# Awel y Môr Offshore Wind Farm

# Outline Invasive Non-Native Species Management Plan (Clean)

## Deadline 1

**Date: 24 October 2022**

**Revision: C**

Document Reference: 1.39

PINS Reference: N/A

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm

| REVISION | DATE | STATUS/ REASON FOR ISSUE | AUTHOR: | CHECKED BY: | APPROVED BY: |
|---|---|---|---|---|---|
| **A** | August 2021 | PEIR | SLR | SLR/GoBe | RWE |
| **B** | March 2022 | Application | SLR | SLR/GoBe | RWE |
| **C** | October 2022 | Deadline 1 | SLR | RWE | RWE |
| | | | | | |
| | | | | | |

www.awelymor.cymru

RWE Renewables UK Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon

# Contents

# Abbreviations and acronyms

| TERM | DEFINITION |
|---|---|
| ALO | Agricultural Liaison Officer |
| AyM | Awel y Môr Offshore Wind Farm |
| BioRA | Biosecurity Risk Assessment |
| CMS | Construction Method Statement |
| CoCP | Code of Construction Practice |
| DCO | Development Consent Order |
| OL | Order Limits |
| ECoW | Ecological Clerk of Works |
| ES | Environmental Statement |
| INNS | Invasive Non-Native Species |
| NRW | Natural Resources Wales |
| OWF | Offshore Wind Farm |
| SMP | Soil Management Plan |
| WTGs | Wind turbine generators |

# 1 Introduction

## 1.1 Purpose of this Outline INNSMP

1 This Outline Invasive Non-Native Species Management Plan (Outline INNSMP) is provided as Appendix 11 to the Outline Code of Construction Practice (CoCP) (application ref: 8.13) as part of the Environmental Statement (ES).

2 This is an outline document that, by reference to the assessments reported in the ES, sets out the key elements that will be secured in the detailed INNSMP which Awel y Môr Offshore Wind Farm Limited (The Applicant) will be required to submit to Denbighshire County Council (DCC) for approval under a requirement of the DCO. Consideration of invasive non-native species (INNS) was requested by Natural Resources Wales (NRW), during consultation in February 2021.

3 This Outline INNSMP provides details of mitigation measures and best practice handling techniques to minimise the potential for INNS to be spread by construction activities. The outline INNSMP should be read in conjunction with the Outline CoCP (application ref 8.13) and all of its supporting appendices.

## 1.2 Scope of this Outline INNSMP

4 This document relates only to plant INNS; faunal INNS have been scoped out on the basis that none have been recorded within desk study information or during site visits to date.

5 For the avoidance of doubt, this Outline INNSMP relates to the onshore elements of the Awel y Môr offshore wind farm (AyM) only (i.e. landward of Mean High Water Springs). Offshore INNS are considered within Sections 5.11 and 5.12 of Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (application ref: 6.2.5). With regard to offshore INNSs, relevant best practice guidelines will be followed and implemented through the implementation of a biosecurity plan to minimise INNS introduction / spread. Any vessels used for the delivery of materials to site will adhere to industry legislation, codes of conduct and/or best practice to reduce the risk of introduction or spread of INNS.

# 2 Background

6 INNS, including species listed on Schedule 9 of the Wildlife and Countryside Act 1981, are present in desk study records provided by Cofnod (the biological records centre for North Wales) for the area within 100 m of the Draft Order Limits (DOL) (Table 1). Of these, Japanese rose *Rosa rugosa* was recorded during the field surveys of coastal habitats. The other species listed were not encountered, though it is not possible to conclude absence from the survey as exhaustive searching for particular species has not been undertaken.

7 In addition to the species listed in Table 1, Himalayan balsam *Impatiens glandulifera*, was recorded during field surveys on the banks of Glanffyddion Cut and at water courses adjacent to Princes Gorse woodland. *Rhododendron ponticum* was also noted to occur in Princes Gorse woodland. Figures 30 to Figure 34 of the Onshore Biodiversity and Nature Conservation ES chapter (Volume 3, Chapter 5, application ref: 6.3.5), show the location of INNS identified

8 Himalayan balsam and *Rhododendron ponticum* are both included on Schedule 9 of the Wildlife and Countryside Act 1981.

Table 1 Invasive non-native species recorded within the AyM ES Ecology Assessment survey area (Cofnod data set)

| SCIENTIFIC NAME | ENGLISH NAME | LISTED ON SCHEDULE 9?[i] | APPROXIMATE LOCATION |
|---|---|---|---|
| Azolla filiculoides | Water Fern | Y | Pont Robin, north of Pengwern<br>Two ponds within Glascoed Nature Reserve |
| Carpobrotus | Hottentot-fig | Y | Extreme northwest |

[i] Schedule 9 of the Wildlife & Countryside Act 1981 (as amended).

