

Victorian Shellfish Quality Assurance Program

Version 1.6

January 2019

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Foreword

The Victorian Shellfish Quality Assurance Program (VSQAP) has been prepared to provide operational parameters in accordance with the requirements of the *Seafood Safety Act 2003*, *Food Standards Code*, the *Australian Shellfish Quality Assurance Program Manual 2019* and the *Australian Shellfish Quality Assurance Program Export Standard 2004*.

It covers all bivalve shellfish to be commercially harvested for human consumption.

In terms of definitions, procedures and methodologies this manual complements the Australian Shellfish Quality Assurance Program (ASQAP Operations Manual, 2019).

Definitions

In this manual unless the context requires otherwise, the following definitions apply:

Aquaculture means the controlled production of molluscan bivalve shellfish in natural and artificial systems.

ASP means amnesic shellfish poisoning (domoic acid)

Australian Shellfish Quality Assurance Program (ASQAP) means a co-operative State-Federal-Industry program to provide for the safe harvest of commercial shellfish for human consumption.

Authority means the Shellfish Control Authority as defined in ASQAP.

Code means the Food Standards Code under the Food Standards Australia New Zealand Act 1991 or its successors and its subordinate Standards including Standard 4.2.1 Primary production and processing standard for seafood.

DAWR means Department of Agriculture and, Water Resources

DEDJTR means the Department of Economic Development Jobs Transport and Resources and its successors

DSP means diarrhoetic shellfish poisoning (okadaic acid)

Export Standard means the Australian Shellfish Quality Assurance Program Export Standards 2004 Edition.

Fisheries means the Victorian Fisheries Authority

HACCP means Hazard Analysis Critical Control Point

Harvest means the taking of shellstock by any means for commercial purposes from a Harvest area for human consumption.

Harvest Area Coordinator means a person who organises monitoring, analysis, open/closure notifications, reporting and other duties for a Harvest area.

Harvester means a person who takes shellfish by any means for commercial purposes from a Harvest area for human consumption.

Licence means a licence issued under the *Seafood Safety Act 2003*.

Licence holder means the person or business entity legally responsible for the management of the seafood safety risks of the business that is the holder of a licence issued under the *Seafood Safety Act 2003*.

Licensee means the Licence holder.

MF means Membrane Filtration

MPN means Most Probable Number

NSP means Neurotoxic shellfish poisoning

PrimeSafe means the Statutory Authority operating under the Seafood Safety Act 2003

Processor means a person who heat treats, processes, shucks, packs or repacks shellfish.

PSP means paralytic shellfish poisoning (saxitoxin)

VSQAP means Victorian Shellfish Quality Assurance Program

Purpose of the Victorian Shellfish Quality Assurance Program

The purpose of the VSQAP is to protect the health of shellfish consumers through the administration and application of procedures described in this Operations Manual that:

- (i) Assesses the risk of shellfish contamination by pathogenic bacteria and viruses, biotoxins and chemicals derived from the Harvesting area;
- (ii) Controls the harvest of shellfish in accordance with the assessed risk;
- (iii) Implements the pre-harvest and harvesting controls described in ASQAP and the Code; and
- (iv) Is a required component of the food safety program.

Classification of shellfish Harvest areas

Standard 4.2.1 specifies the requirements relating to the classification of harvest areas. The classification criteria is specified in the ASQAP Manual.

Table 1 - Harvest areas and their classification status and export approval

<u>Harvest area</u>	<u>Classification</u>	<u>Export</u>
Clifton Springs	Approved	Approved for export
Grassy Point	Approved	Approved for export
Mount Martha	Conditionally Approved	Approved for export
Pinnacle Channel	Approved	Approved for export
Flinders	Conditionally Approved	NA
Dromana	Conditionally Approved	NA
Pinnacle Channel SHA	Approved	Approved for export
North-west Port Phillip Bay SCA (Zone 1 S1)	Approved	Approved for export
North-west Port Phillip Bay SCA (Zone 1 S2)	Approved	Approved for export
North West Port Phillip Bay SCA (Zone 5 S1)	Approved	Approved for export
North West Port Phillip Bay SCA (Zone 5 S2)	Approved	Approved for export
North West Port Phillip Bay SCA (Zone 5 S3)	Approved	Approved for export
North West Port Phillip Bay SCA (Zone 5 S4)	Approved	Approved for export
Discovery Bay Pipi	Approved	NA

