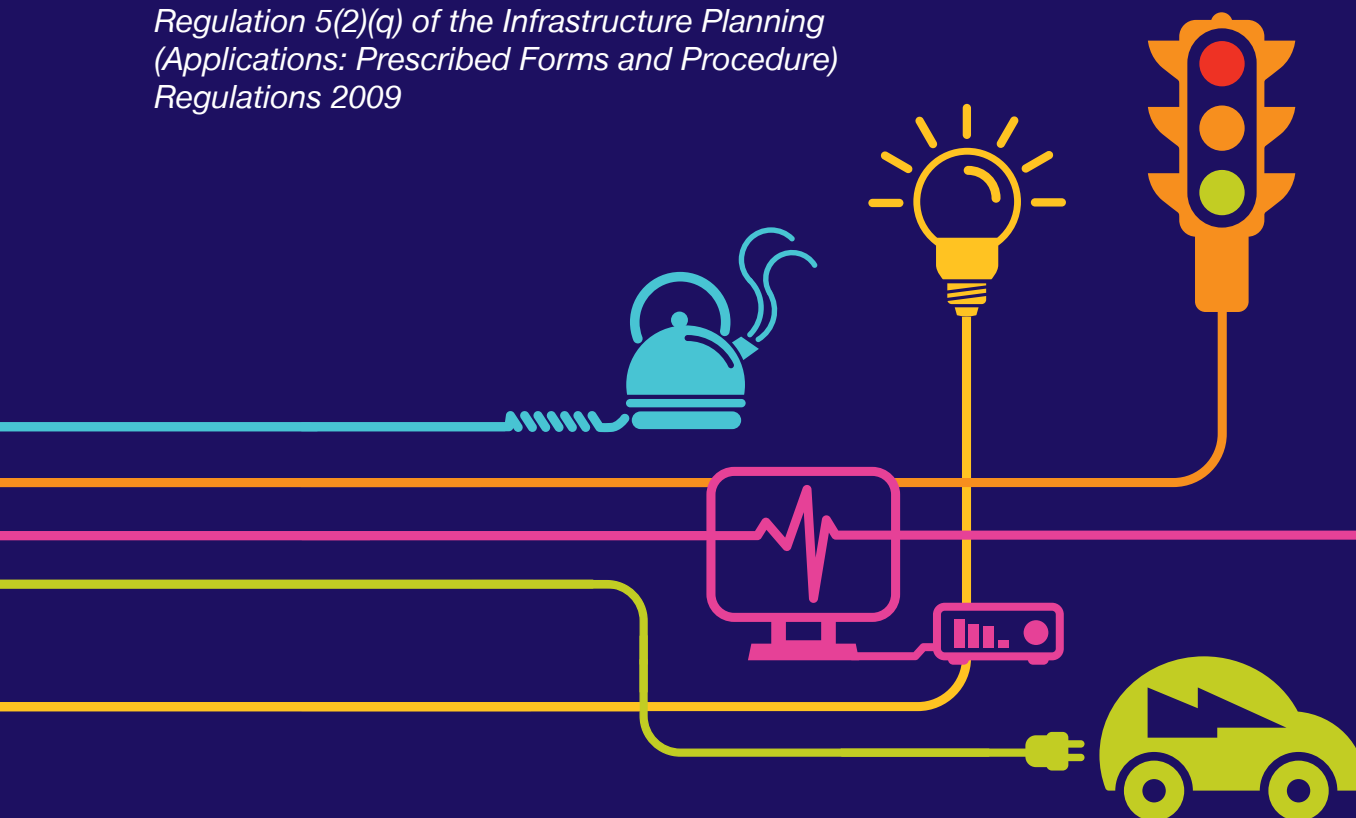


Environmental Statement Construction Environmental Management Plan Appendix 2 Biodiversity Mitigation Strategy

Hinkley Point C Connection Project

*Regulation 5(2)(q) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
Regulations 2009*





Hinkley Point C Connection Project

JULY 2015

VOLUME 5.26.3C, CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX 2 - BIODIVERSITY MITIGATION STRATEGY

Document Control			
Document Properties			
Organisation		National Grid	
Author		Liz Seal, TEP	
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Title		Construction Environmental Management Plan, Appendix 2 - Biodiversity Mitigation Strategy	
Document Reference		Volume 5.26.3C	
Date	Version	Status	Description/Changes
09/05/14	A	Superseded	Final version for DCO submission
19/01/15	B	Superseded	Updated version for submission to PINS
29/04/15	C	Superseded	Updated version for submission to consultees
01/06/15	D	Superseded	Updated version for submission to PINS
13/07/15	E	Live	Updated version for submission to PINS

