7.7.11 Te mau tonu o te patu orotā ā-Moana / Sustained Control marine pests

Marine pest organisms can cause adverse effects to the environmental, economic, social or cultural values of the region. Once marine pests are established, control options are often limited. Therefore pathway management to prevent spread to new areas is the top priority. Most of the following pest species are already present in the Tāmaki Makaurau / Auckland, but the following programmes aim to slow their further spread, and therefore impact, within the region.

Many marine pest organisms attach themselves to hard surfaces, which means they can be spread by human movement of vessels and other craft, aquaculture equipment, and other equipment and goods including scuba and fishing gear. They can also be captured in bilge, ballast or holding tank waters and spread to other areas when such waters are discharged from a vessel.

Tāmaki Makaurau / Auckland is highly connected to other regions of Aotearoa / New Zealand through the movement of both commercial and recreational vessels, and it is likely that new species will continue to be introduced and spread. However, effective management systems would reduce the rate of spread and prevent some new species from establishing. The rules in the following section are largely aligned with a number of regional and territorial authorities, to assist in reducing the human-mediated spread of pests between regions, as well as within Tāmaki Makaurau / Auckland itself. Aligned rules will also make compliance easier for vessels moving between regions. In particular, the level of allowable biofouling is based on the Level of Fouling Protocol, providing for consistency with other regions and the Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand.

7.7.11.1 Asian paddle crab (*Charybdis japonica*)

The Asian paddle crab is a relatively large swimming crab with paddle-like hind legs. The shell can reach 12 cm across. Adults have six distinct spines or spikes on each side of the shell below the eyes, and five prominent spines on the upper surface of each claw. The crab ranges in colour from pale-green or olive green to a deep chestnut brown with purplish markings on the shell. It is typically found in estuaries where there is firm sand, muddy fine sand, or muddy-shelly fine sand. The crab is very aggressive, displacing native crabs (pāpaka) and preying on a variety of native and aquaculture species including shellfish, fish, other crustaceans and polychaete worms. It is also a carrier of diseases that may greatly impact other crustaceans.

Objective: over the duration of the plan Auckland Council will sustainably control Asian paddle crabs (*Charybdis japonica*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Asian paddle crabs, to reduce their impacts and spread to other locations.

Rules:

7.7.11.1.1 No person shall cause to breed any Asian paddle crab within the Auckland region.

7.7.11.1.2 No person shall distribute or release (or cause to be released or distributed), any live Asian paddle crab[1] within the Auckland region.

7.7.11.1.3 No person shall sell or offer for sale any live Asian paddle crab within the Auckland region.

7.7.11.1.4 All persons who, intentionally or accidentally, catch any Asian paddle crab within the Auckland region must destroy[2] any such crabs immediately.

7.7.11.1.5 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.1.6 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

Commented [IB1]: To be defined in definitions section as follows:

Craft means (i) an aircraft, ship, boat, or other machine or vessel used or able to be used for the transport of people or goods, or both, by air or sea;
and (ii) an oil rig; and (iii) a structure or installation that is transported by being towed through the sea.

Commented [IB2]: To be defined in definitions section as follows:

For the purposes of this plan, container includes but is not limited to any kayak, chilli bin, bucket or other vessel in which sea water may be transported.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.4, 7.7.11.5 and 7.7.11.6 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on hulls, in bilge, ballast or holding tank water or by other

[1] Includes eggs and larvae.
[2] For the purposes of the rules in this plan, 'destroy' means to kill or dispose of in a manner that will not allow the pest to reinfest an area. Dead individuals may be transported and eaten, provided that doing so does not distribute viable eggs.

	human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land. Any person in possession of any live Asian paddle crab to destroy any such crab.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.2 Australian droplet tunicate (*Eudistoma elongatum*)

Also known as: Eudistoma sea squirt

The Australian droplet tunicate is a type of sea squirt that is firm and gelatinous to the touch. It forms large colonies that attach to hard surfaces and look like clusters of white or cream coloured cylindrical tubes. Colonies are generally 5-30 cm long, but can sometimes reach 1.5 m long. The tunicate can inhabit a wide range of habitats and but is generally found in soft-bottomed tidal habitats and on hard surfaces such as wharf piles, aquaculture equipment and mangrove roots. It is most commonly spread as fouling on marine farming equipment and occasionally on boat hulls. It grows rapidly and will often reach high abundances in summer months; altering tidal habitats and competing with native species for space and food.

