



North Western Mussels Limited

Western Waikato Spat/Nursery Farm

Biosecurity Management Plan¹ September 2026 Version 3

This document will be reviewed annually to ensure it remains up to date against biosecurity legislation and best practice in New Zealand aquaculture.

Review Date	Person(s) Involved	Description of Changes / Review
4 August 2025	Rebecca Clarkson	Incorporating feedback from Biosecurity New Zealand
16 September 2026	Rebecca Clarkson	Referencing Biosecurity New Zealand technical guidance document, High Level Biosecurity Management Plans Shellfish

¹ This biosecurity management plan has been prepared using the [A+ Sustainable Management Framework Biosecurity template](#) and Biosecurity New Zealand technical guidance document, [High Level Biosecurity Management Plans Shellfish](#)

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1. Purpose

The [A+ Biosecurity Standards](#) guide the development of Biosecurity Management Plans (BMPs), provide a national approach to marine biosecurity, and identify high risk pathways and potential controls for those risks.

The purpose of this BMP is for North Western Mussels Limited (NWML) to comply with the A+ Biosecurity Standards and relevant conditions of consent XXXX and in doing so, minimise the risk to our growing environment and our businesses from introducing and spreading disease, unwanted marine organisms, or pest species. This BMP also addresses relevant biosecurity requirements of the Biosecurity Act 1993, the Fisheries Act 1996, and the Resource Management Act 1991 (RMA).

Aquaculture New Zealand (AQNZ), who coordinate the A+ Sustainable Management Framework, joined the Government Industry Agreement (GIA) for Biosecurity in 2019. Readiness and response activities relevant to aquaculture are managed under the GIA.

The A+ Biosecurity Standards are reviewed every two years to ensure that industry continues to align with best practice.

For the farm sites covered by this plan, the resource consent conditions relating to biosecurity management are:

Resource consent XXXXX	
Number	Condition
34	The marine farm must be operated in general accordance with the industry best practice as documented in the Aquaculture New Zealand 'A+ Sustainable Management Framework for New Zealand Greenshell Mussels' (A+ Programme) or any successor document. Where a conflict exists between the A+ Programme and the conditions of this resource consent, the conditions prevail.
35	The consent holder must provide an annual certificate of participation under the A+ Programme by 30 September of every year of operation, unless an alternative date is agreed in writing by WRC
56	No wild spat other than spat collected on the marine farm structures must be introduced onto the farm. <i>Advice Note: For clarity, wild stock does not include spat sourced from a hatchery</i>
57	The consent holder must clean and store, for a minimum period of 12-weeks, any used ropes prior to deployment at the farm unless the ropes have only been used within the coastal marine area on the west coast of the Waikato region.
58	The consent holder must clean and decontaminate any used impermeable equipment prior to use or deployment at the farm unless the equipment has only been used within the coastal marine area on the west coast of the Waikato region. <i>Advice Note: Impermeable equipment includes equipment such as floats</i>
59	At least three months prior to placing structures in the water, the consent holder must submit to the WRC, for approval in a technical certification capacity, a biosecurity management plan (BMP) prepared by a suitably qualified and experienced person. The basis of the WRC's certification will be limited to a technical assessment as to whether or not the plan, and any updates to the plan,

	have been developed in sufficient detail so as to meet the plan's purpose. The placement of structures must only occur upon certification of the BMP.
60	The purpose of the biosecurity management plan is to minimise the risk of introducing, exacerbating and spreading disease, unwanted marine organisms or pest species. The plan must be in general accordance with the biosecurity management plan submitted with the application and must include the following: a. Description of the biosecurity and disease risks related to the marine farm b. Details of diseases, marine pests, unwanted and notifiable organisms and marine fouling organisms identified by the Ministry for Primary Industries, WRC and the marine farming industry for the area of operation including transport pathways and whether they are known to spread via fragmentation c. Details of best practice farm management (including stock, equipment and vessels) including management practices to achieve conditions 56 to 58 and methods for removing biofouling from moveable and fixed structures to minimise the risk of introducing, exacerbating and spreading diseases and species of concern d. Protocols to ensure that any hatchery stock introduced to the farm is introduced in a biosecure manner e. Procedures (including disposal protocol and notification of relevant authorities) if any new disease or new or unwanted organisms or species of concern have been detected in the area of operation f. Details of training for operational staff on biosecurity and disease management, requirements and responsibilities g. Programme for monitoring for diseases and marine pests including identification, record keeping and reporting procedures
61	An updated BMP must be submitted by the consent holder for certification no later than 30 September 2031 and at five yearly intervals thereafter, and within two months of the identification of a new disease, pest or unwanted marine organism in the coastal marine area on the west coast of the Waikato region. . The updated BMP must be submitted along with explanation by a suitably qualified and experienced person that the consent of the BMP remains appropriate to achieve the purpose of the plan. The certified plan and any subsequent certified updates must be implemented by the consent holder. Any information recorded in accordance with the requirements in the BMP must be made available to the WRC within two weeks of a request in writing from the WRC.

2. Background

Marine farmers recognise they have a role in the management of biosecurity risks. Biosecurity management is an essential part of the day-to-day operations on a marine farm. NWML will always strive in all respects to minimise the biosecurity risk arising from introductions and/or spread of unwanted pests and notifiable organisms (including pests and pathogens) arising from the NWML spat nursery farming operations.

However, it is also recognised that the control of biosecurity risks is a shared responsibility of all marine stakeholders including the marine farmer, other commercial operators, recreational boat

owners, other marine farmers, local authorities (councils), Iwi and Government (Ministry for Primary Industries - Biosecurity New Zealand).

It is the policy of North Western Mussels Limited that all operational farm staff must comply with this Biosecurity Management Plan.

2.1 Biosecurity Contacts

Below are some of the key contacts relating to aquaculture biosecurity management.

Contact	Name	Details
MPI / Biosecurity NZ Pest and Disease Hotline	Marine Incursion Investigator	0800 80 99 66
Waikato Regional Council, Manager, Biosecurity and Biodiversity	Patrick Whaley	0800 246 732
Top of the North Biosecurity Coordinator	Dave Taylor	██████████
AQNZ Technical Director (Biosecurity)	Dave Taylor	██████████
MPI Online Tool for Reporting Suspected Pests		https://report.mpi.govt.nz/pest/
Marine Pest ID website		marinepests.nz/marine-pest-id
Farm Manager	Jake Bartrom	██████████

2.2 Roles

In terms of this Biosecurity Management Plan, the following have key roles:

- **Ministry for Primary Industries (MPI):** The Biosecurity Act 1993 is implemented by Fisheries New Zealand. This Act requires that any suspected unwanted organisms, and all significant diseases and abnormal/high mortality rates to be reported to the MPI Hotline 0800 80 99 66.
- **Regional Councils:** Councils are responsible for the implementation of the Biosecurity Act 1993 (through biosecurity plans) and the Resource Management Act 1991 (through resource consents and plans).
- **Aquaculture New Zealand (AQNZ):** AQNZ has a national role that acknowledges the importance of reducing risks and keeping industry players informed. In this context, the A+ Sustainable Management Framework and Industry Biosecurity Standards are key methods for delivery.

Additional Resources to Manage Biosecurity Risk:

AQNZ has prepared additional information on biosecurity management and marine farmers have access to this information and to advice on improving procedures over time:

<http://www.aplusaquaculture.nz/biosecurity>

2.3 National Operational Zones

Operational Zones (Figure 1) were formed by the New Zealand aquaculture industry to ensure a national approach to marine biosecurity risk under the A+ Biosecurity Standards. Operational Zones where marine farming currently occurs include: Top of the North, Top of the South, Canterbury, and Lower South.

Operational Zones are generally aligned with biosecurity partnership areas identified by regional councils. The Top of the North Biosecurity Partnership covers Northland, Auckland, Waikato and Bay of Plenty Regional Councils and aligns with the Top of the North Operational Zone. The Top of the South Operational Zone roughly aligns with the Top of the South Marine Biosecurity Partnership, which includes Tasman District Council, Nelson City Council and Marlborough District Council.

