Boomer Bay

SHELLFISH MARKET ACCESS PROGRAM

Management Plan

ShellMAP

October 2025

Department of Natural Resources and Environment Tasmania

Tasmanian Government

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1 Operation of harvest area

It is the responsibility of each grower to ensure that no triggers for closure have been exceeded and that the harvest area is open prior to commencing harvest.

The closing and opening of a harvest area is the responsibility of the Shellfish Market Access Program (ShellMAP). Harvest area statuses are published online, available via https://nre.tas.gov.au/aquaculture/shellmap.

ShellMAP monitors the food safety risk in harvest areas using several tools, including meteorological and hydrological data in conjunction with sampling programs. Harvest areas will be closed if ShellMAP determines that the risk to public health is outside acceptable levels.

Growers are encouraged to consult with ShellMAP when food safety risk is elevated, or if they would like to know more about what can be done to reduce or manage risk in their area.

2 Growing area management details

BOOMER BAY – ZONE LITTLE	
Classification	Conditionally Approved
Species licenced to harvest	Pacific oyster *(Magallana gigas)*
Lease numbers	123, 271, 272, 273
Harvest area biotoxin risk rating	High
Biotoxin sample frequency	Weekly
Phytoplankton sample frequency	Monthly
Bacteriological sampling strategy	Adverse pollution conditions
Export status	Approved
Vibrio control area	No

BOOMER BAY – ZONE NARROWS	
Classification	Conditionally Approved
Species licenced to harvest	Pacific oysters *(Magallana gigas)* Angasi oysters *(Ostrea angasi)*
Lease numbers	10, 11, 44, 58, 127, 162, 224, 255, 269
Harvest area biotoxin risk rating	High
Biotoxin sample frequency	Weekly
Phytoplankton sample frequency	Monthly

Bacteriological sampling strategy	Adverse pollution conditions
Export status	Approved
Vibrio control area	No

BOOMER BAY – EAST	
Classification	Conditionally Approved
Species harvested	Pacific oysters *(Magallana gigas)*
Lease numbers	10, 96, 127
Harvest area biotoxin risk rating	High
Biotoxin sample frequency	Weekly
Phytoplankton sample frequency	Monthly
Bacteriological sampling strategy	Adverse pollution conditions
Export status	Approved
Vibrio control area	No

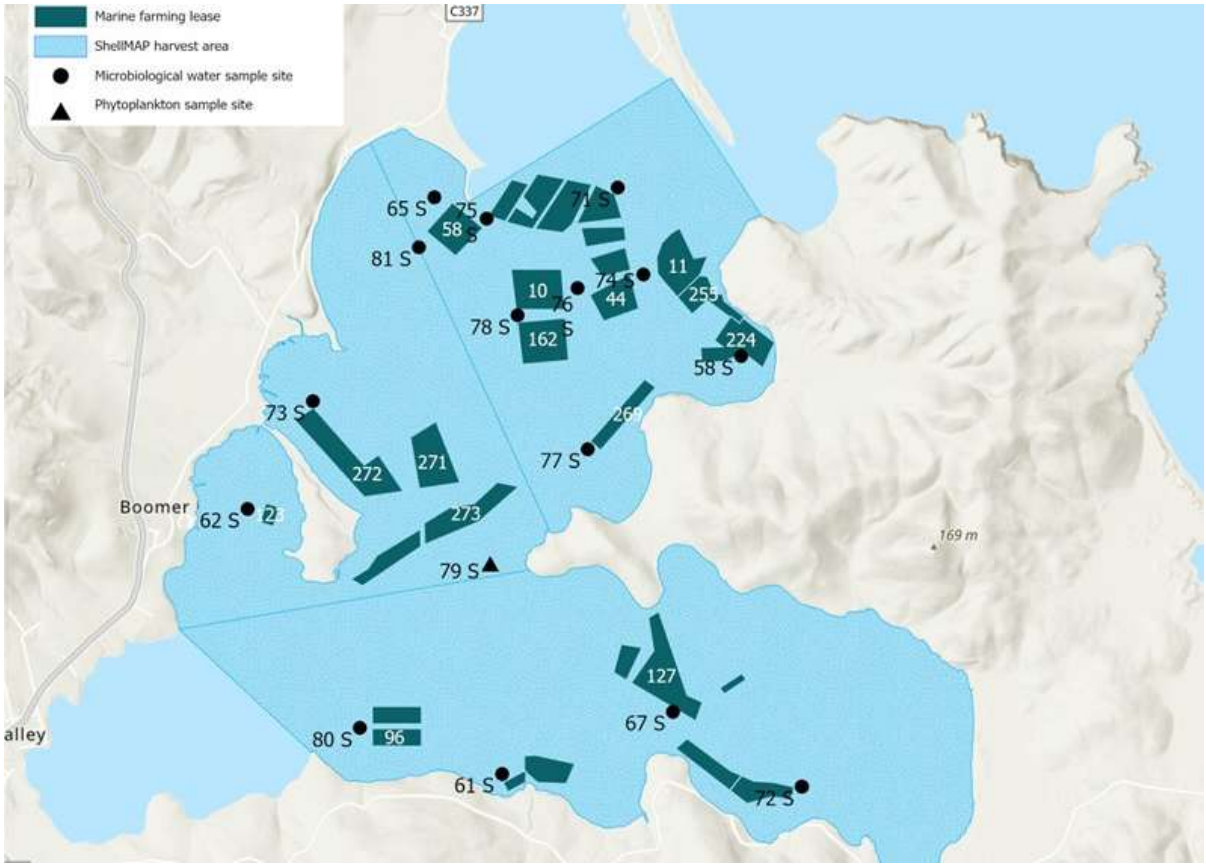

Figure 1. Microbiological and phytoplankton sample locations in Boomer Bay, with marine farming leases and ShellMAP harvest area boundaries.

2.1 Management criteria for temporary harvest closure

Harvest areas with ShellPOINT salinity sensors installed are eligible to be managed using salinity only criteria. The process for harvest area management by ShellMAP utilising salinity-only and combined criteria is outlined in sections 2.1.1 and 2.1.2.

2.1.1 Salinity-only management criteria

Temporary harvest closures may occur due to an exceedance of the salinity-only management criteria, shown in Table 1. Harvest areas will be closed by ShellMAP using salinity from the ShellPOINT sensor network when there is **at least four consecutive values below the salinity only management criteria.**

Table 1. Salinity-only management criteria for temporary harvest closure.

HARVEST AREA	SALINITY SENSOR	SALINITY-ONLY (‰)
Zone Little	-	-
Zone Narrows	Boomer Bay Narrows1 Boomer Bay Narrows3	<27 <27
East	Boomer Bay East	<29

Following a salinity-only closure based on the ShellPOINT sensor network, harvest areas must demonstrate that environmental conditions meet the requirements of their Mangement Plan and are no longer being significantly impacted by the adverse pollution event to reopen. To ensure environmental conditions are suitable for re-opening, 48 hours of satisfactory salinity values must be recieved from the relevant ShellPOINT salinity sensor for the harvest area.

T0 for re-opening is calculated from the first value above the salinity only management criteria. If the sensor observes **four consecutive values below the salinity only management criteria** within the 48 hour period, the excedence will trigger a new closure event requiring a new T0 to be calculated from the first salinity value above the salinity-only management criteria.

In the event that a harvest area is unable to be managed using the ShellPOINT sensor network, microbiological risks of the harvest area will be managed using the combined environmental management criteria (see section 2.12). A salinity sensor may be considered unsuitable for management if: A) The sensor has exceeded its 90-day service period, B) The sensor shows abrupt or unusual salinity values indicative of malfunction, or C) The sensor is no longer consistently providing representative data.

2.1.2 Combined environmental management criteria

Temporary harvest closures may occur due to exceedance in the combined environmental management criteria, shown in Table 2.

Rainfall Stations: *Dunalley (Stroud Point)*; *94254*

Table 2. Combined environmental management criteria for temporary harvest closure.

HARVEST AREA	SALINITY (‰)	3-DAY RAINFALL (MM)	7-DAY RAINFALL (MM)
Zone Little	<27	≥35	≥60
Zone Narrows	<27	≥35	≥60
East	<29	≥30	≥60

To open a harvest area following an environmental closure:

- all environmental conditions outline in Table 2 must be satisfied; and
- 48 hours of satisfactory salinity at low tide must be demonstrated; and
- rainfall has either ceased or daily rainfall is less than 10 % of 7-day rainfall criteria (following rainfall closures only)

To demonstrate satisfactory salinity, shellfish growers are required to collect three salinity measurements (T_0, T_1, T_2) within the harvest area over 48 hours. All three measurements must be above the salinity criteria shown in Table 2, and each measurement must occur during low tide. Salinity measurements must be taken from representative locations in the harvest area. The relevant riverflow and rainfall cirteria must be satisfied through the duration of the 48 hrs.

Shellfish growers should submit their salinity measurements by emailing shellmap@nre.tas.gov.au with the email subject 'Growing area name – opening salinities' and the email body including the information in template below, see Table 3.

Table 3. Template of required salinity information for opening for each harvest area following environmental closures.

#	Sampling officer	Time taken	Date taken	Source (Growing area, harvest area, lease number)	Tide	Salinity (‰)
	e.g. John Smith	*09:55*	*15/6/18*	*Big Bay, Zone B, Lease 10*	*Low*	*30*
1 (T_{0hrs})						
2 (T_{24hrs})						
3 (T_{48hrs})						

Alternatively, harvest areas may be opened if shellfish growers can demonstrate low levels of *E. coli* in the shellfish meats. If you would like to open a harvest area using shellfish meat samples, please contact ShellMAP to arrange a sampling plan. See Section *2.5 Shellfish meats (E. coli)* for further information.

Microorganisms

Allowing time to purge

Following temporary environmental harvest area closure, a time buffer of 48 hours is required to ensure that a catchment area has flushed, and that shellfish have purged any contaminants that may have accumulated.

IMPORTANT: Viruses, such as norovirus, can persist in the tissues of bivalve shellfish long after bacterial indicators of pollution are detectable. For this reason, harvest areas must remain closed for a period of 21 days following the cessation of a sewage spill that has likely impacted a harvest area.

2.2 Biotoxin and phytoplankton sampling

The testing of shellfish meats for biotoxins, and monitoring of water for potentially toxic phytoplankton, is undertaken to control biotoxin risk in Tasmania. The frequency of testing is dependent on the growing area's risk rating.

The biotoxin sampling schedule is distributed at the start of each calendar year.

Any unusual results may mean that ShellMAP requests additional submissions, with costs covered by ShellMAP.

Table 1. Biotoxin and phytoplankton sampling frequency requirements.

Sample	Frequency	Sample Location
Shellfish - Biotoxin (one dozen)	Weekly	Representative of stock being harvested
Water – Phytoplankton Counts	Monthly	Algal Sample Site

When biotoxins are detected in shellfish exceeding the regulatory limits in *Table 2*, ShellMAP will close the growing area. In some cases, closures may be backdated to the last passing sample. When phytoplankton are detected in the water exceeding the regulatory limits in *Table 2*, ShellMAP will close the growing area, pending a passing biotoxin result. Growers will also be advised when counts of toxic phytoplankton species are elevated.

Further information on biotoxin management is available online via www.nre.tas.gov.au.

Table 2. Biotoxin and phytoplankton regulatory limits.

