A fishery conducted by Aboriginal groups for food, social and ceremonial purposes.
Intertidal	The area of the ocean shoreline located between the highest high water and lowest low water tidal levels.
Landing	Quantity of a species caught and landed. Harvested animals transferred from a vessel to land.
LOMA (Large Ocean Management Area)	Integrated management planning in Canada is focused in five high priority LOMAs, these are: Placentia Bay and the Grand Banks, the Gulf of St. Lawrence, the Scotian Shelf, the Beaufort Sea and the Pacific North Coast.
Natural Mortality	Mortality due to natural causes, symbolized by the mathematical symbol M.
Pelagic	Living in the surface or middle depths of the sea.
PFLU	Pacific Fishery Licencing Unit
Population	Group of individuals of the same species, forming a breeding unit, and sharing a habitat.
Precautionary Approach	Set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.
Quota	Portion of the total allowable catch that a unit such as vessel class, country, etc. is permitted to take from a stock in a given period of time.
Research Survey	Survey at sea, on a research vessel, allowing scientists to obtain information on the abundance and distribution of various species and/or collect oceanographic data. E.g.: bottom trawl survey, plankton survey, hydroacoustic survey, etc.

Spawner	Sexually mature individual.
Spawning Stock	Sexually mature individuals in a stock.
Species at Risk Act (SARA)	The Act is a federal government commitment to prevent wildlife species from becoming extinct and secure the necessary actions for their recovery. It provides the legal protection of wildlife species and the conservation of their biological diversity.
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 Assessment	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.
Substrate	The ground (often the ocean bottom) and its composition, in or on which animals live.
Sub tidal	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.
Ton	Short ton, 2000 lbs., traditionally used as a unit of measure by fish harvesters in British Columbia.
Tonne	Metric tonne, which is 1000kg or 2204.6 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.
Traditional Ecological Knowledge (TEK)	A cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.

APPENDIX 1: POST-SEASON REVIEW OVERVIEW

First Nation Fisheries: First Nations access to eulachon for food, social and ceremonial (FSC) purposes is managed through a communal Aboriginal fishing licence on the Fraser River. In 2012, harvest opportunities targeting 50 pounds per Band on a case by case basis were provided for up to eight Bands. However, the target of 400 pounds total was exceeded; the total eulachon harvest in 2012 was 1,037 pounds.

