



6

WHARF

BIOSECURITY MANAGEMENT PLAN

HBRC Certified June 2019

NAPIER
PORT

DOCUMENT CONTROL

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CONSULTATION

ASSOCIATION	
FISHERIES LIASON GROUP	YES

CERTIFICATION PROCESS

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NAPIER PORT	13/05/2019

PLAN CERTIFICATED

HBRC	DATE
APPROVED AND CERTIFIED	11/06/2019

CONSENT CL180009E (HBRC REF# AUTH-123842 – 01) REFERENCES

CONDITION	SECTION REFERENCE WITHIN THE PLAN
18 (a)	See Appendix 1 – Heron Construction Biofouling Management Plan
18 (b)	Section 5 - Discovery of unwanted organism
18 (c)	Section 4 - Existing Biosecurity measures

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LIST OF ABBREVIATIONS

BHD	Backhoe Dredger
BMP	Biosecurity Management Plan
FLG	Fisheries Liaison Group
HBRC	Hawke's Bay Regional Council
MPI	Ministry of Primary Industries
ODA	Off-shore Disposal Area
QA	Quality Assurance
QC	Quality Control
TSHD	Trailing Suction Hopper Dredger
WQMP	Water Quality Management Plan

Fisheries Liaison Group input

Napier Port has provided the Fisheries Liaison Group (FLG) the opportunity to provide input into BMP.

Napier Port shall provide any written recommendations from the FLG to the Hawke's Bay Regional Council (Manager Compliance) at the same time the management plan requiring certification is lodged with an explanation as to how the recommendations (from the FLG) have been included in the plan, and if they have not, the reasons why.

1 INTRODUCTION

1.1 GENERAL BACKGROUND

This Biosecurity Management Plan (BMP) has been developed for Napier Port's 6 Wharf and Dredging Project to avoid a biosecurity incursion by the Project dredging activities, in particular at Pania Reef which Napier Port recognises as being both environmentally and culturally significant to the local region.

This BMP covers the dredging and disposal activities, specifically:

- Dredger vessels used for the Project.
- The dredging associated with creation of the berth pocket and swing basin.
- The dredging associated with the widening and lengthening of the approach channel.
- Approximately 3.2 Mm³ of dredge material will be dredged from the Project area.
- Disposal of dredge material at the offshore disposal area, approximately 5km east of the port.

1.2 PROJECT AREA AND LOCATION

Figure 1 shows the dredge footprint for all stages of the Project. Figure 2 shows the offshore disposal area (ODA), for the Project.

1.3 REVIEW OF BMP

The Plan will be reviewed annually after initial certification by HBRC for the first five years as a minimum.

1.4 PURPOSE OF BMP

The purpose of the BMP is to manage the potential biosecurity impacts and to avoid the incursion and/or spread of unwanted organisms in the marine environment as a result of the construction or the dredging and disposal of approximately 3.2 Mm³ of material associated with the Project.

The BMP will also act as a reference, to guide and benchmark the Key Performance Indicators and outcomes for the Port's Project Management Team and Contractors working on dredging and offshore disposal activities for the Project.

1.5 OBJECTIVES

The objectives of this Biosecurity Management Plan are to:

- Manage any potential biosecurity impacts from dredging activities.
- Manage the risk of a biosecurity incursion from a dredge vessel to the greatest extent practicable.

1.6 KEY PERFORMANCE INDICATORS

The key performance indicators of this Plan include:

- No incursion and/or spread of any unwanted organisms in the marine environment as a result of the dredge vessels or activities of the project.
- All vessels have provided evidence of a clean hull prior to departing that high-risk area, as identified in (MPI – Marine High Risk Site Surveillance Programme. Annual Synopsis Report for all high risk sites 2016/17 – SOW18048, dated June 2017), before arriving to dredge or conduct associated activities on the 6 Wharf project.

Figure 1 shows the dredge footprint for all stages of the Project. Figure 2 shows the offshore disposal area for the Project.