Toxin	Regulatory Limit
Amnesic Shellfish Toxin (AST)	20 mg/kg
Diarrhetic Shellfish Toxin (DST)	0.2 mg/kg
Paralytic Shellfish Toxin (PST)	0.8 mg/kg

Neurotoxic Shellfish Toxin (NST)	0.8 mg/kg (200 MU/kg)
Phytoplankton – *Alexandrium spp.*	500 cells/L
Phytoplankton – *Gymnodinium catenatum*	5000 cells/L
Phytoplankton – *Dinophysis spp.*	1000 cells/L (Alert Level)
Phytoplankton – *Prorocentrum lima*	500 cells/L (Alert Level)
Phytoplankton – *Pseudo-nitzschia seriata* group and *Pseudo-nitzschia delicatissima* group	500,000 cells/L
Phytoplankton – *Karenia brevis*	5,000 cells/L
Phytoplankton – *Karenia / Karlodinium / Gymnodinium group*	300,000 cells/L

Tetrodotoxins (TTXs) are a group of potent neurotoxins with a similar action and potency to PSTs and with a similar acute toxicity to saxitoxin.

Although TTX is found in bivalves it is not regulated due to uncertainty around the sources and mechanism of TTX in bivalve molluscs. The European Food Safety Authority has proposed a TTX safety limit of 0.044mg/kg. New Zealand has demonstrated that shellfish containing PST below regulatory limits could be found to be above saxitoxin equivalents when TTX is included.

Analytical Services Tasmania will report TTX separately. TTX is considered a cumulative total for saxitoxin with an equivalence of one e.g. if PST result is 0.5 mg/kg and TTX is 0.3 mg/kg then an area can be closed based on a saxitoxin equivalent of 0.8 mg/kg. In this way TTX levels may be used to regulate closure for PST toxins. To date the levels of TTX reported in bivalve molluscs are generally low, however growers need to be aware that TTX may be regulated in the future.

Biotoxin Recalls

If a biotoxin result exceeds the regulatory limit, preparations should be made in case a recall is required. In the event of a recall growers will be contacted by the Primary Produce Safety Program:

Primary Produce Safety Program

Ph: 03 6165 3777

E-mail: foodsafety.enquiries@nre.tas.gov.au

2.3 Re-opening after biotoxin closure

After closure due to biotoxin contamination, two successive shellfish samples must be collected to determine that shellfish are safe. These samples must be collected at least 7 days apart to allow enough time for the algal bloom to subside and to demonstrate that biotoxins in the shellfish are consistently below the regulatory limits. The second sample must be collected at least 7 days after the first passing sample.

If you have any technical questions regarding biotoxin testing or are not receiving your biotoxin results from Analytical Services Tasmania please contact:

Ph: 03 6165 3300 E-mail: enquiries@ast.tas.gov.au

Biotoxins

Allowing Time to Purge

Algal bloom dynamics are complex and difficult to predict. To account for this, following a sample above regulatory limits, time must be allowed for the bloom to subside and for the shellfish to eliminate any accumulated toxins.

IMPORTANT: After closure due to biotoxin contamination, to determine that shellfish are safe, two successive shellfish samples must be collected. These samples must be collected at least 7 days apart to allow enough time to pass for the algal bloom to subside and to demonstrate that biotoxins in the shellfish are consistently below the regulatory limit.

2.4 Shellfish waters (thermotolerant coliforms)

ShellMAP may use results from Adverse Pollution Conditions (APC) sampling to change the status of a harvest area.

The ASQAP requirements for Conditionally Approved passing microbiological water samples are:

- No more than 10% of water samples exceed 21 CFU/100ml
- Median must not exceed 14 CFU/100ml

If water samples taken as part of routine APC water sampling show elevated levels of thermotolerant coliforms a closure would generally be enacted only if a large proportion of the samples are showing failing results and/or samples are showing high level failures (above 70). In these situations, ShellMAP will check sampling sites and may request additional information (including salinities) from growers. Primary Produce Safety Program will also assess the information.

Note that the Public Health Laboratory does not count beyond 100 colonies on a plate. These results are reported as >100 CFU/100 mL and they are high level failures indicating polluted water.

2.4.1 Re-opening after failed thermotolerant coliform results

If routine or APC sampling results in closure, the harvest area may be re-opened 48 hours after the sample was taken, provided all other management criteria (i.e. river flow, rainfall and salinity) are met.