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1 INTRODUCTION

1.1 Purpose

- 1.1.1 This Biodiversity Mitigation Strategy (BMS) is an appendix to the Construction Environmental Management Plan (CEMP) and has been written with the intention of being an enforceable Requirement of the Development Consent Order (DCO). This BMS was certified by the Secretary of State in accordance with Article 45 (Certification of plans etc.) of the DCO and will be implemented by National Grid via **Schedule 3, Requirement 5** of the DCO.
- 1.1.2 This document covers the mitigation that National Grid would undertake during the construction phase of the development. These works are only part of the approach National Grid Electricity Transmission plc (National Grid) has taken to conserving biodiversity. The Environmental Statement (**Volume 5.2.1**) describes how the Route Corridor Study identified and avoided impacts on biodiversity, and **Volume 5.8.1, section 8.5** describes how modifications to scheme design have been applied to further avoid impacts on biodiversity. **Volume 5.8.1, section 8.7** summarises ecological mitigation, including the measures described in this document. **Volume 5.8.1, section 8.9** also describes additional commitments National Grid has made to conserving and enhancing biodiversity including the Off Site Planting and Enhancement Scheme (OSPES) and biodiversity offsetting payments. As these additional provisions will be delivered by a third party and secured via Section 106 agreement they are not covered by this document.
- 1.1.3 National Grid's document 'Commitments when undertaking works in the UK' (Ref.i) describes how it approaches its aspirations to conserve flora and fauna of special interest, taking account of its statutory obligations under Schedule 9 of the Electricity Act, 1989. National Grid's document sets out ten commitments. These commitments follow the mitigation hierarchy (Ref. ii) by seeking to understand the environment in which National Grid works, then avoiding impacts where possible, mitigating unavoidable impacts, and seeking offsetting and enhancement opportunities.
- 1.1.4 Results of ecological surveys carried out between 2009 and 2014 are presented in the Environmental Statement **Volume 5.8.1, section 8.4 and Volume 5.8.2, Appendices 8C to 8F and 8H to 8N** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting Appendices (**Volume 5.28.2**) and Figures (**Volume 5.28.3**).
- 1.1.5 This BMS describes measures to avoid, reduce, mitigate and compensate for likely adverse effects on ecological receptors resulting from the Hinkley Point C Connection Project (the Proposed Development). Ecological receptors are sites, species and habitats which enjoy statutory or policy protection, or are recognised as being of local rarity and sensitivity.
- 1.1.6 The CEMP (**Volume 5.26.1C**) includes protective method statements for other elements of the natural, physical and historic environment, hydrology mitigation and over-arching contractor briefings. The CEMP and the BMS will be implemented via **Schedule 3, Requirement 5** of the DCO. Prior to and during each phase of the construction of the Proposed Development, the BMS will be updated to ensure the proposed mitigation measure are appropriate.

- 1.1.7 For the purposes of this document, the working area is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the development. This includes areas required for access, temporary construction and temporary storage areas.

1.2 Legislative and Policy Considerations

- 1.2.1 The BMS has been written with due consideration to relevant ecological legislation. A review of this is provided in the Environmental Statement (**Volume 5.8.1, section 8.2** and **Volume 5.5.2, Appendix 8B**).

1.3 Method Statements and Statutory Licences

- 1.3.1 This BMS comprises method statements addressing each ecological receptor. The method statements in the BMS are organised into the three themes of designated wildlife sites (section 2), habitats (section 3) and species (section 4). It is recognised there is overlap between these themes. These method statements are to be read and implemented in conjunction with each other and in association with the CEMP (**Volume 5.26.1C**).

- 1.3.2 For certain protected species including European Protected Species (EPS), species protected under the Wildlife and Countryside Act (W&CA) and the Badger Protection Act (BPA), detailed method statements (MS) are also needed to support Natural England licence applications to disturb the species and/or their habitats. Summaries of those method statements are included in the BMS and the DCO application includes full draft licence submissions for the following species:

- bats (EPS MS);
- water vole (W&CA MS);
- badger (BPA MS); and
- great crested newts (GCN) (EPS MS).

- 1.3.3 The method statements provided in this document and the statutory licences are compatible with the Archaeological Written Scheme of Investigation (WSI) (**Volume 5.26.4C**). In addition, the WSI states that archaeological mitigation works will accord with other environmental requirements such as reinstating habitats (post investigation and prior to construction works) to minimise the period over which habitat losses are experienced.

1.4 Habitats Regulations Assessment

- 1.4.1 Mitigation accounted for under the Habitats Regulations Assessment (HRA) is included in this document. Detailed justification of the HRA mitigation is provided in the Applicant's Report to Support HRA (**Volume 5.20.1A, Volume 5.20.2B and Volume 5.8.2.4, Appendices 8F and 8H**).

1.5 Roles, Responsibilities and Reporting

- 1.5.1 Prior to any construction works commencing on site, an appropriately qualified Ecological Clerk of Works (ECoW) will be appointed. This person will be known as the 'Project ECoW'. The ECoW must be a member of the Chartered Institute of Ecology and Environmental Management (CIEEM), or hold equivalent accreditation.

The ECoW will report to the Environmental Manager, who in turn reports to the Safety, Health, Environment, Security and Quality Manager (SHESQ) Manager. An organogram illustrating the responsibility structure of the construction environmental team is provided in the CEMP (**Volume 5.26.1C, Inset 1.1**). The ECoW will oversee and be supported by appropriately experienced and licensed specialists and will call upon assistants during busy periods of the project.

1.5.2 The delivery of this BMS depends on the ECoW who will:

- ensure the site team and sub-contractors comply with site protocols regarding ecological receptors through delivery of toolbox talks and on-site supervision where necessary and being available to answer questions as they arise;
- carry out an Ecological Watching Brief (EWB) where necessary;
- carry out pre-start walkovers to record site conditions (including geo-referenced photographs) which will be updated during works and on completion;
- carry out inspections of the mitigation and compensation measures during and after their implementation;
- raise an alert for any non-compliance with the ecological protocols;
- report any failings to the Environmental Manager and Site Managers immediately. If insufficient action is taken, stop the works and report to the appropriate statutory authority;
- liaise with National Grid and keep a site log. The site log will contain a record of daily activities, details of any recommendations made, details of any further actions required and with whom the responsibility for those action lies;
- provide annual reports to the relevant planning authorities and other statutory bodies with respect to progress of works; and
- on request of National Grid, meet landowners and occupiers to describe the BMS and its implications for their land interests.

On-site Communication

1.5.3 Robust construction method statements will incorporate many of the areas of the ECoW's remit into the daily activities of construction personnel. However, the ECoW will always inform the Environmental Manager of areas of particular concern, who will then make a decision as to the subsequent action.