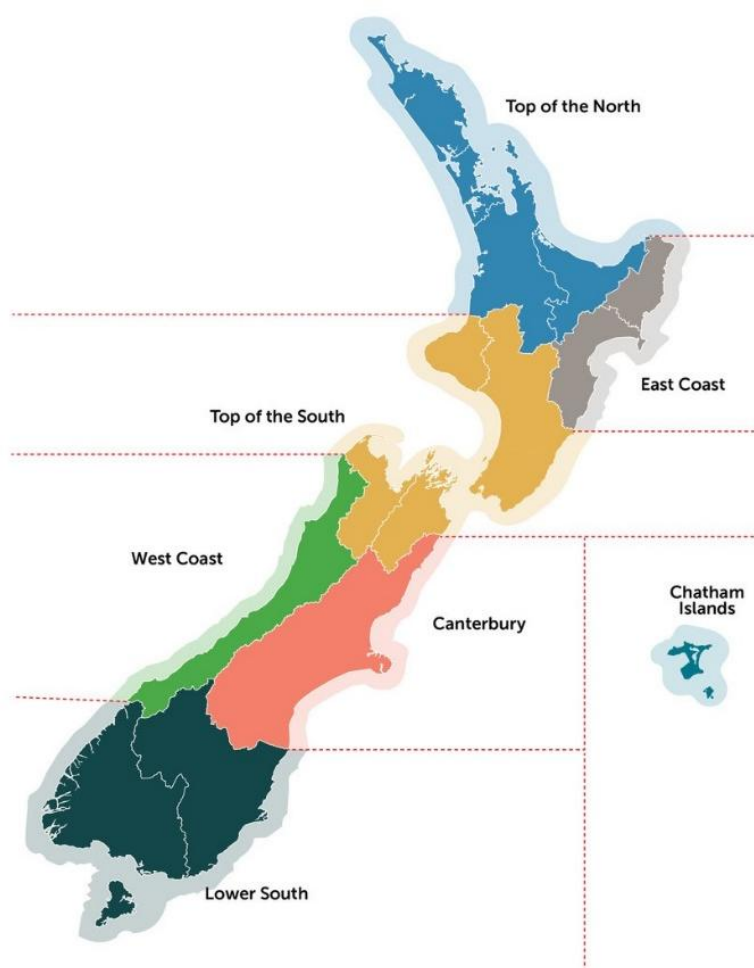


Figure 1 New Zealand Aquaculture Industry Operational Zones

2.4 Biosecurity Management Areas

Within each Operational Zone, **Biosecurity Management Areas** are identified to distinguish those areas that warrant or require additional biosecurity measures.

Management Areas are identified based on the following criteria:

- (1) Industry agreement (e.g., under a Management Area Agreement);

- (2) Regional and national statutory biosecurity requirements (e.g., Controlled Area Notices, Regional Pest Management Plans, which may include policies and rules related to the management and control of marine biosecurity risks);
- (3) Differing 'biosecurity status' (e.g., presence/absence of specific unwanted organisms);
- (4) Higher risk of introduction and spread of unwanted organisms (e.g., presence of an international port or point of entry marina, international large vessel anchoring site, or known higher risk area (e.g., Great Barrier Island).

3. Relevant Operational Zones and Management Areas

NWML will primarily be operating within the Waikato Management Area in the Top of the North Operational Zone. Some transfer of spat/seed may occur to the Top of the South Operational Zone and/or hatchery spat may be transferred from the Top of the South Operational Zone. Spat/seed may also be transferred to the Bay of Plenty Area in the Top of the North.

This BMP will be updated prior to any changes in operation or if any changes occur to the status of the relevant operational zones and management areas.

3.1 The Top of the North

The Top of the North Operational Zone (TNOZ) boundaries include all space within and northward of the Waikato and Bay of Plenty Regions (Figure 2). The main GSM growing areas within the TNOZ are Coromandel, Auckland, and Bay of Plenty.

Within the TNOZ, the following special **Management Areas** (Refer Figure 2) have been identified and have additional biosecurity requirements applied to them:

Waikato Region:

- **East Coast Coromandel:** This area does not currently have some of the pest species present in other parts of the Waikato region.
- **Aotea Harbour:** This area is a critical spat collecting area and does not currently have some of the pest species present in other parts of the Waikato region.
- **West Coast Waikato:** This area is a critical spat collecting and nursery area and does not currently have some of the pest species in other parts of the Waikato region.

Northland Region¹

- Northland Regional Council has identified Management Areas (called marine designated areas) in their Regional Pest Management Plan (RPMP) and each of these areas has different marine pest profiles.
- **Te Rāwhiti Inlet**, as of June 2023, a Controlled Area Notice is in place to control the spread of invasive *Caulerpa* sp². It imposes anchoring, fishing, and diving restrictions. Mana whenua have laid a rāhui on the area with the same restrictions. Although there are no marine farms in the area, marine farmers in the Bay of Islands should remain vigilant and report any suspected sightings in farm areas.
- **Te Oneroa-a-Tōhē (Ninety Mile Beach)** is a nationally significant spat collecting area.
- **Whangape Harbour:** This area is a critical spat collecting area in Northland and does not currently have some of the pest species present in other parts of the Northland region.

¹<https://www.nrc.govt.nz/environment/weed-and-pest-control/marine-biosecurity/marine-pest-and-pathway-rules-for-northland/>

²<https://www.nrc.govt.nz/environment/weed-and-pest-control/pest-control-hub/?pwsystem=true&pwid=1055>

Auckland Region

- **Great Barrier Island** is a high-risk area for exotic marine pests¹
- **Auckland Council - Hauraki Gulf Controlled Area:** covers all the Hauraki Gulf within the Auckland region².

Bay of Plenty Region³

- **Ōpōtiki (Bay of Plenty):** Bay of Plenty Regional Council has identified Management Areas (called pest incursion zones) in their Regional Pest Management Plan and have specific rules relating to clean hulls on vessels and the movement of aquaculture equipment (including ropes and floats) in and out of these areas.

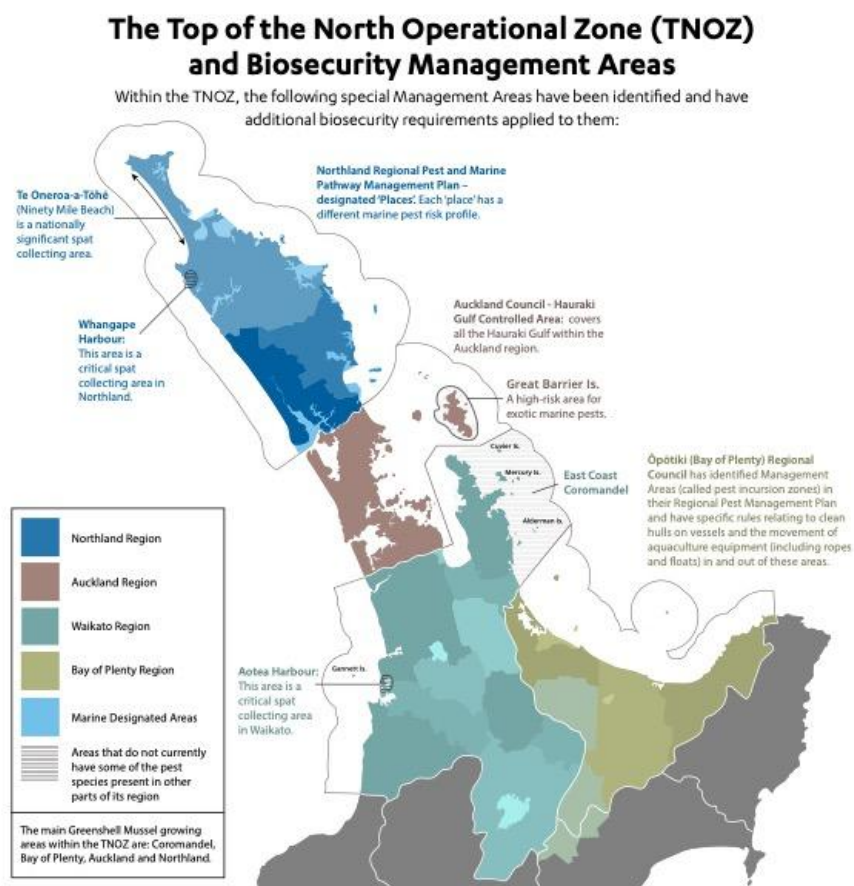


Figure 2 Top of the North Operational Zone

3.2 The Top of the South

The Top of the South Operational Zone (TSOZ) boundaries are from the NW boundary of Southland to Northern of Taranaki regional boundary over to the NE Manawatu – Wanganui regional boundary and down to the SE Marlborough boundary at Clarence). The main GSM growing areas within the TSOZ are Golden and Tasman Bays and the Marlborough Sounds (including Port Underwood).

