

# The North Wales Wind Farms Connection Project

Environmental Statement Chapter 2 - Description  
of Proposed Development Technical Appendices  
Outline Hedgerow Management Plan Version 4 -  
Tracked Change Version

Application Reference: EN020014

Deadline 9 Submission  
21<sup>st</sup> December 2015



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 3 - Outline Hedgerow Management Plan

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Document Control			
Date	Version	Status	Description/Changes
20/03/15	1	-	Final version for DCO submission
01/09/15	2	-	Updated version following first round of written questions. Updated: <ul style="list-style-type: none"> <li>• Section 2.5 updated</li> <li>• Section 2.2 updated</li> <li>• Section 2.6 updated</li> </ul>
02/11/2015	3	Live_	Updated version <ul style="list-style-type: none"> <li>• <u>Updates to Section 1.1.4, referencing the CEMP and the ES.</u></li> <li>• <u>Section 1.2.2, new paragraph to demonstrate the HMP and its relationship to the CEMP and the DCO</u></li> <li>• <u>New paragraph Section—1.2.32, which includes details on the design of the proposed development and the responsibility of the contractor.</u></li> <li>• <u>New paragraph Section 1.2.43 to update the HMP on constraints, design and the contractor.</u></li> <li>• <u>Section 1.2.4</u></li> <li>• <u>Section 1.3.2 updates to legislation</u></li> <li>• <u>Section 1.4.1 updated to reference other wildlife</u></li> <li>• <u>Section 2.3.2 amended to include qualified ecologist and technical constraints.</u></li> <li>• <u>Section 2.4.3, deleted reference to dormice and inserted birds and other species</u></li> </ul>

			<ul style="list-style-type: none"> <li>• <u>Section 2.5.1 deleted the reference to where possible.</u></li> <li>• <u>Section 2.5.2 deleted the reference to where possible</u></li> <li>• <del>Section 2.5.3</del></li> <li>• <u>Section 2.5.4 amendments to the length of hedgerow removed for pole erection</u></li> <li>• <u>Section 2.5.6 amended timeframe for bashings kept on site for wildlife.</u></li> <li>• <u>Section 2.5.7 deleted reference to if possible and changed to will.</u></li> <li>• <u>Section 2.6.1 amended shall to will and inserted no ash trees will be planted</u></li> <li>• <u>Section 2.6.3 Replaced if possible with shall</u></li> <li>• <u>Section 2.7.2 Replaced where recommended with shall take place</u></li> <li>• <u>Section 2.7.3 Replaced where best with shall take place</u></li> <li>•</li> </ul>
<u>21/12/2015</u>	<u>4</u>	<u>Live</u>	<p><u>Section 2.2.3, amended wording in hedgerow removal from would to will</u></p> <p><u>Section 2.4.1, amended wording in preconstruction surveys from should to shall.</u></p> <p><u>Section 2.5.1, amended wording in removal of hedgerows from should to shall</u></p> <p><u>Section 2.5.10 amended wording in the replacement of hedgerows from would to will</u></p> <p><u>Section 2.6.2 reworded section to ensure reinstatement and planting are undertaken in suitable weather conditions.</u></p> <p><u>Section 2.7.2 amended wording in monitoring of newly planted hedgerows from should to shall.</u></p> <p><u>Section 2.7.3 amended the management of newly planted hedgerow</u></p>

SP Manweb plc, Registered Office: 3 Prenton Way Prenton CH43 3ET. Registered in England No. 02366937

# 1 INTRODUCTION

## 1.1 Hedgerow Management Plan

- 1.1.1 This outline Hedgerow Management Plan (HMP) supports the application for a Development Consent Order (DCO) for the North Wales Wind Farms Connection Project (the "Project"). It sets out the hedgerow management measures which SP Manweb Plc ("SP Manweb") shall 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).
- 1.1.2 The HMP 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.
- 1.1.3 The HMP is an appendix to the CEMP 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 HMP should be read in conjunction with the [CEMP](#), Ecological Management Plan (EcMP) and [Chapter 6 of the Environmental Statement \(ES\)](#) which sets out requirements to protect species and habitats during construction works.

