MARINE BIOSECURITY PLANNING

Guidance for Specific Operation/Construction Related Activities

This document is designed to help guide the development of a biosecurity plan for construction activity. The examples provided are suggestions for consideration and may not be applicable in all scenarios. Separate guidance and templates are also available for creating plans for site based operations, events or estuary wide plans. A template is provided at the end of this document however plans can be in whatever format is most appropriate to the user.

Section 1 – Scene Setting

Your opening section sets the scene for why you are doing a biosecurity plan. You can highlight the concerns the operation raises and set them in the context of the national issues identified by the GB Secretariat. Topics which you should cover in this section include:

* What are Non-Native and Invasive Non-Native Species (INNS)?
* What is Biosecurity?
* What is a Vector or Pathway?
* Abbreviations and Acronyms

Section 2 – Introduction

Here you identify what activity is to be covered, who has responsibility for the Plan and how and when it will be reviewed and updated. Items in this section should include:

* Biosecurity Manager/Officer or responsible person or organisation/group
* Plan duration and review date (longer operations this may be quarterly or annually, shorter operations it will be at the end of the construction period)
* Plan review process
* Location of biosecurity logbook i.e. to record biosecurity actions/review of plan
* Where the activity is going to happen
* What sort of machinery or materials will be used
* Transport routes for machinery and materials
* Critical control points – where machinery and/or materials can be effectively assessed and cleaned

Section 3 - Environmental Information

In this section we delve into more detail about the physical characteristics of the area covered by the Plan. As an operation or activity plan you are mostly concerned about the physical parameters of the donor and receiving areas – for example if you are moving pontoons or a construction barge from Devon to the Clyde you will need to know a little about both areas. Don’t be put off at this stage if you are not a trained marine biologist, most information is available online and searches of the relevant marine planning portals or through contact with key agencies (see list at the end of this document) will provide a lot of information. Items to include are:

* ***Site description*** – what sort of area is it? Are you going from hard standing construction site to a fully saline environment or from a sea area to another sea area or river to sea area?
* ***Tidal, salinity, stratification information*** – gather information from users such as shipping organisations which may have salinity data easily to hand.
* ***Sensitive habitats and protected features/areas*** – list any locally protected areas and include information about why they are designated and any concerns noted about the potential impact of INNS.
* ***Known environmental management measures*** – all protected areas will have some management measures in place and/or targets for maintenance of status; use these to inform the development of your plan.
* ***INNS known to be present*** – there may not be a list of INNS for your area already available. However, the Marine Biological Association along with a number of other associations, universities and agencies have compiled lists of known INNS which you may already be aware of. Make contact with these relevant organisations or you can search by area or by species on the National Biodiversity Network/Atlas site. Links at the end of the document.
* ***NNS likely to be of concern (horizon scanning)*** – the GB Secretariat has a list of high alert species but you can also compile your own list. A list of horizon scanning species has also been produced by the Marine Pathways group for Marine Strategy Framework Directive reporting.

Section 4 – Activity risk

Here you will list the major types of activity you will undertake e.g. movement of barges, construction materials etc.

**Higher Risk Activities**

List the main activities and risks – a list is included below to get you started. Describe the activities in a way which helps to identify the risks associated with them.

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| Activity | Risk Factors |
| Construction barges  | Use of ballast waterHull foulingSpeed of vessels and routes followed. Slower moving vessels from distant ports are higher risk.  |
| Reused Pontoons and other equipment | Pontoons and other equipment will have gathered fouling in the donor area.  |
| Earth/rock movement | It is possible to transfer INNS on these materials. |
| Dredging | Dredging can disturb and fragment INNS causing them to spread. |
| Relocation of structures and equipment  | Movements or disposal of pontoons, barges, buoys, anchor chains, underwater equipment all have potential to disturb and spread INNS. |

Remember to keep this list under review as risk will change over time e.g. with development of different industries or changes in practice.

Section 5 - Biosecurity Actions / Control measures

The type and number of actions you wish to include in your biosecurity plan will vary depending upon the operational parameters and budgets. In the marine environment in general measures will focus on the following aspects of control and awareness raising:

* Clean all structures before they enter the water. Use fresh, hot water if possible. Wash onto hard standing, preferably into an interceptor system. Do not allow any water to return to the sea.
* Remove unneeded man-made structures from the water – in general INNS prefer these structures and removal of the preferred substrate is a useful control measures. This could include temporary removal or moving structures out of the preferred growth zone e.g. removal of mooring buoys in winter to a yard on land and putting the mooring chain to the seabed to smother fouling.
* Air dry – most, if not all, marine and aquatic INNS will be killed by being dried out – identify opportunities to dry out equipment or infrastructure as often as possible e.g. dive kit or dredgers and barges between uses.
* Expose to fresh water – most marine INNS need some degree of salinity to sustain their life cycle – if you can expose them to fresh water by immersion or washing down you will reduce the risk posed by INNS.
* Awareness – most people are unaware of what INNS look like or the threat from them. Your biosecurity actions list could include opportunities for training and dissemination of information e.g. through public signage or ID guides for staff.
* Distribution of responsibility – include conditions in your terms for contractors for example:
* The contractor must submit a Biosecurity Risk Assessment for written approval at least 6 weeks prior to commencement of the works.
* The contractor must submit an updated Biosecurity Risk Assessment by a relevant date.
* The contractor must ensure that all equipment, materials, machinery and PPE used are in a clean condition prior to their arrival on site to minimise risk of introducing INNS into the marine environment.

