

CONDITIONAL MANAGEMENT PLAN (CMP)

BETWEEN THE:

Canadian Food Inspection Agency (CFIA),
Fisheries and Oceans Canada (DFO),
Environment Canada (EC)
British Columbia Ministry of Environment, Environmental Protection Division (MOE), and
The Town of Ladysmith

(the “Parties”)

**FOR THE MANAGEMENT OF SHELLFISH HARVESTING IN CONDITIONALLY
CLASSIFIED HARVEST AREAS ADJACENT TO THE WASTEWATER TREATMENT
PLANT LOCATED AT:**

245A Oyster Cove, Town of Ladysmith, BC
(the “Ladysmith WWTP”)

INTRODUCTION

The Canadian Shellfish Sanitation Program (CSSP) is delivered by three federal institutions, Fisheries and Oceans Canada (DFO), Environment Canada (EC) and the Canadian Food Inspection Agency (CFIA). The CSSP provides reasonable assurance that molluscan shellfish are safe for consumption, thus supporting the industry and providing confidence for Canadians and export markets. This Conditional Management Plan (CMP) between CSSP federal partner institutions, provinces, municipalities/Wastewater Treatment Plant (WWTP) Operators outlines the roles and responsibilities of the signatories’ in the event of a Wastewater Treatment Plant (WWTP) release/discharge event from the Ladysmith WWTP.

This CMP does not affect legal requirements existing under federal or provincial statutes. For greater certainty, where there occurs a deposit of a deleterious substance out of the normal course of events in water frequented by fish, or a serious and imminent danger thereof, the person that causes or contributes to the deposit (or danger thereof) has a legal obligation to report such occurrences to a *Fisheries Act* inspector or to any other person or authority as is prescribed by regulation under subsection 38 (4) of the *Fisheries Act*..

This CMP does not affect the legal rights and responsibilities of the Municipality, as a local government under the *Community Charter* and the *Local Government Act*, or as a WWTP operator subject to all applicable regulatory licences and permits, but reflects the Municipality’s commitment to assist in the protection of safe shellfish harvesting conditions in and around the Municipality’s WWTP located in Ladysmith.

DURATION OF THE CONDITIONAL MANAGEMENT PLAN

This Conditional Management Plan (CMP) shall be renewed on the date of signing by each of the Parties and expire on December 31, 2013 and is subject to each participant signing this CMP prior to coming into force.

1 PURPOSE AND SCOPE

Full cooperation of the Parties is required to achieve timely detection and notification of WWTP release/discharge events, along with the necessary response actions to ensure continued food safety of harvested bivalves. This initiative stems from the CSSP and the requirements related to Conditional Area Management (*refer to CSSP Manual of Operations, a copy of which is located at <http://www.inspection.gc.ca/english/fssa/fispoi/man/cssppccsm/cssppccsme.shtml>*).

Conditional Area Management will be supplemented by Hazard Analysis Critical Control Points (HACCP) controls implemented by registered fish processing establishments.

This CMP provides enhanced management of the bivalve molluscan shellfish harvest waters adjacent to the Ladysmith WWTP.

The area described in Section 4 of this CMP has been classified based upon the area hydrographical data and the performance characteristics of the Ladysmith WWTP. A classification map of the harvest area is provided in Appendix A.

2 BACKGROUND

2.1 Conditional Management

The CSSP Manual of Operations outlines the authorities (statutes and regulations), policies, procedures, and activities governing the control of shellfish growing areas, and the harvesting, processing and distribution of shellfish.

Shellfish harvest areas that are subject to intermittent microbiological contamination may be classified as Conditionally Approved or Conditionally Restricted Areas. If the conditions set out in this CMP cannot be met, the CSSP partners will determine whether the area classification or status will be changed.

2.2 WWTP description

The Ladysmith WWTP operates under provincial authorization (PE00120) issued by the Ministry of Environment. The authorized discharges are described in Section 5.1.2.

The Ladysmith WWTP is a primary treatment system combined with a chlorination/dechlorination disinfection stage prior to discharge. The plant consists of a circular spiragester (Imhoff tank) which serves two functions. The upper portion of the tank acts as a settling chamber in which circulating raw effluent has time to settle solids before the clarified liquid is passed on to the chlorine contact chamber. Settled solids collect in the lower sludge digester portion of the tank and are periodically removed.

The main outfall is located at 48°59.00' north latitude and 123°47.46' west longitude.

The system is designed with an overflow bypass placed before the settling chamber. When weather events result in effluent flow exceeding the capacity of the treatment facility, surplus flows are screened and discharged over a weir into a bypass outfall, which is located within a few meters of the main outfall.

Collection system lift stations are not designed with a bypass discharge

2.3 Description of the Shellfish Fisheries (including aquaculture) within the CMP Area

Fisheries and Aquaculture

Significant bivalve shellfish harvest takes place near the Ladysmith WWTP within the Conditionally Restricted and Conditionally Approved classification areas. Within the Conditionally Approved area there are First Nations harvest areas for food, social and ceremonial purposes (FSC), recreational fishing opportunities, and potentially wild commercial clam and commercial geoduck fishing areas. Within the Conditionally Restricted area there are four productive shellfish aquaculture tenures, First Nations commercial shellfish projects for clam depuration and oyster relay operations that operate under special licenses issued by DFO.

Fishery Management

Commercial shellfish are harvested year round in British Columbia. Where not closed by Prohibition Order, Variation Orders open commercial bivalve fisheries in non-contaminated areas for specified areas and times. Recreational and First Nations FSC access is open all year unless closed by Prohibition Order due to contamination.

Aquaculture licensing and management is regulated by the Province of BC except where aquaculture sites are located in areas closed by Prohibition Order due to contamination.

In marginally contaminated areas that are closed by Prohibition Order, commercial bivalve harvest (wild and aquaculture) may be approved by EC and CFIA and authorized by licenses issued by DFO under the *Management of Contaminated Fisheries Regulations* for plant depuration (clams) or relay (oysters). License conditions prohibit harvest where notice is given of biotoxin or other contamination events such as a release or discharge defined as a Trigger Event from the Ladysmith WWTP.

3 ROLES AND RESPONSIBILITIES

The roles and responsibilities of each of the Parties are specified in Sections 3 and Sections 5 to 8. Additional responsibilities for the CSSP partners, as defined in the CSSP, are contained in Appendix E. The roles and responsibilities of the MOE, and the Town of Ladysmith are as follows:

The MOE is responsible for regulating municipal WWTPs. The MOE will:

- a) verify through annual report reviews, and any other communications with the Ladysmith WWTP Chief Operator or designate that release/discharges events, described as Trigger Events in this CMP, are reported by the methods described in this CMP, as they occur.

- b) provide an annual summary report of the results of compliance with provincial authorization requirements and confirmed Trigger Event reporting as defined in Sections 5.1 and 5.2 of this CMP by February 1st for the previous calendar year, including recommendations for changes to this CMP.