## 1.2 Purpose of HMP

- 1.2.1 The purpose of the HMP is to identify potentially affected hedgerows and set out proposed mitigation measures. The plan shall provide a link between the design phase of the project, the consenting process and construction. An outline HMP is provided in support of the DCO application to illustrate the proposed structure and to ensure this is sufficiently comprehensive for the Project.
- 1.2.2 The HMP, as an appendix to the CEMP, is secured through a requirement in the DCO.
- 1.2.3 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 alternatives 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.
- 1.2.2.4 This HMP identifies constraints and will inform the work required of the Construction Contractor once the design is finalised.

## 1.3 Hedgerows

- 1.3.1 Hedgerows are distinctive features of the countryside in England and Wales. As the most traditional type of field boundary in many areas, hedgerows and the field banks on which they often run are often of considerable historic interest.
- 1.3.2 Many hedgerows contain a great diversity of species both plant and wildlife. Their role in conserving and enhancing biodiversity is recognised in ~~the UK Biodiversity Action Plan<sup>4</sup>. In Wales Technical Advice Note 5 (Nature Conservation and Planning 2006) further encourages the development of policies for the management of hedgerows~~ section 42 list of Habitats of Principal Importance for Conservation of Biological Diversity in Wales<sup>2</sup>.
- 1.3.3 Where development has been authorised by planning permission (such as a DCO) works can proceed without prior notification under the Hedgerow Regulations 1997. Works carried out under permitted development is subject to prior notification to the local planning authority, if the works are within the scope of the Regulations and do not fall within the exemptions.
- 1.3.4 Felling, lopping or cutting back to prevent obstruction of, or interference with, electric lines and plant, or to prevent danger under the Electricity Act 1989 is exempt from requiring notification to the local planning authority under the Hedgerow Regulations. Landowners/occupiers are notified of the proposed works.

## 1.4 Potential Impacts

- 1.4.1 Works shall require the removal of hedgerows for construction of the Proposed Development to facilitate accesses to land and for the location of wood poles. This shall have the following potential adverse ecological effects:
- Fragmentation of wildlife corridors;
  - Reduction in connectivity between habitats;
  - Loss of important or species rich native hedges; and
  - Loss of shelter and food resource for birds and small mammals and other wildlife.

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<sup>2</sup> Natural Environment & Rural Communities Act 2006; Section 42 List of Habitats of Principal Importance for Conservation of Biological Diversity in Wales

## **2 METHOD STATEMENT**

### **2.1 Introduction**

#### **Hedgerows**

2.1.1 Landscaping Plans (document reference 2.6) identified those hedgerows affected by the Proposed Development. It also identified Important Hedgerows in the vicinity of the Proposed Development.

### **2.2 Proposed Construction Works**

#### **Accesses**

2.2.1 Wherever possible accesses have been located at existing field gates located within the Order Limits. These may be required to be extended from a standard gate to create a 5m wide gated access. Where no access exists, a new temporary 5m wide gated access will be required.

2.2.2 All access created for the Proposed Development shall be temporary and used during construction activities. Accesses shall be gated. On completion of the development, all new accesses shall be removed and reinstated.

#### **Pole Locations**

2.2.3 Pole structures may be located within field boundaries, and will require the temporary removal of hedgerows during construction. The length of hedgerow removed shall depend on the size of the structure but will not be wider than 6.4m (the width of a failure containment structure, the largest structure proposed). The hedgerow removal for a standard intermediate structure ~~would~~will be 3.4m.

2.2.4 On completion of the development all hedgerows between pole structures shall be reinstated.

#### **Governance**

2.2.5 The construction contractor shall be required to follow the general principles for good working practice and site operations outlined in the Construction Environmental Management Plan (CEMP) and the supporting Management Plans (Traffic and Ecological).