H. Blomfield

Objective: over the duration of the plan Auckland Council will sustainably control Australian droplet tunicate (*Eudistoma elongatum*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Australian droplet tunicate, to reduce their impacts and spread to other properties.

Rules:

7.7.11.2.1 No person shall cause to breed any Australian droplet tunicate within the Auckland region.

7.7.11.2.2 No person shall distribute or release (or cause to be released or distributed), any Australian droplet tunicate within the Auckland region.

7.7.11.2.3 No person shall sell or offer for sale any Australian droplet tunicate within the Auckland region.

7.7.11.2.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.2.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.2.4 and 7.7.11.2.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge

	water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.3 *Clavelina oblonga*

Clavelina oblonga is a tunicate that forms large colonies on hard surfaces such as marinas and rocky sub-tidal and inter-tidal habitats. The tunicate is most commonly spread as fouling on boat hulls. This species is relatively newly documented as an invasive species, so its potential impacts are still uncertain. However, given its ability to form large colonies, it is likely to be able to outcompete native species and may impact upon the mauri of the moana.

Samantha Happy

Objective: over the duration of the plan Auckland Council will sustainably control *Clavelina oblonga* to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of *Clavelina oblonga*, to reduce their impacts and spread to other properties.

Rules:

7.7.11.3.1 No person shall cause to breed any *Clavelina oblonga* within the Auckland region.

7.7.11.3.2 No person shall distribute or release (or cause to be released or distributed), any *Clavelina oblonga* within the Auckland region.

7.7.11.3.3 No person shall sell or offer for sale any *Clavelina oblonga* within the Auckland region.

7.7.11.3.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.3.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.2.4 and 7.7.11.2.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.4 Japanese mantis shrimp (*Oratosquilla oratoria)*

The Japanese mantis shrimp is a large light grey mantis shrimp that can grow up to 185 millimetres long. It has two long spiny claws that it uses to capture food. The Japanese mantis shrimp has maroon ridges running down the mid-length of its body and a tail fan with a blue and yellow outer surface (grey and yellow in native species). Japanese mantis shrimp live in burrows in soft sediments, sand and mud in sheltered bays and estuaries. 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.

Dr. S. Ahyong

Objective: over the duration of the plan Auckland Council will sustainably control Japanese mantis shrimp (*Oratosquilla oratoria*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Japanese mantis shrimp, to reduce their impacts and spread to other properties.

Rules:

7.7.11.4.1 No person shall cause to breed any Japanese mantis shrimp within the Auckland region.

7.7.11.4.2 No person shall distribute or release (or cause to be released or distributed), any live Japanese mantis shrimp[3] within the Auckland region.

7.7.11.4.3 No person shall sell or offer for sale any live Japanese mantis shrimp within the Auckland region.

7.7.11.4.4 All persons who, intentionally or accidentally, catch any Japanese mantis shrimp within the Auckland region must destroy[4] any such shrimps immediately.

7.7.11.4.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

[3] Includes eggs and larvae.

[4] For the purposes of the rules in this plan, 'destroy' means to kill or dispose of in a manner that will not allow the pest to reinfest an area. Dead individuals may be transported and eaten, provided that doing so does not distribute viable eggs.

The purpose of rules 7.7.11.1.1, 7.7.11.3.4, and 7.7.11.3.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land.
Requirement to act	All persons in charge of a craft to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land. Any person in possession of any live Japanese mantis shrimp to destroy any such shrimp.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.5 Lightbulb ascidian (*Clavelina lepadiformis*)

The lightbulb tunicate forms colonies of transparent tubes about 5cm long, with white, yellow or pink bands that make it appear to glow like a light bulb. It can form large colonies on hard surfaces such as marinas and rocky sub-tidal and inter-tidal habitats. The lightbulb tunicate is most commonly spread as fouling on boat hulls. This species is relatively newly documented as an invasive species, so its potential impacts are still uncertain. However, given its ability to form large colonies, it is likely to be able to outcompete native species and may impact upon the mauri of the moana.