1.5.4 Prior to any construction works commencing, the ECoW will be involved in the delivery of biodiversity-related toolbox talks as part of the site induction process for all contractors. All contractors will know of the circumstances when the ECoW should be contacted and will sign to confirm attendance and understanding of the toolbox talk. The Environmental Manager will advise the ECoW of any new contractors on site and the ECoW will provide additional toolbox talks as required. Toolbox talks will be updated in line with any updates to the ecological baseline and re-delivered where necessary. A copy of relevant toolbox talks will be kept in the site office for reference of contractors. Contractors working on the site will be bound by contractual conditions which refer to National Grid's advisory notes on wildlife protection. Should differences occur between the advisory notes and this BMS, the BMS will take precedent.

- 1.5.5 Relevant ecological personnel to be consulted with queries will include:
- ECoW;
 - Environmental Manager;
 - SHESQ Manager; and
 - Protected Species Licence-holders (for bats, GCN and badger).
- 1.5.6 In line with the processes outlined in the CEMP (**Volume 5.26.1C**) the ECoW will use standard forms to complete daily logs, non-compliance alerts and remedial action reports (templates are provided in Appendices A, B and C). Annual reporting will also be undertaken and statutory licence compliance reports in respect of bats, water vole, badger and GCN will follow the formats stipulated by Natural England.

2 DESIGNATED WILDLIFE SITES

2.1 Overview

- 2.1.1 This section sets out the measures required to avoid potential detrimental effects on designated wildlife sites that lie within or near the Order Limits. This includes statutory sites [Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, SSSI and National/Local Nature Reserves (NNR/LNR)) and locally designated sites (which have a variety of names, but are covered by the generic term “Local Wildlife Site” (LWS)].
- 2.1.2 Wildlife site protection will be delivered through the habitat and species method statements set out in sections 3 and 4 of this document. Where bespoke restrictions over and above the methods are required these are detailed in this section (section 2).
- 2.1.3 Section 2 is supported by a number of insets illustrating the construction components of the Proposed Development in relation to designated wildlife sites. A full key to the construction components shown on the insets is provided at the end of this section (**Inset 2.36**).

2.2 International Sites

- 2.2.1 The potential for impacts to arise from the Proposed Development on a number of Natura 2000 and Ramsar sites has been identified in the Environmental Statement (**Volume 5.8.1, section 8.4, Volume 5.8.2, Appendices 8A and 8O and Volume 5.8.3, Figures 8.1.6 to 8.1.7 and 8.1.14 to 8.1.17 and 8.23.1 to 8.23.2**) and the Applicant’s Report to Support HRA (**Volume 5.20.1A, Volume 5.20.2B and Volume 5.8.2.4, Appendices 8F and 8H**). Some sites are directly or physically affected by the Proposed Development while indirect effects are possible on other sites through disturbance to habitats outside of designation boundaries but which are used by species which are “qualifying features” for these designated sites.
- 2.2.2 The Applicant’s Report to Support HRA (**Volume 5.20.1A, Volume 5.20.2B and Volume 5.8.2.4, Appendices 8F and 8H**) lists all the potential impact pathways by which internationally important sites could be indirectly affected. The mitigation needed to avoid and reduce the effects on these sites is detailed in the following pages with reference to habitat and species method statements set out in sections 3 and 4 of this document.

Severn Estuary Ramsar, SPA, SAC

- 2.2.3 The Severn Estuary is an extensive designation running from Stogursey in the south to Frampton-on-Severn in the north and extending slightly inland along the rivers Parrett, Brue, Axe and Banwell, the Congresbury Yeo and the River Avon. The Ramsar and SAC designations also extend inland to the south and east of Hinkley Point power station. For ease of understanding and due to differing requirements, mitigation is described for each relevant location of the designation.