The WWTP Chief Operator or designate of the Town of Ladysmith is responsible for the operation of the Ladysmith WWTP located at 245A Oyster Cove. The WWTP Chief Operator or designate of the Town of Ladysmith will:

- a) maintain a continuous monitoring system by which Trigger Events described in Section 5.1 can be detected in a timely manner, and improve upon that monitoring system;
- b) immediately notify the DFO Radio Room and PEP (Provincial Emergency Program) of any planned or unplanned changes in operations of the municipality's wastewater collection and treatment facility which may result in a Trigger Event condition;
- c) immediately notify the DFO Radio Room and PEP when a WWTP Trigger Event has been detected as per Section 5.1;
- d) advise CFIA, EC and DFO in writing (by email or fax) when the Trigger Event conditions identified have terminated, using the Discharge of Wastewater Notice (Appendix C). Alternatively, advise the DFO Radio Room by telephone as per Section 5.2. This notification is the initial step in the re-opening criteria process;
- e) maintain up-to-date records of the operations and maintenance of the wastewater collection and treatment facilities;
- f) upon request, provide a copy of the results of routine final effluent analysis, as required by the provincial authorization, to EC;
- g) provide an annual report of activities listed above to the MOE and EC for the 12 month period starting January 1st and finishing December 31st of each year. The report must contain at minimum the occurrence Trigger Event types, dates, estimates of discharges and records of the notifications given to DFO and PEP, and notifications given to DFO when the event ceased. The report must be submitted by January 15th of the following year and may contain recommendations for changes to this CMP if any are necessary.

4 DESCRIPTION OF CONDITIONALLY RESTRICTED AND CONDITIONALLY APPROVED CLASSIFIED AREA(S)

This CMP deals specifically with the harvesting of shellfish in the Conditionally Approved and/or Conditionally Restricted area(s) described as:

<p><i>4.1 Conditional Restricted Area within Sanitary Closure Map 17.1, including:</i></p>
<p>The waters and intertidal foreshore of that portion of Subarea 17-7, inside a line commencing at Slag Point at 48°59.71' north latitude and 123°48.438' west longitude, thence to the southern tip of the smaller of the two Woods Islands forming the western shore of Burlieith Arm at 48°59.786' north latitude and 123°48.261' west longitude, thence</p>

to the southern tip of the larger of the two Woods Islands forming the western shore of Burlieth Arm at 48°59.963' north latitude and 123°48.401' west longitude, thence true east to a point on land at 48°59.963' north latitude and 123°48.042' west longitude, thence following the mean high water mark to Sharp Point at 48°58.881' north latitude and 123°46.104' west longitude, thence across the mouth of Ladysmith Harbour to a point of land at the western entrance of Davis Lagoon at 48°57.948' north latitude and 123°46.514' west longitude, thence following the mean high water mark to the point of commencement at Slag Point. [NAD 83]

4.2 Conditional Approved Area within Emergency Closure Order 17.aa

The waters and intertidal foreshore of that portion of Subarea 17-5, at Evening Cove , as described in the *Pacific Fishery Management Area Regulations, 2007*, shoreward or westerly of a line from Coffin Point at 48°59.214' north latitude and 123°45.450' west longitude to Sharpe Point at 48°58.881' north latitude and 123°46.104' west longitude. [Sanitary Closure Map 17.aa] [NAD 83]

Note as sample collection and processing proceeds, the boundaries of Conditional areas may be refined as recommended by the CSSP federal partners and communicated to the parties herein.

5 DETECTION / NOTIFICATION / RESPONSE TO A TRIGGER EVENT

An effective regime for the detection, notification, and response as defined in the CSSP Manual of Operations to disruptions in the normal operation of a WWTP is a prerequisite to the harvest of shellfish in the Conditionally Approved or Conditionally Restricted areas described Section 4 of in this CMP.

5.1 Detection

The Town of Ladysmith WWTP Chief Operator or designate must improve and maintain a continuous monitoring system by which Trigger Events set forth in this Conditional Management Plan can be detected in a timely manner.

The Conditionally Restricted and Conditionally Approved areas described in Section 4 of this CMP will be closed to the harvesting of molluscan shellfish in response to any event or disruption that results in untreated effluent or effluent with insufficient or inadequate disinfection being released from the Ladysmith WWTP to the area (a “Trigger Event”).

The Town of Ladysmith WWTP Chief Operator or designate must be able to detect such discharges, and to make the appropriate notifications.

Trigger Events include, but are not limited to, the following conditions:

- WWTP disruptions that result in more than 50m³/d of untreated effluent being discharged via the bypass outfall
- WWTP disruptions that result in untreated or partially treated effluent discharge that fails to meet MOE authorized effluent disinfection characteristics

- Collection system failures that result in an untreated wastewater discharge to the marine environment

Event or disruption detection systems in place include the following:

5.1.1 *The positions responsible for monitoring Trigger Event detection.*

The Town of Ladysmith Utilities III/Chief Operator or designate is responsible for maintaining and monitoring Trigger Event detection systems as described in Section 5.1.

5.1.2 *Description of the normal operating requirements (performance standards or values permitted by provincial regulators)*

The plant operates under MOE authorization (PE00120) issued by the Ministry of Environment. The characteristics of the authorized discharges pertaining to the CMP are as follows:

The maximum rate at which effluent may be discharged through the Ladysmith WWTP is 6,100m³/day; the annual average rate of discharge is 3,050m³/day. Flow in excess of the treatment plant capacity is screened and discharged to the bypass outfall. The maximum rate at which effluent may be bypassed is 8,500m³/day. The total annual volume which may be discharged to the bypass outfall is 228,000m³/year.

Maintain a total chlorine residual between 0.1 and 1.0 mg/L prior to dechlorination.

The residual shall be dechlorinated prior to discharge to reduce the total chlorine residual below detectable limits.

Overflow bypass discharges screened combined storm water and effluent through an outfall located at 48°59.00' North Latitude and 123°47.46' West Longitude.

The community is completing a Liquid Waste Management Plan (LWMP) in 2011 The draft plan has suggested the construction of a secondary WWTP by 2012. The LWMP is committed to the reduction of inflow and infiltration on their collection system.

5.1.3 *Description of scenarios that are reasonably likely to occur resulting in a Trigger Event (lack of disinfection, bypass, power failure, overflow of lift stations that could impact the area, presence of a hazardous substance such as oil or gas, others)*

Bypass: An overflow bypass may occur when weather events result in effluent flow exceeding the capacity of the treatment facility. The surplus flow is screened and discharged over a weir into the bypass outfall which is located within a few meters of the main outfall. A bypass flow in excess of 50m³/d will impact shellfish resources in Ladysmith Harbour

Power Failure: WWTP function is not affected by a power failure as it is gravity fed

Disinfection: levels are maintained at the last setting during a power failure and may be manually adjusted by the operator as required.

Lift Stations: have been designed with a 10 hr holding capacity and high level alarms. In the event of a power failure portable generators are used if required.

5.1.4 Description of how each of the Trigger Event types noted above are detected (SCADA, visual, others).

Detection of Trigger Events during and after normal work hours, as they currently exist include the following:

- a) Power failure or screener failure triggers an alarm and a message is radio broadcasted and sent to the answering service, which calls the Chief Operator or designate or goes through a call-out list. Response time is 15 minutes. This capability is available 24 hours a day 7 days a week.
- b) Chlorine gas is metered into the contact chamber. If a power failure occurs the flow rate remains at the last setting
- c) Backup generators powers some of the lift stations and the disinfection system

Lift station wells are alarmed and have enough capacity for 10 hours of volume. All are accessible by pumper truck if required.

