



**SP MANWEB**

# **The North Wales Wind Farms Connection Project**

Environmental Statement Chapter 2 -  
Description of Proposed Development  
Technical Appendix 2.1 Part D

Application reference: EN020014

March 2015



Regulation reference: The Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009 Regulation 5(2)(a)

Document reference 6.18D

**The Planning Act 2008  
The Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009  
Regulation 5(2)(a)**

**The North Wales Wind Farms Connection Project**

**Appendix 4 - Outline Ecological Management Plan**

<b>Document Reference No.</b>	<b>6.18D</b>
<b>Regulation No.</b>	<b>Regulation 5(2)(a)</b>
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<b>Date</b>	<b>February 2015</b>
<b>Version</b>	<b>V1</b>
<b>Planning Inspectorate Reference No.</b>	<b>EN020014</b>

# **1 INTRODUCTION**

## **1.1 Ecological Management Plan**

- 1.1.1 This outline Ecological Management Plan (EcMP) supports the application for a Development Consent Order (DCO) for the North Wales Wind Farms Connection Project (the "Proposed Development"). It sets out the ecological management measures which SP Manweb PLC ("SP Manweb") will require its contractors to adopt and implement for relevant construction works for the Proposed Development, including site preparation works, infrastructure construction and commissioning of the Project. The Proposed Development is described in the overarching Construction Environmental Management Plan (CEMP) (document reference 6.18).
- 1.1.2 The EcMP is designed to maintain a good level of environmental protection and limit disturbance to the environment from construction activities as far as reasonably practicable.
- 1.1.3 The EcMP is an appendix to the CEMP (document reference 6.18) which has been prepared with the objective of securing environmental management controls in one cohesive document for the construction works associated with the Proposed Development and securing mitigation identified in the Environmental Statement (ES) to mitigate the impact of the development.
- 1.1.4 The EcMP should be read in conjunction with the CEMP, Hedgerow Management Plan and Chapter 6 Biodiversity of the Environmental Statement (ES) (document reference 6.6).

## **1.2 Purpose of EcMP**

- 1.2.1 This outline EcMP supports the application for a Development Consent Order (DCO) for the Proposed Development. It sets out the ecological management measures which SP Manweb PLC ("SP Manweb") will require its contractors to adopt and implement for relevant construction and decommissioning works for the Proposed Development, including site preparation works, infrastructure construction and commissioning of the Project.
- 1.2.2 The EcMP is designed to maintain a good level of environmental protection and limit disturbance (to both people and the environment) from construction activities as far as reasonably practicable.
- 1.2.3 The EcMP is secured through a requirement in the DCO.
- 1.2.4 The purpose of the EcMP is to identify key construction activities, relevant ecological receptors, impacts and proposed mitigation measures. The EcMP will provide a link between the design phase of the project, the consenting process and construction. This outline EcMP is provided in support of the DCO application to illustrate the proposed structure and to ensure this is sufficiently comprehensive for the Proposed Development.

1.2.5 The Proposed Development includes within the design limits of deviation (LoD). The LoD provides a degree of flexibility to enable micro-siting due to environmental or technical constraints and alterations requested by landowners. This variation has been built into the design and assessment of the Proposed Development. It will be the responsibility of the Construction Contractor, in partnership with SP Manweb to confirm the final design of the Proposed Development, the main part of this being the pole locations.

1.2.6 This EcMP sets out the work required of the Construction Contractor once the design is finalised.

### **1.3 Proposed Structure of the EcMP**

1.3.1 The EcMP will outline the mitigation requirements for the site with reference to the impacts identified in the Environmental Statement (ES). It will cover the main species and habitats identified and assessed in the Biodiversity chapter of the ES (document reference 6.6) that require mitigation and management during construction:

- Trees and hedgerows
- Sensitive habitats
- Protected species

1.3.2 Hedgerows are dealt with separately in the Hedgerow Management Plan, also an appendix to the CEMP (document reference 6.18).