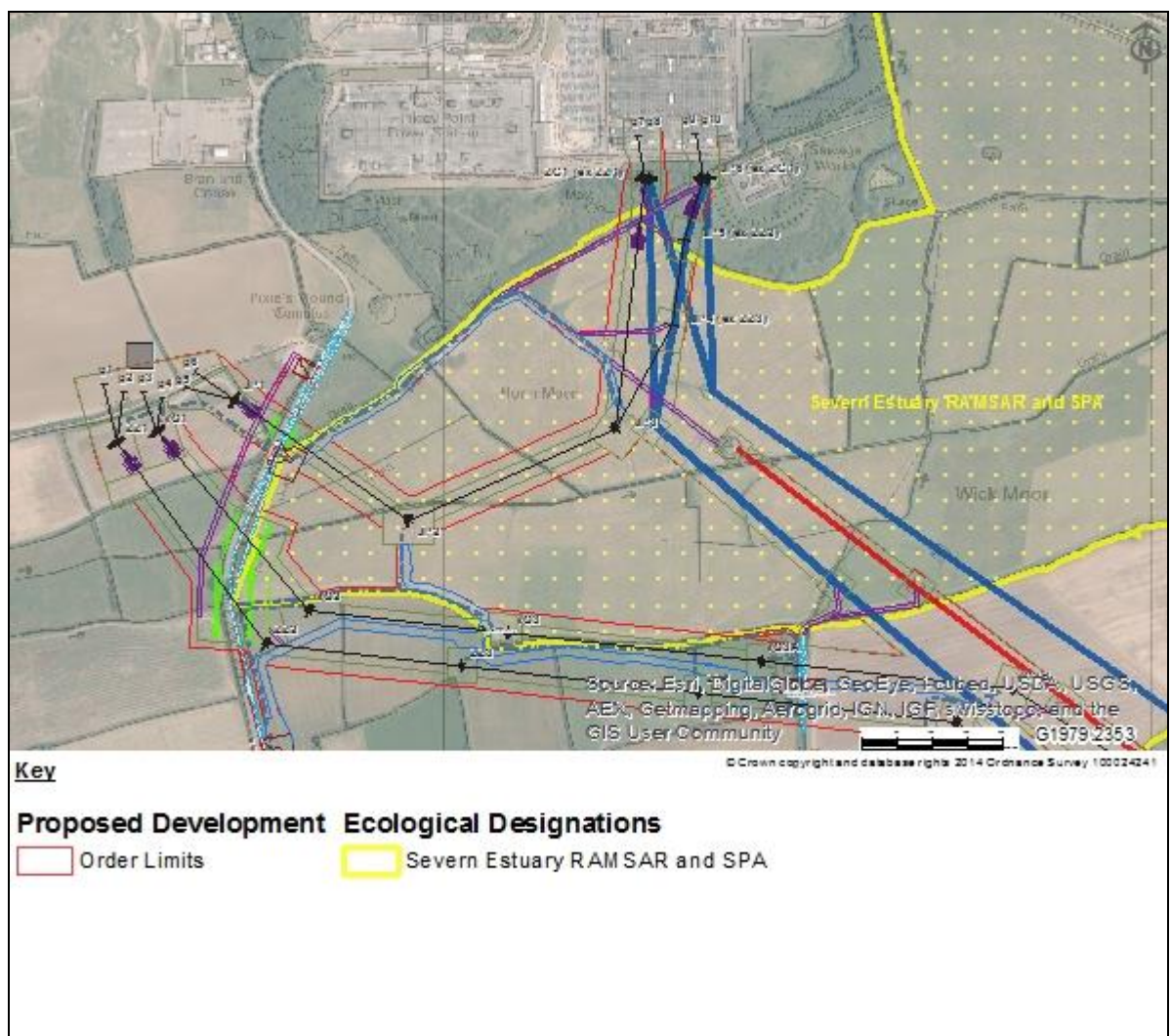
Hinkley Point C

- 2.2.4 Works are required within these designations at Hinkley Point power station (Ramsar and SPA only) for removal and realignment of the existing 400kV and 275kV overhead lines (**Inset 2.1**). Two 400kV and two 275kV pylons will be

removed from the designations and one 275kV and two 400kV pylons will be constructed within the designations. Temporary works within the designations would comprise construction access routes, scaffolding, working areas and a culvert.

- 2.2.5 National Grid will meet with EDF a minimum of two months in advance of works commencing in this area to agree detailed site specific issues.
- 2.2.6 The construction works would be in areas only very occasionally used by low numbers of SPA birds. The permanent impacts will result in a negligible gain of semi-improved grassland (removal of four pylons construction of three pylons). The temporary components will result in loss of semi-improved neutral grassland across all working areas, loss of hawthorn and blackthorn scrub along Wick Moore Drove and three sections of species-poor hedgerow (totalling 164.5m) for access, felling of one tree and pruning of seven others and loss of ditch bankside habitats at one culvert crossing.

Inset 2.1: Severn Estuary Ramsar, SPA at Hinkley Point C



- 2.2.7 National Grid will use temporary fencing to demarcate the boundaries of the working areas to prevent encroachment of works vehicles onto other areas of the designation. There is no requirement for specialist mitigation with respect of SPA

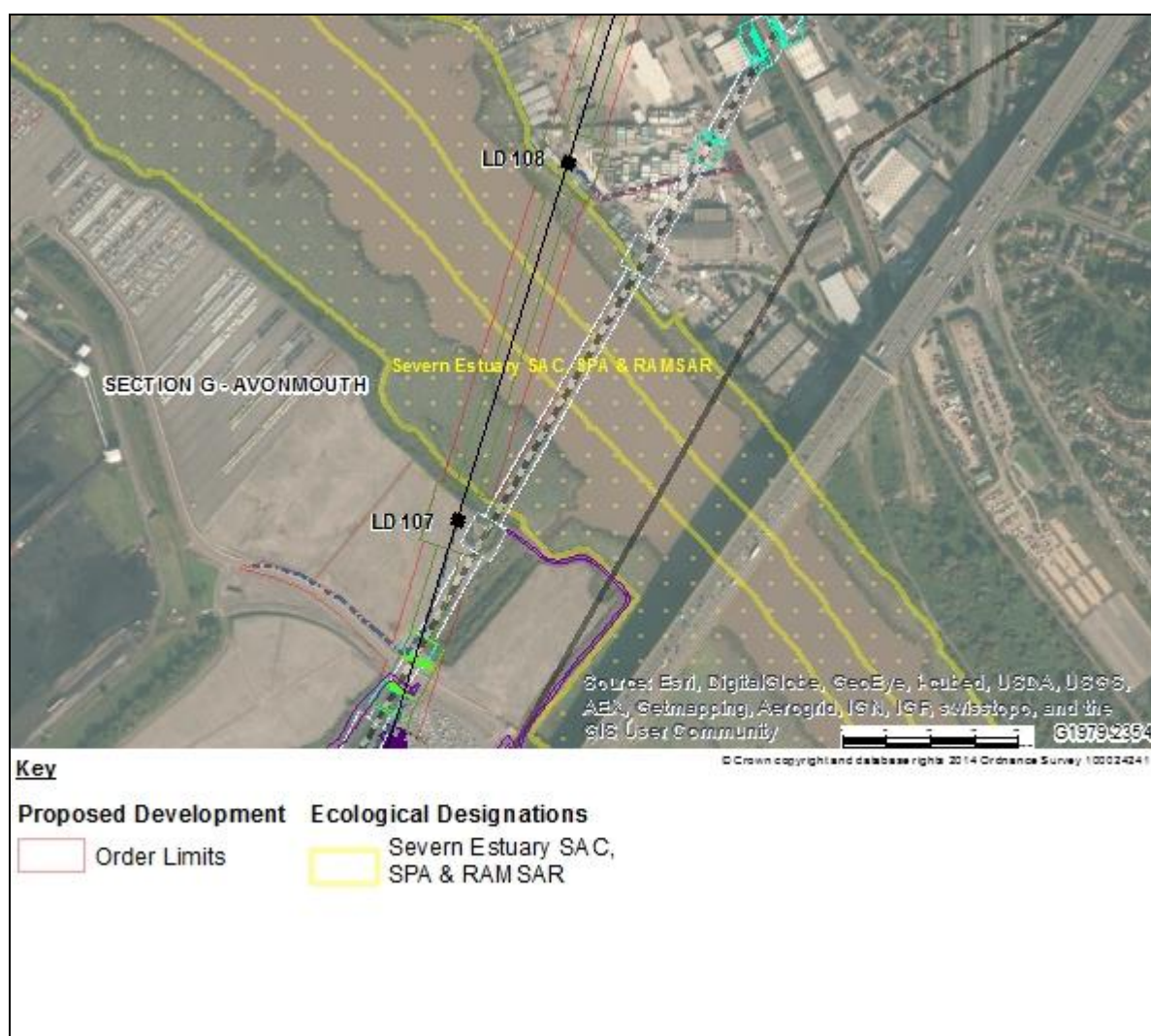
or Ramsar or SAC qualifying species or habitats at this location. Mitigation for Bridgwater Bay SSSI is considered under the section on National designations.