¹ There are currently three species of invasive marine organisms that are only found on Great Barrier Island (*Clavelina oblonga*, and two *Caulerpa* sp.). MPI have controlled area notices in place for *Caulerpa* sp. at Aotea Great Barrier Island, Ahuahu Great Mercury Island, and Te Rāwhiti Inlet (<https://www.mpi.govt.nz/biosecurity/exotic-pests-and-diseases-in-new-zealand/pests-and-diseases-under-response/exotic-caulerpa-seaweeds-caulerpa-brachypus-and-caulerpa-parvifolia-in-new-zealand/>).

² Auckland Council and MPI are also attempting to prevent the spread of *Sabella spallanzani* to the island through a Controlled Area Notice (<https://www.aucklandcouncil.govt.nz/environment/what-you-can-do-for-environment/Documents/hauraki-gulf-can-2020.pdf>). See also <https://www.aucklandcouncil.govt.nz/environment/plants-animals/pests-weeds/Pages/prevent-pests-from-spreading.aspx>

³ <https://www.boprc.govt.nz/environment/pests/marine-pests>

TSOZ Management Areas:

Within the TSOZ, the following **Management Areas** (Figure 3) have been identified and have additional biosecurity requirements applied to them:

Nelson / Tasman Region:

- **Wainui:** This area is a critical spat collecting area and does not currently have some of the pest species present in other parts of the Operational Zone.
- **Tarakohe Harbour:** This harbour has pest species under ongoing management that are not present in other parts of TSOZ (e.g., Sabella).
- **Port Nelson and Nelson Marina:** This harbour and marina has pest species under ongoing management that are not present in other parts of TSOZ.

Wellington:

- **Wellington Harbour:** This harbour has pest species under ongoing management that are not present in other parts of TSOZ.

Marlborough:

- **Pelorus Sound - Admiralty Bay:** is considered a higher-risk area for exotic marine pests as it has a large vessel anchoring site (this area is a candidate for additional surveillance)
- **Queen Charlotte Sound - Waikawa Marina:** This marina has pest species under ongoing management that are not present in other parts of TSOZ (e.g. Sabella).
- **Bonamia CAN in place** – a movement permit must be attained from MPI- BNZ for any shellfish not going to processing for human consumption out of the 'Upper South Contained Zone'. For more details see: <https://www.mpi.govt.nz/dmsdocument/56899-Bonamia-CAN-2023>

The **Upper South Contained Zone** has the following control measures under the Bonamia CAN:

Movement of shellfish, including waste:

- (1) Flat oysters, Pacific oysters, Green-lipped mussels, or Geoducks must not be moved out of the Upper South Contained Zone for the purpose of commercial processing unless a permit is obtained prior to the movement.
- (2) Shellfish collected inside the Upper South Contained Zone must not be returned to the marine environment outside the Upper South Contained Zone.
- (3) Waste from shellfish collected inside the Upper South Contained Zone must not be discharged into the marine environment outside of the Upper South Contained Zone.

Movement of equipment:

- (4) Equipment (including marine farm equipment) must not be moved out of the Upper South Contained Zone unless it is visibly free of fouling.

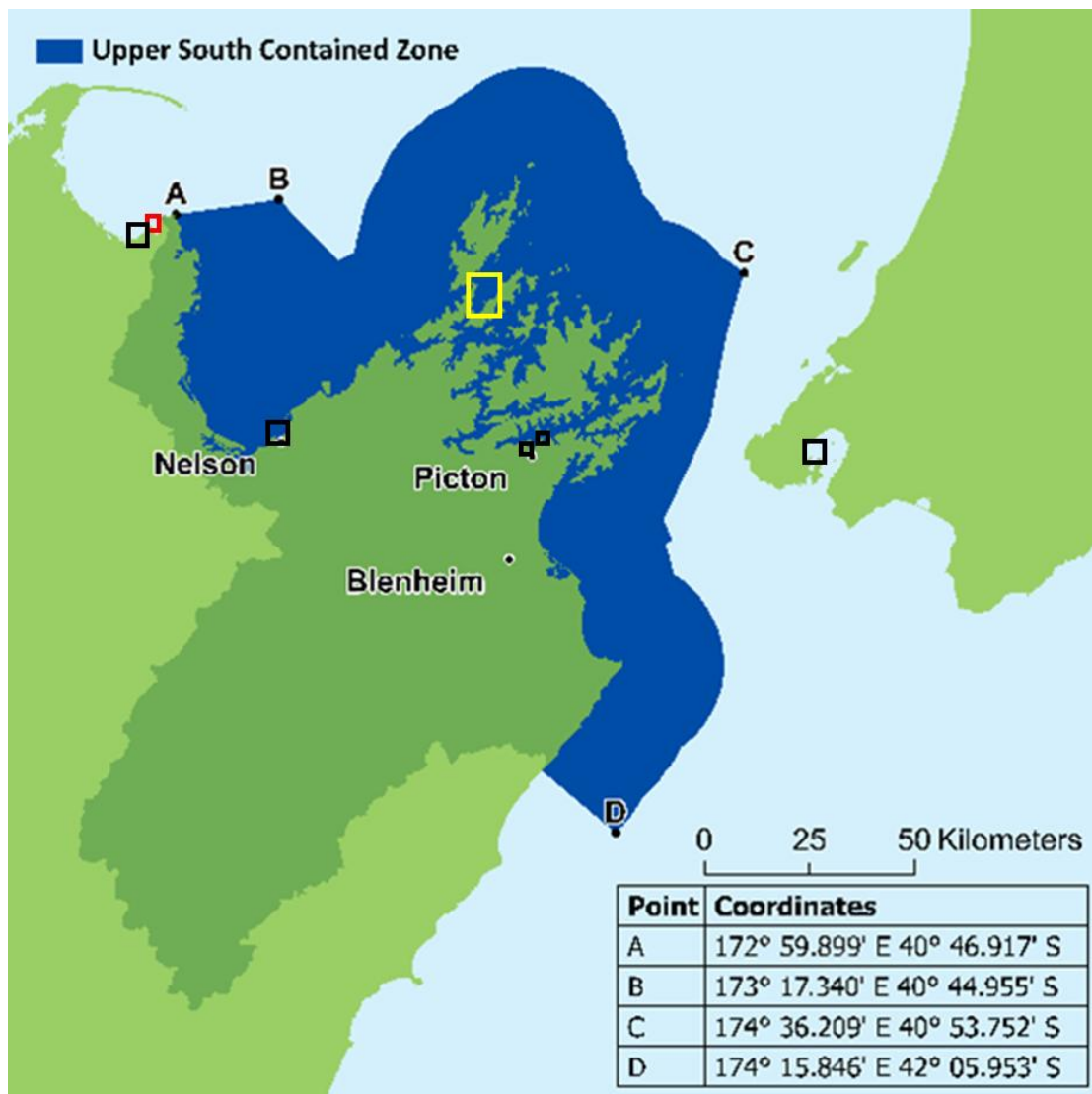


Figure 3: TSOZ Management Areas: Orange - Bonamia CAN 'Contained Zone', Black – high risk harbours and marinas, Red – Wainui Bay Industry Management Area, Yellow – large vessel anchoring – additional surveillance.

4. A+ Sustainable Management Framework

NWML will participate in AQNZ's A+ Sustainable Management Framework (A+) including as set out in conditions 34 and 35 of XXXX. A+ is an improvement programme that provides New Zealand aquaculture farmers with the practical tools to demonstrate transparency around their environmental performance with annual checklists that are completed by the producer.

The objectives of A+ align with those of world leading accredited certification programmes - such as Aquaculture Stewardship Council (ASC) and Best Aquaculture Practice (BAP). This association further substantiates the importance we place on our role as responsible guardians of our place and people.