5.1.5 Time lines for detection of each Trigger Event type, in hours, taking into account best and worst case scenarios (during and after working hours including weekends)

As soon as a Trigger Event (Section 5.1) is detected and the described Trigger Event (i.e. bypass discharge in excess of 50m³) is reached, or where authorized characteristics are likely to be exceeded, detection takes place within 15 minutes in normal working hours, 7 days a week.

In the worst case, (i.e. after normal working hours) up to 16 hours could elapse to detect a bypass discharge at shift change.

5.2 Notification

Any Trigger Event or disruption described in Section 5.1 requires a notification of the event by the Ladysmith WWTP Chief Operator or designate as follows:

1. immediately notify both the Provincial Emergency Program (PEP) and the DFO Radio Room at the phone numbers noted in Section 5.2.2 below when Trigger Events are detected as per Section 5.1, noting the event type, the estimated start time and name of the caller.

Note: a notification under the current CMP does not replace or otherwise affect reporting to be done to a *Fisheries Act* inspector or to any other person or authority as is prescribed by regulations pursuant to subsection 38(4) of the *Fisheries Act* when there occurs a deposit of a deleterious substance out of the normal course of events in water frequented by fish, or a serious and imminent danger thereof.

2. advise in writing (by email or fax) each representative of EC, CFIA and DFO listed in the Discharge of Wastewater Notice when the Trigger Event effluent release has been terminated (Appendix C). Alternatively notify the DFO Radio Room by telephone of the event termination time, the estimated flow if available, and the name of the caller.

5.2.1 *The positions responsible for providing notification are as follows.*

The Town of Ladysmith Utilities III/Chief Operator or designate is responsible for detecting and providing notification of a Trigger Event as per Section 5.1

5.2.2 *Description of how notification is provided to all CSSP partners and other parties (phone/fax/email)*

When a Trigger Event described in Section 5.1 is detected, the Town of Ladysmith Chief Operator or designate will immediately make an emergency report by calling the Provincial Emergency Program (PEP) at 1-800-663-3456, and the DFO Radio Room at 1-800-465-4336

The PEP completes an incident report immediately and notifies other agencies including EC by sending the incident report by fax.

When a WWTP notifies of a Trigger Event, PEP also immediately notifies the DFO Coast Guard (MCTS) as a built in redundancy. The Coast Guard then notifies the DFO Radio Room of the trigger event. The Ladysmith WWTP Operator also calls DFO to notify of the trigger event.

The DFO Radio Room immediately refers to the responsible Fishery Manager during regular working hours or the Conservation and Protection standby call out list outside regular working hours.

The Fishery Officer or DFO standby call out list contact person refers to the CFIA standby list and immediately contacts that individual

The CFIA inspector on standby will immediately generate a notice and send it to all registered molluscan shellfish processing establishments via the CFIA's fax fan out list.

5.2.3 *Description of the timelines for providing notification to CSSP partners in hours, taking into account all reasonable delays (e.g. during and after working hours, including weekends and holidays)*

As soon as a disruption is detected and the described trigger (i.e. bypass discharge of in excess of 50m³) is reached, or where authorized characteristics are likely to be exceeded, notification can take place within 15 minutes during normal working hours. In the worst case, up to 16 hours (i.e. after normal working hours) could elapse to detect a bypass discharge and notify parties as required in Section 5.2.2.

Note: The Town of Ladysmith has installed a detection system that provides continuous detection of all Trigger Events including bypass overflow so that notification can take place within 15 minutes.

Notification of EC by PEP normally takes 15 minutes

Notification of CFIA by DFO normally takes less than 15 minutes during working hours and up to 30 minutes outside of working hours

Notification of registered molluscan shellfish processing establishments by CFIA

normally takes 30 minutes, and up to 1 hour outside working hours.

This brings the total notification time to a maximum of **16 hours**.

5.3 Response

Upon receiving notification as outlined in Section 5.2, each Party will respond in accordance with their respective authorities.

- The regional office of DFO receiving notification of a Trigger Event by the WWTP Chief Operator or designate is to treat such a notification in the same manner as a formal recommendation for closure made by EC.
- Upon notification under Section 5.2, DFO will set in motion an internal process which may result in the affected area being closed to harvesting. Where the notification provides the DFO Regional Director General with reasons to believe that fish of any species in any area are contaminated, he/she may issue an order prohibiting fishing in that area for that species.
- CFIA will notify CFIA registered shellfish processing establishments in writing (by email/fax) that the conditionally classified areas have been closed or are about to be closed to harvesting.

Response procedures are as follows:

Once notified that a Trigger Event has occurred, DFO will initiate response procedures to inform potentially affected parties that an event has occurred, implement closure under the *Management of Contaminated Fisheries Regulations*, and inform stakeholders, including the general public, that a closure/harvest prohibition is coming into effect.

5.3.1 *Description of how affected stakeholders and First Nations are notified.*

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- Once notified of a Trigger Event, DFO will communicate without delay to the Parties herein (Appendix D) as well as affected First Nations, commercial harvesters and the general public via Fishery and Public Notice as appropriate, that an event has occurred at the WWTP, that harvesting should cease, and that a closure is pending.
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- A Prohibition Order will be issued by DFO to close the Conditionally Approved area in Evening Cove
-
- Licensed depuration or relay harvesters will be informed by DFO using direct telephone or emails that, under the conditions of their *Management of Contaminated Fisheries Regulations* licence, all harvest must cease immediately. Additionally, the CFIA notifies all registered molluscan shellfish processing plants that an event has occurred by way of a fax fan-out. In British Columbia, the BC Provincial Fish Inspection Regulations require that all molluscan shellfish is processed at a federally registered processing plant. As such, all molluscan shellfish harvested from affected areas will undergo scrutiny regarding date and location of harvest as per the processing plant's HACCP plan.
-
- A Fishery Notice will be prepared detailing the closed status of the Conditional
-

Areas described herein and issued by fax and/or email to the BC Ministry of Agriculture and Lands, EC, and CFIA and to a stakeholders distribution list maintained by DFO. The Notice will be published as an internet posting, and may be relayed to other parties or local media if required. The stakeholders fax and email distribution list contains contacts for local First Nations, shellfish processors, depuration or relay licence holders, commercial, aquaculture and recreational harvesters as self identified.

- Public Notices may be prepared and posted at key access points in the closed area to inform harvesters to cease harvesting immediately in the area
 - The DFO 24hr toll free information line will be updated at the first opportunity in business hours to reflect the closed status of the Conditionally Restricted and / or Conditionally Approved areas described herein.
 - Where there is known harvest or reason to believe active harvest is underway in the affected area, a patrol will be initiated immediately and Public Notices will be posted at harvest sites.
 - Patrol activities will continue throughout the closed/prohibited period according to regional CSSP patrol standards
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5.3.2 *Contact information of the parties to be notified of closures during and after working hours, including weekends, as provided by the province, EC, and CFIA.*

- A stakeholder's contact list will be maintained and kept current by DFO. An example is attached to this CMP as Appendix D.
 - Private information will be protected as required by law
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6 RE-OPENING CRITERIA

The harvest areas described in this CMP will remain closed to harvesting until the re-opening criteria are met. Commencement of re-opening criteria does not begin until after the Town of Ladysmith has provided notification that the Trigger Event(s) have ceased as outlined in Section 3.