- 2.2.8 Mitigation approaches set out in section 3 and 4 of this document will avoid and minimise impacts on non-qualifying habitats and species that fall within this designation, including wildlife-sensitive methods to install the culvert and remove any habitats and reinstatement of lost grassland and hedgerow.

River Avon

- 2.2.9 At the River Avon in Avonmouth, the construction works of the Proposed Development are on the edge of these designations (**Inset 2.2**). The typical working areas for the removal of the 132kV G Route pylons (G17 on the south bank and G18 on the north bank) and the typical construction working areas for the new 400kV pylons (LD107 on the south bank and LD108 on the north bank) would fall partly within the Severn Estuary designations.

Inset 2.2: Severn Estuary Ramsar, SPA, SAC at River Avon



- 2.2.10 Although the habitats immediately adjacent to the construction works are only used infrequently by low numbers of SPA birds, there is potential (without mitigation) for the works to result in loss or degradation of designated habitats and associated coastal invertebrate fauna. National Grid will adjust working areas at these four pylon locations to ensure they are outside the boundaries of the designation. Fencing and signs will be used to prevent encroachment onto the designations.

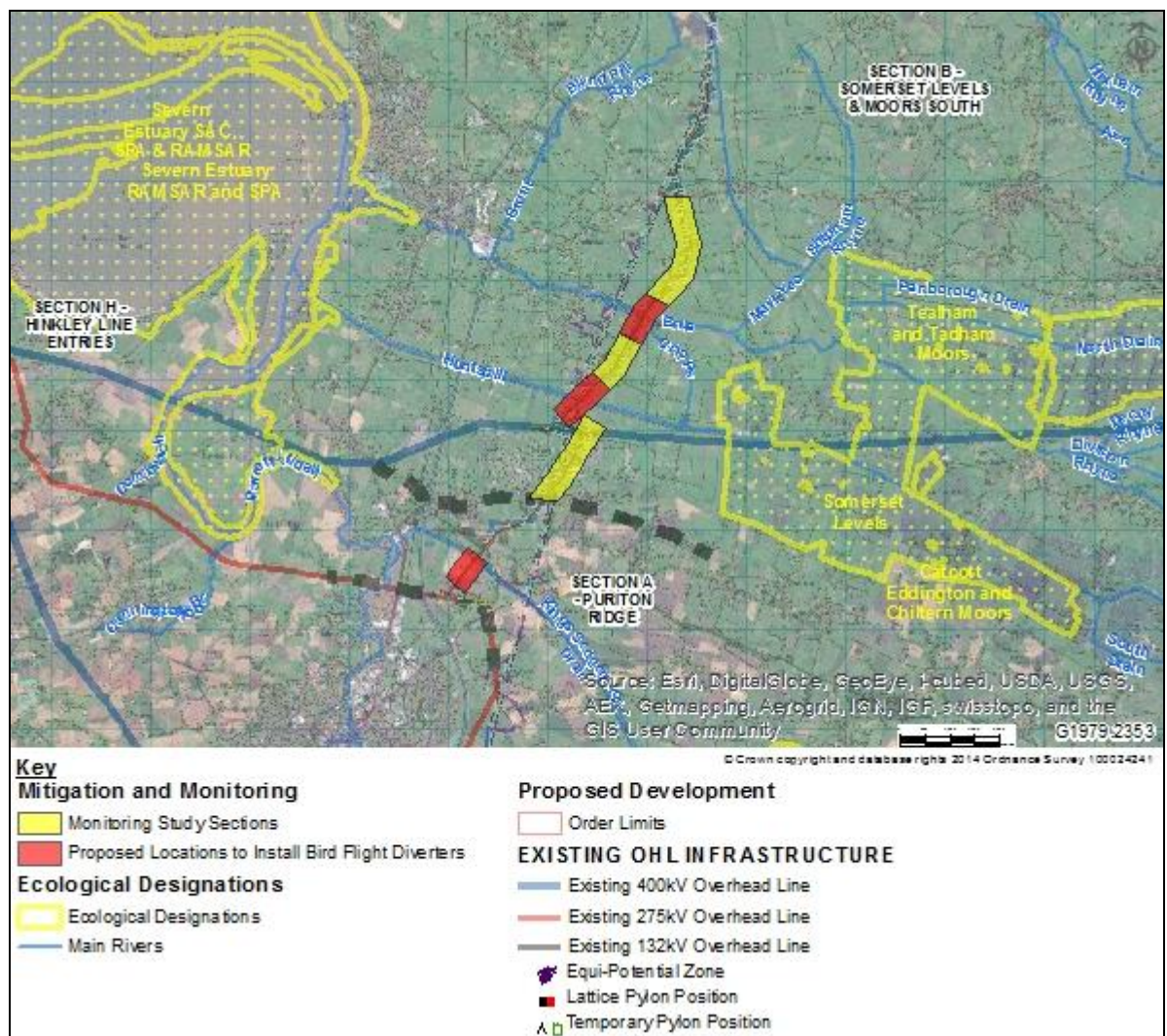
Within the working areas soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation.