A+ formalises a cycle of annual reporting and review for continuous improvement and provides a great platform for the community and industry to engage on their sustainability aspirations.

The purpose of A+ is to promote the sustainable management of aquaculture in New Zealand by providing guidance for best environmental and social practice for the industry. More information can be found on the [A+ website](#).

Biosecurity in A+

Biosecurity is a key aspect of A+. AQNZ, through an industry working group process, has developed the A+ Greenshell Mussel Biosecurity Standards and this Biosecurity Management Plan is designed to comply with these industry standards. The standards can be found on the [A+ website](#).

5. BNZ Guidelines

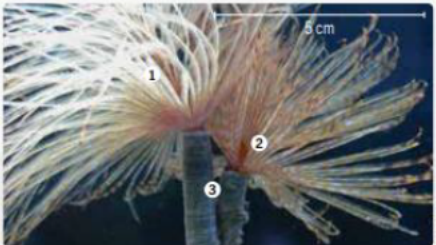
The BMP has also been prepared having regard to relevant measures set out in Biosecurity New Zealand's (BNZ) technical guidance document High Level Biosecurity Management Plans Shellfish. It addresses the principal pest and pathogen pathways associated with the proposed activity, including stock and rope transfers, equipment and vessel movements, people and contractors, waste, surveillance, incident response and traceability. Where relevant, detailed SOPs for critical control, including rope decontamination and conditioning, will be finalised in consultation with a biosecurity expert before farm structures are deployed.

The operation is a sea based, open water mussel spat nursery. Accordingly, the guidance relating to hatcheries are not applicable. No feed or veterinary medicine or therapeutic treatment is proposed. Area based management, fallowing, year class separation are not appropriate for this activity, and the area is not exposed to jellyfish swarms.

Where NWML proposes to introduce hatchery spat, undertake a new treatment process, establish a land based holding facility, or materially change stock, rope, equipment or vessel movements, NWML will review and update this plan and any SOPs with reference to the BNZ guidance before that activity occurs.

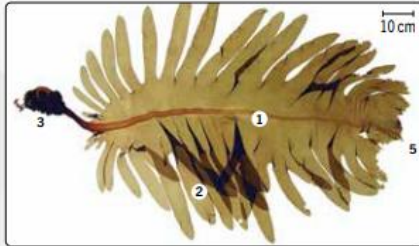
6. Knowing the Risk

The following biosecurity risk species have been identified in the Top of the North¹ and/or Top of the South Operational Zones. Where relevant, pests and diseases that are notifiable under the Biosecurity Act are identified.

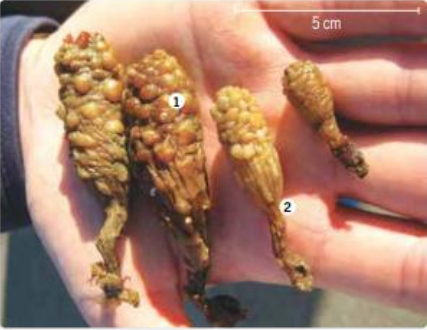
Names	Image	Site, Species or Region Detected	Additional Information
<i>Sabella spallanzanii</i> (Mediterranean fan worm)	Key features 1 Single spiral crown of elongated filaments projects from tube 2 Spiral appears yellow-orange, made of bands of white, yellow and brown 3 Tube is brown to grey, finely banded, muddy-looking, made of a leathery, flexible material; normally 10–50 cm but rarely up to 1 m long 4 Bristle lobes on body segments with bristles set in a spiral pattern (evident when worm removed from tube) 5 Tubes may be evident at low tide 	Auckland, Waikato, Port Tarakohe (Tasman), Port Nelson (Nelson), Waikawa Marina (Marlborough)	Notifiable. Critical to avoid transfer to the west coast. Hauraki Gulf Controlled Area Notice 2020 in place² to reduce risk of spread to outer islands (e.g., Great Barrier Island). Also trying to reduce risk of spread to industry Management Areas on West Coast North Island (e.g., Aotea Harbour and North Western Mussels spat catching nursery site at West Coast Waikato) and Eastern Coromandel. Small-Scale Management Programme in place for Top of the South.
<i>Perkinsus olseni</i> (shellfish parasite)		Confirmed in paua, mussels, scallops and other shellfish	Notifiable. Critical to avoid transfer to the west coast.

¹ Sim-Smith (2022). Biosecurity Assessment of Proposed Waikato West Coast Mussel Nursery

²<https://www.aucklandcouncil.govt.nz/environment/what-you-can-do-for-environment/Documents/hauraki-gulf-can-2020.pdf>

<i>Caulerpa</i> species <i>Caulerpa taxifolia</i>	Key features 1 Bright green 2 Fronds have a smooth midrib 3 Paired branchlets, all flattened in the same plane  4 Fronds up to 15 cm (tropical form) or 40+ cm (Mediterranean form) in length 5 Long horizontal runners (stolons) with many upright, flattened fronds	Great Barrier Island (Tryphena Bay, Blind Bay, Whangaparapara Bay), Great Mercury Island (Western Bays)	Notifiable. Critical to avoid transfer to the west coast. Controlled area notice in place¹:
<i>Undaria pinnatifida</i> (wakame).	Key features 1 Strap-like midrib in plants larger than 10 cm 2 Smooth, thin, laminar blade, with side lobes, that starts just above the holdfast, or above the frilly reproductive tissue in mature plants  3 Base of mature plant is frilly (reproductive tissue), with a root-like holdfast 4 Adult plants brown to yellowish, up to 3 m tall 5 Tops of mature plants are often eroded	Present down the length of New Zealand but largely absent from the west coast.	Unwanted organism. Critical to avoid transfer to the west coast. Farming is now permitted in heavily infested areas (Wellington, Marlborough, Lyttelton and Bank's Peninsula), and commercial harvest is permitted from artificial surfaces or when cast ashore.

¹ <https://www.mpi.govt.nz/dmsdocument/47557-Exotic-Caulerpa-Controlled-Area-Notice-2022>

<i>Styela clava</i> (clubbed tunicate)	Key features 1 Brown with lumpy, leathery skin 2 Woody stalk, generally longer than the body, with longitudinal folds  3 Two closely spaced siphons at the top of the body, usually surrounded by warty projections	Present in most of the major ports around New Zealand and a significant problem for the aquaculture industry in Auckland and east coast Waikato.	Unwanted organism. Critical to avoid transfer to the west coast. Localised control programmes are being conducted in areas where the species is not well-established e.g., Tutukaka, Picton, Nelson, Tarakohe and Tauranga Harbour to try and stop the species becoming widespread in those regions
<i>Eudistoma elongatum</i> (Australian droplet tunicate)	Key features 1 White or cream-coloured cylindrical tubes (tunics) 2 Sometimes with short, wartlike processes at the base  3 Generally 5–20 mm in diameter 4 Tunic generally 5–30 cm long but can reach 1.5 m 5 Tunic contains many small individual organisms and can sometimes appear orange-flecked owing to the presence of bright orange larvae	Northland to south of Auckland.	Marine pest of concern. Under sustained control in the Hauraki Gulf¹. Typically grows in sheltered areas on hard surfaces such as rocks and man-made structures in both intertidal and shallow subtidal areas and has also been found covering large areas of mudflats. Unlikely to survive at the spat nursery given the exposed, high-energy conditions at the site.

¹ <https://www.tiakitamakimakaurau.nz/protect-and-restore-our-environment/pests-in-auckland/about-the-regional-pest-management-plan-rpmp-statuses/>

<i>Clavelina lepadiformis</i> (lightbulb ascidian)		Most of New Zealand's ports including Auckland and Whangarei.	Marine pest of concern. Under sustained control in the Hauraki Gulf. Unwanted organism. Critical to avoid transfer to the west coast. Tolerant to a wide range of environmental conditions including sheltered to exposed conditions, 18–40 ppt salinity, and a wide range of temperatures
<i>Clavelina oblonga</i>		Currently only known on Great Barrier Island	Marine pest of concern. Under sustained control in the Hauraki Gulf. Unwanted organism. Critical to avoid transfer to the west coast. The ascidian has a fast growth rate and high reproductive output and introduced populations in the Northern Hemisphere have been found to smother and kill farmed mussel spat.