Samantha Happy

Objective: over the duration of the plan Auckland Council will sustainably control lightbulb ascidian (*Clavelina lepadiformis*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of lightbulb ascidian, to reduce their impacts and spread to other properties.

Rules:

7.7.11.5.1 No person shall cause to breed any lightbulb ascidian within the Auckland region.

7.7.11.5.2 No person shall distribute or release (or cause to be released or distributed), any lightbulb ascidian within the Auckland region.

7.7.11.5.3 No person shall sell or offer for sale any lightbulb ascidian within the Auckland region.

7.7.11.5.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.5.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.2.4 and 7.7.11.2.5 is to regulate activities that may affect measures taken to implement the plan.

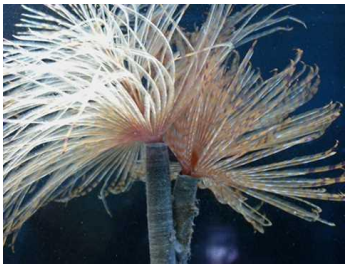
The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.6 Mediterranean fanworm (*Sabella spallanzanii*)

Mediterranean fanworm is a large tube-dwelling bristle worm typically found in estuaries and sheltered sites up to depths of around 30 metres. It has a flexible, leathery tube, up to 80 centimetres tall, topped with a single, spiral fan of feeding tentacles, often banded orange, purple or white. It attaches to a wide variety of hard surfaces including rocks, wood, steel, concrete, shellfish and artificial materials, and is most commonly spread as fouling species on moored vessels. Mediterranean fanworm can form dense beds that are likely to out-compete other species, clog fishing gear and dredges, and interfere with biological processes. It has the potential to compete with native filter-feeding organisms for food and space which can impact upon the mauri of the moana. In high densities, Mediterranean fanworm is likely to also impact commercially on important kaimoana species including mussels (kuku / kūtai), oysters (tio), and scallops (tipa / tupa).



Geoff Read

Objective: over the duration of the plan Auckland Council will sustainably control Mediterranean fanworm (*Sabella spallanzanii*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Mediterranean fanworm, to reduce their impacts and spread to other properties.

Rules:

7.7.11.6.1 No person shall cause to breed any Mediterranean fanworm within the Auckland region.

7.7.11.6.2 No person shall distribute or release (or cause to be released or distributed), any Mediterranean fanworm within the Auckland region.

7.7.11.6.3 No person shall sell or offer for sale any Mediterranean fanworm within the Auckland region.

7.7.11.6.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.6.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.4.4 and 7.7.11.4.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.7 Pyura sea squirts (*Pyura praepetualis*[5] and *P. doppelgangera*)

The pyura sea-squirt has a sack-like body with a brown, or reddish-brown, leathery skin often coated with sand. Each sea squirt has two mounds representing siphons or holes for inhaling and exhaling sea water. Adults grow up to 15 centimetres or more in height and around 3-5 centimetres in diameter. The only visible difference between the two species of pyura sea-squirt is that *Pyura praepetualis* generally grows to a larger size. They generally inhabit the low to mid-intertidal, zone as well as shallow subtidal areas less than 12m deep. They primarily colonise rocky platforms and outcrops, rock pools and the underside of rock overhangs, but are also found on artificial structures such as oyster farms and wharf piles. The pyura sea squirts are aggressive competitors for space and have the potential to significantly alter the structure and composition of native intertidal communities; displacing important kaimoana species such as the green lipped mussel (kuku / pōrohe).

Objective: over the duration of the plan Auckland Council will sustainably control Pyura sea squirts (*Pyura praepetualis* and *P. doppelgangera*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Pyura sea squirts, to reduce their impacts and spread to other properties.

Rules:

7.7.11.7.1 No person shall cause to breed any Pyura sea squirts within the Auckland region.

7.7.11.7.2 No person shall distribute or release (or cause to be released or distributed), any Pyura sea squirts within the Auckland region.