- 2.2.11 The preferred method for stringing the new 400kV pylons across the River Avon is via helicopter which would avoid the need to enter the designation. If this approach is not possible (due to health and safety considerations) then pilot bonds will be walked across the grassland habitats from the pylon working area and a boat will take the pilot bond across the River Avon. These works will be undertaken at high tide, to avoid disturbance to intertidal habitats. This process will be repeated for each of the conductors and the earth wire. De-stringing of the 132kV line will be undertaken in a similar manner.

Bridgwater Tee to Mark

- 2.2.12 Indirect effects on these designations are possible through risk of bird collision where the line runs between the Severn Estuary designations and the Somerset Levels and Moors Ramsar, SPA (**Inset 2.3**).

Inset 2.3: Severn Estuary Ramsar, SPA, SAC and Somerset Levels and Moors Ramsar, SPA



- 2.2.13 National Grid will fit bird diverters to the earth wire of the new 400kV overhead line on the following spans:
- Pylon ZGA1 through to Pylon ZGA3 (2 spans).
 - Pylon LD2 through to pylon LD5 (3 spans).
 - Pylon LD8 through to pylon LD11 (3 spans).
- 2.2.14 National Grid will ensure that on the section between Bridgwater Tee and Mark, the conductors and earth wires of the new 400kV are installed only after the removal of the F Route 132kV conductors and earth wires.
- 2.2.15 National Grid will undertake bird collision monitoring along the overhead line between Bridgwater Tee and Mark. The requirement to implement the monitoring strategy (entitled 'Bird Mortality Monitoring and Thresholds South of Mark' – see **Volume 5.33.1**) is set out in **Schedule 3, Requirement 13** of the DCO. A set of thresholds have been agreed with Natural England that, if reached, would trigger the need for further investigation and potentially mitigation. The agreed thresholds

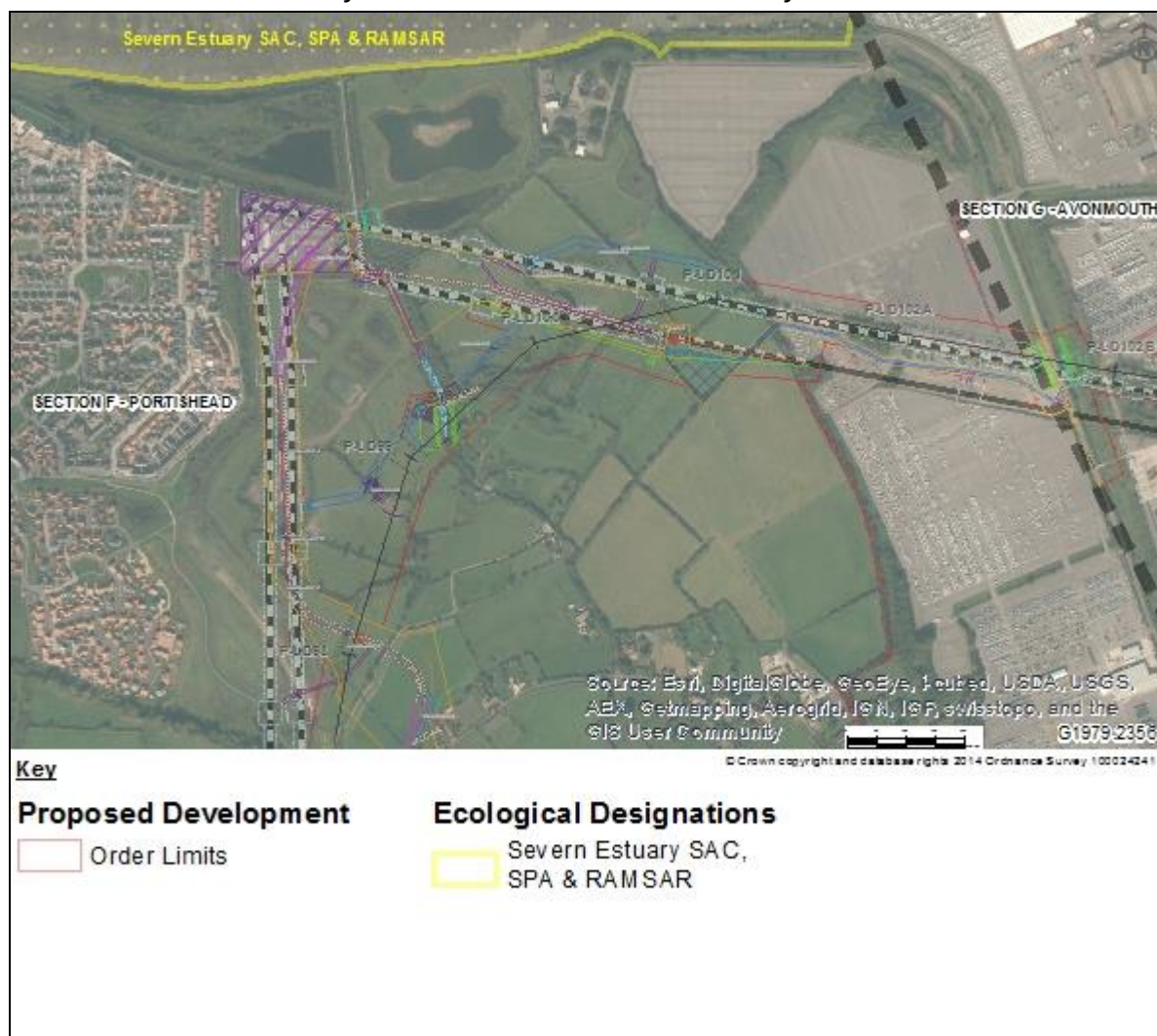
and process that would be triggered should these levels be reached are detailed in **Volume 5.33.1**.