Administration of each enterprise

PrimeSafe administers the *Seafood Safety Act 2003* under which seafood businesses are required to put in place a food safety program. Each food safety program is required to conform to the Code and be approved by PrimeSafe. The food safety program will ensure that seafood businesses assume responsibility for control of the production of safe food. The food safety program must consist of the following components:

- Organisational Chart
- HACCP Plan or equivalent
- Cleaning Program
- Maintenance Program
- Pest Control Program
- Training Program
- Calibration Program
- Traceability Program
- Recall Program

Harvesting of bivalve shellfish for human consumption must not be undertaken unless the Harvest area meets the ASQAP requirements specified in Food Standard 4.2.1.

Fisheries administer the Fisheries Act 1995 and authorises the growing, harvesting and fishing of bivalve shellfish. Licences or permits authorise the activity within specified land and or waters. Licensees must meet the general requirements of ASQAP and the Code for:

- Classification of harvesting waters through a comprehensive sanitary survey and development of a food safety program
- Bacteriological monitoring program for water and shellfish
- A continuous environmental monitoring program e.g. rainfall triggers
- A biotoxin and algal monitoring program
- Chemical residue testing
- An annual review of the data collected and the food safety program
- A triennial review of the sanitary survey data, statistical analysis of collected data of water quality and shellfish since current classification and any changes or pollution sources since the last sanitary survey.

All harvest areas listed in Table 1 are subject to the Victorian Marine Biotoxin Management Plan and must be compliant with the Victorian Shellfish Quality Assurance Program (this document). The Victorian Marine Biotoxin Management Plan meets the ASQAP requirements described in Section 4.

Maintaining the classification status

Monitoring described in Table 2 must be undertaken.

Table 2 Monitoring requirements for each Harvest area

Requirement	Method	For each Harvesting area
<i>Bacterial testing of harvesting waters</i>		
Thermotolerant coliforms (Faecal)	Membrane Filtration method - Australian Standard 4276.7 (2007)	6 times per year for areas classified as 'Approved' to maintain the classification 12 times per year for areas classified as 'Conditionally Approved' to maintain the classification
<i>Bacterial testing of shellfish</i>		
<i>E. coli</i>	Approved methods in Recommended Procedures for the Examination of Seawater and Shellfish or the equivalent Australian Standard 5013-15 (2006)	4 times per year (with 5 sub-samples taken at different depths where droppers are used to culture shellfish)
<i>Biotoxin testing</i>		
PSP, ASP, DSP	As specified in the Victorian Marine Biotoxin Management Plan	12 times per year at a minimum of monthly intervals (Note 1) unless with prior approval from Fisheries.
NSP		Only if phytoplankton counts indicate the presence of relevant algae
<i>Phytoplankton monitoring</i>		
Quantitative test (hose sampler) and qualitative (net tow)	As specified in the Victorian Marine Biotoxin Management Plan and the ASQAP Manual 2016	Fortnightly at each Harvesting area except for surf zone harvesting of shellfish.
<i>Other contaminants</i>	Mercury, arsenic, cadmium and lead	Required when undertaking a comprehensive shoreline survey (at least once every three years)
<p>Note 1 - For Harvest areas not approved for export and not a sentinel Harvest area and subject to a risk assessment approved by Fisheries, flesh testing for biotoxin must occur when algal counts breach warning trigger, biotoxin sampling is only when algal counts breach warning trigger levels or biotoxin levels have reached or are approaching trigger levels at the Harvest area or at one of the sentinel sites or if requested by the Authority.</p>		

Note 2 – While closed to harvesting, Harvest areas that are subject to a Voluntary closure or have the Closed Inactive status must continue to undertake sampling for bacterial testing of harvesting waters as planned in the sampling program while sampling for other contaminants may be suspended for the period of the closure subject to the reopening criteria.