Areas will be returned to their classification status when conditions outlined in Chapter 2 of the CSSP Manual of Operations have been met.

The sampling methodology must comply with the established procedures outlined in Appendix 1 of the CSSP Manual of Operations and the Sampling Policy and Procedures found in the CFIA's Fish Products Standards and Methods Manual. The sample locations are identified on a map in Appendix A.

The samples must be analysed at CSSP-recognized laboratories.

6.1 In addition to the conditions above, describe the arrangement reached between the signatories to this CMP as to the process and responsibilities for collecting samples, sample locations, and where they are analyzed.

The area must remain in closed status for a minimum of 7 days after the latest Trigger Event has ceased.

In order to re-open sooner than 21 days after the latest Trigger Event or once a sewage bypass over 50m³ has ceased, marine water and shellstock samples are required from the conditional area in order to verify that standards have been met.

Under separate MOUs with EC and with CFIA, EC and CFIA trained samplers will collect water and shellstock samples from established verification stations outlined in Appendix A. Water and shellstock should be collected no earlier than 5 days following the most recent discharge or bypass (over 50m³) event. Analysis of water and shellstock must be conducted at a CSSP-approved lab

EC and CFIA will make a recommendation to DFO to revoke the closure and the harvesting prohibition when 21 days have elapsed or when samples are confirmed to meet the standards for harvest set forth in the CSSP, AND a minimum of 7 days have elapsed following the most recent discharge or bypass (over 50m³) event.

7 ANNUAL REPORTING

The Parties will provide input into an annual report on the management of the area as outlined in Appendix IX of the CSSP. The report will then be provided to the Regional Interdepartmental Shellfish Committee (RISC) each spring for review. This report shall include, as a minimum, the information outlined in Appendix B.

7.1 Procedures to be followed at the local level in order to complete the report:

DFO will lead the development of an Annual Report for Ladysmith including the Conditional Area description and maps.

Summary of activities will include detailed information about each failure detection, notification and response, including timelines, action and delays during the chain of events leading to closure and notification to stakeholders and the public and subsequent openings together with all supporting documentation. DFO will provide details on the timelines from detection to closure as well as a summary of surveillance, enforcement, and control activities: number of patrols, number of incidents, violations.

The CMP annual report shall be completed for review and acceptable by a PRISC working group by May 1st of the following year.

CFIA and EC will provide input to the Annual Report with water and shellstock microbiological data used to re-open the area (dates, results). Summary data is required by Feb 1st of the following year.

MOE will provide an annual report of the results of activities listed under the MOE in Section 3 in relationship to the CMP by Feb 15th of the following year including but not limited to any recommendations for changes to the CMP.

Report from the Town of Ladysmith /WWTP Chief Operator or designate will include a summary of the occurrence Trigger Event types, dates, estimates of discharges and records of the notifications made during the duration of this management plan. The report shall be submitted to MOE by January 15th of the following year.

Concerns and recommendations may be provided by all signatories and included in the Ladysmith CMP Annual Report.

8 AMENDMENT AND TERMINATION

If at any time any Party to the CMP fails to fulfill the requirements as set forth in the CMP, the Regional Interdepartmental Shellfish Committee (RISC) will determine whether the area classification or status will be changed.

This CMP may be amended at any time subject to the written approval of all the Parties.

9 APPENDICES

The Appendices herein form part of this CMP.

Appendix A – Classification Maps (including verification shellstock and water sampling locations)

Appendix B – Information for annual report

Appendix C – Discharge of Wastewater Notice

Appendix D – Contact list

Appendix E – Definitions

Appendix F – Memorandum of understanding between the Canadian Food Inspection Agency (CFIA) and the Department of Fisheries and Oceans (DFO) and Environment Canada (EC) concerning the Canadian Shellfish Sanitation Program (CSSP)

Approved at _____, this _____ day of _____, 2010.

Susan Farlinger
Regional Director General
Fisheries and Oceans Canada
Pacific Region

Kathryn Emmett
Executive Director
CFIA – Western Operations

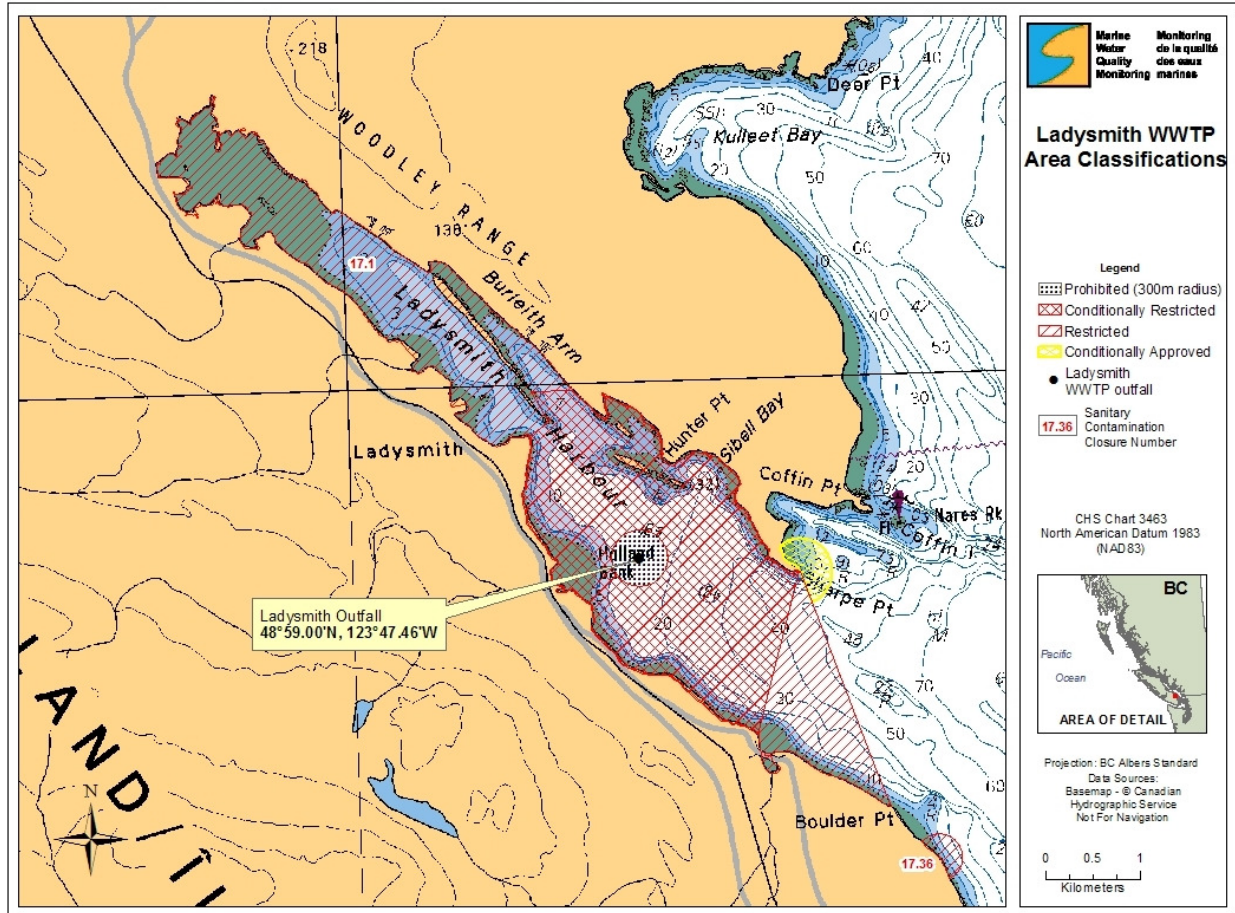
Caroline Ladanowski
Director, Water Quality Monitoring and Surveillance Division
Environment Canada