- 2.2.16 Implementation of this strategy will be governed by a Working Group. As a minimum the Working Group will comprise representatives for National Grid and Natural England. Further information on the Working Group is provided in **Volume 5.33.1**.

Portbury Wharf

- 2.2.17 Near Portishead substation and the Portbury Wharf area, the construction works of the Proposed Development run adjacent to habitats used by overwintering Ramsar and SPA birds. These works include removal of and some undergrounding of existing 132kV overhead lines, works within the substation footprint and (under alternative route (Option B) only) construction of the new 400kV overhead line (**Inset 2.4**).
- 2.2.18 Although there is little risk of the construction works having direct effects on the qualifying habitats or species within the designation, the works could result in disturbance to overwintering birds using the pools between the designation and the working areas. To avoid disturbing wintering SPA and Ramsar bird species, works will be undertaken only during the period April to September inclusive. The exception to this will be vegetation removal. To avoid the bird nesting season vegetation clearance and hedge netting will be permitted during the period October to March but will target September to avoid nesting and wintering birds. If it is not possible to complete clearance works in one month then any clearance between October and March will avoid periods of prolonged freezing conditions when birds are more energetically stressed. Vegetation clearance works will not be undertaken following seven consecutive days of frozen conditions in line with JNCC guidance.
- 2.2.19 There is currently no need for bird diverters in the Portbury Wharf area. Should bird use of the area change in the future, National Grid will implement the National Grid Bird Diverter Protocol. This Protocol makes provisions for consultation, monitoring and mitigation should bird collisions be identified.

Inset 2.4: Severn Estuary Ramsar, SPA, SAC at Portbury Wharf



Somerset Levels and Moors Ramsar, SPA

- 2.2.20 No direct effects are predicted to arise on these designations as a result of the Proposed Development. There is potential for bird collision to occur on Ramsar and SPA species while outside the designation boundaries. The mitigation for this is covered under the Severn Estuary (Bridgwater Tee to Mark). No additional mitigation is required.