2.5 Shellfish meats (*E. coli*)

Meat samples are generally used for re-opening after sewage spills. ShellMAP may also request meat samples if there are ongoing pollution concerns.

- If five dozen unshucked shellfish are submitted, the regulatory limit is one sample over 2.3 CFU/g but none over 7 CFU/g (FSANZ Schedule 27).
- If only one dozen unshucked shellfish are submitted, the regulatory limit is 2.3 CFU/g.

Five dozen shellfish is the FSANZ standard and the standard ShellMAP requirement. If one dozen shellfish are submitted, ShellMAP will consider the circumstances under which the sample was submitted to allow re-opening. There may be times when one dozen shellfish are not acceptable.

Note that *any* shellfish sample above the regulatory limit will be reported to the Primary Produce Safety Program (not ShellMAP) by the Public Health Laboratory as standard protocol. It is important to clearly label meat samples that you may be testing for your own purposes (e.g. trials) so that there is no confusion about this being a ShellMAP requested sample.

ShellMAP samples will be requested in writing.

2.6 Sewage spill closures

TasWater will contact growers and ShellMAP when a spill has occurred, or is about to occur, in a shellfish zone.

ShellMAP assesses this spill after communicating with TasWater regarding the volume and duration of the spill and the type of effluent involved (treated or untreated). ShellMAP will action a closure if necessary, or a precautionary closure if more time is needed to assess the risk to the harvest area. Closures will be communicated to growers through our usual process.

If a closure is not deemed necessary by ShellMAP following investigation, ShellMAP will notify growers via text to advise that a closure will not be actioned.

If growers have received an alert from TasWater advising of a sewage spill that may impact a harvest area, it is advisable that harvest be suspended pending further advice from ShellMAP.

2.7 Re-opening after sewage spill

Viruses such as Norovirus can persist in the tissues of bivalves long after bacterial indicators of pollution are detectable. For this reason, harvest areas must remain closed for a period of 21 days following the cessation of a sewage spill that is assessed to have the potential to impact the harvest area.

2.7.1 Re-opening with *E. coli* test results

When using *E. coli* samples to re-open a harvest area following a sewage spill, the following conditions must be met:

- Not open within the 21 days following the cessation of the spill
- Submit samples of unshucked shellfish to the Public Health Laboratory for *E. coli* testing at least 14 days after the spill has ceased

For any samples collected after 21 days the harvest area will be open from the time the acceptable sample was taken.

The cost of testing shellfish meat samples following a sewage spill will be borne by ShellMAP.

2.7.2 Re-opening with bacteriophage test results

Alternatively to *E. coli* only testing, bacteriophage testing can be used to open a harvest area prior to the 21-day compulsory closure period. To re-open a harvest area following a sewage spill using bacteriophage test results, the following conditions must be met:

- Submit samples of shellfish according to lab specifications (Oysters Tasmania to facilitate) for both bacteriophage and *E. coli* testing at least 7 days after the spill has ceased

For any samples collected after 21 days the harvest area will be open from the time the acceptable sample was taken.

The cost of testing shellfish meat samples following a sewage spill will be borne by ShellMAP.

2.8 Re-opening after a Vibrio detection

Any re-opening following a detection of *Vibrio spp*. in shellfish must occur in consultation with the Primary Produce Safety Program.

Primary Produce Safety Program

Ph: 03 6165 3777

E-mail: foodsafety.enquiries@nre.tas.gov.au

Testing is conducted by the Public Health Laboratory.

2.9 Re-opening following prolonged closure

A prolonged closure is generally considered to be 6 months or longer. Please contact ShellMAP to discuss your re-opening after a prolonged closure as specific conditions may apply, allowing for any changes in the growing area catchment.

Following the prolonged closure of a harvest area it is important to establish the current risk levels prior to re-opening. ShellMAP will require the following:

1. All environmental management criteria must be within acceptable limits.

2. Growers are to provide three acceptable measures of salinity over 48 hours.

3. Two biotoxin samples must be submitted 7 days apart and results below regulatory limits.

4. One phytoplankton sample must be submitted, with results below regulatory limits.

ShellMAP may also request a sample of unshucked shellfish submitted to the Public Health Laboratory for *E. coli* testing. The cost will be covered by ShellMAP.

3 Relay

Relay of stock from closed or restricted harvest areas for natural depuration is allowed **only** with a current relay authorisation from ShellMAP. Where relay authorisations are in place, the closure type of the harvest area may impact on minimum holding periods, particularly if the closure is due to sewage or biotoxins.

It is the responsibility of the relay authorisation holder to inform the receiving business of any relevant minimum holding periods.

Please note: POMS permits must be sought and received before a relay authorisation will be issued and before any shellfish or equipment is moved between growing areas, regardless of harvest area status.

Relaying From	Authorisation Required From ShellMAP	Minimum Holding Period Post Relay
Unclassified Areas (Under Certain Conditions)	Yes	60 days*
Restricted or Conditionally Restricted Areas	Yes	14 days
Restricted or Conditionally Restricted Areas that have exceeded thermotolerant coliform water results	Yes	21 days**
Conditionally Restricted Areas that have exceeded environmental criteria	Yes	21 days**
Conditionally Approved or Approved Areas in Closed Status	Yes	14 days
Any Permitted Harvest Area Closed Due to Sewage Contamination	Yes	21 days
Any Permitted Harvest Area Closed Due to Biotoxins	Yes	60 days***

*Additional testing may be required at the cost of the business and all necessary wild fisheries/marine farming permissions must be obtained.

**Relay times for Restricted or Conditionally Restricted Areas that have exceeded thermotolerant coliform water results, or Conditionally Restricted Areas that have exceeded environmental criteria, may resume to 14 days following 48 hours of acceptable salinity at low tide. Stock relayed before the 48-hour period is subject to the 21 day extended relay condition.

*** Biotoxin relay times may be reduced to 14 days following two biotoxin results from samples of relayed stock collected at least 7 days apart to be within limits set out in the Food Standards Code. If biotoxin samples from relayed stock are not submitted, a minimum 60 day holding period is required.

4 Sampling compliance

Sampling schedules are distributed at the beginning of the calendar year. It is your responsibility to ensure that the schedule is adhered to. Non-compliance may result in harvest area closure.

The collection of samples must continue during periods of closure unless discussed with and approved by ShellMAP. Contact ShellMAP if you would like to apply for a temporary exemption from routine sampling.

Please note that if a growing area wishes to enter a voluntary closure period it must be unanimous for all growers in the area. In addition, growers should be aware that a voluntary closure includes the suspension of relay (out) activities as well as direct harvest.

It should also be noted that if you are the designated sampler for a given growing area and you are unable to collect the samples as per the sampling schedule (e.g. holidays), it is your responsibility to arrange an alternate person to collect and submit the sample/s. Please advise ShellMAP of any changes in sampling arrangements.

5 Addendums to management plans

This management plan revokes and replaces all previous management plans and remains in force until revoked in full. Any necessary modifications to the plan will be issued as addendums, which will document the original and revised wording. This approach will enable revisions to subsections of the plan without necessitating a full re-issue of the entire management plan.

Growers are responsible for maintaining the latest version of their management plan as part of their audit records. Growers should contact ShellMAP if they are unsure about any aspects of their management plan.

In the 2023/24 financial year, copies of management plans will made available on NRE Tas website. This will be the reference site for latest version of management plans.

6 ShellMAP contact details

Growers and harvesters are encouraged to consult with ShellMAP when food safety risk is elevated, or if they would like to know more about what can be done to reduce or manage risk in their area.

ShellMAP

Marine Resources
134 Macquarie Street
Hobart TAS 7000
Phone: 03 6165 3771
E-mail: shellmap@nre.tas.gov.au

Tasmanian Government

Department of Natural Resources and Environment Tasmania

www.nre.tas.gov.au