2.2.6 As set out in the CEMP, the Environmental Clerk of Works (ECoW) supported by a suitably qualified Ecologist, shall be responsible for ensuring the responsibilities of this HMP are met. The most appropriate machinery with experienced operatives shall be used.

### **2.3 Identification of Hedgerows**

2.3.1 Prior to construction works commencing all sections of hedgerow due for removal or required to be pruned shall be identified by the Construction Contractor and approved by the ECoW.

2.3.2 Micrositing shall be employed to ensure existing gated accesses are used wherever possible. If no existing access exists, gaps or poor sections in the hedgerows shall be used, subject to any technical constraints, to minimise effects. The ECoW, qualified ecologist and Construction Contractor shall agree access points for each required site.

## 2.4 Pre-Construction Surveys

2.4.1 Following identification of required hedgerow removal, pre-construction surveys for protected and invasive species shall be carried out. Some flexibility in micrositing of poles will allow some more sensitive hedgerow species to be avoided. If hedgerow removal is required during the bird breeding season (March – September) additional checks shall be required to ensure no nests are affected. During this period these checks ~~should~~ shall be no longer than 48hrs in advance of removal works.

2.4.2 The EcMP sets out requirements for pre-construction surveys for protected species, invasive species and habitats. The surveys cover the hedgerows impacted by the Proposed Development.

2.4.3 Trees with potential for bats, ~~and dormice habitats~~ birds and other species have been found within the Order Limits. These are covered by the EcMP.

## 2.5 Removal

2.5.1 The Construction Contractor and ECoW shall agree the method for hedgerow removal for accesses and pole locations. This method may vary for each location and ~~should~~ shall ensure potential adverse environmental effects are minimised ~~where possible~~.

2.5.2 Work shall be planned to limit disturbance to those sections of the hedgerow are not proposed for removal, including roots of hedge plants ~~where possible~~. The optimal time for hedgerow removal is in the winter months whilst the plants are in a dormant growth phase.

2.5.3 Hedgerows shall be hard-pruned in the autumn prior to construction after the bird breeding season to render the hedgerow unsuitable for various overwintering species and nesting birds the following season.

2.5.4 The section of hedgerow for removal will be clearly marked on site to ensure minimum take. In respect of hedgerow removal for the erection of poles, the shortest length of hedgerow necessary will be removed with the maximum length being no greater than 6.4m. This will be achieved through clear and accurate marking prior to works commencing.

2.5.5 Burning of cut hedgerow material on site shall not be permitted under any circumstances.

### Accesses

2.5.6 Where hedgerows are to be removed for longer than 48 hours bashings will be used to maintain a conduit for dormice and other species unless otherwise agreed with the qualified ecologist.



- 2.5.7 All operations shall be undertaken by suitably qualified persons. Machinery including chainsaws and excavators shall be used to remove the required section of hedgerow. ~~H~~~~if possible~~~~h~~Hedgerows removed will either shall be mulched on site and used in reinstatement or shall be disposed of at a licensed waste facility.
- 2.5.8 Once the hedgerow is removed a gated access and required fencing shall be installed to maintain continuity along the boundary.

### **Pole Locations**

- 2.5.9 Where excavations and reinstatements shall occur over a short period of time it may be possible to lift a section of hedgerow, including root growth and associated soil using an excavator. Where necessary, roots shall be cut during the lifting operations to prevent excessive damage to the adjoining sections of the hedgerow.
- 2.5.10 This section of intact hedgerow ~~would~~will be set aside as the pole is constructed and installed, and the excavations refilled. The section of hedgerow ~~would~~will then be replaced back in its original position.
- 2.5.11 This approach shall only be feasible where timescales between excavation and reinstatement are short. In those instances where it is proposed to temporarily lift the hedgerow, the hedgerow will be replaced within 48hrs. Those situations where an excavation is proposed well in advance of the pole installation may not be suitable for this approach.
- 2.5.12 In locations where it is not possible to temporarily lift the hedgerow, the same method for access creation shall be followed.