Harvesting control

A Harvest area may be open or closed for the harvesting of shellstock. Harvesting of bivalve shellfish for human consumption must not be undertaken unless the Harvest area has an open status as specified in the Schedule to Division 3 of standard 4.2.1 or the Export Standards. The VSQAP provides the criteria for a Harvest area to have an open or closed status. Table 3 summarises the reasons for closure and re-opening criteria.

Rainfall triggers (Table 4) have been provided for some Harvest areas using a precautionary approach to manage the risks of harvesting during periods when harmful pollutants could be accumulated by shellfish beyond the bacterial limits specified in the food standards.

Closure of Harvest area

A Harvest area will be closed for a limited or temporary period if any of the following triggers occur:

- (i) Rainfall trigger for the Harvest area is exceeded
 - (ii) Biotoxins are present in concentrations which exceed those defined in the Victorian Marine Biotxin Management Plan
 - (iii) Algal level exceeds the trigger level
 - (iv) Algal levels are rising rapidly to a trigger level
 - (v) Cases of shellfish poisoning are confirmed
 - (vi) Any other information or public health risk indicates a necessity to do so;
- or

Voluntary closure instigated by the harvester.

When the Harvest area is closed the date, time and reason for closure are communicated immediately by the Harvest area coordinator to the Licensees and to Fisheries in accordance with the procedures set out in the food safety program.

Fisheries will notify PrimeSafe and DAWR.

Records must be retained for a minimum period of three years after the event and until the next comprehensive sanitary survey has been completed and audited.

These records must be made available for inspection.

- For areas approved for export, on closure the Harvest area coordinator must email the following details to Fisheries Victoria and Fisheries will notify PrimeSafe and DAWR.
- The name of the Harvest area that is closing;
- The time and date of the closure; and
- The reason for the closure of the Harvest area (for example: breach of 24 hour rainfall trigger).

When there are harvest area closures and openings, please forward email correspondence to the following email accounts clearly stating the harvest area

name and whether it is to be closed or open to harvesting and where relevant the time of day that it is to take effect:

To:

andrew.clarke@vfa.vic.gov.au

john.mercer@vfa.vic.gov.au

cc:

info@primesafe.vic.gov.au

Fisheries will notify DAWR Export Division of the closure stating the harvest area name, the reason for the closure and the date and time of day that the closure took effect. The email addresses to be notified by Fisheries are:

foodexportdocumentation@agriculture.gov.au

dairyeggfish@agriculture.gov.au

Opening of Harvest area

Following a harvest area closure on the basis of a rainfall trigger being exceeded, a Harvest area will not be re-opened until:

- The minimum closure period after a rainfall event has passed.

Following a Harvest area closure on the basis of an adverse result from sampling, a Harvest area will not be re-opened until:

- The minimum closure period after any rainfall event has passed;
- Shellfish toxin levels in shellfish muscle conform with the Code, by two clear samples taken not less than a week apart; and
- Populations of potentially toxic algae are lower and are not rising in sequential samples as defined in the Victorian Marine Biotxin Management Plan.

When the Harvest area is re-opened the date, time and reason for opening are communicated at the earliest opportunity to the Licensee and the Authority in accordance with the procedures set out in the food safety program and the VSQAP.

For areas approved for export on re-opening the Harvest area coordinator must email the following details to Fisheries Victoria and cc the email to PrimeSafe:

- The name of the Harvest area that is re-opening;
- The time and date of the previous closure;
- The time and date of the re-opening; and
- The reason for the re-opening of the Harvest area (for example: rainfall trigger closure period has passed).

When there are harvest area closures and openings, please forward email correspondence to the following email accounts clearly stating the harvest area name and whether it is closed or open to harvesting and where relevant the time of day that it is to take effect:

To:

andrew.clarke@vfa.vic.gov.au

john.mercer@vfa.vic.gov.au

cc:

info@primesafe.vic.gov.au

Fisheries will notify DAWR Export Division of the opening stating the harvest area name and the date and time of day that the opening took effect. The email addresses to be notified by Fisheries are:

foodexportdocumentation@agriculture.gov.au

dairyeggsfish@agriculture.gov.au

Records must be retained for a minimum period of three years after the event and until the next comprehensive sanitary survey has been completed.