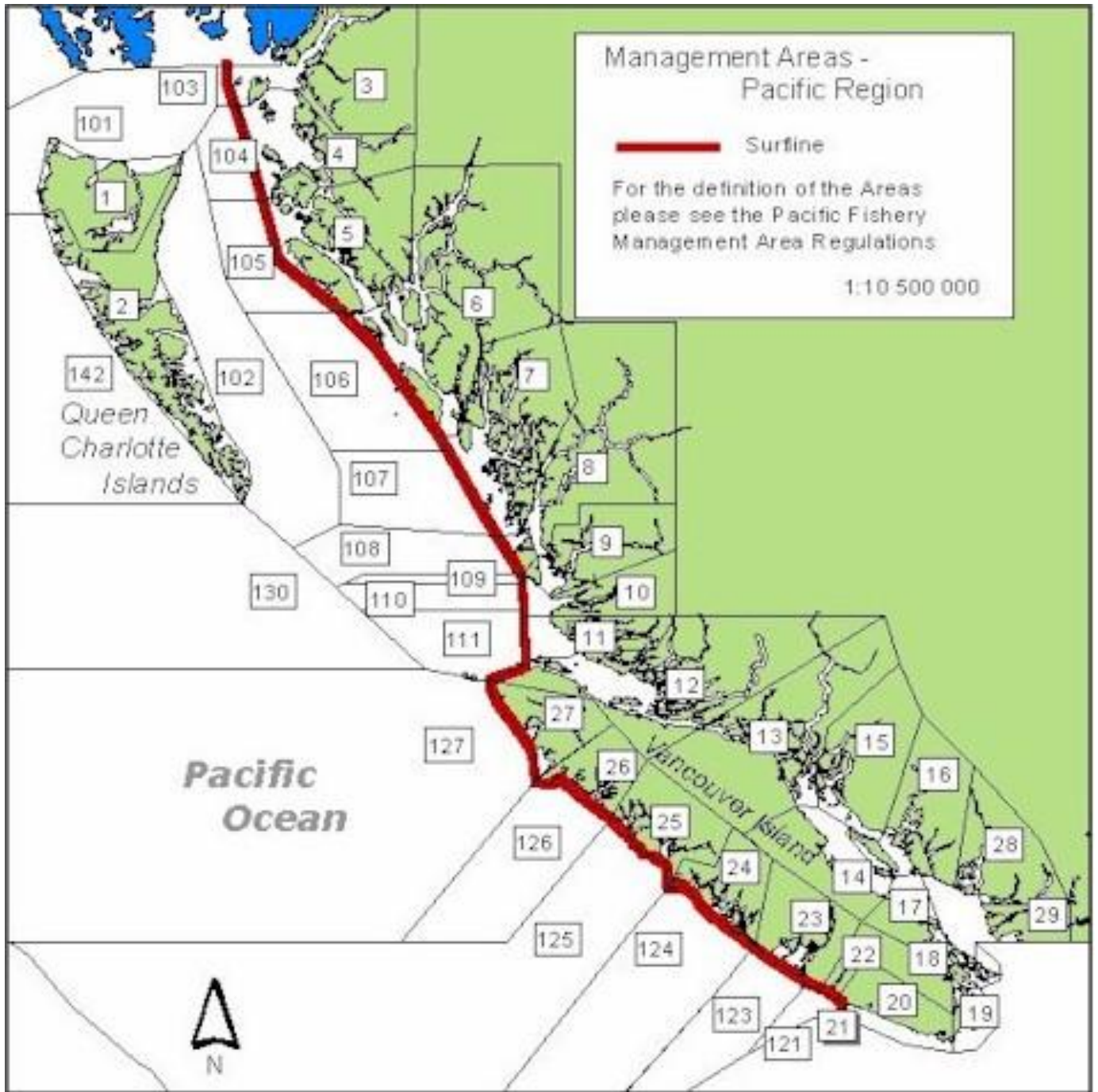
Recreational Fisheries: There were no recreational fisheries for eulachon on the Fraser River in 2012.

Commercial Fisheries: There were no commercial fisheries for eulachon on the Fraser River in 2012.

New Westminster Test Fishery: The New Westminster test fishery was not conducted in 2012.

Egg and Eulachon Larval Survey: The survey was conducted again in 2012. The spawning stock biomass was 78 tonnes in the South Arm and 42 tonnes in the North Arm; for a total of 120 tonnes.

APPENDIX 2: MAP OF FISHING AREAS



APPENDIX 3: ABORIGINAL FISHING PLAN

The Department is committed to improving its relationship with Aboriginal people. Aboriginal fisheries play an important role in this relationship and, therefore, are an integral part of fisheries resource management in the Pacific Region. Through consultation, cooperative management and stewardship activities, DFO and Aboriginal groups are working together to build strong, healthy relationships and a sustainable fishery.

Through the Aboriginal Fisheries Strategy, the Department seeks to negotiate with Aboriginal organizations access for FSC purposes. Subject to conservation, this access has priority over access for commercial and recreational harvest.

For additional information on DFO's Treaty and Aboriginal Fisheries programs, please visit: <http://www.pac.dfo-mpo.gc.ca/abor-autoc/index-eng.htm>

Due to conservation concerns and the recovery process, only limited Fraser River FSC fisheries for eulachon will be considered on a case by case basis by the Lower Fraser area office for 2013.

The Department is managing the LFA eulachon fisheries to ensure harvests do not exceed 800 pounds in 2013. This limited harvest will provide access to First Nations for FSC purposes while maintaining conservation objectives. The Department will consider further management actions following the completion of the SARA listing process.

In 2012, there were licences issued for 50 pounds of eulachon per First Nation up to 400 pounds in total. Unfortunately, there were some very large sets that caught over the target amount of eulachon resulting in an overharvest of eulachon. This also resulted in the cancellation of some licences for conservation reasons.

DFO is implementing new measures in communal licences such as gear restrictions, shorter opening times, and increased monitoring. These licence conditions are designed for the department to control over-harvest of eulachon and also facilitate achievement of shared objectives between First Nations by allowing all First Nations groups an opportunity to catch their harvest targets. Changes to licence conditions are as follows:

- Reduce gillnet length from 275 m to a considerably shorter length;
- Reduce length of fishing time
- Restrict length of time the net is set
- Consideration of dip nets as a gear type upstream of Mission in traditional fishing areas
- Stricter monitoring regime to include DFO monitors, Fishery Officers, and First Nation monitors observing all sets directly – on board vessel fishing or on board monitoring vessel adjacent to vessel fishing.