Jim Standen
Assistant Deputy Minister, Ministry of Environment

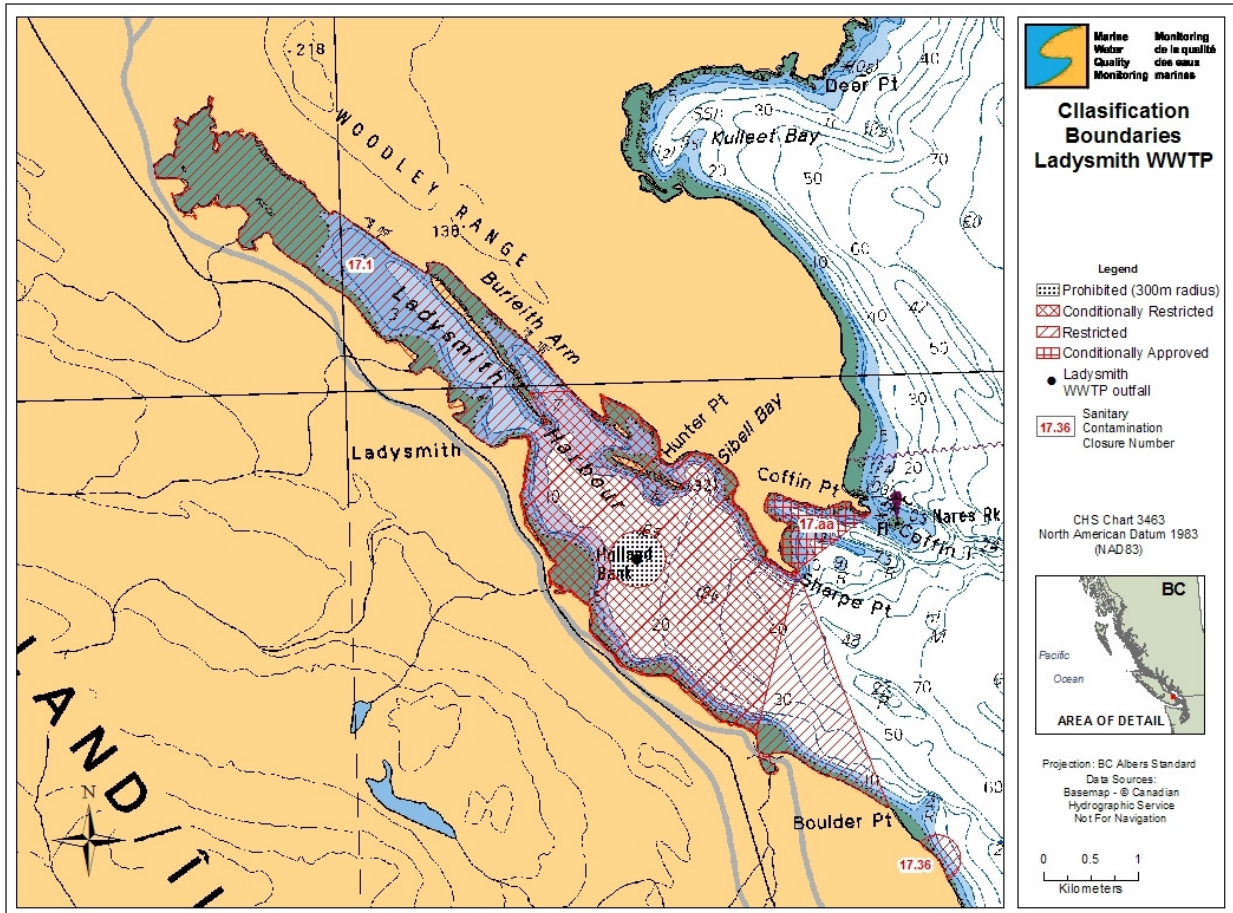
Director of Corporate Services, Town of Ladysmith (or designate)

Appendix A – Classification Map

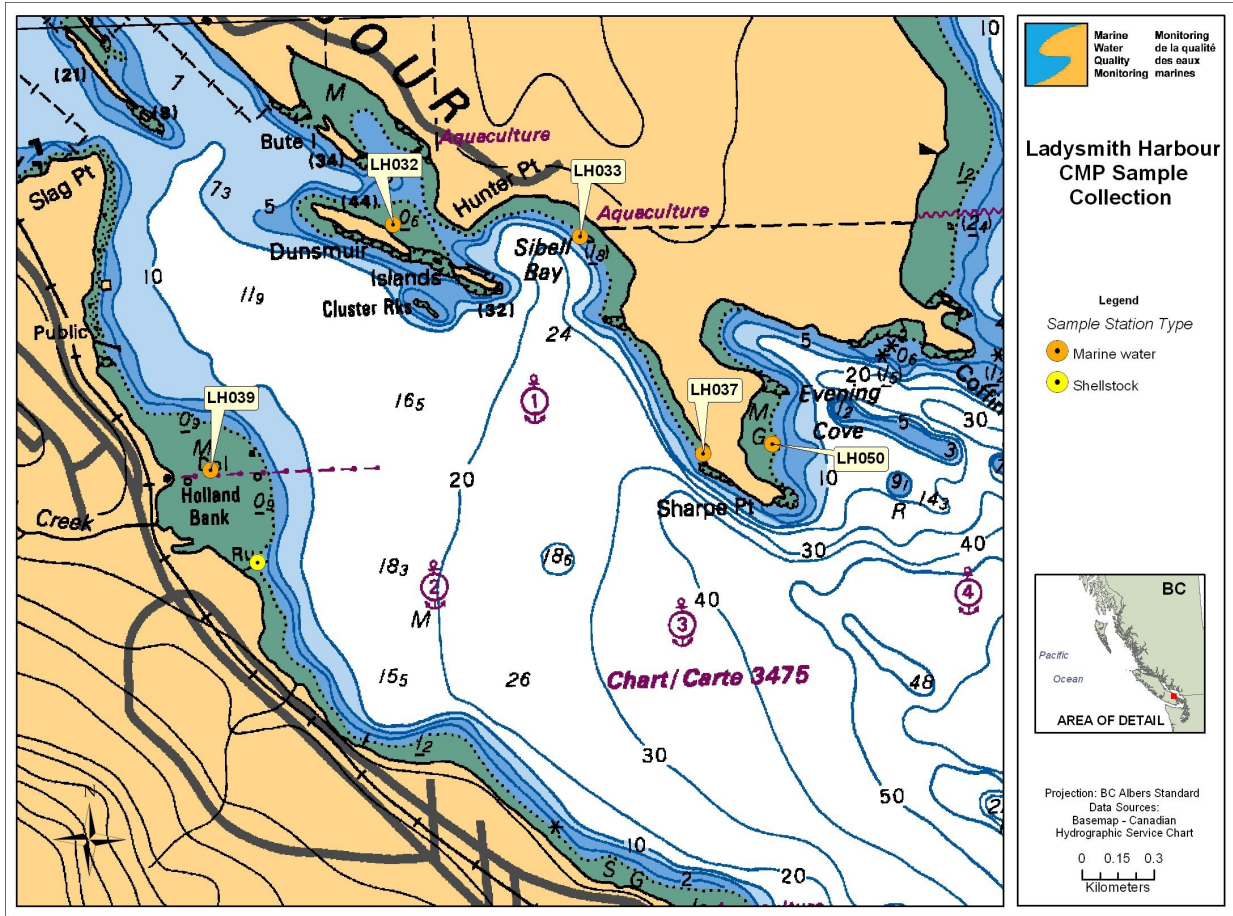
Shellfish harvesting will become prohibited in Conditionally Restricted and Conditionally Approved Areas when an effluent discharge meeting the criteria of a Trigger Event is reported. Further guidance of how registered fish processing establishments maintain control of shellfish harvested from areas situated between the prohibited area and the response line is contained in CFIA policy documents found in Bulletin 25 of the CFIA Fish, Seafood, and Production Division's Facilities Inspection Manual.