### **2.6 Reinstatement**

- 2.6.1 All reinstatements of hedgerows shall ensure compatible species are used during the reinstatement. If the hedgerow is in a poor condition, a species rich but still reflective mix will be planted. In accordance with guidance from Welsh Government, ash trees will not be planted.
- 2.6.2 Reinstatement and planting ~~will take place where possible within the optimum time frame which is from the end of October to the end of March when weather conditions are most suitable for full reinstatement. Removal and reinstatement~~ shall be undertaken in suitable weather conditions so as not to stress the plants. No planting shall be undertaken if the ground is frozen or waterlogged. Hedgerows shall be watered when out and when replaced as necessary.
- 2.6.3 Hedgerow species ~~shall if possible should~~ be two year old root trained grown stock of native origin, obtained from reputable suppliers and delivered to site ready for planting. The replanting shall be in an appropriate pattern to ensure integration with the structure of the undisturbed section.
- 2.6.4 Planting shall be at a density of six plants per linear metre in a double staggered row in accordance with the proposed species mix. All newly planted hedgerows shall be protected to prevent damage to the young plants from livestock. Rabbit-proof fencing shall be installed where necessary. A standard detail for hedgerow planting can be found in Appendix 1.

2.6.5 Species replanted shall include hawthorn, blackthorn, Hazel, elder, Rose sp., Oak sp., Field Maple and Holly. The Outline Landscaping Management Plan (ES Technical Appendix 7.6, document reference 6.20) gives details of suitable species mixes for hedgerows and these shall be reflected in the reinstatement works. The Outline Landscaping Management Plan also identifies those areas where replacement hedgerows shall be located when there is a requirement for additional planting. SP Manweb is committed to replacing removed hedgerows on a two for one basis, so for every 5m of hedgerow removed permanently, 10m will be replanted.

## 2.7 Maintenance

2.7.1 A programme of maintenance shall be devised to ensure weed control and replacement of non-surviving stock. Monitoring of reinstated hedgerows shall be undertaken 12 months after construction is completed to ensure recovery has been successful. Where plants have failed, new appropriate native species will be planted into the hedgerow.

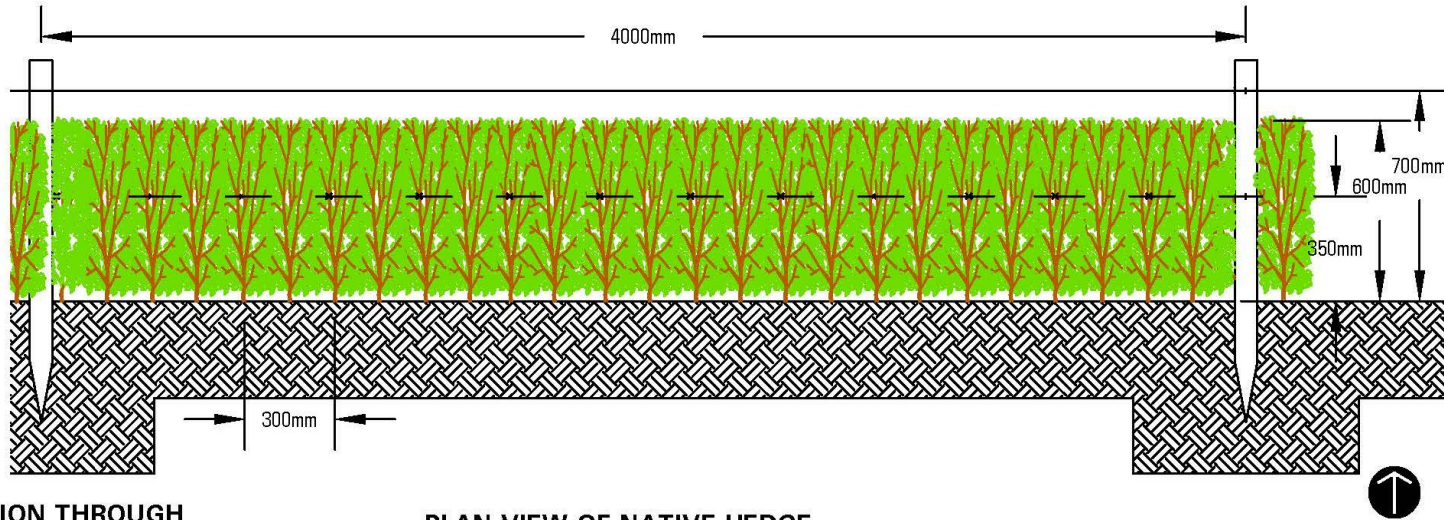
2.7.2 The first cut to newly planted hedgerows ~~shall take place is recommended~~ within years 2 to 3 (dependant on growth), and shall consist of 'facing up' either side of the hedge. Additional hedge cutting may be required from a health and safety perspective should there be a good growing season although this is unlikely within the first few years of establishment, but ~~should~~ shall be monitored.