APPENDIX 4: RECREATIONAL FISHING PLAN

DUE TO CONSERVATION CONCERNS, THE RECREATIONAL FISHERY IS CLOSED IN AREAS 28 AND 29 (AND COASTWIDE) IN 2013.

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 Fisheries and Oceans Canada Tidal Waters Sport Fishing licence is required for the recreational harvest of all species of fish.

The regulations for recreational fishing of finfish are summarized in the British Columbia Tidal Waters Sport Fishing Guide which lists closed times, bag limits, size limits (where applicable) and closed areas. When required, Fishery Notices are issued to advise of changes to this guide. For more information on the recreational fishery refer to the following web link:

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

The primary consultative body for the recreational fishing community is the Sport Fishing Advisory Board (SFAB). The SFAB has representatives from all parts of the community including the British Columbia Wildlife Federation and the Sport Fishing Institute of British Columbia. If you have any questions or need further information, please contact a recreational fisheries co-coordinator or a local Fisheries and Oceans Canada office (see Contacts).

APPENDIX 5: COMMERCIAL FISHING PLAN

DUE TO CONSERVATION CONCERNS, THE COMMERCIAL FISHERY IS CLOSED IN 2013.

The commercial eulachon fishery has limited entry licensing, there are sixteen licence eligibilities. Eligible applicants are required to apply annually to renew their licence eligibility. The annual licence application fee is \$30.00. No licence document and conditions of licence are issued.

APPENDIX 6: CONTACTS

Fisheries and Oceans Canada

Website: <http://www.pac.dfo-mpo.gc.ca>

Commercial Information	(604) 666-2828
Toll Free Commercial Information	1-800-431-3474
Observe, Record, and Report	1-800-465-4336

Fisheries Management Branch

Website: <http://www.pac.dfo-mpo.gc.ca/fm-gp/index-eng.htm>

Regional Headquarters

Regional Pelagics Resource Manager	Lisa Mijacika	(604) 666-3637
Regional Recreational Fisheries Coordinator	Devona Adams	(604) 666-3271
Director, Conservation and Protection	Larry Paike	(604) 666-0604
Director, Treaty and Aboriginal Policy Directorate	Sarah Murdoch	(604) 666-7478
Director, Oceans, Habitat and Enhancement	Bonnie Antcliffe	(604) 666-6532
SARA Marine Recovery Planner (Lead – Eulachon)	Heather Brekke	(604) 658-2868

Science

Website: <http://www.dfo-mpo.gc.ca/science/index-eng.htm>

Science Branch

Research Scientist	Thomas Therriault	(250) 756-7394
Research Technician	Bruce McCarter	(250) 756-7198
Pacific Biological Station		

Lower Fraser Area

Recreational Fisheries

Website: <http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.htm>

Recreational Fisheries

Fraser River Resource Manager	Brian Matts	(604) 666-2096
-------------------------------	-------------	----------------

Treaty and Aboriginal Policy Development

Website: <http://www.pac.dfo-mpo.gc.ca/abor-autoc/index-eng.htm>

Aboriginal Fisheries

Fraser River Lower (Below Port Mann Bridge)	Brian Matts	(604) 666-2096
Fraser River Lower (Port Mann Bridge to Sawmill Creek)	Sheldon Evers	(604) 666-8049

Commercial Fisheries

Fraser River, Area 29

Bridget Ennevor (604) 666-6390

Pacific Fisheries Licencing Units

Website: <http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm>

Licencing

National On-Line Licencing System (NOLS)

1-877-535-7307

Email SDC-CPS@dfo-mpo.gc.ca

Fax 613-990-1866

TTY 1-800-465-7735

Pacific Fishery Licence Unit

(604) 666-0566

200 - 401 Burrard Street

Vancouver, B.C. V6C 3S4

Pacific Fishery Licence Unit

(250) 627-3413

417 2nd Avenue West

Prince Rupert, B.C. V8J 1G8

Pacific Fishery Licence Unit

(250) 754-0400

60 Front Street

Nanaimo, B.C. V9R 5H7

Species Sightings Networks

Marine Mammal and Sea Turtle Incident Reporting Hotline

1-800-465-4336

To report sick, injured, distressed or dead marine mammals and sea turtles

BC Cetacean Sighting Network (whale sightings)