Appendix A con't – Classification map showing closure boundaries.



Appendix A con't – Water and shellstock sample collection locations



Appendix B – Sample Annual Report

Name of Area
Conditional Shellfish Area Annual Report for (insert year)

Area

Description/location with boundaries

Map (with classification and sampling sites for water quality and shellstock)

Closure criteria

Potential time period for opening (if applicable)

Species managed and harvesting restrictions/season (if applicable)

Summary of Activities

Number of openings/closures during the year

Prohibition order numbers and dates

Supporting documentation used to make decision about closing

Notices from WWTP Chief Operator or designate (Event, dates, duration)

Supporting documentation used to make decision about opening

Water and shellstock microbiological data to re-open the area (dates, results)

Surveillance, enforcement, control activities: number of patrols, number of incidents, violations

Copy of Management Plan

Attached

Report from Province

Comments on the WWTP annual report, as a compliance review to confirm that Trigger Event were detected and responded to as described in the CMP.

Report from Municipality/WWTP Chief Operator or designate

Summary report of discharges and notifications

Concerns/ Recommendations (all signatories)

Appendix C – Example of a “Discharge of Wastewater Notice and Fax Cover Sheet”

From:	Ladysmith Wastewater Treatment Plant	
Location:	Ladysmith Harbour – DFO Subarea 17-7	<input type="checkbox"/> Map attached

Instructions:

1. Report all Trigger Events as per Section 5.1 by phone to the Provincial Emergency Program (PEP) at 1-800-663-3456 and the DFO Radio Room at 1-800-465-4336
2. Send this completed notice by email or fax to all persons on contact list below.

Classification of Trigger Event (<i>check one</i>):	Status
<input type="checkbox"/> WWTP disruption that results in more than 50m ³ /d of untreated effluent being discharged via the bypass outfall	<input type="checkbox"/> in progress <input type="checkbox"/> planned <input type="checkbox"/> past event
<input type="checkbox"/> WWTP disruption that results in untreated or partially treated effluent discharge that fails to meet provincial authorized disinfection requirements.	<input type="checkbox"/> in progress <input type="checkbox"/> planned <input type="checkbox"/> past event
<input type="checkbox"/> Collection system failures that result in an untreated effluent discharge to the marine environment	<input type="checkbox"/> in progress <input type="checkbox"/> planned <input type="checkbox"/> past event

Name of Chief Operator or designate: _____

Trigger Event Start Date:	_____	Termination Date:	_____
Start time:	_____	Stop time:	_____

Cause of Trigger Event: _____

Period of discharge: _____ hrs Estimated flow rate: _____ [units]

Estimated faecal coliform: _____ [units]

Comments: _____ Total Estimated Discharge: _____

Sent by: _____ Date: _____ Position: _____

Fax Cover Sheet: Contact List for Discharge of Wastewater Notice

To:	Representatives	E-mail completed notice to	Phone and Fax Numbers
Environment Canada	Walter Hajen	walter.hajen@ec.gc.ca	Tel: (604) 903-4475 Cell: (778) 772-7018 Fax: (604) 903-4423
	Tim Wenman (1 st alternate)	tim.wenman@ec.gc.ca	Tel: (604) 903-4415 Fax: (604) 903-4423
CFIA	Kristen Kirby	kristen.kirby@inspection.gc.ca	Tel: (250) 363-3850 Fax: (250) 363-0336
	Hanna Boehmer (1 st alternate)	hanna.boehmer@inspection.gc.ca	Tel: (604) 666-3578 Fax: (604) 666-1963
DFO	Linda Higgins	linda.higgins@dfo-mpo.gc.ca	Tel: (250) 754-0221 Cell: (250) 802-6753 Fax: (250) 754-0309
	Tom Pawloski (1 st alternate)	tom.pawloski@dfo-mpo.gc.ca	Tel: (250) 754-0205 Fax: (250) 754-0309
	Elysha Gordon (2nd alternate)	elysha.gordon@dfo-mpo.gc.ca	Tel: (250) 756-7192 Fax: (250) 756-7162

Appendix D – Contact List

DEPARTMENT/ AGENCY	NAME	POSITION	TELEPHONE/ FAX	EMAIL
Fisheries and Oceans Canada	Elysha Gordon	Resource Manager	Tel: (250) 756-7192 Fax: (250) 756-7162	elysha.gordon@dfo-mpo.gc.ca
	Linda Higgins	Conservation and Protection	Tel: (250) 754-0221 Cell: (250) 802-6753 Fax: (250) 754-0309	linda.higgins@dfo-mpo.gc.ca
Canadian Food Inspection Agency	Kristen Kirby	Senior Fish Inspection Specialist	Tel: (250) 363-3850 Fax: (250) 363-0336	kristen.kirby@inspection.gc.ca
	Hanna Boehmer	Fish Inspection Specialist	Tel: (604) 666-3578 Fax: (604) 666-1963	hanna.boehmer@inspection.gc.ca
Environment Canada	Walter Hajen	Head, Marine Water Quality Monitoring - Pacific	Tel: (604) 903-4475 Cell: (778) 772-7018 Fax: (604) 903-4423	walter.hajen@ec.gc.ca
	Tim Wenman	A/Area Coordinator	Tel: (604) 903-4415 Fax: (604) 903-4423	tim.wenman@ec.gc.ca
BC Ministry of Environment	Blake Medlar	Government and Compliance Section Head, Min of Envr, Coast Region	Tel: (250) 751- 3183 Fax: (250) 751-3103	blake.medlar@gov.bc.ca
	Kirsten White	Sr. Environmental Protection Officer, Min of Envr, Coast Region	Tel: (250) 751-3233 Fax: (250) 751-3103	kirsten.white@gov.bc.ca
Town of Ladysmith, Director of Public Works	Joe Friesenhan		Tel: (250) 245-6440	jfriesenhan@ladysmith.ca
Town of Ladysmith WWTP Chief Operator	Curtis Baker.	Chief Operator	Tel: (250) 245-3995 Cell: (250) 616-6329	cbaker@ladysmith.ca
Chemainus First Nation	Ken Bohun	Resource Manager	Tel: (250) 245-7155 Fax: (250) 245-3012	Ken.Bohun@stzuminus.com
Limberis Seafood Processing Ltd.	Leo Limberis	Depuration/relay licence holder	Tel: (250) 245-3021 Fax: (250) 245-3606	kath@limberisseafood.com
Provincial Emergency Program				1-800-663-3456
DFO Radio Room				1-800-465-4336