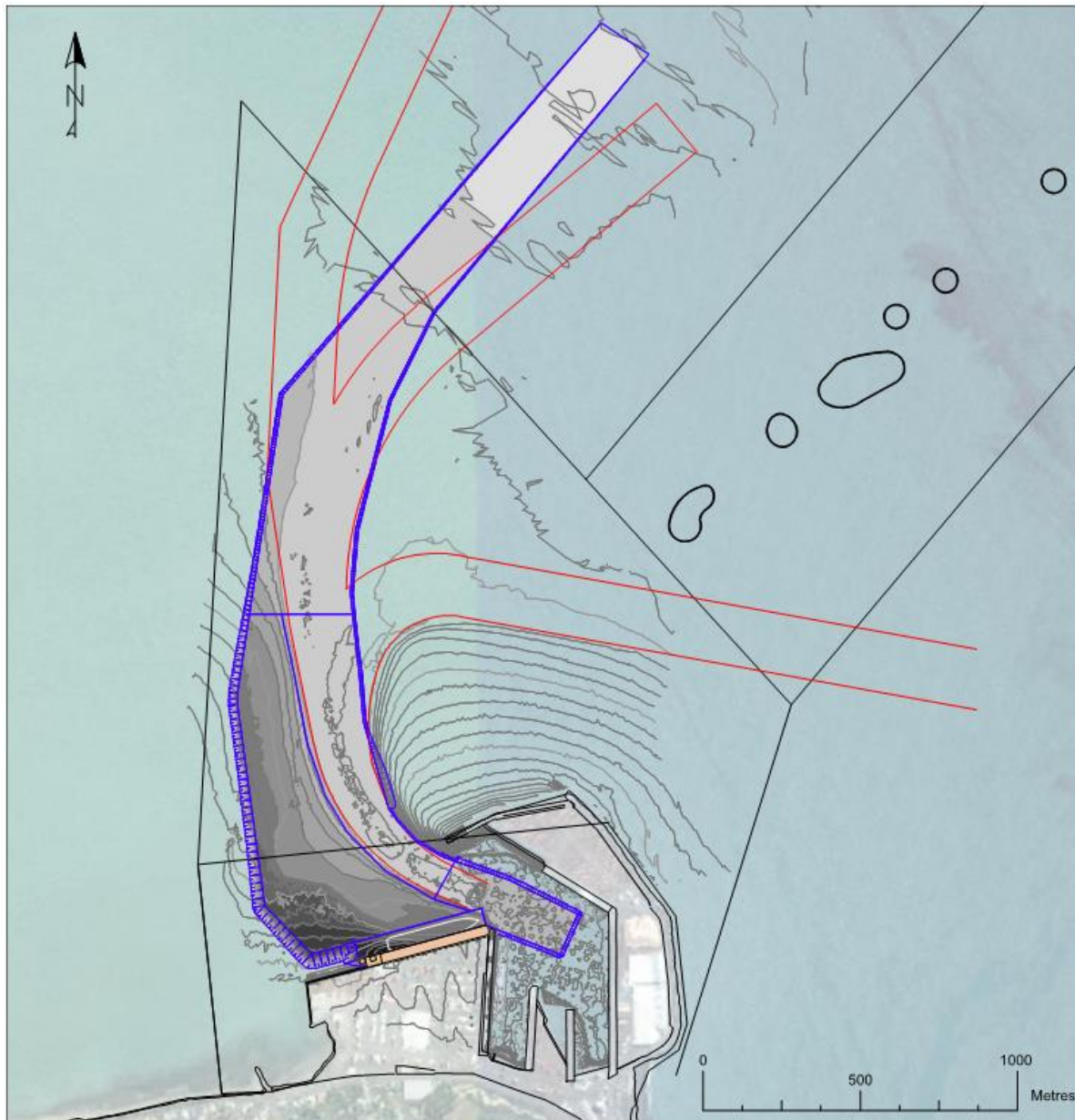


Figure 1 - Project Location

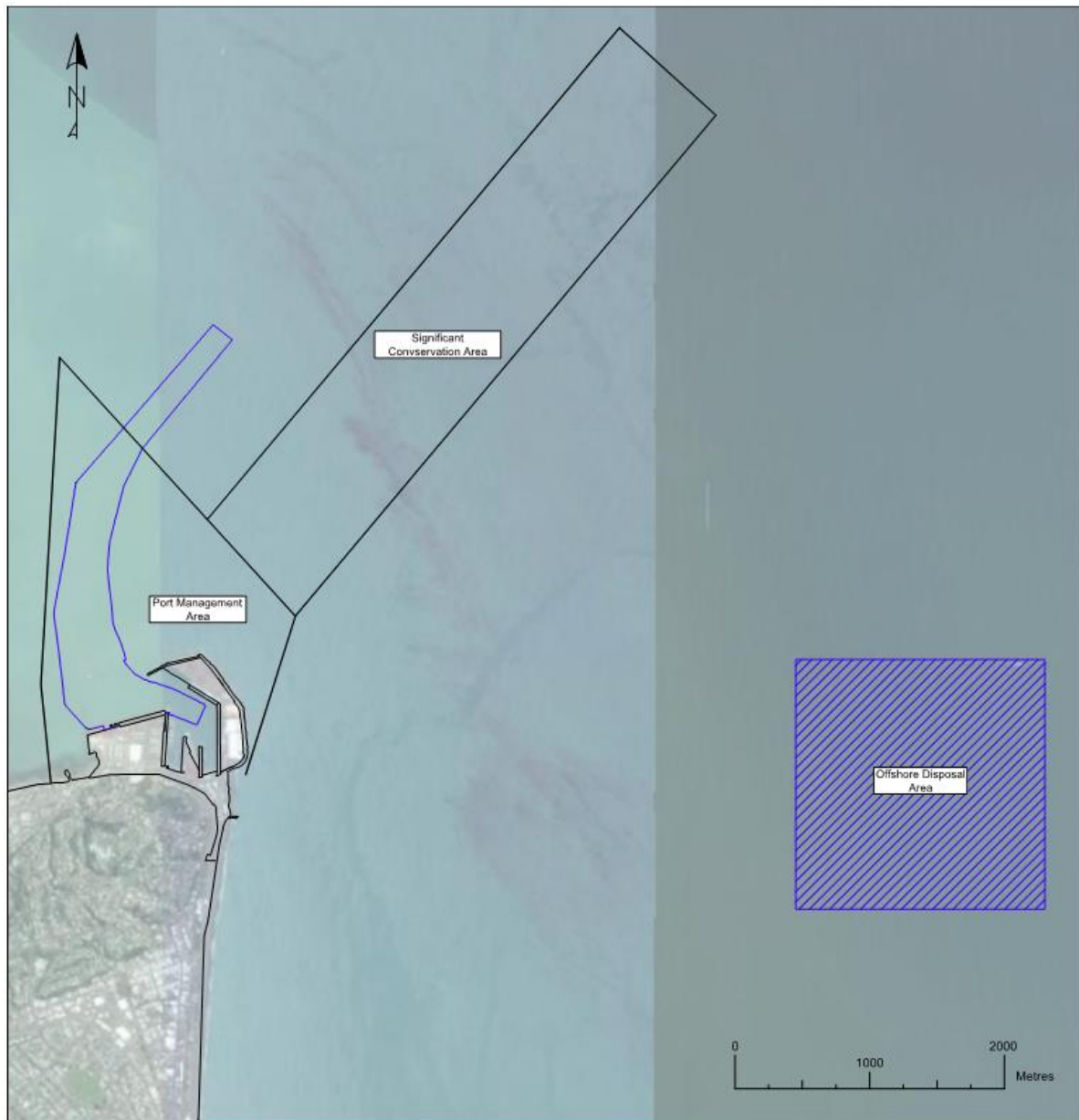


Figure 2 Offshore Disposal Area

1.7 SPECIFIC CONDITIONS OF RESOURCE CONSENT CL180009E

Condition 18: At least one month prior to the arrival of the dredge vessel in Napier, the consent holder shall provide a BMP to the Council for certification. The purpose of the BMP shall be to avoid the incursion and/or spread of unwanted organisms in the marine environment as a result of the construction or dredging activity. A copy of the BMP shall also be provided to mana whenua hapū. The matters covered by the BMP shall include but are not limited to:

- (a) How the risk of a biosecurity incursion from a dredge vessel is to be reduced to the greatest extent practicable;
- (b) The steps to be taken if dredging activities discover an unwanted organism;
- (c) A summary of existing biosecurity measures and initiatives already in place.