(866) 472-9663

Email: sightings@vanaqua.org

On the internet at: www.wildwhales.org/sightings/

Sea Turtle Sighting Network

(866) 472-9663

Email: turtles@vanaqua.org

On the internet at: www.bcreptiles.ca/reportsightings.htm#1

Basking Shark Sighting Network

(877) 50-SHARK

Email: BaskingShark@dfo-mpo.gc.ca

On the internet at: www.pac.dfo-mpo.gc.ca/SharkSightings

APPENDIX 7: 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 Transport Canada (TC); emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. In B.C., WorkSafeBC also regulates health and safety issues in commercial fishing. This includes requirements to ensure the health and safety of the crew and safe operation of the vessel. DFO (Fisheries and Aquaculture Management (FAM) and CCG) and TC through an MOU have formalized cooperation to establish, maintain and promote a safety culture within the fishing industry.

Before leaving on a voyage the owner, master or operator must ensure that the fishing vessel is capable of safely making the passage. Critical factors for a safe voyage include the seaworthiness of the vessel, vessel stability, having the required safety equipment in good working order, crew training, 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

- Fish Safe - Stability Education Course

- Fish Safe – Safe on the Wheel Course

- Fish Safe – Safest Catch Program

- First Aid

- Radio Operators Course

- Fishing Masters Certificates

- Small Vessel Operators Certificate

- Publications:

- Transport Canada Publication TP 10038 *Small Fishing Vessel Safety Manual* (can be obtained at Transport Canada Offices from their website at:

 - <http://www.tc.gc.ca/eng/marinesafety/tp-tp10038-menu-548.htm>

- Gearing Up for Safety – WorkSafeBC

- Safe at Sea DVD Series – Fish Safe

- Stability Handbook – Safe at Sea and Safest Catch – DVD Series

- Safest Catch Log Book

- Safety Quik

For further information see: www.tc.gc.ca/eng/marinesafety/menu.htm
www.fishsafebc.com

1. Important Priorities for Vessel Safety

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

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 also to correct ballasting. Fish harvesters must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability, loose water or fish on deck, loading and unloading operations and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact a reputable 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. The instructions need to be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation kept on board the vessel. Examples of detailed documentation include engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.

The *Small Fishing Vessel Inspection Regulations* currently require, with certain exceptions, a full stability assessment for vessels between 15 and 150 gross tons that do not exceed 24.4 metres in length and are used in the herring or capelin fisheries. Once the proposed new *Fishing Vessel Safety Regulations* take effect, more vessels will be required to have a stability booklet.

In 2006, Transport Canada Marine Safety (TC) issued [Ship Safety Bulletin \(SSB\) 04/2006](#) ("Safety of Small Fishing Vessels: Information to Owners/Masters About Stability Booklets"), which provides a standard interpretation of the discretionary power available under Section 48 and the interim requirements prior to the implementation of the proposed *Fishing Vessel Safety Regulations*. The bulletin calls for vessels more than 15 gross tons to have a stability booklet where risk factors that negatively affect stability are present. The bulletin also suggests vessels less than 15 gross tons assess their risk factors. Every fishing vessel above 15 GRT built or converted to herring or capelin after 06 July 1977 and engaged in fishing herring or capelin must have an approved stability book. Additionally Transport Canada has published a Stability Questionnaire (SSB 04/2006), and Fishing Vessel Modifications Form which enable operators to identify the criteria which will trigger a stability assessment. A stability assessment is achieved by means of an inclining experiment, which has to be conducted by a naval architect. Please contact the nearest Transport Canada office if you need to determine whether your vessel requires one.

In 2008, TC issued [SSB 01/2008](#), 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 2002 and found that vessel modifications and loading of traps have been identified as contributing factors in vessel capsizings. Such as: [M02W0102](#) - *Fritzi-Ann*, [M05W0110](#) - *Morning Sunrise*, [M07M0088](#) - *Big Sisters*, [M08W0189](#) - *Love and Anarchy*, [M09L0074](#) – *Le Marsouin I*, [M10M0014](#) - *Craig and Justin*. In 2012 two prawn fishing vessels in BC, *Jessie G* and *Pacific Siren* both capsized with prawn traps on deck and are currently under investigation.