Appendix E – CSSP and Conditional Management Plan Definitions

Approved Area - The classification of a shellfish growing area which has been approved by the shellfish control authority for growing or harvesting shellfish for direct marketing. The classification of an approved area is determined through a sanitary survey conducted by the shellfish control authority in accordance with Chapter 2 of the CSSP Manual of Operations. An approved shellfish growing area may be temporarily placed in the closed status when a public health emergency, resulting from for instance, a hurricane or flooding, is declared.

Bypass – effluent flow at a wastewater treatment plant or lift station that bypasses the treatment plant and is discharged to the marine environment. Also the system that directs the effluent flow to bypass the treatment plant.

Canadian Shellfish Sanitation Program - A program to classify harvesting areas and control the commercial and recreational harvesting of molluscs and processing of product for the consumer market.

Closed Area - A growing area where the harvesting of shellfish is temporarily or permanently not permitted, except by special permit for specific purposes.

Conditionally Approved Area - The classification of a shellfish growing area which has been determined by the shellfish control authority to meet approved area criteria for a predictable period. The period is conditional upon established performance standards specified in a conditional management plan.

Controlled Purification or Depuration - The process of using a controlled, aquatic environment to reduce the level of bacteria and viruses in live shellfish.

Conditional management plan (CMP) - An agreement signed by relevant parties for the management of shellfish in conditionally classified areas

Conditionally Restricted Area – The classification of a shellfish growing area which has been determined by the shellfish control authority to meet, at a minimum, the restricted classification criteria for a predictable period.. The period is conditional upon established performance standards specified in a conditional management plan.

Detection: The point in time at which a wastewater treatment or collection system release / discharge incident (as defined in the relevant CMP) is first detected by a wastewater treatment plant operator (or delegate)

Emergency Closure - A shellfish harvesting area in the open status may be placed in the closed status when it is suspected that shellfish may be contaminated as a result of an emergency situation. These emergency situations may include natural or operational events such as hurricanes, flooding, and oil, toxic chemical and sewage spills.

Lift Station – Part of a wastewater treatment plant collection system

Natural Relaying – The transfer of shellfish from conditionally restricted or restricted areas in the open status to approved areas for natural biological cleansing, using the ambient environment as a treatment system (Houser, 1964) for periods of 14 days or greater.

Notification – The point in time at which one of the federal CSSP partners receives notice from a wastewater treatment or collection system operator (or delegate) of a release / discharge incident (as defined in the relevant CMP).

Prohibited Area - The classification of a shellfish growing area determined by the shellfish control authority where shellfish harvesting for food purposes is not permitted

Prohibition Order – A legal order issued by the Fisheries and Oceans Regional Director General, under the authority of the *Management of Contaminated Fisheries Regulations* to prohibit fishing

Relaying - The transfer of shellfish from conditionally restricted or restricted areas in the open status to approved areas for natural biological cleansing using the ambient environment as a treatment system (Houser 1964).

Response: A series of actions taken by the shellfish control authority as defined in the relevant CMP based on the classification of the area that will serve to ensure that product does not reach market and the implicated area is placed in closed status.

Response Line - The boundary at which the sewage effluent plume is predicted to lie during a wastewater treatment plant or collection system release/ discharge incident before the competent shellfish control authority will respond.

Restricted Area ² - The classification of a shellfish growing area determined by the shellfish control authority where shellfish shall not be harvested for direct consumption.

² Restricted areas were formerly classified as “closed” areas

Shellfish Control Authority – Canadian Food Inspection Agency, Environment Canada and Fisheries and Oceans Canada

Shellstock - Shellfish in the shell.

Trigger Event – Any event or disruption that results in untreated effluent or effluent with insufficient or inadequate disinfection being released from the WWTP that causes action to commence closure of an area to shellfish harvest

Appendix F

APPENDIX V
MEMORANDUM OF UNDERSTANDING
BETWEEN THE CANADIAN FOOD INSPECTION AGENCY ("CFIA")
AND THE DEPARTMENT OF FISHERIES AND OCEANS ("DFO")
AND ENVIRONMENT CANADA ("EC")
CONCERNING THE CANADIAN SHELLFISH SANITATION PROGRAM ("CSSP")

1. PURPOSE

The CSSP is a shared responsibility of the Canadian Food Inspection Agency (CFIA), the Department of Fisheries and Oceans (DFO) and Environment Canada (EC).

This Memorandum of Understanding (MOU) recognizes:

- a) the purpose of the CSSP, which is to provide reasonable assurance that molluscan shellfish (hereinafter referred to as shellfish) are safe for consumption as food by controlling the harvesting of all molluscs within the tidal waters of Canada;
- b) the commitment that Canada has to the Bilateral Agreement between the United States Public Health Service and the Canadian Department of National Health and Welfare (now Health Canada), signed April 30, 1948, to improve the sanitary practices prevailing in the shellfish industries of the two countries;
- c) the respective responsibilities of CFIA, DFO and EC in delivering the CSSP in Canada, and CFIA's responsibility as lead agency for liaison with foreign governments; and
- d) the parties' mutual commitment to strive constantly to: enhance the efficiency and effectiveness of CSSP program delivery, address linkages to related issues, communicate and co-operate with each other and all stakeholders, conduct and/or participate in national and/or international audits, and take remedial action as required to implement improvements.