<i>Pyura doppelgangera</i>	Key features 1 Flattened upper surface surrounded by a ridge with two siphons projecting slightly from the centre 2 Hard, sac-like body with brown or reddish-brown leathery skin, often incorporating sand and shell fragments  3 Adults 1.5–6 cm high and 3–5 cm in diameter, squat and globular in shape 4 Colonies may form a dense mat, which may be visible at low tide	Has been recorded at numerous discrete locations around Northland including on oyster farms in Parengarenga Harbour and the Bay of Islands	Marine pest of concern. Under sustained control in the Hauraki Gulf. May have more benign impacts than previously thought and may not warrant its pest status
<i>Acutula senhousia</i> (Asian date mussel)		The only known pest to occur along Waikato's west coast. Recorded from sheltered locations throughout much of the upper North Island including Kawhia, Aotea and Raglan Harbours.	Marine pest of concern. Given the mussel's preference for sheltered, inshore habitats, it is highly unlikely that the Asian date mussel will be able to survive at the spat nursery given the exposed, high-energy conditions at the site.
<i>Bonamia ostreae</i> (oyster parasite)		Nelson, Marlborough	Controlled Area Notice in place – stock movement permits required. Equipment can be moved out of the CAN area if it is visibly free of fouling.

<i>Oratosquilla oratoria</i> (Japanese mantis shrimp)	Family: Stomatopoda Origin: north-western Pacific, especially China and Japan  Japanese mantis shrimp live in burrows and hunt at night. Photo credit: Sam Hapay ©	Detected in a number of North Island harbours including in Northland, Auckland, Waikato and Bay of Plenty.	Sustained control status in Northland, Auckland and Bay of Plenty. No specific status in Waikato. The Japanese mantis shrimp preys on a wide variety of important kaimoana species including native shrimps (kōurara / tarawera), crabs and juvenile fish and competes for resources with other crustaceans; thereby altering benthic communities. Sustained control requirements in place.¹²
<i>Charybdis japonica</i> (Asian paddle crab)	 [Image: Chris Woods, NIWA]	First detected in New Zealand in 2000 and now in a number of North Island harbours, including in Northland, Auckland and Bay of Plenty³. Apparent detection in the west coast of Waikato.	Sustained control in Northland and Auckland, progressive containment in Bay of Plenty. No specific status in Waikato. Asian paddle crabs eat commercially and culturally important shellfish species. They can carry diseases that affect commercial shellfish fisheries. Compete with native crabs for space and food. Females can produce 85,000 eggs per year. Sustained control requirements in place.⁴

¹ <https://www.nrc.govt.nz/environment/weed-and-pest-control/pest-control-hub/?pwsystem=true&pwid=20>

² <https://www.tiakitamakimaurau.nz/protect-and-restore-our-environment/pests-in-auckland/pest-search/oraora/>

³ <https://www.boprc.govt.nz/environment/pests/marine-pests/asian-paddle-crab/>

⁴ <https://www.tiakitamakimaurau.nz/protect-and-restore-our-environment/pests-in-auckland/pest-search/chajap/>

6.1 Further Information on Notifiable Organisms

Under the Biosecurity Act 1993 there is a general duty to inform MPI of notifiable organisms as well as organisms “not normally seen in New Zealand”. Also, if an Unwanted Organism is suspected there are duties not to permit the spread of that organism (without permissions).

Further information is available using these links:

- The [National Biosecurity \(Notifiable Organisms\) Order 2016](#)
- Additional MPI information regarding [unwanted pests and notifiable organisms](#)
- Booklet published by MPI: [New Zealand Marine Pest ID Guide](#)
- Top of the South Marine Biosecurity Partnership [Incident Response Manual](#)

6.2 Pathways

Biosecurity risk management practices are designed to control possible pathways for the introduction and spread of pathogens and pests.

Pathways are defined as “*routes of introduction and spread of unwanted organisms, including pathogens and pests, into and out of farm sites*”. Managing pathways minimises the likelihood of introducing or spreading unwanted organisms.

- Early detection is key in pest and pathogen management – the best time to control any marine pest or pathogen is on arrival.
- Marine farms can provide habitats for the settlement, growth and spread of marine pests and pathogens. As well as having a direct impact on the specific farming operation, marine pests and pathogens can be introduced and spread to other farms and the wider aquatic environment.
- Once a pest or pathogen is established, control becomes more difficult and expensive. Therefore, knowing the higher risk pathways (e.g. moving equipment between Management areas or Operational Zones) for the introduction and spread of pests and pathogens is extremely relevant.
- Higher Risk Pathways are identified in **Appendix 1**.



7. North Western Mussels Limited Farm Operations

This BMP has been prepared NWML to adhere to when undertaking Greenshell (*Perna canaliculus*) mussel spat catching and nursery activities at three Whāingaroa/Raglan marine farm sites.

Preparation of and operation in accordance with this BMP is a condition of consent for coastal permit XXX¹.

The three, separate farm sites are located at least 3.1 km off the coastline between Papanui Point in the south and Parikotuku Point in the north on the west coast of Waikato.



Figure 1 Location map

The activity is the catching and ongrowing of spat to nursery size prior to transfer to grow out areas on ropes or in bulk bags to the Hauraki Gulf or Top of the South or in bulk bags to the Bay of Plenty. NWML may in future use the nursery to on-grow biosecure hatchery spat. The proposed sites are situated in an exposed, high-energy environment. The substrate is fine sand and the macrofauna community is dominated by mobile taxa common to exposed sandy areas. No sensitive habitats or epifauna have been observed at the site.

The catching and nursery activity will comprise:

- Hanging dropper lines from the farm infrastructure to catch mussel spat;
- Regularly inspecting the lines to assess the density and size of the mussel spat and being vigilant for pests and diseases;
- Intermittently stripping lines to reseed mussels at the site;

¹ Pending consent

- On-growing spat up to a maximum seed size of 90mm (average 70mm).

The rope transfer activity will comprise:

- Inspecting the mussel seed and ropes for pests and diseases when lifting the ropes;
- Transporting the mussel seed on ropes for transfer onto marine farms in the Hauraki Gulf or the Top of the South;
- Removing ropes from the Hauraki Gulf or Top of the South farms after harvest and inspecting them for pests and diseases;
- Transporting the inspected ropes to a Coromandel or Raglan based facility for pest/disease treatment by way of storage in bags for at least 3 months;
- Inspecting treated ropes for pests and diseases prior to transfer back onto the spat nursery farm.

The bulk bag activity will comprise:

- Inspecting the mussel seed for pests and diseases during harvest;
- Harvesting the mussel seed into bulk bags and transporting it on the marine farming vessel to Raglan;
- Transporting the mussel seed to Opotiki in the Bay of Plenty;
- Transporting the bulk bags to a Coromandel or Raglan based facility for drying prior to further use.

Detailed biosecurity controls as they relate to the NWML operation are set out in the following section.

8. Managing Biosecurity Risk – Best Practice Outline

This section sets out the specific controls that will be used to manage biosecurity risks associated with the NWML mussel spat and nursery operations.

Prior to installing structures at the site NWML will develop a set of Standard Operating Procedures (SOPs) where applicable in consultation with a biosecurity expert. The SOPs will identify the responsible role, method, frequency, acceptance criteria, corrective actions and records to be maintained. An SOP will be developed to ensure the efficacy of rope drying requirements prior to transferring ropes from the east coast or the Top of the South back to the Waikato farms.

If staff observe a new pest or unusual signs of disease or unexpected mortality >20% at any farm, the disease or mortality event must be investigated to determine causation.

Farm staff must contact the Top of the North Biosecurity Coordinator or AQNZ, who will:

- Contact the MPI Hotline 0800 80 99 66 and
- If necessary, coordinate sampling and
- Notify all relevant farming groups, biosecurity groups, and local farmers

For new pests see Appendix 3.

The Contingency Plan in Appendix 4 must be activated.