Section 6 – Monitoring

In this section you should make a list of monitoring/surveillance or survey activities you would like to put in place to ensure that your plan is being followed and risks are minimised. For example you could focus on aspects of compliance such as:

* Have all contractors been supplied with expected biosecurity standards?
* Have all materials and vessels been appropriately cleaned prior to use?
* Has all suspect material been dealt with by disposal to landfill?
* Have any new INNS been identified in your donor or receiving areas since the work was started?

You should also include a section on monitoring for INNS – this would be more relevant to longer projects where barges etc. will be in the water for some time. A routine monitoring regime covering all submerged structures is helpful for identifying any new INNS or those which are spreading.

Section 7 - What to do if there’s an incident and who to contact

Things can and do go wrong, sadly your efforts won’t work 100% of the time. Think through what you would do if there is the discovery of a high risk INNS. Seek advice on who any INNS should be reported to for support and guidance (see *further information* below). Write a brief set of instructions on what to do and who to contact and include this in your training/briefing session for volunteers before the event starts.

 Further information

**GB Non-Native Species Secretariat** – Non-native species information, Government policy and strategy for management. [www.nonnativespecies.org](http://www.nonnativespecies.org)

**National Biodiversity Network** – Distribution maps and information about species. <https://data.nbn.org.uk> to be replaced shortly with NBN Atlas [www.nbnatlas.org](http://www.nbnatlas.org)

**European Commission** - European Alien Species Information Network - EASIN <https://easin.jrc.ec.europa.eu/Services/SpeciesSearch> and <http://ec.europa.eu/environment/nature/invasivealien/index_en.htm> and list of Species of Union Concern - <http://www.nonnativespecies.org/index.cfm?sectionid=7>

Guidance on **Marine Biosecurity planning**

* England and Wales - [www.nonnativespecies.org/downloadDocument.cfm?id=1401](http://www.nonnativespecies.org/downloadDocument.cfm?id=1401)
* Scotland - <http://www.snh.gov.uk/docs/A1294630.pdf>
* N Ireland - <https://www.daera-ni.gov.uk/articles/invasive-alien-species>

**Marine Biological Association** of the UK – Information on marine species including non-native species. [www.mba.ac.uk](http://www.mba.ac.uk) http://www.marlin.ac.uk/

**Bishop Group**, Marine Biological Association – Surveys of INNS and information on INNS. [www.mba.ac.uk/bishop](http://www.mba.ac.uk/bishop) or [www.mba.ac.uk/fellows/bishop-group](file:///C%3A%5CUsers%5CSarah%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5CContent.Outlook%5CU8E0WBJI%5Cwww.mba.ac.uk%5Cfellows%5Cbishop-group) or email cwo@mba.ac.uk

**DEFRA** - <http://jncc.defra.gov.uk/page-5150>

**DASSH** (The Archive for Marine Species and Habitats Data) - www.dassh.ac.uk/

**MARINE BIOSECURITY PLAN FOR\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Scene setting**
* **What are Invasive Non-Native Species (INNS)?** *E.g. Invasive Non-Native Species are those that have been transported outside their natural range and that damage our environment, the economy, our health and the way we live.*
* **What is Biosecurity?** *E.g.**Biosecurity means taking steps to make sure that good practices are in place to reduce and minimise the risk of spreading invasive non-native species. A good biosecurity routine is always essential, even if invasive non-natives are not always apparent.i*
* **What is a Vector or Pathway?** *E.g. These are the means by which a species is moved from place to place due to human activity.*

**Abbreviations and Acronyms**

*Examples*

*DEFRA Department for Environment, Food and Rural Affairs*

*GB NNSS GB Non-Native Species Secretariat*

*GES Good Ecological Status (within WFD) or Good Environmental Status (MSFD)*

*INNS Invasive Non-Native Species*

*MSFD Marine Strategy Framework Directive*

*WFD Water Framework Directive*

1. **Introduction**
* **Biosecurity Manager/Officer or responsible person or organisation/group:**
* **Plan duration and review date:**
* **Plan review process:**
* **Location of biosecurity logbook:**
* **Location of activity:**
* **Machinery or materials to be used:**
* **Transport routes for machinery and materials:**
* **Critical control points:**

**3. Environmental information:**

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| **Site description** |
| **Tidal, salinity, stratification information**  |
| **Sensitive habitats and protected features/areas**  |
| **Known environmental management measures**  |
| **Condition assessment (if available)** |
| **INNS known to be present** |
| **INNS likely to be of concern (horizon scanning)** |

**4. Activity risk**

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| **Activity** | **Risk Factors** |
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**5. Biosecurity Actions/Control Measures**

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| **Who** | **Biosecurity Action** |
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**6. Monitoring**

**7. Contingency plan**

**Responsibilities:**

**Contact details:**