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 or the local Transport Canada Marine Safety office.

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.

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.

Cold Water Immersion

Drowning is the number one cause of death in B.C.'s fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees. BC waters are usually below 15 degrees. 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 WorkSafe Bulletin *Cold Water Immersion* (available from the WorkSafeBC website at www.worksafebc.com).

Other Issues

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

Emergency Radio Procedures

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). It is strongly recommended that all fish harvesters carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons should be registered with the National Search and Rescue secretariat. 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.

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.

Since August 1, 2003 all commercial vessels greater than 20 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/e0003845>

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 MCTS and DSC can be obtained by contacting a local Coast Guard MCTS centre (located in Vancouver, Victoria, Prince Rupert, Comox and Tofino) or from the Coast Guard website: www.pacific.ccg-gcc.gc.ca

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 (604) 775-8862 or from the Coast Guard website: <http://www.ccg-gcc.gc.ca/e0003901>

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 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.

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 fishermen in this goal. The Fish Safe Stability Education Course is available to all fishermen who want to improve their understanding of stability and find practical application to their vessel's operation. The Safe on the Wheel Course is designed to equip crewmen with the skills they need to safely navigate during their wheel watch. The Safest Catch Program along with fishermen trained Safety Advisors is designed to give fishermen the tools they need to create a vessel specific safety management system.

Fish Safe is managed by Gina McKay, Project Coordinator John Krgovich, Program Assistant, Dionne Riley, and fishermen 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). The advisory committee meets quarterly 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 WorkSafe BC to improve the fishing injury claims process. For further information, contact:

Gina McKay	Phone: 604-261-9700
Program Manager	Cell: 604-339-3969
Fish Safe	Fax: 604-275-7140
#2, 11771 Horseshoe Way	Email: fishsafe@fishsafebc.com
Richmond, BC V7A 4V4	www.fishsafebc.com

2. WorkSafeBC

Commercial fishing is legislated by the requirements for diving, fishing and other marine operations found in Part 24 of the Occupational Health and Safety Regulation (OHSR). Many general hazard sections of the OHSR also apply. For example, Part 8: Personal Protective Clothing and Equipment addresses issues related to safety headgear, safety foot wear and personal floatation devices. Part 15 addresses issues on rigging, Part 5 addresses issues of exposure to chemical and biological substances, and Part 3 addresses training of young and new workers, first aid, and accident investigation issues. Part 3 of the Workers Compensation Act (WCA) defines the roles and responsibilities of owners, employers, supervisors and workers. The OHSR and the WCA are available from the Provincial Crown Printers or by visiting the WorkSafeBC website: www.worksafebc.com

For further information, contact an Occupational Safety Officer:

Shane Neifer	Terrace	(250) 615-6640
Bruce Logan	Lower Mainland	(604) 244-6477
Wayne Tracey	Lower Mainland	(604) 232-1960
David Clarabut	Victoria	(250) 881-3469
Pat Olsen	Courtenay	(250) 334-8777
Mark Lunny	Courtenay	(250) 334-8732

or the Manager of Interest for Fishing, Mike Ross (250) 881-3419.

For information on projects related to commercial fishing contact Ellen Hanson (604) 233-4008 or Toll Free 1-888-621-7233 ext. 4008 or by email: Ellen.Hanson@worksafebc.com.

3. 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 2012, the TSB released the results of a three-year investigation into fishing safety in Canada. This report identifies 10 key factors and makes several suggestions to address the problems that persist throughout the industry.

For more information about the TSB, visit our 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 a brief video about some of the issues on the TSB's recent safety Watchlist, visit: <http://www.tsb.gc.ca/eng/medias-media/photos/index.asp>.

Reporting an Occurrence - [TSB 1808 Form](#)

After a reportable occurrence happens you can fill out the TSB 1808 Form or call the TSB at the contact information below.

Glenn Budden, Investigator, Marine - Fishing Vessels
Transportation Safety Board of Canada
4 - 3071 No. 5 Road
Richmond, BC, V6X 2T4
Telephone: 604-666-2712
Cell: 604-619-6090
Email: glenn.budden@tsb.gc.ca