8.1 People and PPE

People and their PPE (e.g., gumboots, overalls) can transfer pests and diseases onto the farm. The biosecurity risks associated with people and their PPE will be controlled by:

Farm Staff	• If staff are working on both the west coast spat/nursery and eastern Waikato farm sites they will wear protective clothing (PPE) during operations and will wash down and disinfect their PPE before transferring between the sites. • Staff will be extra vigilant when moving from the east coast to the west.
Visitors and Contractors	• Visitors and contractors will receive a briefing regarding the biosecurity requirements under this plan prior to entering facilities and farm sites. • A record of visitors and contractors will be kept, including: ○ Name and contact details ○ Confirmation that they have been made aware of and comply with the requirements of this BMP ○ A record of whether they have visited a high-risk aquaculture facility in the last 72 hours (e.g., hatchery, processing facility, wild habitat where the farmed species exist). • Visitors and contractors will wear freshly laundered clothing or freshly washed and disinfected PPE when visiting the west coast spat/nursery.

8.2 Inspections

It is important to remain vigilant for new/ unwanted marine species:

- Farm structures shall be inspected at least monthly when spat/growing ropes are in the water for marine pests. Records of the inspections shall be kept.
- Farm personnel will be familiar with, remain vigilant for, and report unusual organisms and those that exhibit unusual patterns of population growth. Every vessel will have a copy of the [Biosecurity New](#)

[Zealand Marine Pest ID Guide](#) on board at all times and all farm staff will be trained in identifying unwanted pests.

8.3 Stock

It is important to remain vigilant for visual signs of disease (e.g., unusual lesions) and elevated mortality in farmed stock as early detection is the best hope for successful management.

Stock Health (i.e., spat, seed, adults)	Stock health management requirements: • Staff will visually inspect a sample of stock and assess general health status (e.g., gaping and presence of visible lesions) every 3 months (quarterly) and prior to transfer to the east coast of Waikato or Opotiki. • No stock that are visibly unhealthy will be reseeded onto lines. • If visibly unhealthy stock are identified no stock will be removed from the farm until it can be established that the remaining stock do not pose a risk to the growing area. • There will be no movement of stock sourced from areas experiencing mortalities. • Suitable spacing and alignment of infrastructure associated with the spat nursery, as well as appropriate stocking densities (i.e. avoid overcrowding), will be applied to reduce stock susceptibility to disease. • Refer Appendices 2 & 3 for actions / records to be kept.
Stock Transfers	Stock transfers are a known pathway for the transfer of pests and diseases. The biosecurity risks associated with stock transfers will be controlled by: <u>General Rules for Stock Transfer</u> • Traceability records are to be kept in accordance with Appendix 2 • Spat or seed that are visibly unhealthy <i>will not</i> be transferred to or from any farm or facility. • If visibly unhealthy stock are identified no stock will be removed from the farm until it can be established that the remaining stock do not pose a risk to the growing area. • Stress on spat or seed will be minimised by keeping them cool and moist during transport. • No spat or seed from any other Management Area or Operational Zone will be transferred onto the farm. In future hatchery spat may be transferred onto the farm but this BMP will be updated prior to this occurrence. • If a notifiable disease or pest is found within the west coast farm, no spat or seed will be transferred to any other Management Area or Operational Zone unless that pest is already present in the destination Management Area or Operational Zone, and a movement permit has been provided by MPI (e.g., Bonamia Controlled Area Notice – movement permit). • Spat or seed being transferred to other Operational Zones will be visually inspected for pests and diseases prior to transfer. • No seawater will be sprayed onto bags of stock when they are moving through ports / harbours / or marinas known to contain notifiable organisms (e.g., Sabella). • No stock shall be transferred off the nursery if harmful algal concentrations in the area exceed concentrations where flesh testing is required (see MPI, 2022), or if a potential biosecurity event is reported in the Operational Zone. <u>Stock Movement between Management Areas</u> If moving stock between Management Areas or Operational Zones, the farmer will check the biosecurity status and meet the stock movement requirements of those Zones/ Management

	Areas prior to any transfer of stock. TNOZ Management Areas - Any transfer of stock to or from Management Areas in the TNOZ will be undertaken in accordance with the statutory requirements of the relevant regional councils, and in accordance with the Biosecurity Act 1993 (e.g. Hauraki Controlled Area Notice 2020, Exotic Caulerpa Controlled Area Notice 2022, Bay of Plenty Regional Pest Management Plan) - Only GLM 9 or approved hatchery spat, or NWML spat or seed, will be transferred into the Eastern Coromandel, Great Barrier Island, or Bay of Plenty Management Areas. TSOZ Management Areas - Any transfer of stock to or from Management Areas in the TSOZ will be undertaken in accordance with the statutory requirements of the relevant regional councils, and in accordance with the Biosecurity Act 1993 (e.g. a movement permit must be applied for if moving stock out of the 'Contained Zone' under the Bonamia – Controlled Area Notice) - No seawater will be sprayed onto bags of stock when they are moving through port, harbour or marina Management Areas.
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8.4 Equipment	
Used marine equipment is a known pathway for the transfer of pests and diseases.	
Sample Kit	The Farm Manager will have access to a sample kit to collect any new species detected or potentially diseased stock, for testing. (Refer Appendix 5)
Marine Equipment All Areas	To control the risks associated with: Ropes: - Prior to placing structures in the water, an SOP will be developed to ensure the efficacy of rope drying requirements prior to transferring ropes from the east coast or the Top of the South back to the Waikato farms. - Ropes will not be transferred to the Bay of Plenty Management Area. - Ropes and stock will be inspected at harvest prior to transfer to the east coast or Top of the South grow out farms. - Ropes will be cleaned of all obvious fouling 'conditioned' and inspected for pests when they are removed from the water at east coast or Top of the South grow out farms. - Ropes removed from the east coast or Top of the South grow out farms will be transported to a land based facility and stored in bulk bags for at least 12 weeks to treat any potential pests. - Bulk bags containing drying rope to be clearly labelled with the start date of land storage. - Ropes will be inspected for potential pests prior to re-introduction to the west coast spat nursery. - All waste from 'conditioning' to be collected and disposed of to landfill. Floats: - All floats (including niche areas) will be regularly cleaned of obvious fouling at sea to prevent biofouling accumulating on floats. Floats brought onto land will be further cleaned (if needed).

	- All waste from cleaning at the yard is to be collected and disposed of to landfill. Backbone lines: - Backbone lines will be checked every 6 months for any notifiable organisms. Other equipment (e.g., dive gear): - All other equipment (including dive gear) will be washed and decontaminated after use and/or prior to being moved to a new site. - If practicable each site will have its own marine equipment/dive gear to minimise the need to move gear between sites.
Marine Equipment Other Management Areas/ Operational Zones	- No ropes or floats from outside the NWML spat nursery are to be re-used unless they have firstly been decontaminated, in accordance with the A+ Biosecurity Standards. - Any dive gear used within the previous 14 days in another Management Area must be decontaminated in accordance with the decontamination standards in the A+ Biosecurity Standards prior to use in another Management Area. NB: if moving equipment between Management Areas or Operational Zones the farmer will check the biosecurity status and meet the requirements for those Zones/ Management Areas prior to any transfer of equipment (e.g. Bonamia Controlled Area Notice movement controls in place for equipment; Bay of Plenty Regional Pest Management Plan does not allow the transfer of used marine farm equipment into the region).
Marine Equipment Industry Management Areas	North Island west coast spat sites (e.g., Aotea Harbour, Ahipara and including the NWML spat nursery), Eastern Coromandel, and Wainui industry specified Management Areas - Used ropes, floats and bags in these industry Management Areas must be: a) Used solely in each of these Management Areas; OR b) Thoroughly cleaned and stored in bulk bags on land for at least 12 weeks before being transferred into these Management Areas; OR c) Decontaminated in accordance with the A+ Biosecurity Standards. - Any dive gear used within the previous 14 days in another Management Area must be decontaminated in accordance with the decontamination standards in the A+ Biosecurity Standards prior to use in another Management Area.

8.5 Vessels & Vehicles

Vessels	Vessel hulls and decks can carry marine pests and diseases. Vessels associated with the day-to-day operations of the research area should be properly maintained to prevent the growth of biofouling or the accumulation of sediment or debris. The risks associated with vessel movements will be controlled by: - Biofouling on the hulls of farm vessels will be kept at no more than a slime layer and barnacles. - In-water cleaning will only occur where the vessel only works in one Management Area. - In-water cleaning will not occur if a vessel has travelled between Management Areas or Operational Zones. - Niche areas will be checked every 12 months including: keel bottom, hull fittings, and thruster cavities. - Bilge water and / or water in the strum box and associated pipework will be pumped out once the vessel has left the farm area and is in open water, if travelling between Management Areas or Operational Zones.
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	• Prior to use in different Management Areas or Operational Zones, trailered farm vessels and equipment will be washed with freshwater and all water drained from bilges on land prior to leaving the Management Area or Operational Zone of origin, or in an area where wash water cannot enter the Coastal Management Area. • Contractor vessels will be required to show evidence that they comply with the above controls.
Harvesting / Grading Equipment etc on the Vessel	Harvesting / grading equipment can transfer pests and diseases. The risks associated with the transfer of harvesting / grading equipment will be controlled by: • Sediment and biofouling debris will be cleaned from vessel decks and any equipment on the vessel, at the end of each visit to the spat nursery and before entering any other Management Area. • Contractors employed in the spat nursery activity will be required to comply with the above controls.
Vehicles	Vehicles that carry stock and equipment can transfer pests and diseases. The risks associated with the transfer of vehicles will be controlled by: • Washing down decks and equipment and flushing or emptying contained water once the vessel has left the farm and prior to arriving at its destination, and vice versa. • Washing down trailer vessels and vehicles and emptying any contained water before moving between Operational Zones, Management Areas or distant locations. • Cleaning shall occur prior to leaving the Management Area or Operational Zone of origin, or in an area where wash water cannot enter the Coastal Management Area.

8.6 Waste / Disposal	
Waste Management (e.g., wastewater, solid waste, and biological waste / dead / moribund stock)	Waste can transfer pests and diseases. The risks associated with the transfer of waste will be controlled by: • Referring to NWML's Waste Management Plan. • Small quantities (< 5 kg) of biological material that could pose a biosecurity risk will be disposed of in landfill. • If more than 5 kg of dead or moribund stock will be disposed of, the stock will be contained in secure mort-bins with sealed covers or sealed bulk bags with plastic liners for transport to processing or disposal facilities. • Biological material (including dead or culled stock) will not be directed to bait or burley manufacture unless NWML knows that the requirement to inactivate any pathogens and pests can be achieved (e.g., sterilisation by heat treatment, chlorination, etc). • For large scale mortality events refer also to the Contingency Plan: Appendix 4

9. Reporting Procedures for New Disease / Species Suspected

NWML will follow the How to Guide for reporting suspected aquatic diseases on marine farms established by BNZ and Aquaculture New Zealand¹ and included in Appendix 6.

In particular:

¹ <https://drive.google.com/file/d/1xHsPAdKzUL1V6yck2Ym-saxuUT2WytLg/view>

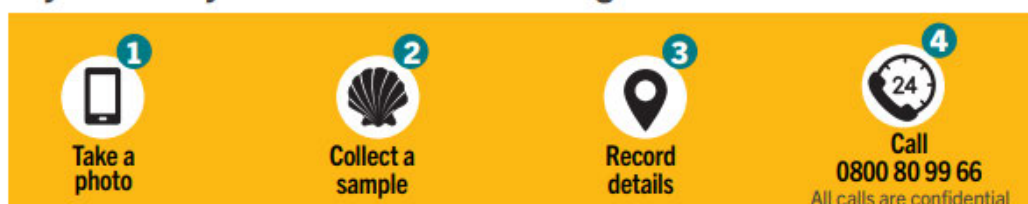


Notice something unusual on your farm? Sudden deaths in large numbers?

Report any suspected pests or diseases to MPI. All reports are valuable, the earlier the report, the better the chance we have of managing impacts to your business and the environment.

It is important to report through the **MPI pest and disease hotline (0800 80 99 66)**. If you contact an MPI staff member directly, you may not get a timely response.

If you think you have seen something:



10. Training

Staff training¹ is required for managers, general staff, and contractors involved in the operation of the research.

10.1 Farm Manager or Biosecurity Representative:

The Farm Manager and/or other staff member that is responsible for making biosecurity decisions will receive biosecurity training that will include:

- A review of the A+ Industry Biosecurity Standards and this BMP.
- A review of the biosecurity status of other industry Operational Zones.
- The importance of maintaining visitor and stock records for traceability purposes during a biosecurity event.
- The process for applying for MPI Movement Permits as required by any Controlled Area Notices
- Identification of normal healthy stock – appearance and behaviour.
- Identification of unhealthy stock – signs of abnormal health and abnormal behaviours.
- The appearance of unwanted marine pests, how to use the sample kit to sample unknown pest/diseased organisms, who to contact and where to send samples.
- The importance of regular inspection and surveillance for marine pests and shellfish diseases to the industry, environment and for market access.
- Environmental parameters to measure and record (DO, water temperature, phytoplankton), and why they are important if a stock health issue is suspected.
- How biosecurity is regulated in New Zealand (Biosecurity Act 1993) and their role in the Government-Industry Agreement on Biosecurity (that the marine farming industry is a signatory to).

¹ NB: this training can be provided by AQNZ, or NWML may source this training from another provider.

10.2 General Staff:

- All staff involved in the on-farm aspects of the spat nursery will be given training within a month of starting and annually refresh knowledge of:
 - Basic biosecurity requirements of the A+ Biosecurity Standards and expectations for Biosecurity Management as detailed in this plan.
 - Basic biosecurity training regarding the appearance of, effects of, and reporting mechanisms for unusual pests and signs of diseases.
- All staff involved in the on-farm aspects of the spat nursery will:
 - Have access to an on-vessel copy of: NZ Marine Pest ID Guide and any additional Management Area and/or Operational Zone information (e.g., Bonamia - Controlled Area Notice).
 - Have on-board practical training for signs of 'unhealthy stock' (e.g., lesions / gaping).
 - Know what to do if they observe specific unwanted pests or specific signs of disease.
 - Have knowledge of the contingency plan (i.e., steps to be taken in an extreme event or potential biosecurity event).

Evidence of staff biosecurity training will be recorded by the Farm Manager in their register and will be available on request. [A+ Programme Training Register](#) templates can be used.

10.3 Contractors:

- All contractors involved in the on-farm aspects of the spat nursery will be briefed on and must agree to comply with:
 - The biosecurity requirements of the A+ Biosecurity Standards and NWML's expectations for Biosecurity Management as detailed in this plan.

Further Background Information:

[A+ Biosecurity Standards](#)

[Aquaculture Biosecurity Handbook \(MPI/AQNZ 2016\)](#)

11. Recording, Reporting, and Review

The expectations around biosecurity data recording and reporting, and the reviewing of the BMP, are listed below. All staff will be made **aware of the recording and reporting requirements associated with their roles.**

- The Farm Manager will review this Biosecurity Plan **annually** to ensure the most up-to-date management practices identified by AQNZ, government, or the regional environmental group are in place.
- **Appendix 2** sets out the recording required for operational procedures.
- The information in **Appendix 3** must be recorded when:

- A potential new species is suspected, or
 - When an unwanted organism (as per the MPI Pest ID handbook) is suspected in a new area, or
 - When a potential disease event is observed.
- **If a new unwanted organism is found or a notifiable biosecurity event occurs**, NWML will notify MPI and submit a report to MPI, **within one week**, covering all matters in **Appendices 2 & 3**. MPI are the lead agency.

NWML will also inform:

- The local Council Marine Biosecurity contact (see 2.1 Biosecurity Contacts and Appendix 4) and
 - AQNZ (info@aquaculture.org.nz)
- The BMP shall be reviewed and updated, if appropriate, by an independent suitably qualified and experienced person(s):
 - Every 3 years; or
 - Within 2 months of a new unwanted organism being suspected on the nursery.

APPENDIX 1: Potential Pest Pathway Assessment

NB: Procedures for managing these potential pathways are set out in sections 5 – 8 above.

Higher Risk Pathways for your Farm(s) (i.e., what are the potential ways pests/ disease will enter your farm through your operations)		
Risk Pathway (Examples)	Think About	Answers specific to your farm operations and potential control measures
Vessels travelling between Management Areas	Do you commonly use your vessels between Management Areas?	No, vessels associated with the spat nursery will be generally stationed at Raglan and only used in west coast Waikato waters. There may be some movement of small trailer-based vessels, as well as larger vessels for specific purposes (e.g. installation of infrastructure).
Vessels traveling between Operational Zones	Do you commonly move your vessels between Operational Zones?	No, it is very unlikely that the spat nursery vessels will move between Operational Zones. Vessel movements will be largely limited to vessels transiting to and from Raglan to service the spat nursery. Different vessels, based on the east coast will be used to transfer the rope/seed to the east coast growout sites.
Stock transfers (particularly between other Management Areas or Operational Zones)	Where do you commonly transfer stock to and from? What is the pest and disease status of those sites?	Stock will be transferred from the spat nursery to the east coast, Top of the South and Bay of Plenty growout sites. Stock will be stripped from ropes before transfer to the Bay of Plenty. The west coast and Bay of Plenty have no known pests or diseases, and it is critical to ensure that they are protected. The east coast and Top of the South growout sites have a number of known pests as identified in this BMP. The protocols that are in place have been used for more than 20 years by the nearby Aotea Harbour spat farm and there have been no transfers of pests from the east coast to the west. The protocols that are contained within this BMP are sufficiently precautionary to protect the biosecurity of the west coast and the Bay of Plenty.
Equipment transfers	Do you commonly move farm equipment between Management Areas or between Operational Zones?	Rope will be transferred from the spat nursery to the east coast and Top of the South growout sites. The west coast sites have no known pests or diseases, and it is critical to ensure that they are protected. The east coast and Top of the South growout sites have a number of known pests as identified in this BMP. The protocols that are in place have been used for more than 20 years by the nearby Aotea Harbour spat farm and there have been no transfers of pests from the east coast to the west. The protocols that are contained within this BMP are sufficiently precautionary to protect the biosecurity of the west coast.
People	Identify commonly used contractors. Do they move between Management areas or Operational Zones?	Staff and contractors will move between the west coast spat nursery and the east coast or Top of the South grow out sites. All staff and contractors will be trained in the requirements of this BMP prior to carrying out any activity and in accordance with the NWML training schedule.
Any other pathways for pests/ diseases?		There are no other known pathways other than the general movement of the public and other commercial operators between the west coast spat nursery and the receiving growing regions.

APPENDIX 2: Operational Procedures and Recording

	Standard Operations and Required Records
STOCK HEALTH	
All Stock (Quarterly & at harvest)	Date: Farm Site: Growth stage: Health of Stock assessed:
Unhealthy Stock	Fill in Appendix 3 Check if Appendix 4 needs to be activated.
STOCK TRANSFER	
Source / Destination of Stock	Source: Place and company MPI Movement Permit Number (where required): Destination: Place and company Date Stock health checked (prior to transfer): Cleaning / decontamination procedures undertaken prior to any transfer?: (NB: not applicable to spat ropes) Date placed in water at destination farm site:
Stock Amount & Transfer Method	Method of transfer (e.g., in bags, or on growing ropes): Quantity of stock sent / received: Size / life stage of stock:
Staff	Person responsible at source: Contact info:

	Person responsible at destination: Contact info:
Notifiable Organism suspected	Fill in Appendix 3 Check if Appendix 4 needs to be activated.
EQUIPMENT	
Decontamination (i.e., disinfection procedures over and above usual practices)	Date: Reason: Decontamination process:
Used Equipment being taken into or out of a Management Area	Date: Reason for transfer: Origin / destination of transfer: Decontamination process:
Used Equipment Transferred into or out of an Operational Zone	Date: Reason for transfer: Origin / destination of transfer: Decontamination process:
VESSELS	
Travelling Between Management Areas or Operational Zones	Date(s): Route taken: Destination: Cleaning undertaken prior/ during/ after trip:

Hull Cleaned (in water/ on land)	Date Completed: Next due date:
Anti-fouling Applied	Date Completed: Next planned due date (unless biofouling is greater than a slime layer and barnacles):
STAFF TRAINING	
Induction / Refresher Course	Date Done: Subjects Covered: Next due:
Frequency of Staff Training	How often and how do you do refresher training? e.g., monthly at staff meetings? Daily on vessel??
Farm Manager / Biosecurity Manager Review of this Biosecurity Management Plan	Date Done: Next due:

APPENDIX 3: Report Form for New Marine Pests and / or Diseases

MPI and Waikato Regional Council need to be informed immediately if a new pest or disease is suspected in a Management Area or Operational Zone where it has not previously been observed. The following must be recorded in as much detail as possible about any incidents and actions taken.

NB: if unexplained mortality >20% / line, this must be investigated further – contact your Biosecurity Co-ordinator

Marine Pest / Disease Incident Report	
Date when Disease / Pest was Noticed	
Action Happening at the Time	
Skipper of Vessel & Farm Location	Skipper: Farm:
What was Observed	
Affected Line / Farm / Vessel / Stock	
Notification	
Action taken	

APPENDIX 4: Biosecurity Event Contingency Plan

If a potential biosecurity event is identified (e.g., new notifiable pathogen/ pest incursion), the following actions must be taken:

Biosecurity Event is Identified	• CEASE HARVEST AND MOVEMENTS of EQUIPMENT, AND STOCK, AND <u>FOLLOW ACTIONS BELOW</u> • Vessel to return to port, no movement of vessel into a different Management Area
Reporting / Communications	• Contact the Farm Manager Jake Bartrom Ph: [REDACTED] • Farm Manager must report the event to MPI Pest and Disease Hotline: 0800 80 99 66 or https://report.mpi.govt.nz/pest/ • Farm Manager must contact the AQNZ Technical Director within 24 hours of a confirmed pest / pathogen outbreak. • Stay Informed – take all practical steps to keep up to date on the unfolding event.
Disposal of diseased / moribund stock	• If directed by MPI to dispose of spat, seed, or stock: contain all high-risk shellfish and associated material using non-permeable plastic liners in transport containers. • Safely dispose of any high-risk material at landfill. Use designated transport company and landfill.
Decontamination	• <i>When this contingency plan is in action</i>, MPI may require that all equipment transferred from the site is to be decontaminated. • Follow the decontamination directions from MPI.
Investigation	• MPI will take the lead in any further investigations required. • Follow all directions issued.
Key Contacts	• Farm Manager: Jake Bartrom Ph: [REDACTED] • AQNZ Technical Director: Caroline Gilbertson Ph: [REDACTED] • MPI Pest and Disease Hotline: 0800 80 99 66
Contact for emergency disposal of stock	• Truck Company/ Bio-waste services:
Contacts: Top of the North Marine Biosecurity Partnership	•

APPENDIX 5: Sampling Kit & Process

Your Biosecurity Sampling Kit

- 1 x A plastic container or similar containing:
- 10 x each of small, medium, and large Ziplock bags
- 3 x sharpie waterproof marker pens
- 3 x pencils
- 30 x [waterproof paper labels](#)
- 1 x scale bar / ruler
- 1 x [MPI pest ID guide](#)

Sampling Protocol

1. Get out your Biosecurity Sampling Kit
2. Take a sample and note the location (e.g., drop a pin in Google maps - note LAT, LONG)
3. Take a photo with something for scale (e.g., a ruler or coin)
4. Write a label on waterproof paper (date, location, name of collector) and put it in a Ziplock bag with the sample
5. Also Label the outside of the Ziplock bag (with date, location, name of collector)
6. Refrigerate sample as soon as possible
7. Notify your company Biosecurity person / or the Biosecurity coordinator for your Operational Zone (see you Biosecurity Management Plan for details)
8. Get them to notify the relevant Biosecurity person at your Regional Council and follow their instructions regarding refrigeration / freezing and shipping of sample.
9. Get them to contact the MPI Pest Hotline (0800 80 99 66).

NB: Under the Biosecurity Act 1993, every person has a general duty to inform of the presence of any notifiable organism. Every person also has a duty to report what they think could be a notifiable organism. Legal penalties apply should you release, cause to be released, or otherwise spread a pest or unwanted organism.

APPENDIX 6: Reporting Suspected Aquatic Disease How to Guide