These records must be made available for inspection.

Table 3 Summary of closure and opening criteria

Closure reason	Opening criteria
Rainfall trigger is exceeded	Remain closed for period specified in table 4, review closure period every day.
Biotoxins are present in concentrations which exceed those defined in the Victorian Marine Biotxin Management Plan	All species must be shown to comply with the Food Standards Code (refer Table 6) for the toxin of concern, with two tests that meet the Food Standards Code levels, sampled not less than one week apart and as close as possible to the proposed opening date.
Algal level exceeds the trigger level or algal levels are rising rapidly to a trigger level.	<p>Tissue test shows no biotoxin present. - Monitor algal levels weekly and if still high then do further tissue testing and review results.</p> <p>If biotoxin is present but below the levels in the Code. - Monitor algal levels weekly and do weekly biotoxin tests until algal levels subside.</p> <p>If biotoxin is present above the levels in the Code. - All species must be shown to comply with the Food Standards Code (refer Table 6) for the toxin of concern, with two tests that meet the Food Standards Code levels, sampled not less than one week apart.</p>
Shellfish contamination levels are above the maximum levels listed in the Food Standards Code	If not mentioned above, testing shows shellfish contamination levels meet levels listed in the Food Standards Code.
A sewage spill has occurred that could potentially impact the harvest area	<p>Evidence is gathered including at least one tissue test that shows the shellfish to be harvested were not contaminated.</p> <p>If a sewage spill has occurred that has impacted the harvest area: at least 21 days have passed since the end of the contamination event; or shellfish samples, collected from representative locations in each harvest area (no sooner than seven days after the contamination has ceased), are found to have Male Specific Coliphage levels which do not exceed background levels or a level of 50 Male Specific Coliphage per 100 grams.</p>

Shellfish contamination levels are above the maximum levels listed in the Food Standards Code other than listed above	Testing demonstrates the shellfish to be harvested are below the Code Level and safe to eat to the satisfaction of the Authority.
Cases of shellfish poisoning are confirmed	Subject to investigation of illness associated with shellfish, refer to ASQAP section 9.
Voluntary closure instigated by the harvester.	The harvest area has been monitored sufficiently to maintain the classification and two biotoxin tests have been taken that meet the Code levels, sampled not less than one week apart and an E.coli tissue test has been taken that shows the shellfish to be harvested meets the Code level with all samples taken as close as practicable to the proposed opening date.
Closed inactive status	Refer ASQAP 5.2.1.9-5.2.1.11 and prior to opening two biotoxin tests have been taken that meet the Code levels, sampled not less than one week apart and an E.coli tissue test has been taken that shows the shellfish to be harvested meets the Code level with all samples taken as close as practicable to the proposed opening date.
Other information or public health risk indicates a necessity to do so	Sufficient time has elapsed to allow the shellstock to reduce to acceptable levels of contamination and the shellstock have been demonstrated to be safe to eat and as instructed by the Authority.
Sampling not undertaken as per sampling plan (weather permitting)	Sampling undertaken and results meet the Code levels

Table 4 Rainfall triggers for applicable Harvest areas

Harvesting Area	Rain Station	24 Hour Rainfall (mm)	Minimum Closure Period	48 Hour Rainfall (mm)	Minimum Closure Period	Contingency Station
Clifton Springs	Geelong Racecourse AWS	45	Open on tissue test results	65	Open on tissue test results	<u>Avalon AWS</u>
Grassy Point	Geelong Racecourse AWS	45	Open on Tissue test results	65	Open on tissue test results	<u>Avalon AWS</u>
Dromana	Rosebud	16	2 days	16	1 day	<u>Moorabbin AWS</u>
Mount Martha	Mornington Yacht Club	30	2 days	33	2 days	Rosebud
		39	3 days			
Pinnacle Channel	Closure instigated on extreme rainfall event					
Flinders	Cerberus	16	2 days	16	2 days	<u>Rhyll AWS</u>
		30	3 days			