### **1.4 Potential Impacts**

1.4.1 The construction activities associated with the construction of the Proposed Development could have the potential to impact on valued ecological resources (species and habitats). Without management in place there is the potential for;

- loss of habitat
- changes to quality of habitat
- loss of habitat used by protected species for commuting, foraging and overwintering
- disturbance, injury or death of protected species
- potential for species to become trapped in excavations
- potential for damage to setts, holts or nests

- 1.4.2 The Proposed Development does not intersect with any international designated statutory sites. A number of local wildlife sites are within the Order Limits.
- 1.4.3 Felling, tree works and vegetation clearance will be required in order to establish the Proposed Development. There is the potential to impact on species that rely on these habitats during this works; particularly species such as dormice, badger, bats and birds.
- 1.4.4 Ponds which support great crested newts are within 500m of the Order Limits. Construction activity in the vicinity of the ponds could have the potential to disturb, injure or kill these species.
- 1.4.5 The potential adverse impacts identified have been mitigated through the careful design of the Proposed Development, in particular the routing of the overhead line and the siting of the pole structures. This has resulted in the avoidance of ecological features wherever possible and reduced the overall extent of potential ecological impacts.

## **2 METHOD STATEMENT**

### **2.1 Introduction**

- 2.1.1 Designated sites of nature conservation importance are shown in Nature Conservation sites Plans sheets 1 – 4 (document reference 2.8).
- 2.1.2 Outline method statements are set out below for each of the key habitats and protected species that have the potential to be adversely affected by the Proposed Development. Standard ecological construction measures are proposed for those habitats and species that do not have specific mitigation measures identified in the ES Ecology Chapter 6 (document reference 6.6). The methods outlined will be undertaken in accordance with best practice based on previous infrastructure schemes of this nature.

### **2.2 Governance**

- 2.2.1 The Construction Contractor will be required to follow the general principles for good working practice and site operations outlined in the CEMP (document reference 6.18) and the supporting Management Plans (Hedgerow and Traffic).
- 2.2.2 As set out in the CEMP, the Environmental Clerk of Works (ECoW) will be responsible for ensuring the responsibilities of this EcMP are met. A qualified Ecologist shall be used to carry out the detail of this EcMP.

### **2.3 Consultation**

- 2.3.1 Where relevant, the detail of this outline EcMP shall be completed in consultation with the relevant local authority (Denbighshire County Council and Conwy County Borough Council) and/or Natural Resources Wales (NRW).

### **2.4 Statutory Licences**

- 2.4.1 Certain protected species including those protected by European law (European Protected Species, EPS), species protected under the Wildlife and Countryside Act and the Badger Protection Act may require a licence application to Natural Resources Wales to disturb the species and/or their habitats. It is anticipated that for the Proposed Development, licences for bats, dormice and great crested newts could be required. There is also the potential for an otter licence if active holts are identified within the Order Limits. These licences require detailed method statements as part of the application. This EcMP will form part of those method statements.

## **2.5 Proposed Construction Works**

### **Programme**

- 2.5.1 Where possible, construction works will be timed to minimise the potential impact on sensitive habitats and species. The optimum time for vegetation clearance is outside of the bird breeding season of March – September (inclusive). If vegetation clearance is required during this time, additional checks by the ecologist will be required to ensure no nests are affected. During this period, these checks should be no longer than 48hrs in advance of clearance works.

### **Pre-Construction Surveys**

- 2.5.2 Pre-construction surveys for protected and invasive species shall be carried out for the Proposed Development. The surveys should focus on the final design and fixed pole structure locations.

Survey requirements are set out for each habitat and species described below at paragraph 2.7.

### **Access and Working Areas**

- 2.5.3 Details on accesses are provided in the CEMP. Access into and out of the working areas will be along agreed routes only. Machinery and vehicles will not be permitted to move outside of the agreed access routes and working areas.

