Permitted activities: Pre-activity notice

Form 1 of Schedule 5 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects – Permitted Activities) Regulations 2013

How to use this form: This form must be completed by organisations planning to carry out a permitted activity (except seismic surveying) in accordance with:

- regulation 5, 6 or 8 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects – Permitted Activities) Regulations 2013 (PA Regulations 2013); or
- regulation 7, 8 or 9 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects – Discharge and Dumping) Regulations 2015 (D&D Regulations 2015).

This form fulfils the pre-activity reporting requirements under regulation 11(a) of the PA Regulations 2013 and regulation 12(2) of the D&D Regulations 2015.

Timeframe: You must provide this form to the Environmental Protection Authority (EPA) no less than 40 working days before starting the activity.

Note: Items marked in italics are not compulsory; however, including this information will help the EPA process the form.

This completed form, once received and processed by the EPA, will be posted on the EPA website.

Submitting in hard copy: If you wish to provide the completed form in hard copy, post it to Environmental Protection Authority, Private Bag 63002, Wellington 6140 or fax it to +64 4 914 0433.

Submitting electronically: If you wish to provide the completed form electronically, email it to permitted.compliance@epa.govt.nz.

Any form submitted electronically should be attached to an email that sets out:

- the details of the person undertaking the permitted activity (the operator)
- the name of the person supplying the completed form
- a statement that the person is authorised to supply the form on behalf of the operator.

Note: The EPA has an 8 MB limit on electronic files submitted by email.

You can find and download all forms prescribed by the PA Regulations 2013 and the D&D Regulations 2015, as well as suggested templates for providing other information, on our website at www.epa.govt.nz or request them from us by contacting:

Environmental Protection Authority,
Private Bag 63002, Wellington 6140
Email permitted.compliance@epa.govt.nz
Phone +64 4 916 2426
Fax +64 4 914 0433
**Operation name: Taranaki Bight sampling**

Name used by operator to reference the activity described in this form:

Details of person undertaking permitted activity

| Name of company, organisation or person: | NIWA |
| Contact person: | [Redacted] |
| Phone number: | [Redacted] |
| Mobile number: |  |
| Fax number: |  |
| Physical address: | [Redacted] | Postcode: [Redacted] |
| Postal address (if different): | [Redacted] | Postcode: [Redacted] |
| Email address: | [Redacted] |

General description of permitted activity

**Type of activity:**

- Marine scientific research ☒ Alteration, extension or removal of a permitted marine structure ☐
- Prospecting ☐ Discharge of sediments from iron sand prospecting and exploration ☐
- Exploration ☐ Incidental discharge of sediments from phosphate nodule or placer gold prospecting and exploration ☐
- Placement or removal of submarine cables ☐ Discharge of sediments from seafloor massive sulphide prospecting and exploration ☐

**Description of methods to be used to undertake the activity:**

The objective of the sampling is to collect live specimens of dog cockles (*Tucetona*), sponges, and bryozoans, together with some sediment and near-seafloor water samples for undertaking research under a Sustainable Seas National Science Challenge project.

In terms of seafloor contact, we plan to carry out up to four samplings with a small grab and up to four samplings of a small Agassiz trawl. It is possible we will collect sufficient samples with a single deployment, but additional are planned in case of gear failure or sample loss.

The grab is a sampling tool that is like a small excavator; it has two scoops which close together, digging into the sediment by up to 10 cm, and takes a sample of up to 2000 ml. The jaws open to be 15 cm apart (Fig. 1).
Figure 1: Photo of a small grab

The Agassiz trawl gear is about 0.75m wide, and is towed along the seafloor for a short distance (approximately 75-100m each time) and catches animals on the surface (it digs in a few cm on soft sediment) (Fig. 2). This may catch 10-20kg of specimens per haul, as well as shell hash and rubble.

Figure 2: Agassiz type trawl.
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Timing of permitted activity

**Proposed start date:** 25/04/2017

**Approximate duration of activity:** 1 day

**Timetable:**

Day 1: Sail from Wellington/Mana to sampling site, undertake benthic and water sampling, return to Wellington/Mana.

Location of permitted activity

**Co-ordinates of area where activity will be undertaken:**

(Provide four sets of co-ordinates in latitude and longitude or submit a shape file or KML/KMZ file.)

<table>
<thead>
<tr>
<th>Set</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>39°50.0'S</td>
<td>173°55.0'E</td>
</tr>
<tr>
<td>2</td>
<td>39°50.0'S</td>
<td>174°15.0'E</td>
</tr>
<tr>
<td>3</td>
<td>40°05.0'S</td>
<td>174°15.0'E</td>
</tr>
<tr>
<td>4</td>
<td>40°05.0'S</td>
<td>173°55.0'E</td>
</tr>
</tbody>
</table>

☐ I have attached a shape or KML/KMZ file

**Map:**

(Provide a map that shows the location of your activity relative to the New Zealand coastline)

Please note that the sampling box is larger than we will use on this sampling trip. However, it gives us some flexibility to sample a variety of previous NIWA sites depending on conditions, and will also match a further survey planned for June or July (which will be the subject of a further application)

Describe the current state of the area and the surrounding environment, including any known sensitive environments:
There is reasonably good knowledge of the benthic environment in this area from surveys done by NIWA in 2011 and 2012 for Trans Tasman Resources. Sampling has been carried out in the proposed survey area using towed cameras (which enables an overview of the nature and extent of benthic invertebrate communities), as well as with Agassiz trawl and grab (to collect samples for taxonomic identification). The offshore area we will target is dominated by rippled sand sediments and low-lying biogenic habitat comprising bivalve rubble (Beaumont et al. 2013). The latter consists largely of live dog cockles (Tucitona laticostata) and bivalve shell debris. The highest densities of dog cockles occur at depths of 45–60 m, where the slope of the continental shelf is slightly steeper, and hence may have stronger currents that favour the filter-feeding cockles. The habitat has associated encrusting coralline algae, small sponges, and ophiuroids.

The area includes the sensitive habitat defined as “beds of large bivalve molluscs” in the EEZ Act Regulations. Although species are not specified, and large is not defined, we assume that the dog cockles could meet this criterion.

Describe the likely effects of the activity on the environment:

Minor impacts are expected.

The sampling site/s are known to NIWA from previous sampling, and hence we know what to expect, and how to minimise the impact on the seafloor and communities to catch the necessary specimens. The minimum number of deployments will be made, and as we endeavour catching animals alive, tows will be short, and at as slow a speed as possible. Each trawl will cover an area of 50-100 m$^2$, and each grab will sample about 2000 ml. In total impact of four trawls and four grabs will be 200-400 m$^2$ and up to 300 m$^2$ (8000 ml), respectively.

We know from the previous research that the extent of cockle communities is of the order of 10s km, over a wide depth range. Hence we are confident we will have very minor impacts on the environment.

Other information

<table>
<thead>
<tr>
<th>Name of the ship involved in the activity:</th>
<th>RV Ikatere</th>
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<tbody>
<tr>
<td>International call sign or vessel number of the ship:</td>
<td></td>
</tr>
<tr>
<td>Associated licence number (under the Continental Shelf Act 1964):</td>
<td></td>
</tr>
<tr>
<td>Associated permit number (under the Crown Minerals Act 1991):</td>
<td>We have the necessary Special Permit for collection of seabed samples from MPI.</td>
</tr>
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</table>

Signature of authorised contact person  
Name:  
Title:  

Note: A signature is not required for electronic (email) forms.