The BMP shall be part of the documentation certified by the Council prior to this stage of the capital dredging commencing (Stage 1).

Any changes to a certified BMP shall be discussed in advance with the Council and the change is to be submitted and certified prior to any activity associated with the change commencing.

2 INVASIVE AQUATIC SPECIES

2.1 MPI - INVASIVE SPECIES LIST

The Ministry for Primary Industries (MPI), as at April 2019, has identified eleven unwanted marine organisms which are highly invasive and of particular concern:

- Asian paddle crab (*Charybdis japonica*)
- Chinese mitten crab (*Eriocheir sinensis*)
- European shore crab (*Carcinus maenus*)
- Mediterranean fanworm (*Sabella spallanzanii*)
- Northern Pacific seastar (*Asterias amurensis*)
- Australian droplet tunicate (*Eudistoma elongatum*)
- Clubbed tunicate (*Styela clava*)
- Pyura (*Pyura doppelgangera*)
- Aquarium caulerpa (*Caulerpa taxifolia*)
- Wakame/Undaria (*Undaria pinnatifida*)
- Asian clam (*Potamocorbula amurensis*)

The Marine High Risk Site Surveillance (MHRSS) is a national programme of surveys targeted at the early detection of High Risk marine non-indigenous marine species (NIS), and is part of the Ministry for Primary Industries' (MPI) wider marine biosecurity system.