## **2.6 General Method of Working**

- 2.6.1 Requirements for the ecological receptors (habitats and species) are provided in section 2.7 of this EcMP. Those requirements should be read in conjunction with:
- The general best practice methods of working described in paragraphs 2.6.2 to 2.6.4.
  - The assessment of effects described in section 6.7, Chapter 6 of the ES (document reference 6.6)
  - The general requirements set out in the CEMP (document reference 6.18).
- 2.6.2 In advance of any construction works commencing in the working area, Toolbox Talks on the relevant ecological receptors (habitats or species) shall be provided to the construction team.
- 2.6.3 Working areas will be kept as small as possible in accordance with construction best practice and health and safety. Sensitive habitats will be delineated to ensure contractors operate within the agreed working limits.
- 2.6.4 Access to the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside the agreed routes and working area.

## **2.7 Habitats Method Statements**

### **Invasive Species – Standard Ecological Construction Measures**

#### Surveys

- 2.7.1 Pre-construction surveys will be undertaken in advance of works where vegetation removal is required.

#### Method Statement

- 2.7.2 If invasive species are identified within the working area a 7m exclusion zone will be established around all stands of invasive species.
- 2.7.3 If vegetation clearance is required within the exclusion zones, cut vegetation within those areas will be treated as contaminated waste and appropriately disposed of accordingly. Methods will follow standard guidance for the species concerned and this may require disposal at a licensed landfill site. It is envisaged that any clearance work of this type would be undertaken by a specialist contractor.

### **Non-Statutory Designated Wildlife Sites – Mitigation Measures**

#### Surveys

- 2.7.4 Prior to construction works taking place, areas of woodland within the Local Wildlife Sites shall be re-surveyed. In areas of ancient woodland an Ecologist would be present during works. The Ecologist would be a botanist experienced in ancient woodland habitats.

#### Method Statement

- 2.7.5 Micrositing would be employed wherever possible to avoid key ancient woodland indicator species. If this is not possible, key plant species should be translocated to a suitable area within the same affected Local Wildlife Site.
- 2.7.6 If trees require removal or lopping, then coppicing should be the preferred method wherever possible. A suitably qualified person should be appointed to develop a suitable coppicing regime for the wildlife site. Coppicing should occur on a five year cycle and should be included as part of SP Manweb's tree maintenance schedule, having cognisance of the requirements for maintaining safety clearances around electric lines.
- 2.7.7 The Ecologist will ensure that only trees are felled in order to comply with safety regulations. Wherever possible tree felling and coppicing will be carried out in the winter months, the preferred time is September October.
- 2.7.8 Where identified in the Outline Landscaping Plans (document reference 2.6) hedgerows shall be planted to maintain connectivity where possible in the Local Wildlife Sites.
- 2.7.9 No materials will be stored within the Local Wildlife Sites.

- 2.7.10 Any access routes into or through Local Wildlife Sites will be clearly demarcated and kept to a minimum.
- 2.7.11 Management of coppicing will be in line with the Trees and Woodland Method statement set out below.
- 2.7.12 Hedgerow creation and management will be in line with the Outline Hedgerow Management Plan.
- 2.7.13 If possible, brash piles will be left on sites to give over-wintering sites for small mammals and amphibians. Piles of clippings will be avoided and if necessary, chippings removed from site.

### **Broadleaved Woodland Plantation on Ancient Woodland and Mature Trees – Mitigation Measures**

#### Surveys

- 2.7.14 Prior to construction surveys areas of broadleaved woodland and plantation on Ancient Woodland shall be resurveyed and all trees affected identified. This shall be done in conjunction with any required protected species surveys such as bats and dormice.
- 2.7.15 A total of 110 mature trees have been identified as being affected by the Proposed Development through felling or pruning works and the ES has assessed this based on a realistic worst case scenario. Following micro-siting and landowner discussions, the final number of individual trees and groups of trees that will require felling and pruning will be clarified, and may result in less trees being affected.

#### Method Statement

- 2.7.16 Tree works will be undertaken in compliance with BS 3998:2010 and BS 5837:2012 with due consideration given to the trees requiring works and retained trees within the locality.
- 2.7.17 If trees require removal or lopping, then wherever possible a reduction in the height of the tree to a 2m stump should be considered in the first instance rather than full removal at the base. Leaving standing timber in situ should be the first preference for all trees to be removed. The possibility of leaving the cut timber at appropriate locations within the Order Limits should also be considered. A suitably qualified arboriculturalist shall be appointed to develop a complete tree felling schedule.
- 2.7.18 Wherever possible tree felling will take place in the winter months. SP Manweb has committed to replacing any tree lost on a 2 for 1 basis with appropriate native species. The Landscaping Plans (document reference 2.6) identify locations where these trees shall be replanted.
- 2.7.19 To promote the development of valuable deadwood habitats, any dead or almost dead trees will be re-surveyed and should be retained in situ unless they have to be removed for safety reasons.

- 2.7.20 There will be a requirement to coppice tree groups/woodland affected by the Proposed Development. Whilst the creation of a clear swathe is preferable in minimising the requirement for future management, the potential ecological implications of fragmenting existing trees must be considered. Groups requiring whole or partial removal will consequently be managed as areas of coppice and therefore not require additional planting.
- 2.7.21 Coppice management favors a range of wildlife, often of species adapted to open and edge woodland due to an increase in light levels. Coppice is also a means by which the longevity of tree can be increased and it is recognised as an acceptable and beneficial means of woodland management.
- 2.7.22 Coppice areas will seek to retain a lower level shrub layer to maintain diversity and protection to the ground level flora. This will also ensure some habitat connectivity.
- 2.7.23 New replacement trees shall, as far as is reasonably practicable, be sourced from the respective region of provenance for the respective counties (Denbighshire and Conwy). Where this is not possible, only nursery stock grown in the UK for a minimum of 1 year shall be used.
- 2.7.24 Planting shall be carried out in the British planting season (November to March) wherever possible. This should be in suitable conditions with soil that is moist, friable and not waterlogged. Where soil is frozen or covered in snow, additional root protection may be required.
- 2.7.25 The Outline Landscaping Management Plan (ES Appendix 7.6, document reference 6.20) sets out the required planting regime and maintenance for the replacement trees.

#### Management during Operation Phase of the Proposed Development

- 2.7.26 During the operation of the Proposed Development SP Manweb will carry out a five yearly tree maintenance regime to maintain safe clearances from the overhead line. Management of vegetation, including trees, is driven by electricity legislation, which requires and enables the maintenance of clearances from networks to adjacent vegetation.
- 2.7.27 SP Manweb's vegetation management policy requires that wherever possible trees/vegetation should be removed or pruned such as to provide a minimum of two years maintenance free period. This has been defined as a 5m tree management zone from the outer conductor.
- 2.7.28 Wherever possible this maintenance regime will look to coppice and reduce the height of trees rather than carrying out complete removals.

## **Watercourses – Standard Ecological Construction Measures**

- 2.7.29 General principles for working in proximity to watercourses are included in the overarching CEMP.
- 2.7.30 Working areas in close proximity to watercourses shall be kept to a minimum with vehicles and machinery kept as far from the watercourse as practically possible to reduce the potential for pollution incidents.
- 2.7.31 Vegetation clearance along watercourses shall be kept to a minimum.
- 2.7.32 No additional management measures are required from an ecological perspective.

## **2.8 Protected Species Method Statements**

### **Great Crested Newts – Mitigation Measures**

#### Surveys

- 2.8.1 A suitably licenced ecologist shall be employed to carry out a fingertip search of any suitable habitat. This should be carried out at the appropriate time of the year.