7.7.11.7.3 No person shall sell or offer for sale any Pyura sea squirts within the Auckland region.

7.7.11.7.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.7.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

[5] Previously known as *Pyura stolonifera praeputialis*

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.5.4 and 7.7.11.5.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.8 Styela sea squirt (*Styela clava*)

Also known as: Clubbed tunicate, leathery sea squirt. Steyla sea squirt is a large, brown, solitary sea squirt with a leathery appearance and wart-like projections. It has a long, club-shaped body and uses a short, tough stalk to attach to hard artificial or natural surfaces. It is most commonly found at depths of less than 25m but has been observed at 40m deep. It is frequently transported as biofouling on vessels and other mobile marine structures. The Styela sea squirt can multiply rapidly and form dense colonies, competing with native and important filter feeders for space and food. This can disrupt native ecosystems and may impact upon the mauri of the moana. The Styela sea squirt can also add significant maintenance costs to marine structures and vessels through its fouling behaviour.

Matthieu Sontag

Objective: over the duration of the plan Auckland Council will sustainably control Styela (*Styela clava*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Styela, to reduce their impacts and spread to other properties.

Rules:

7.7.11.8.1 No person shall cause to breed any Styela within the Auckland region.

7.7.11.8.2 No person shall distribute or release (or cause to be released or distributed), any Styela within the Auckland region.

7.7.11.8.3 No person shall sell or offer for sale any Styela within the Auckland region.

7.7.11.8.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.8.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.6.4 and 7.7.11.6.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.

7.7.11.9 Undaria (*Undaria pinnatifida*)

Also known as: wakame, Japanese kelp, Asian seaweed

Undaria is a large seaweed that grows to 1-2 metres long. Mature plants are golden brown to green-brown in colour, crinkly in appearance and have a distinct midrib. Undaria can tolerate a broad range of temperatures and light levels and grow on a variety of surfaces. It can produce millions of spores and is also frequently transported as biofouling on vessels. These characteristics allow it to spread rapidly and form dense underwater forests; outcompeting native canopy-forming algal species, altering habitats and impacting associated marine faunal communities.

K.Neill & S.Miller, NIWA

Objective: over the duration of the plan Auckland Council will sustainably control Undaria (*Undaria pinnatifida*) to prevent adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

Intermediate outcome: "sustained control" which means to provide for ongoing control of Undaria, to reduce their impacts and spread to other properties.

Rules:

7.7.11.9.1 No person shall cause to breed any Undaria within the Auckland region.

7.7.11.9.2 No person shall distribute or release (or cause to be released or distributed), any Undaria within the Auckland region.

7.7.11.9.3 No person shall sell or offer for sale any Undaria within the Auckland region.[6]

7.7.11.9.4 All owners or person in charge of any craft in the Auckland region must ensure that the level of fouling on the hull and in niches of the craft does not exceed 'light fouling'.

7.7.11.9.5 Any craft entering any marine water body in the Auckland region from the land must be free of all ballast water, bilge water, holding tank water or sea water held in any other container.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rules 7.7.11.1.1, 7.7.11.7.4 and 7.7.11.7.5 is to regulate activities that may affect measures taken to implement the plan.

The purpose of rules 7.7.11.1.2 and 7.7.11.1.3 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

Principal measures of achievement:

[6] Note this applies only to live propagules. Processed food products may still be sold.

Monitoring and surveillance	Undertake inspections, monitoring and surveillance to determine compliance with biofouling standards and other rules, the presence of new incursions and status of existing or historical sites. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across Tāmaki Makaurau / Auckland and other regions.
Education and advice	Provide information and advice on how to prevent spread of the marine pest, including effective hygiene procedures to reduce the risk of accidental spread on marine farming equipment, hulls, in bilge, ballast or holding tank water or by other human activity. Implement voluntary behaviour change interventions to address high risk pathways.
Enforcement	Enforce restrictions on the sale, breeding, distribution and exhibition of the pest in its live state. Enforce restrictions on movement of ballast, bilge and holding tank water in relation to craft entering any marine waterbody from land. Enforce hull biofouling standard to ensure no more than a slime layer and/or goose barnacles are present.
Requirement to act	All persons in charge of a craft to undertake such hygiene measures as required to ensure biofouling is never more than a slime layer and/or goose barnacles, and to ensure craft are free of all ballast water, bilge water and holding tank water when entering any marine waterbody from land.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, pest species' adaptations and interactions within the marine environment, and ecological impacts of the marine pest on at-risk habitats and ecosystems.