Note: A 24 hour rainfall trigger is exceeded when rainfall exceeds the trigger level within the previous 24 hour period. Closures of Harvesting areas based on automated weather stations can occur at any time during a 24-hour period and must occur as soon as is reasonably possible following rainfall that exceeds the trigger regardless of the time of day. For Harvest areas where local rainfall is only reported once per day, the Harvest area must be closed as soon as the farmer has any doubt as to whether rainfall may have breached the trigger. This must include checking on the nearest automated weather stations.

In Table 4, 'Minimum Closure Period' means the number of days that the Harvest area is closed where each day of closure is counted as the 24 hour period from 9:00am to 9:00am the following day. Counting of the number of days of closure commences at the first 9:00am following the rainfall trigger breach.

Table 5: Phytoplankton action levels

Alga/algal group	Toxin	Phytoplankton trigger (cells/L)			Harvest resumption
		Definitive identification & warning to growers	Tissue testing	Harvest suspension pending toxin analysis	
Bacillariophyceae					
**Pseudo-nitzschia spp. (<i>pseudodelicatissima</i> group and <i>pungens</i>)	ASP (domoic acid)	100,000	300,000	500,000	Refer Table 3
<i>Pseudo-nitzschia</i> spp. <i>australis</i> & <i>multiseriis</i> (in <i>seriata</i> group)	ASP	100,000	100,000	300,000	Refer Table 3
<i>Rhizosolenia cf chunii</i>	Bitter Taste	10,000	N/A	20,000 Level 2 Warning	Harvesting suspended/resumed by growers depending on taste of shellfish.
Dinophyceae					
<i>Alexandrium catenella</i>	PSP	200	200	500	Refer Table 3
<i>Alexandrium minutum</i>	PSP	200	200	500	Refer Table 3
<i>Alexandrium tamarense</i>	PSP	200	200	500	Refer Table 3
<i>Alexandrium</i> spp. (unknown or in doubt)	Some strains PSP Some strains	200	200	500	Refer Table 3
<i>Azadinium</i> spp.	AZA1-3	30,000	30,000	30,000	Precautionary limit same as NZ limit
<i>Gymnodinium catenatum</i>	PSP	1,000	1,000	5,000	Refer Table 3
<i>*Dinophysis acuminata</i>	DSP	1,000	1,000	2,000	Refer Table 3
<i>Dinophysis caudata</i>	DSP	1,000	1,000	2,000	Refer Table 3
<i>Dinophysis fortii</i>	DSP	1,000	1,000	2,000	Refer Table 3

Alga/algal group	Toxin	Phytoplankton trigger (cells/L)			Harvest resumption
		Definitive identification & warning to growers	Tissue testing	Harvest suspension pending toxin analysis	
<i>Dinophysis acuta</i>	DSP	500	500	1,000	Refer Table 3
<i>Dinophysis</i> spp.	?DSP	1,000	1,000	2,000	Refer Table 3
<i>Karenia brevis</i> (Not currently recorded in Aust)	NSP	1,000	2,000	5,000	Refer Table 3
<i>Karenia mikimotoi</i> , <i>K. papilionacea</i> , <i>K. bidigitata</i> , <i>K. brevisulcata</i> , <i>K. selliformis</i> Flat, Australian species morphologically similar to <i>K. brevis</i> or <i>K. mikimotoi</i>	Brevetoxin (BTX) ?NSP	100,000	250,000	300,000	Refer Table 3
<i>Karlodinium micrum</i> , <i>Gymnodinium impudicum</i>					
<i>Prorocentrum lima</i>	?DSP	500	500	1,000	Refer Table 3

* Australian Victorian Marine Biotoxin Management Plan for Shellfish Farming (2001) trigger adopted for now until more information on DTX-3 (OA esters) is available for PPB; PTX2-SA no longer included as toxins.

NOTE: Harvest suspension pending biotoxin analysis is precautionary; suspension / resumption of harvesting will be determined by toxin levels and their regulatory limit.