#### Method Statement

- 2.8.2 As detailed in the Hedgerow Management Plan, hedgerows to be removed should be hard pruned in autumn to make them unsuitable for overwintering newts.
- 2.8.3 If construction activities occur in areas where great crested newts may be present a suitably licenced ecologist should supervise relevant construction activities.
- 2.8.4 Vegetation removal should not occur if the habitat has potential for overwintering great crested newts. Any potential overwintering refuges, fallen timber (for example) shall be left in situ wherever possible. In the event that they must be moved they should be relocated closer to an identified newt pond in suitable habitat.
- 2.8.5 Timber arising from tree works to be used to create additional newt habitat.
- 2.8.6 Material shall not be stored in areas which may be used by newts.
- 2.8.7 Excavations should be filled in or covered over at night. Alternatively, escape routes can be incorporated into the excavation. Any excavations left open overnight shall be checked each morning prior to the commencement of works.

- 2.8.8 Any ongoing maintenance of the Proposed Development should consider avoiding works to sites that could contain over-wintering newts. Removing fallen timber and other over-wintering habitats to areas where it can remain undisturbed will ensure that management can continue without being in breach of wildlife legislation.

### **Dormice – Mitigation Measures**

#### Surveys

- 2.8.9 Additional pre-construction surveys shall be carried out prior to works targeted at suitable habitats such as hedgerows, woodland and coppiced woodland. This work shall be carried out under the supervision of an ecologist.

#### Method Statement

- 2.8.10 As detailed above, the creation of coppiced woodland or scrub would provide improved habitat opportunities for dormice populations by creating dense vegetation with potential food sources and hibernating opportunities.
- 2.8.11 Any hedgerows that require to be removed shall be hard-pruned in advance to render it unsuitable for dormice. The works should be carried out late in the previous season, i.e. after the young have weaned and are mobile, and before hibernation. The Hedgerow Management Plan sets out methods of working with regards to hedgerow removal.
- 2.8.12 At suitable habitats a suitably licenced ecologist shall be present during access creation, construction or vegetation management.
- 2.8.13 Tree removal should be carried out after a nest check and in small sections to allow for dormice to move away from an area. It should be done in such a way that dormice are not 'pushed' into an area from which they cannot escape
- 2.8.14 Where hedgerows are to be removed for longer than 48 hours the possibility of using brushings to create a conduit for the dormice to travel along should be investigated wherever feasible.
- 2.8.15 Excavations should be filled in or covered over at night. Alternatively, escape routes can be incorporated into the excavation. Any excavations left open overnight shall be checked each morning prior to the commencement of works.
- 2.8.16 Any data collected during the additional surveys for dormice shall be shared with the local authorities and the local dormouse group. The detailed method statement shall be discussed with NRW and the local dormouse group if required.
- 2.8.17 Ongoing maintenance and operation of the Proposed Development should be carried out at the optimum time (late summer/early autumn). Brushings, as described above, shall be retained on site and could be used to facilitate movement around the area where necessary. New hedgerows will be planted to maintain connectivity between woodland sections in Local Wildlife Sites.

- 2.8.18 If the Proposed Development is decommissioned storage areas and site compounds shall be on grassland or other less sensitive area. Wooden poles shall be removed from hedgerows and cut at the base to ensure the hedgerow is retained.

### **Bats – Mitigation Measures**

#### Surveys

- 2.8.19 Prior to construction taking place, additional surveys shall be undertaken of those trees identified as having potential for bat roosts and that will be subject to felling or other work. Where necessary a climber will be used and dawn/dusk surveys undertaken during the previous summer.

#### Method Statement

- 2.8.20 Liaison with NRW is required to determine whether an EPS licence is required.
- 2.8.21 The hedgerow management proposed as part of the Proposed Development will ensure that bat foraging habitats are maintained.
- 2.8.22 At the construction compound some night time security lighting will be used. Low pressure sodium lamps shall be used. The lighting shall be directional and light spill minimised through the use of hoods, cowls, louvres or shields. If possible movement sensors shall be used to reduce the overall duration that lighting is on each night.

### **Common Lizard – Mitigation Measures**

#### Surveys

- 2.8.23 Pre-construction surveys in suitable habitat in the southern section of the Proposed Development shall be carried out for common lizard.

#### Method Statement

- 2.8.24 An Ecologist shall be present during works in the suitable habitat in the southern section of the Proposed Development.
- 2.8.25 If works are required within suitable habitat for common lizards then methods for clearing lizards through gentle disturbance, i.e. walking over the site should be utilised.
- 2.8.26 Habitats shall be modified by clearing potential refuges and cutting vegetation short to discourage common lizards from using the area.
- 2.8.27 Any refuges removed from one area should be relocated in a suitable area away from the Proposed Development under supervision of a suitably qualified ecologist.
- 2.8.28 If habitat cannot be cleared and an offence is considered likely then it will be necessary to install exclusion fencing and then trap and remove lizards from the area.

- 2.8.29 During management of the Proposed Development the above measures shall also be followed in those habitats deemed suitable for lizards.

### **Badgers – Mitigation Measures**

#### Surveys

Prior to construction pre-construction surveys should be undertaken to confirm the presence and/or absence of badgers in the vicinity of the Proposed Development. Survey timings need to allow for further detailed survey work to be carried out if setts within the Order Limits are identified and a licence can be sought in good time prior to the start of construction.

#### Method Statement

- 2.8.30 All setts that are identified within the vicinity of the Order Limits shall be identified on a detailed plan with buffer zones around the sett. This information shall be communicated to all construction staff and measures put in place to ensure disturbance is minimised.
- 2.8.31 If a sett is required to be excluded for the duration of the construction works, this can only be done between July and November. A detailed method statement shall be drawn up in consultation with NRW. A licence will also be required.
- 2.8.32 Excavations should be filled in or covered over at night. Alternatively, escape routes can be incorporated into the excavation. Any excavations left open overnight shall be checked each morning prior to the commencement of works.
- 2.8.33 If vegetation clearance is required during maintenance of the Proposed Development surveys for new setts are required. The same measures described above shall be followed.

### **Otters – Mitigation Measures**

#### Surveys

- 2.8.34 Prior to construction, pre-construction surveys should be undertaken to confirm the presence and/or absence of otters in the vicinity of the Proposed Development. This applies particularly to areas either side of waterways e.g. the River Elwy where the development goes through riparian woodland to the south of the river. These surveys should be undertaken in good time to allow time for any potential monitoring work and licensing issues to be addressed.

#### Method Statement

- 2.8.35 If an otter is shown to be present in a holt or lying up area then a 30m exclusion zone must be observed. However, if the holt is a natal holt then the exclusion zone is a minimum of 200m. If an otter is present a detailed method statement will be required in this area. It will be necessary to wait until the holt is vacated before work can proceed.
- 2.8.36 Excavations should be filled in or covered over at night. Alternatively, escape routes can be incorporated into the excavation. Any excavations left open overnight shall be checked each morning prior to the commencement of works.

- 2.8.37 Otters are most likely to be present in proximity to watercourses and so generic methods or working in proximity of watercourses shall be adopted as described in the CEMP (document reference 6.18).
- 2.8.38 During maintenance, any works in proximity to watercourses shall be surveyed prior to start. If otters are found to be present, the same measures outlined above shall be followed.

#### **Farmland Birds – Mitigation Measures**

- 2.8.39 Wherever possible vegetation clearance shall be carried out outside of the breeding bird season (March to September). Any hedgerow clearance required within the bird breeding season should be hard pruned during the winter months to discourage birds from nesting.
- 2.8.40 If vegetation clearance is required during the bird breeding season, surveys by a suitably qualified ecologist should take place before the clearance works. If active nests are found exclusion zones shall be created around the nest and further vegetation clearance in the vicinity stopped until nesting is finished and chicks have fledged.
- 2.8.41 If maintenance works require vegetation clearance, management should take place outside of the bird breeding season.