| SCIENTIFIC NAME | ENGLISH NAME | LISTED ON SCHEDULE 9?[i] | APPROXIMATE LOCATION |
|---|---|---|---|
| edulis | | | edge of the survey area (spurious record, location within sea) |
| Fallopia japonica | Japanese Knotweed | Y | Pengwern |
| Heracleum mantegazzianum | Giant Hogweed | Y | Within drainage basin at Princes Gorse |
| Hydrocotyle ranunculoides | Floating Pennywort | Y | Within roadside ditch south of Rhyd Wen Farm Mews |
| Rosa rugosa | Japanese Rose | Y | Eastern extreme of survey area, at Y Ffrith |
| Hippophae rhamnoides | Sea-buckthorn | N | Eastern extreme of survey area, at Y Ffrith |
| Hyacinthoides hispanica | Spanish Bluebell | N | Eastern extreme of survey area, at Y Ffrith |
| Cortaderia selloana | Pampas grass | N | Eastern extreme of survey area, at Y Ffrith |
| Sedum album | White stonecrop | N | South of substation |

9 There is, therefore, potential for the presence of INNS which could be spread by construction activities. This outline INNSMP provide details of mitigation measures and best practice handling techniques to reduce the likelihood of any potential spread.

# 3 Pre-Construction

## 3.1 Pre-Construction Survey

10 A pre-construction survey will be undertaken, potentially as part of any pre-construction ecology surveys, to establish the location and level of infestation of any INNS that could be disturbed or mobilised by construction work for AyM. The survey will target all plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 and/ or Part 2 of Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019. The survey will take place during the summer prior to construction commencing for a particular phase, when invasive non-native plant species are most likely to be evident.

11 The following biosecurity measures will be followed during the pre-construction survey. Surveyors will:

- Plan field work so that the areas of highest risk of supporting INNS, or with confirmed presence of INNS are visited last;
- Ensure that the vehicle, clothing, footwear and equipment start and remain clean and suitable for the task being carried out;
- Seek to use equipment and footwear with the fewest places for debris to become attached, and which facilitate easy cleaning.
- Vehicles will only be used on public roads/laybys or on unvegetated hardstanding;
- Visible dirt and vegetation will be cleaned from footwear at regular intervals during the day/whenever it becomes evident;
- When moving between farm premises boots will additionally be disinfected using a spray bottle with an appropriate multi-purpose disinfectant that is effective against viral, bacterial and fungal pathogens. Unused disinfectant would be disposed of in accordance with manufactures instructions/ Control of Substances Hazardous to Health (COSHH) data sheet; and
- Avoid entering areas known to contain INNS and instead observe and record details from the margins/adjacent areas.

## 3.2 Biosecurity Risk Assessment

12 Following the pre-construction INNS survey, and prior to construction, a Biosecurity Risk Assessment (BioRA) will be undertaken. The purpose of the risk assessment will be to inform the selection of control measures contained within the INNSMP to prevent or reduce the risks of spreading INNS during construction.

13 The Ecological Clerk of Works (ECoW) (See the Construction Method Statement in Appendix 1 (application ref: 8.13.1) of the outline CoCP for description of role) will take primary responsibility for reviewing and updating the BioRA at the start of construction. Updates will be required if, for example, previously unrecorded individuals or populations of INNS are discovered or working methods change such that new pathways for potential contamination are formed.

14 An initial outline of indicative control measures that may be applied where necessary, is provided in Section 4. The final suite of measures will be confirmed following the site specific pre-construction survey, the BioRA and consultation on the INNSMP.

## 3.3 Treatment

15 Information on treatment and/or removal is provided below for INNS listed on Schedule 9 of the Wildlife & Countryside Act 1991 that have previously been identified within the AyM ecology survey areas (Table 1).

16 The actual methods to be employed for the treatment and removal of any identified INNS will be agreed with DCC, in consultation with NRW, via approval of the Final INNSMP.

### 3.3.1 Japanese knotweed

17 In the case of Japanese knotweed a specialist eradication company would be employed and a suitable strategy for removal and disposal would be determined through consideration of the location and extent of any stands in relation to construction works. The method used would be either the "dig and dump" method or could use an alternative method such as Xtract™. The "dig and dump" method removes all Japanese knotweed and the appropriate volume of soil based on the size/extent of the Japanese knotweed stands which is removed by a suitably licenced carrier to be disposed of at a licensed waste disposal facility. The Xtract™ method enables the removal of just the viable rhizome thereby avoiding the need to consign vast quantities of affected soil to landfill. The rhizomes are removed off site and disposed of by the contractor via a licenced waste disposal facility.

### 3.3.2 Giant Hogweed

18 In this case it is assumed that the location where the giant hogweed is located would be directly impacted and therefore treatment in-situ via methods such as chemical treatment would not be an option. Therefore, treatment would be via dig and dump to ensure that all plant material and any seed within the soil are removed. The soil and plant material would be taken to a suitably licenced waste disposal facility. It is anticipated that the specialist eradication company would be employed, as for Japanese knotweed, and that they would determine the extent of soil to be removed with the plant material, this would be based on the size and extent of the stand of giant hogweed. Extra precautions for staff would be employed due to the H&S risks giant hogweed poses.