**Unless these *Pseudonitzschia* species are distinguished definitively from the lower toxicity group (which cannot be done with analysis by light microscopy) the lower trigger levels as specified for the *P. australis* group must be applied.

Table 6: Food Standards Code limits for shellfish toxins in muscle

Toxin	Limit
Amnesic shellfish poisons (Domoic acid equivalent)	20 mg/kg
Diarrhetic shellfish poisons (Okadaic acid equivalent)	0.20 mg/kg
Paralytic shellfish poisons (Saxatoxin equivalent)	0.8 mg/kg
Neurotoxic shellfish poisons	200 MU*

* MU means the unit of measure described in *Recommended procedures for examination of seawater and shellfish*, Irwin N. (ed.) 4th Ed. 1970, American Public Health Association Inc.

Table 7: Food Standards Code (Standard 1.6.1) limits for E. coli/g of muscle in bivalve molluscs (other than scallops and pearl oysters, where the only part of the product made available for human consumption is the adductor muscle, and spat.)

n	c	m	M
5	1	2.3	7

Where: n means the minimum number of sample units which must be examined from a lot of food

c means the maximum allowable number of defective sample units

m means the acceptable microbiological level in a sample unit

M means the level when exceeded in one or more samples which would cause the lot to be rejected.

Table 8: Food Standards Code (Standard 1.4.1) limits for heavy metals in muscle meat

Metal	Limit
Arsenic (inorganic)	1 mg/kg
Cadmium	2 mg/kg
Lead	2 mg/kg
Mercury	0.5 mg/kg

Communication of laboratory results

All laboratory results must be emailed directly by the laboratory to the Harvest area coordinator and Fisheries

A copy of all laboratory submission forms must be retained by the Harvest area coordinator.

Harvest area coordination

Table 9 Pre-harvest responsibilities

Task	Responsibility		
	Harvest area coordinator	Licensee	Fisheries
Prepare and provide a sampling plan to Fisheries prior to the start of each harvesting year	Yes		Review sampling plan
Check rainfall each day for the Harvest area (from the rain station specified in Table 4) prior to harvesting to ensure rainfall triggers not breached	Yes	Yes	Monitor
Immediately advise relevant farmers and Fisheries by email of each closure or opening of the Harvest area	Yes	Yes	Monitor
Maintain a record of the times and dates of each closing and opening and reasons	Yes	Yes	Yes
Arrange for or undertake sampling on the dates specified in the sampling plan (weather permitting)	Yes		
After taking account of other factors including weather conditions, human health and safety, and time for processing of samples by the laboratories, where sampling has not been undertaken as planned in the submitted sampling plan Fisheries will notify licence holders of harvest area closure and PrimeSafe for follow up.			Yes
Arrange for all laboratories and algal lab to email sampling results to Fisheries	Yes		
Review and record all laboratory results, number and timing against sampling plan for each harvest area and notify PrimeSafe of any non-compliances (weather permitting).			Yes
Maintain all laboratory analysis results on file for three years	Yes		Yes
Prepare an annual report for the Harvest area using the annual report template in Appendix 2 that summarises closures/openings, laboratory results for the year and the shoreline survey and actions required and submit to Fisheries within three months of the end of the harvesting year	Yes		Review and endorse

Prepare triennial report every three years using the triennial report template in Appendix 3 and submit to Fisheries within three months of the end of the harvesting year.	Yes		Review and endorse
Provide a copy of all records and reports to farmers and email to Fisheries	Yes		Review
Be auditable in respect of these tasks by the Authority or its nominated auditor	Yes	Yes	
Only harvest product that is safe to eat		Yes	

Shell Fish Labelling:

The following requirements must be met for labelling of harvested shellfish:

- Bags or containers of shellstock are identified with a durable tag or label that is affixed to the exterior of the bag or within the container.
- Each bag or container of shellstock is tagged or labelled at the time of filling. If the shellfish are harvested at more than one location, each bag or container is tagged or labelled at the harvest area. If only harvesting from one harvest area per voyage then shellstock can be labelled at the farm's processing facility.
- The tag or label remains affixed to each bag or container of shellstock until the bag or container is emptied.
- The tag or label contains the following legible information:
 - a) the name of the grower/harvester;
 - b) the name of the harvest area;
 - c) the date of harvest; the type and quantity of shellstock; and
 - d) any other information required by the Authority.
- If the shellstock are removed from the original bag or container for washing, grading, sorting or other processing, the processor must:
 - a) keep a record of the identification tag or label for a minimum period of 90 days; and
 - b) maintain the lot identity of all shellstock during the processing.
- During any intermediate stage of processing each lot of shellstock is separated and identified in a way that prevents mixing or misidentification.

Product recalls

Where a breach of any of the requirements for harvesting and processing bivalve shellfish for human consumption which may pose a threat to public health (e.g. high biotoxin levels, presence of pathogenic bacteria or metal contaminants), the matter is referred to the Victorian Department of Health and Human Services (DHHS) for consideration such as a withdrawal or recall of affected product.

If an aetiologically – confirmed outbreak is demonstrated to implicate an approved harvest area or areas then:

- The harvest area is promptly placed in a closed status and kept in that status until its correct classification is determined using current data. Fisheries and PrimeSafe will advise the harvest coordinator and licensee
- Any remaining shellfish is detained and PrimeSafe notifies DHHS
- DHHS determines whether product is withdrawn or recalled based on data provided by PrimeSafe
- DHHS will send notification to Food Standards Australia New Zealand

Appendix 1: Laboratory request form

VICTORIAN SHELLFISH MANUAL SAMPLING DATA SHEET AND LABORATORY REQUEST FORM - ENVIRONMENTAL SAMPLES

Harvest Area: _____
 Report Results To: _____ Phone: _____ Fax: _____
 Copy Results & This Form To: VSM Coordinator Phone: 03- _____ Fax: 03 - _____

 Routine Sample Event Sample - Event Type _____
 Comments: _____

Rainfall recorded during the previous period (mm)

0 - 24 hours	24 - 48 hours	48 -72 hours	Total for previous week

SAMPLE DETAILS

Indicate sample type and testing required – ONE request form per species AND per test method

SHELLFISH

- | | |
|---|--|
| <input type="checkbox"/> Shellfish | <input type="checkbox"/> <i>E. coli</i> MPN |
| <input type="checkbox"/> Native Oyster | Biotoxin |
| <input type="checkbox"/> Scallop | <input type="checkbox"/> ASP, <input type="checkbox"/> DSP, <input type="checkbox"/> NSP, <input type="checkbox"/> PSP |
| <input type="checkbox"/> Pipi | |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other (Specify |
| Test) _____ | |

OR

WATER

- | | |
|---|-------------------|
| <input type="checkbox"/> Faecal coliform MF [AS 4276.7] | Invoice to: _____ |
| <input type="checkbox"/> Phytoplankton - full count (quantitative, hose pipe) | High Tide: _____ |
| <input type="checkbox"/> Phytoplankton – scan (qualitative, net tow) | Low Tide : _____ |
| <input type="checkbox"/> Other (Specify Test) _____ | |

Harvesting area	Site No°	Date	Time	Salinity	Temp (°C)	Tide	Comment (e.g. local activities & prevailing weather)

SAMPLER DETAILS

Name: _____ Harvest area coordinator: _____ Date: _____
 Signature*: _____

* I certify that correct sample collection procedures have been followed and all details recorded above are accurate.

Appendix 2: Template for annual reporting of shellfish Harvest areas

Introduction

- Harvesting area(s) covered by this report:
.....Aquaculture Fisheries Reserve
- Period covered by this report:
- Date of original sanitary survey:

Description of Harvesting area

- A map has been attached to this report that shows:
 - i) the boundaries of the growing and Harvesting area(s);
 - ii) the locations of the aquaculture sites within the area; and
 - iii) the location of all sampling stations.
- There were no changes to the area boundaries during the review period:

Sanitary survey update

Relevant changes to the catchment area during the period:

- i) Improvements:
- ii) Significant events:
- iii) Other comments:

Closures

List the opening and closing dates of all Harvest area closures during the period, the reason for each closure and any other relevant comments.

