Little Norfolk Bay

SHELLFISH MARKET ACCESS PROGRAM

Management Plan

ShellMAP

September 2025

Department of Natural Resources and Environment Tasmania

Tasmanian Government

Contents

1 Operation of harvest area

It is the responsibility of each grower to ensure that the harvest area is currently under normal relay conditions prior to commencing relay operations.

The extension of relay conditions of a harvest area is the responsibility of the Shellfish Market Access Program (ShellMAP). Harvest area statuses are published online and are 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 have extended relay conditions implemented as per Section 3 if ShellMAP determines that the risk to public health is outside accepted 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

LITTLE NORFOLK BAY HARVEST AREA	
Classification	Restricted
Species harvested	Pacific Oyster (*Magallana gigas*)
Lease numbers	14
Harvest area biotoxin risk rating	High
Biotoxin sample frequency	Fortnightly
Phytoplankton sample frequency	Monthly
Bacteriological sampling strategy	Adverse pollution conditions
Export status	Not Approved
Vibrio control area	No

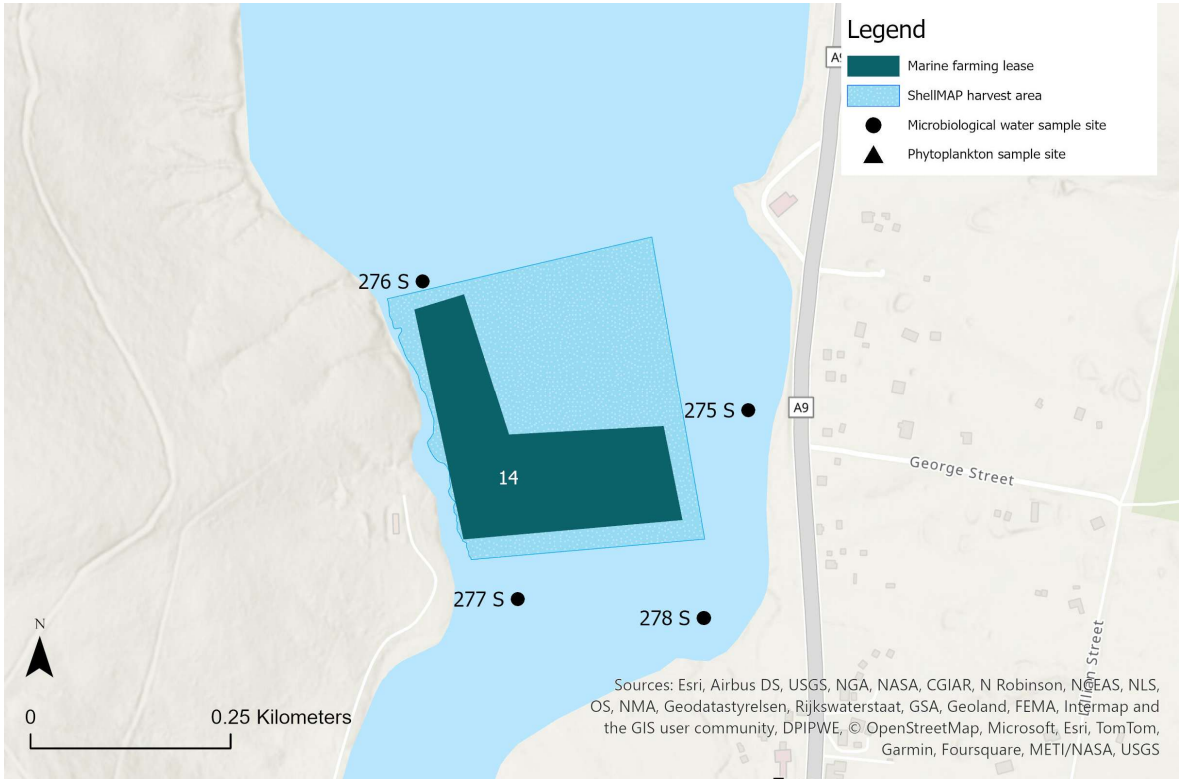

Figure 1. Microbiological sample locations in Gardners Bay, with marine farming leases and ShellMAP harvest area boundaries. Note that the shared phytoplankton sampling site for growing areas within Norfolk Bay is located in the Eaglehawk Bay growing area.

2.1 Environmental management criteria

As Little Norfolk Bay is managed under a Restricted classification, there are no environmental management criteria or closure triggers associated with this harvest area. The growers in Little Norfolk Bay are only able to relay shellfish due to its Restricted classification.

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)	Fortnightly	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 extend the relay conditions of the growing area as per Section 3. In some cases, extended relay conditions may be backdated to the last passing sample. When phytoplankton are detected in the water exceeding the regulatory limits in *Table 2*, ShellMAP will extend the relay conditions of the growing area as per Section 3, 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
Phytoplankton – *Prorocentrum lima*	500 cells/L
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 subject to extended relay conditions based on a saxitoxin equivalent of 0.8 mg/kg. In this way TTX levels may be used to regulate extended relay conditions 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 Resuming normal relay conditions after biotoxin exceedance

After extended relay conditions 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 extended relay conditions 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 Restricted passing shellfish water samples are:

- No more than 10% of water samples exceed 85 CFU/100ml
- Median must not exceed 70 CFU/100ml

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 Resuming normal relay conditions after failed thermotolerant coliform results

If routine or APC sampling results in extended relay conditions, the harvest area may resume normal relay conditions 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 extended relay conditions

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 an extended relay condition as per Section 3 if necessary. Extended relay conditions will be communicated to growers through our usual process.

If an extended relay condition is not deemed necessary by ShellMAP following investigation, ShellMAP will notify growers via text to advise that no further action will be taken.

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.

Microorganisms

Allowing time to purge

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 implement extended relay conditions for a period of 21 days following the cessation of a sewage spill that has likely impacted a harvest area.

2.7 Resuming normal relay conditions 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 implement an extended relay condition of 21 days following the cessation of a sewage spill that is assessed to have the potential to impact the harvest area.

To resume normal relay conditions of a harvest area following a sewage spill, 21 days must have passed.

2.8 Resuming normal relay conditions after a Vibrio detection

Any normal relay conditions 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 extended relay conditions.

The collection of samples must continue during periods of extended relay conditions 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

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

Tasmanian Government

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