### 3.3.3 Other INNS

19 For other terrestrial INNS identified within the AyM ecology survey areas that spread via underground roots or rhizomes, such as Japanese rose and Hottentot fig, a bespoke strategy would be developed but would likely involve the careful removal and disposal of the plants and soil immediately surrounding their roots to a suitably licensed waste disposal facility. For terrestrial species such as Rhododendron and Himalayan balsam, which spread via viable seed, the bespoke strategy would likely involve removal of the plants at a time of year prior to them setting seed. Aquatic INNS such as water fern and floating pennywort are restricted to ponds and are unlikely to be affected by construction works.

# 4 General Control Measures

20 The following section provides an outline of the general control measures that may be employed during construction to manage any INNS identified during pre-construction survey. The final selection of control measures will be informed by the BioRA and will include species specific measures, as appropriate. The following measures are considered adequate to mitigate the effects associated with the species with the greatest potential, on the basis of the baseline characterisation surveys, to be encountered.

21 Good site practice and hygiene should ensure the following:

- All staff should be aware of what INNS look like and what their responsibilities are. Awareness training should be undertaken in the form of Tool Box Talks covering INNS.
- Where possible to do so, construction works areas will be micro-sited to avoid areas of identified INNS.
- The ECoW, will oversee the implementation of the INNSMP on site. Everyone working on site should clearly understand the role and authority of the ECoW, which will be included within the site induction.
- All areas containing INNS not within the physical working areas to be demarcated to ensure no accidental spread.
- Where cross-contamination is possible (i.e. from one part of the site to another or between sites), consider designating vehicles or machinery to specific sites where possible to prevent spread.
- All vehicles and footwear entering working area to be clean on arrival.
- If INNS have been identified during pre-construction survey, and if required by the BioRA, vehicles used to transport infested soils must be thoroughly inspected and appropriately cleaned in a designated area before being used for other work.
- The most appropriate methods of cleaning should be determined by a suitably qualified contractor following a visual inspection. The suitably qualified contractor should supervise the cleaning, which should pay particular attention to tyre treads, wheel arches and any other areas that might retain rhizomes or seeds.

- The designated cleaning area must be within an area of hard standing or covered by a root barrier membrane that can contain and collect the material washed off. The cleaning area must be located so as not to allow material to contaminate drains, ditches or watercourses.
- The material left within the designated area after vehicles have been cleaned must be contained, collected and disposed of along with other contaminated material.
- If soil is imported to the site for landscaping, infilling or embankments, the contractor shall gain documentation from suppliers confirming that it is free from invasive species.

# 5 Biosecurity

22 In addition to the good site practice and hygiene control measures outlined in Section4, the following biosecurity measures will also be considered to prevent the potential spread of animal disease between agricultural holdings within and around the construction works. The following biosecurity measures below predominantly relate to staff visiting different land holdings prior to and during construction:

- Where appropriate and practicable, farm visits should be made following prior contact with the owner/farm manager. The opportunity should be taken to check what biosecurity arrangements (if any) are in place, whether they may be adopted, and if so what the arrangements are for parking;
- Wherever possible, vehicles should be parked off the farm premises. If there is no alternative, vehicles taken on to a farm premises should be parked, where possible, on hard standing away from livestock. Vehicles should not normally be taken into areas to which livestock have access. Vehicles taken onto farm should be visibly free of animal excreta, slurry etc;
- Before leaving the farm all visible contamination e.g. manure, slurry or similar material should be cleaned from the outside of the vehicle which should be disinfected using on-farm facilities. If this is not possible, vehicles should be cleaned before being taken onto another farm with livestock, either before the next visit or, if appropriate, at the end of the working day;
- Appropriate footwear (e.g. wellington boots) and any waterproof clothing must be cleaned and disinfected before entering the farm and again, where possible, at the end of the visit;
- All other equipment taken on the farm should be cleaned before arrival and on departure. Where possible equipment should be protected from contamination e.g. using plastic bags. Where equipment can be cleansed and disinfected this must be done before entry to the premises and again on departure.

23 In addition to the above measures, the associated biosecurity risks from landscape planting will be assessed and mitigated in the final INNSMP. Diseases that may affect biodiversity (e.g. Chytrid, Ash die-back etc) will be assessed and mitigated as far as possible in the final INNS Management Plan. Due consideration of biosecurity infrastructure, such as jet/wheel washes for vehicles and boot cleaning facilities by offices/cabins will be considered and agreed via the final INNSMP.

# 6 Monitoring

24 The INNSMP will be regularly monitored by construction contractors and the ECoW throughout construction.

25 Site workers and the ECoW will remain vigilant for the new growth of INNS within and in close proximity to the works, and the INNSMP will be updated accordingly if new areas of growth are identified.

Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm

RWE Renewables UK Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
**www.rwe.com**

Registered office:
RWE Renewables UK Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon