

Victorian Shellfish Quality Assurance Program Manual

**Version 2.5
December 2025**

OFFICIAL

This publication may be of assistance to you but the author and the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Whilst every effort has been made to ensure the information contained in this document is accurate at the time of writing it cannot be guaranteed that the information will be appropriate for your purposes nor remain appropriate or accurate. This document cannot be used in a court of law. Laws change from time to time. It is your responsibility to ensure you are acting within the law. If you are in doubt, seek independent legal advice.

Amendment log

| Date | Version no. | Editor | Changes |
|-----------|-------------|-----------------|--|
| 9/12/2025 | 2.5 | Tim Lewis - VFA | Surveillance Plan and amendment log inserted Mount Martha rainfall station update Bacteria sampling method update Administrative updates: formatting, definitions, email list, species names, approved samplers |

Contents

| | |
|---|----|
| Foreword | 3 |
| Definitions | 4 |
| Purpose of the Victorian Shellfish Quality Assurance Program | 6 |
| Classification of shellfish Harvest areas | 6 |
| Administration of each enterprise | 7 |
| Maintaining the classification status | 8 |
| Harvesting control | 10 |
| Communication of laboratory results..... | 18 |
| Harvest area coordination..... | 19 |
| Shellfish Labelling: | 21 |
| Appendix 1: Template for laboratory request form | 22 |
| Appendix 2: Template for annual reporting of shellfish Harvest areas | 23 |
| Appendix 3: Template for triennial reporting of shellfish Harvest areas | 25 |
| Appendix 4: Sampling Officers | 27 |

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 2024* 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, 2022).

Definitions

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

Adverse pollution conditions means a state or situation caused by meteorological, hydrological or seasonal events or point source discharges that has historically resulted in elevated thermotolerant coliform or total coliform levels in a particular harvest area. Examples may include unusual climatic conditions, rain after long dry periods, unusually hot temperatures, consecutive days of light rainfall, heavy rainfall, tidal effects, salinity and wind effects

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 Victorian Fisheries Authority and or PrimeSafe.

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.

DA means Department of Agriculture

DSP means diarrhetic 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)

Systematic Random Sampling (SRS) Strategy means a water sampling program, designed to be undertaken on a systematic randomised basis, to assess the effects of pollution events that may occur in growing areas that are affected only randomly or by intermittent pollution events and are not impacted by discharges from sewage treatment plants or combined sewer overflows.

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 Harvest 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 are specified in the ASQAP Manual.

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

| <u>Harvest area</u> | <u>Water body</u> | <u>Classification</u> | <u>Export</u> |
|---------------------|-------------------|------------------------|---------------------|
| Clifton Springs | Port Phillip Bay | Approved | Approved for export |
| Grassy Point | | Approved | Approved for export |
| Mount Martha | | Conditionally approved | Approved for export |
| Pinnacle Channel | | Approved | Approved for export |
| Dromana | | Conditionally approved | NA |
| Flinders | Western Port | Conditionally approved | NA |
| Discovery Bay Pipi | Coastal | Closed/Inactive | NA |
| Noble Rocks | Coastal | Closed/Inactive | 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 controlling 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 Harvest area |
|--|---|---|
| <i>Bacterial testing of harvesting waters</i> | | |
| Thermotolerant coliforms (Faecal) | Membrane Filtration method - Australian Standard 4276.7 (2007) | <p><i>Systematic random sampling strategy:</i> For areas classified as 'Approved' 6 samples per year using this strategy required to maintain the classification</p> <p><i>Adverse pollution conditions sampling strategy:</i> For areas classified as 'Conditionally Approved' 5 samples taken using this strategy required to maintain the classification. See ASQAP Manual 5.2</p> |
| <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) taken in combination with <i>Bacterial testing of harvesting waters</i> |
| <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 | Fortnightly at each Harvest 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) |

OFFICIAL

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.

Note 2 - While closed to harvesting, Harvest areas that are subject to 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 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 Biotoxin 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, Fisheries and PrimeSafe in accordance with the procedures set out in the food safety program.

Fisheries will notify DAFF.

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 and PrimeSafe; and Fisheries will notify DAFF.
- 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).

OFFICIAL

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: vsqap@vfa.vic.gov.au

Cc: info@primesafe.vic.gov.au
david.kramer@vfa.vic.gov.au
katherine.ingold@vfa.vic.gov.au
tim.lewis@vfa.vic.gov.au

Fisheries will notify DA 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 based on 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 based on 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 Biotoxin Management Plan.

When the Harvest area is re-opened, the date, time and reason for opening are communicated at the earliest opportunity by the Harvest area coordinator to the Licensees, Fisheries and PrimeSafe in accordance with the procedures set out in the food safety program.

OFFICIAL

For areas approved for export on re-opening the Harvest area coordinator must email the following details to Fisheries 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, 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: vsqap@vfa.vic.gov.au

cc: info@primesafe.vic.gov.au
david.kramer@vfa.vic.gov.au
katherine.ingold@vfa.vic.gov.au
tim.lewis@vfa.vic.gov.au

Fisheries will notify DAFF 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
dairyeggfish@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, either hard copy or electronic, 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 Biotoxin 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 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. |

OFFICIAL

| | |
|--|---|
| 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 level. |

Table 4: Rainfall triggers for applicable Harvest areas

| Harvest Area | Rain Station | 24 Hour Rainfall (mm) | Minimum Closure Period | 48 Hour Rainfall (mm) | Minimum Closure Period | Contingency Station | Data Source |
|------------------|---|-----------------------|-----------------------------|-----------------------|-----------------------------|-------------------------|---|
| Clifton Springs | Geelong Racecourse AWS | 45 | Open on tissue test results | 65 | Open on tissue test results | Avalon AWS | BOM Geelong Racecourse BOM Avalon |
| Grassy Point | Geelong Racecourse AWS | 45 | Open on tissue test results | 65 | Open on tissue test results | Avalon AWS | BOM Geelong Racecourse BOM Avalon |
| Dromana | Rosebud | 16 | 2 days | 16 | 1 day | Frankston (Ballam Park) | BOM Rosebud (Country club) BOM Frankston - Ballam Park |
| Mount Martha | Frankston (Ballam Park) | 30 | 2 days | 33 | 2 days | Mornington Yacht club | BOM Frankston - Ballam Park Mornington yacht club |
| | | 39 | 3 days | | | | |
| Pinnacle Channel | Closure instigated on extreme rainfall event, and open on tissue test results | | | | | | |
| Flinders | Cerberus | 24 | 2 days | 27 | 2 days | Rhyll AWS | BOM Cerberus BOM Rhyll |
| | | 33 | 3 days | | | | |

Note: A 24-hour rainfall trigger is exceeded when rainfall exceeds the trigger level within the previous 24-hour period. Closures of Harvest 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

| Phytoplankton trigger (cells/L) | | | | | |
|--|--------------------|--|----------------|---|--|
| Alga/algal group | Toxin | Definitive identification & warning to growers | Tissue testing | Harvest suspension pending toxin analysis | Harvest resumption |
| Bacillariophyceae | | | | | |
| <i>**Pseudo-nitzschia</i> spp. (<i>pseudodelicatissima</i> group) | ASP (domoic acid) | 100,000 | 300,000 | 500,000 | Refer Table 3 |
| <i>Pseudo-nitzschia</i> spp. <i>australis pungens</i> & <i>multiseries</i> (in <i>seriata</i> group) | ASP | 100,000 | 100,000 | 300,000 | Refer Table 3 |
| <i>Rhizosolenia amaralis</i> (<i>imbricata</i> group) | Bitter Taste | 10,000 | N/A | 20,000 Level 2 Warning | Harvesting suspended/resumed by growers depending on taste of shellfish. |
| Dinophyceae | | | | | |
| <i>Alexandrium pacificum</i> | PSP | 200 | 200 | 500 | Refer Table 3 |
| <i>Alexandrium minutum</i> | PSP | 200 | 200 | 500 | Refer Table 3 |
| <i>Alexandrium catanella</i> | PSP | 200 | 200 | 500 | Refer Table 3 |
| <i>Alexandrium australiense</i> | PSP (some strains) | 200 | 200 | 500 | Refer Table 3 |
| <i>Alexandrium</i> spp. (if unknown or in doubt) (<i>A.pseudogonyaulax</i> , <i>A.margalefii</i> and <i>A.insuetum</i> not known to be toxic in Aus waters) | 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 |

| Phytoplankton trigger (cells/L) | | | | | |
|--|----------------------------|---|----------------|--|--------------------|
| Alga/algal group | Toxin | Definitive identification & warning to growers | Tissue testing | Harvest suspension pending toxin analysis | Harvest resumption |
| <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> , <i>K. cristata</i> (Not currently recorded in Aust) | NSP Brevetoxin (BTX) | 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> <i>Karlodinium micrum</i> , <i>Gymnodinium impudicum</i> | ?NSP | 100,000 | 250,000 | 300,000 | Refer Table 3 |
| <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 *Pseudo-nitzschia* 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) | 0.16 mg/kg |
| Paralytic shellfish poisons (Saxitoxin 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 tissue 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)

| 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 to Fisheries at VSQAP@vfa.vic.gov.au.

A copy, either hard copy or electronic, 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 considering weather, health & safety, and lab processing time, where sampling has not been undertaken as planned, 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 (Appendix 2 template) summarising closures/openings, laboratory results, shoreline survey, and actions required; submit to within 3 months of the end of the sampling year (March 31) | Review and edit | | Prepare and endorse final |
| Prepare triennial report every three years (Appendix 3 template) within 3 months of the end of the sampling year (March 31) | Review and edit | | Prepare and endorse final |
| Provide a copy of all records and reports to farmers and email to Fisheries | Yes | | |
| 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 | |

Surveillance Plan

A surveillance plan is required to ensure that bivalve shellfish destined for sale are not collected from a closed or prohibited harvesting area; and to meet the requirements of the ASQAP Operations Manual and the Export Standards.

There are no prohibited areas for harvesting in Victoria as all Harvest areas are listed in VSQAP Manual as approved or conditionally approved for export and domestic markets. Any harvesting detected outside of these areas is captured with penalties under the *Fisheries Act 1995* (Vic), with authorised fisheries officers undertaking regular patrols across Port Phillip Bay and Western Port for recreational, commercial and aquaculture activity.

This surveillance plan requires that inspections are undertaken when the Harvest areas are closed and occur at a specified frequency provided in this plan.

Surveillance inspections, which occur only when the harvest area is closed must occur at the following frequencies:

- 30% of the closures at the Clifton Springs, Grassy Point, Mount Martha and Pinnacle Channel Harvest areas, which are all export approved,
- 10% of the closures at the Dromana and Flinders Harvest areas.

Surveillance inspections protocol:

- Surveillance inspections at the Clifton Springs, Grassy Point, Dromana, Flinders and Mount Martha Harvest areas, which are all located close to the coastline will generally be undertaken by shore-based surveillance, Additional surveillance is also possible by at sea inspections or when vessels are berthing to ensure compliance.
- Pinnacle Channel AFR Harvest area surveillance inspections will occur by either boat or note that the vessels are docked at Portarlington/Mornington during closures (Vessel names: **Portarlington** - Spindrift, Feral, Gemini, Valerie, Myti Blue, Johanna, Sarah Anne, Unnamed, Taurus, PMS. **Mornington** – Southern Venture, Sabrina II). If vessels are not at dock, follow up with phone call to vessel operator confirming no harvesting is occurring and or inspection when docking.
- Inspection records are required to include the following information:
 - **Harvest Area / AFR:**
 - **Person/s undertaking inspection:**
 - **Inspection #:**
 - **Date:**
 - **Time:**
 - **Rainfall total or closure reason:**
 - **Closure period:**
 - **Photograph taken:**
 - **Comments:**

Shellfish 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 (DH) 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 DH
- DH determines whether product is withdrawn or recalled based on data provided by PrimeSafe
- DH will send notification to Food Standards Australia New Zealand

Appendix 1: Template for laboratory request form

VSQAP SAMPLING DATA SHEET AND LABORATORY REQUEST FORM - ENVIRONMENTAL SAMPLES

Harvest Area: _____
 Report Results To: _____ Phone: _____ Fax: _____
 Copy Results To: Harvest Area Coordinator Phone: 03- _____ Cc: VSQAP@vfa.vic.gov.au-
 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

☐ *Shellfish*

☐ *E. coli* MPN

☐ *Native Oyster*

Biotoxin

☐ *Scallop*

☐ ASP, ☐ DSP, ☐ NSP, ☐ PSP

☐ *Pipi*

☐ *Other* _____

Test) _____

OR

☐ Other (Specify **WATER**)

Invoice to: _____

☐ Thermotolerant coliforms (Faecal) MF [AS 4276.7]

High Tide: _____

☐ Phytoplankton - full count (quantitative, hose pipe)

Low Tide : _____

☐ Phytoplankton – scan (qualitative, net tow)

☐ Other (Specify Test) _____

| Harvest 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

- Harvest area covered by this report:
- 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 Harvest area;
 - 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 Harvest area:

Area covered by all sites in the Harvest 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

OFFICIAL

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

- Harvest area covered by this report:
- Period covered by this report:
- Date of original sanitary survey:
- Date of last triennial report:

Description of Harvest area

- A map has been attached to this report that shows:
 - i) the boundaries of the growing and Harvest area;
 - 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 Harvest 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 Harvest area:

Area covered by all sites in the Harvest 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).

Appendix 4: Sampling Officers

All sampling officers must have undergone training provided by the Victorian Fisheries Authority or be deemed by Victorian Fisheries Authority to have sufficient experience in the sampling of shellfish for bacteriological, chemical and biotoxin sampling, and water sampling for bacteria and microalgae. Victorian Fisheries Authority will make available training as required and will maintain a list of approved samplers.

Sampling training must be refreshed every five years to ensure samplers maintain their proficiency and stay current with developments in the field.

The following personnel have completed the VSQAP Sampling Training.

| Officer | Date completed |
|------------------|------------------------------|
| Matt Traverna | 19 May 2025 |
| Peter Bold | 19 May 2025 |
| Geoff Newing | 23 August 2024 |
| Michael Harris | 3 July 2019, refresh pending |
| Tyson Hawk | 2 September 2024 |
| Jake Ross | 9 September 2024 |
| Lance Wiffen | 3 July 2019, refresh pending |
| Darren Mahoney | 3 July 2019, refresh pending |
| Grant Jordan | 8 June 2022 |
| Anthony McGrath | 2 May 2023 |
| Craig Ingram | 2 May 2023 |
| Ricky Grech | 2 May 2023 |
| Matt Holland | 2 May 2023 |
| Harley Wanganeen | 4 December 2025 |
| Shakiah Tungai | 4 December 2025 |
| Trey Parsons | 4 December 2025 |
| Tyler Hood | 4 December 2025 |
| Tyrone Hayes | 4 December 2025 |