2.7.3 ~~Newly planted h~~Hedgerows ~~shall be be best~~ cut in an 'A' shape to maintain a wide base for bird nesting and roosting and ~~if possible~~ only one side ~~should~~ shall be cut annually unless health and safety requirements necessitates that both sides are cut. All such hedge cuts must be undertaken using appropriate hand or power tools ~~or~~ —mMechanical methods of management, ~~where appropriate, should~~ shall ~~be used in favour of machinery~~.

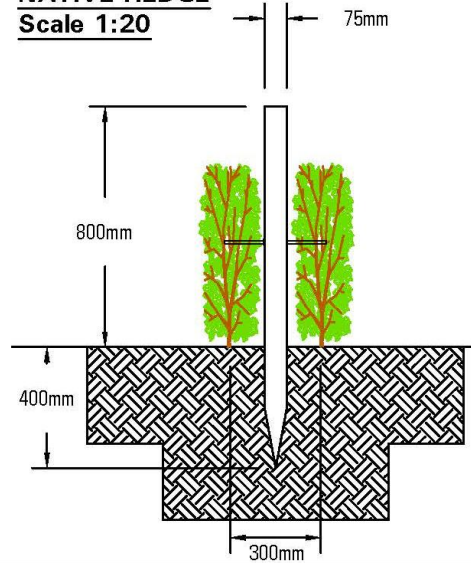
2.7.4 At between 10 and 15 years hedgerows shall be laid to further increase their wildlife value.

## **Appendix 1 – Hedgerow Planting Regime**

**ELEVATION OF NATIVE HEDGE** Scale 1:20

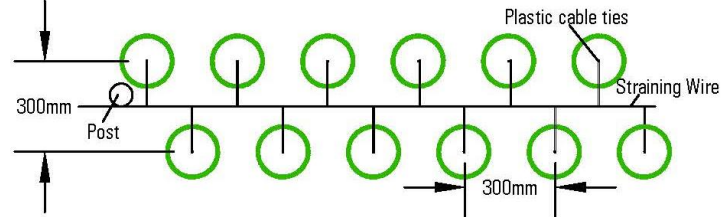


**SECTION THROUGH NATIVE HEDGE**  
Scale 1:20



**PLAN VIEW OF NATIVE HEDGE**

Scale 1:20



**PLANTING NOTES:**

**Native Hedge Species**

1. Native species to be bareroot whips or transplants, 400-600mm high.
2. Bareroot shrubs to be trench planted in a double staggered row with plants at 300mm centres and rows 300mm apart.

**General**

3. Backfilling: A mixture of excavated topsoil and tree-planting compost of a non-peat basis. 1 Nr 80 litre bag per 30 nr hedging shrubs and 1 Nr 15g 'Sierra Flora' tablet.
4. Excess compost to be spread evenly around the shrubs after planting.