Changes to licensed sites:

Additional sites licensed in the Harvest area during the period:

Sites in the Harvest area where the lease and license have ceased during the period:

Total number of sites in the Harvesting area:

Area covered by all sites in the Harvesting area:

Test and sampling procedures

All sampling was undertaken in accordance with the processes described in the *Victorian Shellfish Quality Assurance Program* or name other procedures.

Sampling site(s)

Were there any changes to the sampling site(s) compared with the previous period?

Microbiological results

Provide the microbiology data and a summary of the results.

Chemical results

Provide the chemical data and a summary of the results.

Biotoxin results

Provide a table of all biotoxin data for the period and a summary of the results.

Phytoplankton results

Provide the phytoplankton data and a summary of the results.

Conclusion

Provide a conclusion that includes:

- i) Significant changes to sanitary survey report;
- ii) The result of reviewing the data that includes:
 - (1) whether a review of the classification of the Harvest area is required;
 - (2) a review of the sampling frequencies;
 - (3) a review of the need to sample to confirm the efficacy of rainfall triggers.
(Note it is recommended that rainfall triggers be reconfirmed every three years by using the same adverse event sampling required for year 1).
- iii) Proposed sampling plan for the next twelve months.
- iv) Next reporting date.

Map of area showing sampling site(s)

Attach map of Harvest area that shows the location of sampling site(s).

Appendix 3: Template for triennial reporting of shellfish Harvest areas

If export accreditation is required a triennial report must be prepared every third year that complies with the Export Standards.

Introduction

- Harvesting area(s) covered by this report:
.....Aquaculture Fisheries Reserve
- Period covered by this report:
- Date of original sanitary survey:
- Date of last triennial report:

Description of Harvesting area

- A map has been attached to this report that shows:
 - i) the boundaries of the growing and Harvesting area(s);
 - ii) the locations of the aquaculture sites within the area; and
 - iii) the location of all sampling stations.
- There were no changes to the area boundaries during the review period:

Sanitary survey

- i) Statistical analysis and review of the water quality samples collected since the area was given the current classification or the area was previously reviewed, whichever is the lesser;
- ii) An investigation of all pollution sources necessary to fully evaluate any changes in the sanitary conditions of the Harvesting area;
- iii) analysis of the sanitary survey data and a determination that the existing Harvest area classification is correct or needs to be revised;
- iv) immediate revision of the classification category for harvest areas which do not comply with the requirements of the current Harvest area classification.

Closures

List the opening and closing dates of all Harvest area closures during the period, the reason for each closure and any other relevant comments.

Changes to licensed sites:

Additional sites licensed in the Harvest area during the period:

Sites in the Harvest area where the lease and license have ceased during the period:

Total number of sites in the Harvesting area:

Area covered by all sites in the Harvesting area:

Test and sampling procedures

All sampling was undertaken in accordance with the processes described in *Victorian Shellfish Quality Assurance Program* or name other procedures.

Sampling site(s)

Were there any changes to the sampling site(s) compared with the previous period?

Microbiological results

Provide the microbiology data and a summary of the results.

Chemical results

Provide the chemical data and a summary of the results.

Biotoxin results

Provide a table of all biotoxin data for the triennial period and a summary of the results.

Phytoplankton results

Provide a table of all phytoplankton data for the triennial period and a summary of the results..

Conclusion

Provide a conclusion that includes:

- i) Significant changes to sanitary survey report;
- ii) The result of reviewing the data that includes:
 - (1) whether a review of the classification of the Harvest area is required;
 - (2) a review of the sampling frequencies;
 - (3) a review of the need to sample to confirm the efficacy of rainfall triggers.
(Note it is recommended that rainfall triggers be reconfirmed every three years by using the same adverse event sampling required for year 1).
- iii) Proposed sampling plan for the next twelve months.
- iv) Next reporting date.

Map of area showing sampling site(s)

Attach map of Harvest area that shows the location of sampling site(s).