2. RESPONSIBILITIES OF CFIA

CFIA shall be the lead agency in the administration of the CSSP with regard to: the handling, processing, import and export of shellfish; the marine biotoxin monitoring program; and any other microbiological monitoring program not described in section 4 - "Responsibilities of EC". CFIA shall be responsible for:

- a) inspecting and issuing certificates of federal registration to plants that meet federal regulatory requirements and are engaged in the processing, holding and export of shellfish;
- b) licensing fish importers and inspecting imported shellfish;
- c) administering the marine biotoxin monitoring program and any other shellfish micro-biological monitoring program not described under EC's responsibilities in section 4;

- d) recommending to DFO the closing of harvesting areas because of unacceptable marine biotoxin, microbiological and chemical levels in shellfish stock, and advising DFO when harvesting areas are acceptable for the harvesting of shellfish;
- e) reviewing referrals from DFO for the issuing of licences for harvesting from closed areas, for relaying or depuration purposes;
- f) maintaining records, data bases and other documents in support of marine biotoxin, microbiological and chemical closures, recommended closure actions, and administrative evaluations by internal and external auditors;
- g) ensuring proper application of prescribed analytical and reporting procedures in CFIA laboratories and private laboratories approved in accordance with the CSSP Manual of Operations, including adequate quality assurance, performance standards and quality control of the laboratory-generated data;
- h) ensuring proper application of prescribed sampling procedures by qualified parties, including adequate quality assurance and quality control of the collected samples;
- i) supporting DFO in its notification activity related to section 3(e), and providing or making available to interested parties information on program activities;
- j) implementing CFIA elements of jointly developed Management Plans for "Conditionally Approved" areas; and
- k) participating in the CSSP audit program, as well as in external audits by such bodies as Health Canada and the United States Food and Drug Administration.

3. RESPONSIBILITIES OF DFO

DFO shall be the lead agency in the administration of the CSSP with regard to the harvesting of shellfish and shall be responsible for:

- a) opening and closing shellfish growing areas on the basis of:
 - i) classification recommendations from EC, based on the sanitary and bacteriological water quality of the growing areas, and agreed to by the regional Shellfish Growing Area Classification Committees; and
 - ii) recommendations from CFIA on marine biotoxin levels, and microbiological and chemical levels in shellfish growing areas;
- b) posting, patrolling and enforcing shellfish closures in accordance with the Fisheries Act;
- c) controlling shellfish relaying operations and harvesting for depuration operations;
- d) implementing DFO elements of jointly developed Management Plans for "Conditionally Approved" areas;

- e) providing notification to CFIA, EC, stakeholders and other interested parties, on locations, boundaries and timing of harvesting closures and openings;
- f) maintaining records of the opening and closure of shellfish growing areas, as well as records of enforcement patrols, in support of reviews by external or internal auditors, and providing CFIA and EC with annual patrol enforcement activity reports;
- g) consulting with CFIA and EC prior to the commencement of any new developmental or exploratory shellfish fisheries, and/or the issuance of any new licences or permits thereto; and
- h) participating in the CSSP audit program, as well as in external audits by such bodies as Health Canada and the U.S. Food and Drug Administration.

4. RESPONSIBILITIES OF EC

EC shall be the lead agency in the administration of the CSSP with regard to recommending the appropriate classification of shellfish growing waters based upon the sanitary and bacteriological water quality conditions of the area, and shall be responsible for:

- a) conducting comprehensive sanitary and bacteriological water quality surveys of the shellfish growing areas in Canada, in accordance with the CSSP Manual of Operations criteria;
- b) from the surveys, determining the sources of point and non-point pollution, the degree of contamination and the extent of area contamination, and recommending the location of closure lines;
- c) recommending to the regional Shellfish Growing Area Classification Committees specific classifications of growing areas and their boundaries, on the basis of survey results and the classification definitions in the CSSP Manual of Operations;
- d) maintaining records, data bases, sectoral maps, survey reports, central files and other documents in support of classification action and administrative reviews by internal and external auditors;
- e) ensuring proper application of prescribed analytical and reporting procedures in EC laboratories, private laboratories approved in accordance with the CSSP Manual of Operations, and laboratories under contract to EC, including adequate quality assurance and quality control of the laboratory-generated data;
- f) ensuring proper application of prescribed sampling procedures by qualified parties, including adequate quality assurance and quality control of the collected samples;
- g) promoting pollution prevention, regulatory compliance, remediation and restoration of shellfish growing areas, together with federal/provincial/municipal agencies and other stakeholders;

- h) supporting DFO in its notification activity pursuant to section 3(e), and providing or making available to interested parties information on program activities;
- i) upon request, providing to DFO available information on water quality for areas proposed;
- j) implementing EC elements of jointly developed Management Plans for "Conditionally Approved" areas; and
- k) participating in the CSSP audit program, as well as in external audits by such bodies as Health Canada and the U.S. Food and Drug Administration.

5. ADMINISTRATIVE ARRANGEMENTS

The Assistant Deputy Ministers of DFO and EC and the Vice- President of CFIA hereby establish the Interdepartmental Shellfish Committee to implement this MOU. The Committee shall be composed of representatives of CFIA, DFO and EC, as designated by Directors General from both national headquarters and regions across Canada.

- a) The Interdepartmental Shellfish Committee shall meet as required, but at least once a year, to:
 - i) discuss the CSSP and review national shellfish related legislative, regulatory, policy and procedural issues of mutual concern, including proposed amendments to the CSSP Manual of Operations;
 - ii) enhance communication and co-ordination of CSSP activities;
 - iii) create annexes to this MOU covering specific CSSP program delivery and operational issues of mutual concern;
 - iv) establish sub-committees and working groups as required to deal with specific issues, and develop appropriate policies and procedures for dealing with them;
 - v) advise senior executive management as required about the progress and effectiveness of the CSSP, and make appropriate recommendations;
 - vi) receive presentations by provinces, shellfish industry and other stakeholders on matters that have impact on all parties, and provide appropriate interdepartmental/ agency response; and
 - vii) produce an annual report.
- b) The Interdepartmental Shellfish Committee Meetings shall be chaired on a rotating basis by each party, which shall be responsible for providing secretariat services. The meeting recommendations and the annual report on program delivery will be forwarded to the Directors General of CFIA and EC and the Assistant Deputy Minister, Fisheries Management of DFO, for review and approval.
- c) The Interdepartmental Shellfish Committee shall also evaluate new integrated systems-based management/inspection approaches to the CSSP,

and is committed to consulting with stakeholders on the new approaches and how such approaches may be funded.

- d) Regional Shellfish Growing Area Classification Committees shall be organized in each region of Canada where shellfish are harvested. They shall be chaired by EC, meet as required but at least once a year, and shall be composed of appropriate regional CFIA, DFO, EC and provincial government representatives. Stakeholders may participate in working groups and be observers and/or make presentations to the Committees on specific issues.

6. IMPLEMENTATION AND TERMINATION

- a) This Agreement will come into effect on March 1, 2000.
- b) The operation of the Memorandum of Understanding shall be reviewed periodically by the Parties, and may be amended at any time by mutual consent of the Parties or terminated by any Party upon (90) days' advance written notice to the other Parties.

7. REVIEW

The President of the Canadian Food Inspection Agency, the Deputy Minister of the Department of Fisheries and Oceans and the Deputy Minister of Environment Canada may meet as required to review this Agreement.

8. SIGNATURES

Signed by P.S. Chamut
Assistant Deputy Minister
Fisheries Management
Department of Fisheries and Oceans

13/04/2000
Date

Signed by Jean-Pierre Gauthier
Assistant Deputy Minister
Environmental Protection Service
Environment Canada

02/05/2000
Date

Signed by André Gravel
Vice-President, Programs
Canadian Food Inspection Agency

13/04/2000
Date