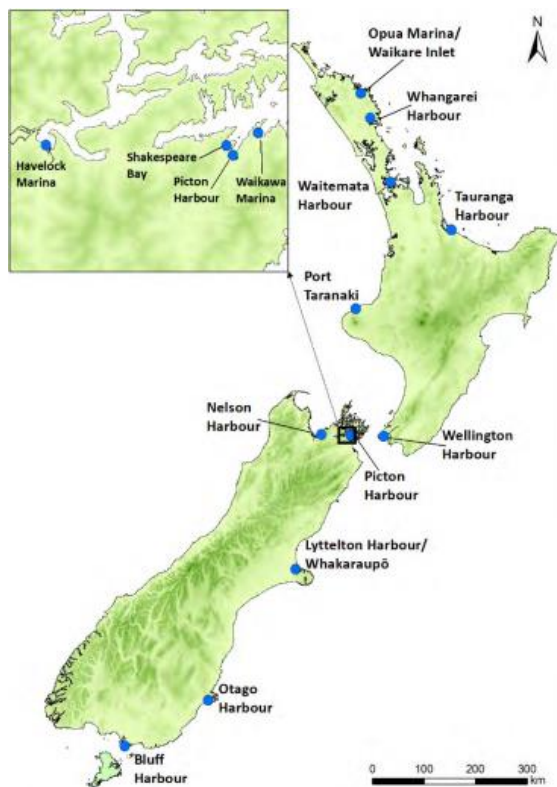


Figure 3. Identified high risk areas

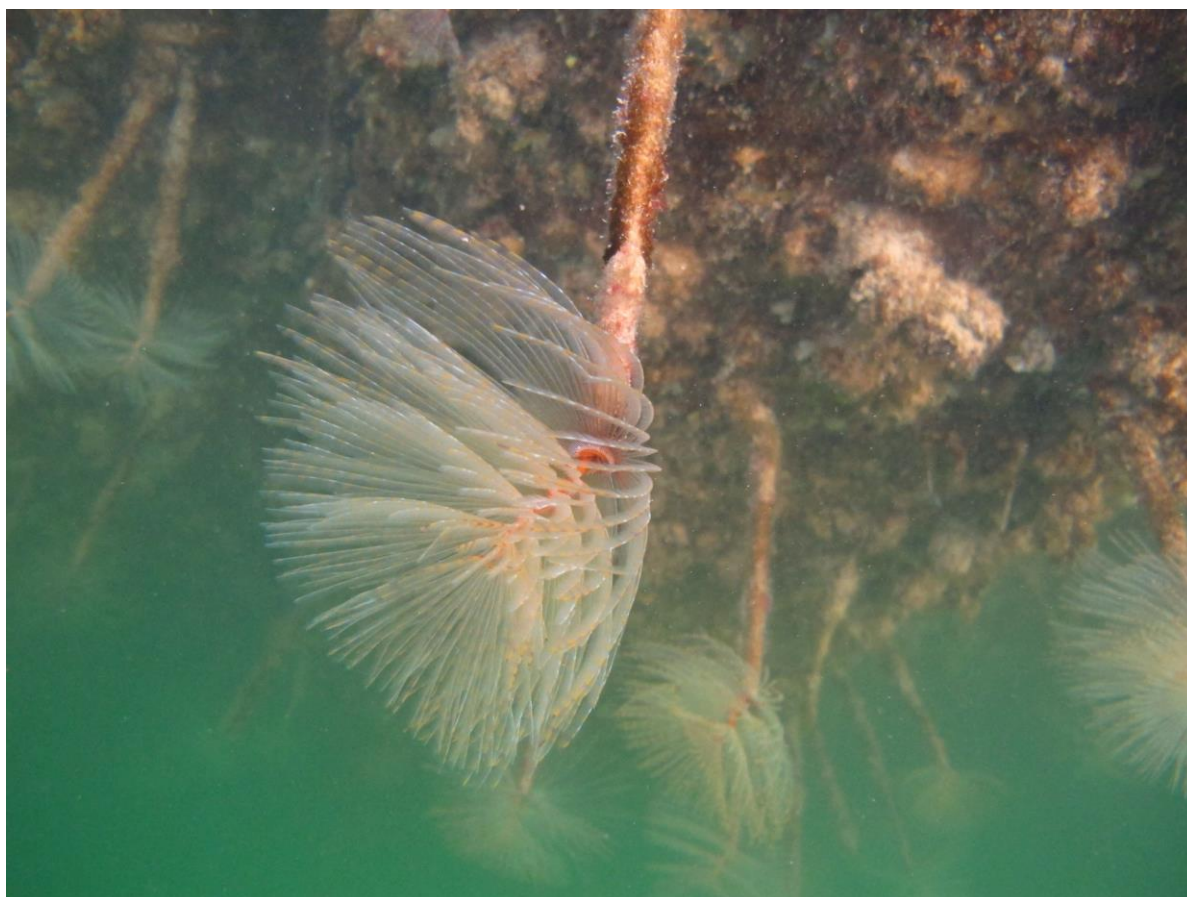
2.2 HBRC - REGIONAL PEST MANAGEMENT PLAN 2019 -2039

The Hawke's Bay Regional Council have recently implemented the Regional Pest Management Plan 2019 – 2039.

The following two invasive species have been identified in the Regional Pest Management Plan as pests in the marine environment.

2.3 MEDITERRANEAN FANWORM - *SABELLA SPALLANZANII*

The adult Mediterranean fanworm is a sessile tube-dwelling worm species with a prominent crown (fan) of brightly coloured (orange, purple and white) bands of feeding tentacles. Mediterranean fanworm's outer tube is tough and flexible and often muddy in appearance. In some instances, there can be other organisms growing on the surface of the tubes. It produces conspicuous amounts of mucus. There are many native fanworms that look similar; however, with a tube length of up to 800 mm, the Mediterranean fanworm is larger than any other comparable worms in New Zealand.



Why is it a problem?

The problem with the fanworm is that it forms very dense colonies. The worms can grow to more than 800mm in length and have the potential to starve our native marine species of food and living space. The fanworms' larvae settle on boat hulls where they grow into adult worms and get transported to new locations when the boat sets sail. Because the fanworms grow very quickly, they can quickly colonise new areas. It has been recently found growing on mussel farms.

2.4 CLUBBED TUNICATE - *STEYELA CLAVA*

Clubbed tunicate has a long, club-shaped body on a tough stalk. Its surface is leathery, rumpled, and nobbly. They can be brownish-white, yellowish-brown, or reddish-brown and ugly in appearance. Sometimes referred to as a 'solitary' sea squirt because each individual has its own stalk and adheres separately to a substrate. It is known to grow rapidly overseas, reaching densities of up to 500-1500 individuals per square metre. They can live for up to two years and grow up to 160mm long. While Clubbed Tunicate are hermaphrodites they have to have more than one to reproduce because the male and female sex organs mature at different times to avoid self-fertilisation. They release eggs and sperm into the water, where eggs are fertilised. The resultant larvae can float freely for 1-3 days before settling and attaching themselves to a hard surface (e.g., rocks, wharf pylons, marine farm ropes).



Why is it a problem?

The clubbed tunicate can outcompete other species due to it reaching such high densities and being an efficient suspension feeder. As a fouling organism it can decrease the productivity of cultured species and increase aquaculture processing and harvesting costs. It also results in higher fuel and maintenance costs for vessels. In Japan it has caused asthmatic symptoms in individuals who shuck fouled oysters in poorly ventilated areas.

3 VESSEL BIOFOULING PLAN

Biofouling means an accumulation of aquatic organisms such as micro-organisms, plants and animals in structures immersed in or exposed to the aquatic environment.

Any dredger vessel before entering Napier Port for the Project must provide a biofouling management plan or biosecurity management plan. The plan must follow IMO *Guidelines for the control and management of ships biofouling to minimise the transfer of invasive aquatic species, as adopted under Resolution MEPC.207(62) on 15 July 2011*.

The Biofouling management plan as a minimum must provide evidence of:

- Biofouling Records;
- Date and location that the vessel was last dry-docked;
- Date when the hull area, fittings, niches and voids below the waterline have been inspected by divers;
- Date when the hull area, fittings, niches and voids below the waterline have been cleaned by divers;
- Date and location when the internal seawater cooling systems have been inspected and cleaned/treated; and
- Since the ship was last cleaned, has the ship spent periods of time in locations that have known incursions of invasive aquatic species.

In addition, any vessel relating to the project that has been layed up or inactive in a high risk identified area, as shown in *Figure 3*, must provide evidence of a clean hull (i.e. dive survey, video evidence, hull clean) prior to departing that high-risk area, to conduct dredging or associated activities on the 6 Wharf project.

Heron Construction has a current MPI approved Biofouling Management Plan (see *Appendix 1*).

4 EXISTING BIOSECURITY MEASURES

4.1 ROUTINE INSPECTIONS

Napier Port routinely inspects all navigation aids, including mooring chain and anchor blocks when they come ashore for maintenance. All inspections are detailed on "Marine Pest Inspection Forms" including photos and assessment of the bio-foul for invasive species.

It should be noted that during regular maintenance inspections, no Mediterranean Fanworm - *Styela Clava* or Clubbed Tunicate - *Sabella Spalanzanii* have been found on any of the navigation aids, mooring chain and anchor blocks.

The HBRC conducting a survey of the inner harbour for invasive species in February 2019. The Bay of Plenty Regional Council dive team undertook the work. No Mediterranean Fanworm - *Styela Clava* or Clubbed Tunicate - *Sabella Spalanzanii* were detected at any locations within Ahuriri Inner Harbour.

4.2 PROACTIVE MONITORING

Napier Port is committed to ongoing monitoring for invasive species within the inner Port. Targeted surveillance for high-risk marine pests relies heavily on visual searches (particularly SCUBA) for detecting high-risk species. However, in adverse weather conditions and/or low underwater visibility

the effectiveness of visual surveys can be impaired, with the associated risk that target species (especially juvenile specimens) may be overlooked.

It is proposed to install Settlement Plate Arrays for marine surveillance within the Napier Port inner harbour at various locations.



Figure 5 - Examples of settlement plate arrays

5 DISCOVERY OF UNWANTED ORGANISM

As reported in Cawthron Institute Report (2017), it is not anticipated that any unwanted organisms will be discovered during dredging activities.

If any unwanted or unusually prolific organisms are discovered during the dredging activities relating to this Project the following steps are to be followed:

1. **STOP** dredging activities.
2. Notify Napier Port of a suspected unwanted organism, Napier Port to notify HBRC compliance officer and HBRC biosecurity team within 24hrs.
3. Assessment/Confirmation of suspected unwanted organism.
4. Management actions to be applied in consultation with HBRC once confirmation has been received of an unwanted organism.

APPENDIX 1

HERON CONSTRUCTION BIOFOULING MANAGEMENT PLAN