Form 1: Pre-activity notice

*Regulation 11(a), Exclusive Economic Zone and Continental Shelf (Environmental Effects–Permitted Activities) Regulations 2013*

**How to use this form:**

This form should be completed by organisations planning to carry out a permitted activity (except seismic survey) as defined in the Exclusive Economic Zone and Continental Shelf (Environmental Effects-Permitted Activities) Regulations 2013. It fulfils, in part, the pre-activity requirements of Schedule 1 of the Regulations.

This form must be provided to the Environmental Protection Authority (EPA) at least 40 working days before commencing the activity.

Note: Items marked in italics are non-compulsory fields; however, inclusion of this information will assist the EPA in processing this form.

Please note that this completed form, once received and processed by EPA, will be posted on the EPA website.

**Submitting in hard copy:**

If you wish to provide this form in hard copy, please post your completed form to: Environmental Protection Authority, Private Bag 63002, Wellington, 6140.

**Submitting electronically:**

If you wish to provide this form electronically, please email your form to: eez.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; and
- A statement that the person is authorised to supply the form on behalf of the operator.

Note: there is an 8 MB limit on electronic files submitted via email.

All forms prescribed by the Exclusive Economic Zone and Continental Shelf (Environmental Effects – Permitted Activities) Regulations 2013, as well as suggested templates for providing other information, may be viewed and downloaded from our website at www.epa.govt.nz or requested by contacting us:

Private Bag 63002, Wellington, 6140
Email info@epa.govt.nz
Ph +64 4 916 2426
Fax +64 4 914 0433
Operation name:

Name used by operator to reference the activity described in this form: SEA cruise S270 & S270A

Details of person undertaking permitted activity

<table>
<thead>
<tr>
<th>Company name</th>
<th>Sea Education Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person</td>
<td></td>
</tr>
<tr>
<td>Phone number</td>
<td></td>
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<tr>
<td>Mobile number</td>
<td></td>
</tr>
<tr>
<td>Fax number</td>
<td></td>
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<tr>
<td>Physical address</td>
<td></td>
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<tr>
<td>Postcode</td>
<td></td>
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<tr>
<td>Postal address (if different)</td>
<td></td>
</tr>
<tr>
<td>Postcode</td>
<td></td>
</tr>
<tr>
<td>Email address</td>
<td></td>
</tr>
</tbody>
</table>

General description of permitted activity

<table>
<thead>
<tr>
<th>Type of activity:</th>
<th>Marine scientific research and undergraduate student education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of methods to be used to undertake the activity:</td>
<td>Continuous underway measurements of: current magnitude and direction via ADCP; single-beam bathymetry; surface seawater temperature, salinity, CDOM fluorescence, transmissivity, and chlorophyll fluorescence via flow-thru system.</td>
</tr>
<tr>
<td>In situ Station-based work: upper water column CTD profiles; discrete water samples collected by Niskin bottle for chemical analysis (nitrate, phosphate, silicate, dissolved oxygen, chlorophyll concentration, pH, total and carbonate alkalinity, and abundance of microplastic particles); surface and near-surface zooplankton biodiversity and abundance assessed by net tow (333um mesh); surface and near-surface phytoplankton biodiversity and abundance assessed by drifted phytoplankton net (63um mesh); seafloor sediment sampling by shipek grab.</td>
<td></td>
</tr>
<tr>
<td>In addition to instrument-driven observation we will also conduct hourly visual surveys (0600-1800 hours) of marine debris, marine mammals, seabirds, fish and sea turtles. Enumeration of marine debris and fauna (e.g. seabirds, marine mammals, etc) as well as mapping coral reef distribution will be augmented with aerial surveys using a drone equipped with a digital recording device (e.g. Phantom 3 or similar model ~ 400m range) where permissible.</td>
<td></td>
</tr>
</tbody>
</table>

Timing of permitted activity

| Proposed commencement date: | 13 November 2016 |
| Approximate duration of activity (in days): | 56 days |
Timetable:

Underway measurements (surface flow-thru, bathymetry and currents) will be recorded continuously during the cruise once the ship departs port. Water column sampling and net tows will occur twice daily for the duration of the cruise.

Timetable (continued):

Program Begins (Auckland, NZ): 13 November 2016 (Leg 1)
Underway/sampling: 14 November - 17 November 2016
In port (Russell)/no sampling: 17 November - 19 November 2016
Underway/sampling: 19 November - 11 December 2016
In port (Napier)/no sampling: 11 December - 13 December 2016
Underway/sampling: 13 December - 21 December 2016
Program Ends (Auckland, NZ): 21 December 2016 (Leg 1)
In port (Auckland)/no sampling: 21 December - 30 December 2016
Program Begins (Auckland, NZ): 30 December 2016 (Leg 2)
Underway/sampling: 30 December 2016 - 7 January 2017
Program Ends (Auckland, NZ): 7 January 2017 (Leg 2)

Location of permitted activity

Co-ordinates of area where activity will be undertaken:
(latitude and longitude)

The SSV Robert C. Seamans plans to sail off shore of the north eastern coast of the north island of New Zealand within a polygon bounded by the following corners:

1. 35°00’S x 174°00’E
2. 28°00’S x 177°40’E
3. 29°35’S x 176°10’E
4. 40°00’S x 179°00’E
5. 40°00’S x 177°00’E

Within the polygon (and in marine waters only) the proposed in situ sampling stations will include, but are not limited to:

Leg 1

Station 1: 35° 20’ S x 175° 04’ E
Station 2: 34° 44’ S x 174° 43’ E
Station 3: 34° 21’ S x 175° 17’ E
Station 4: 33° 56’ S x 175° 48’ E
Station 5: 33° 22’ S x 176° 33’ E
Station 6: 32° 48’ S x 177° 15’ E
Station 7: 32° 13’ S x 177° 58’ E
Station 8: 31° 37’ S x 178° 41’ E
Station 9: 31° 04’ S x 179° 22’ E
Station 10: 30° 29’ S x 179° 57’ E
Station 11: 29° 52’ S x 179° 16’ E
Station 12: 29° 16’ S x 178° 35’ E
Station 13: 28° 57’ S x 177° 51’ E
Station 14: 29° 33’ S x 177° 20’ E
Station 15: 30° 41’ S x 177° 00’ E
Station 16: 31° 10’ S x 177° 13’ E
Station 17: 31° 56’ S x 177° 34’ E
Station 18: 32° 42’ S x 177° 56’ E
Station 19: 33° 29’ S x 178° 19’ E
Station 20: 34° 17’ S x 178° 42’ E
Station 21: 35° 04’ S x 179° 04’ E
Station 22: 35° 49’ S x 179° 29’ E
Station 23: 36° 35’ S x 179° 51’ E
Station 24: 37° 19’ S x 179° 43’ E
Station 25: 38° 06’ S x 179° 15’ E
Station 26: 38° 53’ S x 178° 55’ E
Station 27: 39° 40’ S x 178° 30’ E
Station 28: 37° 00’ S x 179° 02’ E
Station 29: 37° 18’ S x 177° 39’ E
Station 30: 36° 20’ S x 176° 09’ E
The vessel will then sail into Auckland and be in port for 9 days prior to the start of the second leg (S270A).

**Leg 2**

<table>
<thead>
<tr>
<th>Station 1:</th>
<th>36° 21' S x 175° 24' E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station 2:</td>
<td>36° 18' S x 176° 10' E</td>
</tr>
<tr>
<td>Station 3:</td>
<td>35° 14' S x 175° 54' E</td>
</tr>
<tr>
<td>Station 4:</td>
<td>34° 16' S x 174° 56' E</td>
</tr>
<tr>
<td>Station 5:</td>
<td>35° 08' S x 174° 56' E</td>
</tr>
</tbody>
</table>

The vessel will then sail into Auckland. If weather requires, the ship will alter routes and stations.

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**Description of the current state of the area and the surrounding environment, including any known sensitive environments:**

All water column research will occur in offshore pelagic settings. We do not plan to sample or interact with any sensitive environments. There will be no sampling in designated NZ Marine Reserves.

**Description of the likely effects of the activity on the environment:**

Water column sampling activities focus on the upper water column and will not impact any sensitive environments. We will remove small volumes of seawater for chemical analysis and daily net tows will collect small zooplankton. Benthic sampling by shipek grab will be limited to 250 cubic centimeters of surface sediment on muddy substrate well outside any protected areas and sensitive environments.

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**Other information**

<table>
<thead>
<tr>
<th>Name of ship involved in activity:</th>
<th>SSV Robert C. Seamans</th>
</tr>
</thead>
<tbody>
<tr>
<td>International call sign or vessel number of the ship:</td>
<td>WDA 4486</td>
</tr>
<tr>
<td>Associated licence number (under the Continental Shelf Act 1964):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Associated permit number (under the Crown Minerals Act 1991):</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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**Signature of authorised contact person**

**Name:**

**Title:**

**Date:** 31 August 2016

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