Mendip Limestone SAC and North Somerset and Mendip Bats SAC

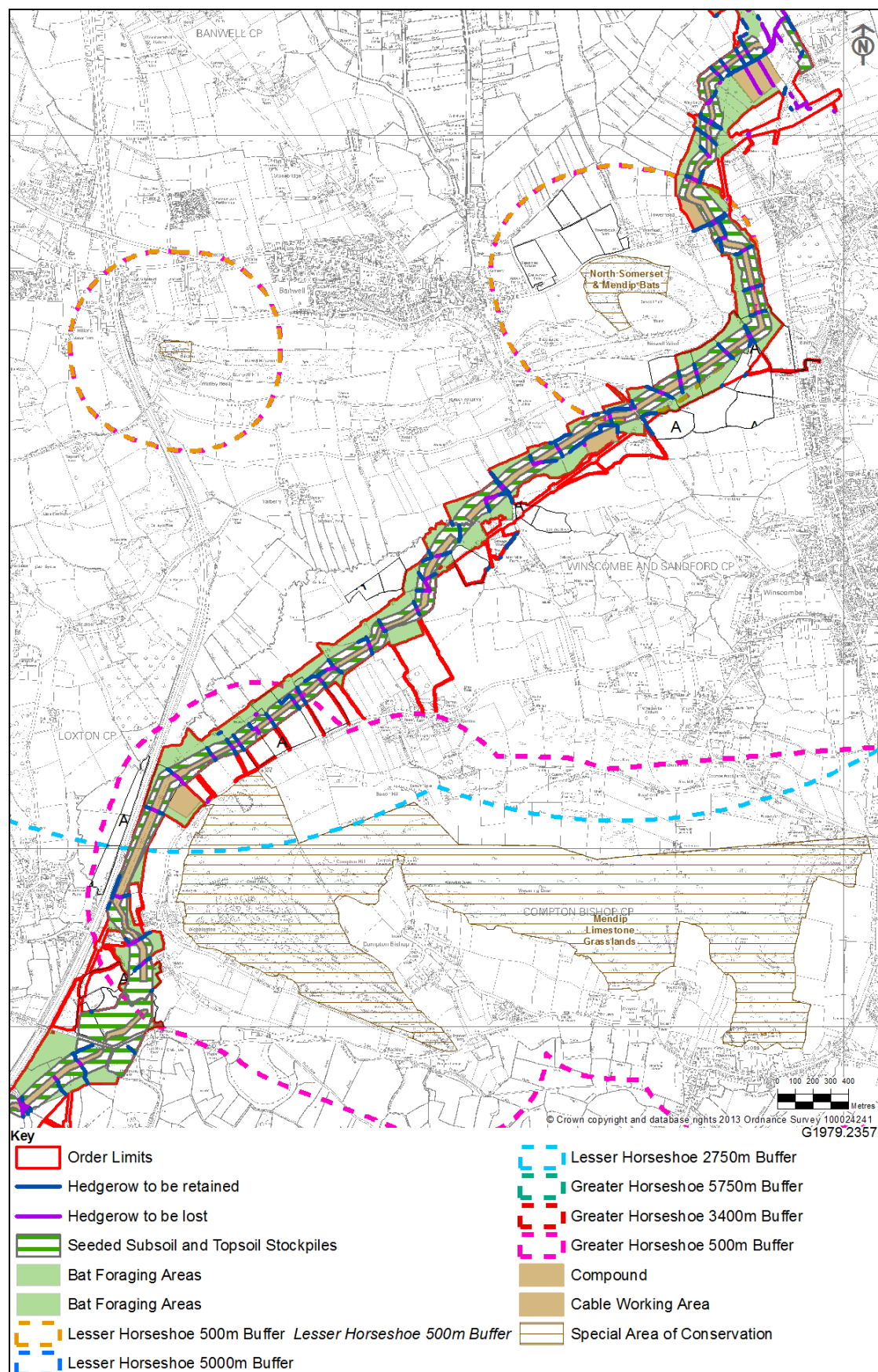
- 2.2.21 Mitigation requirements for these two designations overlap and are discussed together. These sites have lesser and greater horseshoe bats as qualifying features. The Order Limits of the Proposed Development do not encompass any part of these designations. However, the 400kV underground cable route passes near to at least one component site of each SAC. Furthermore, taking account of published research into the foraging and commuting distances of these bat species, the entirety of the 400kV underground cable, the permanent bridges at the River Axe and Towerhead Brook and the temporary and permanent works at the South of the Mendip Hills cable sealing end (CSE) compound and at Sandford Substation fall within the potential range of the SAC bat populations.

- 2.2.22 Without mitigation, the construction works of the Proposed Development would result in loss and fragmentation of foraging and commuting habitat through hedgerow removal, soil stripping and lighting of compounds. The following paragraphs (and **Insets 2.5 and 2.6**) describe the measures that will be implemented to protect foraging and commuting habitats for SAC bats.
- 2.2.23 All hedgerows and grassland removed for temporary works will be reinstated on completion of construction. Subsoil, topsoil and hedgerows will be reinstated in phases, each at the most appropriate time of year for reinstatement and planting to be carried out within 12 months of the completion of each construction phase. The sections of hedgerow falling within the cable installation working area will be removed in a phased manner (allowing for nesting bird considerations). These hedgerows (typically lengths of 36m) will be replanted in the first planting season following completion of a phase (a phase lasting approximately nine months). Reinstatement will also be implemented in accordance with the Soil Management Plan, which is secured by **Schedule 3, Requirement 6** of the DCO. A Landscape Clerk of Works (LCoW) would be responsible for the maintenance regime of reinstated habitats. Where this is not possible (due to permanent land take), bespoke landscaping schemes have been developed. Relevant embedded, site-specific landscape schemes (presented in **Volume 5.7.3.14A**) are as follows:
- South of the Mendip Hills CSE Compound (**Volume 5.7.3.14A, Figure 7.33**);
 - River Axe Cable Bridge Option (**Volume 5.7.3.14A, Figure 7.34**);
 - Sandford Substation (**Volume 5.7.3.14A, Figure 7.35**); and
 - Towerhead Brook Bridge (**Volume 5.7.3.14A, Figure 7.36**).
- 2.2.24 During the construction phase hedgerow loss would be minimised by narrowing the working area and keeping soil piles and temporary drainage away from the hedgerows. This has allowed a reduction of losses from 65-100m at each crossing point down to 42m.
- 2.2.25 Hedgerow loss associated with the construction of proposed 400kV underground cable is necessarily higher than with other development components. To ensure that any long-term impacts on this particularly sensitive landscape are minimised, the planting of one of four 'species specific' planting mixes will be used (A, B, C or D). These have been selected using information recorded during the Phase 1 habitat surveys. The 'species-specific' lists and a schedule of hedgerow sections to which they relate are provided at the Arboricultural Impact Assessment (**Volume 5.21.2**).
- 2.2.26 To further reduce the effect of losses of foraging habitat as a result of removal of pasture and hedgerows during construction, areas of fields adjacent to the construction footprint have been included within the DCO Order Limits to ensure management of the habitats for bats during the construction period. The proposed locations of these areas are shown at **Inset 2.5**.
- 2.2.27 These bat foraging habitats will be delivered with landowner agreement where possible, however these areas fall within the Order Limits of the DCO and will be implemented by National Grid even if agreement cannot be reached with landowners. The default position regarding management of bat foraging habitats during the construction phase (i.e. the regime National Grid will implement if no

satisfactory arrangement are made with landowner agreement); is detailed in **Appendix D**. This appendix identifies baseline habitat conditions and proposed construction phase habitat conditions to maintain bat foraging habitats. It uses Somerset County Council's Habitat Evaluation Procedure (HEP) (previously known as the Somerset Biodiversity Offsetting Method) to calculate the value of habitats for greater and lesser horseshoe bats. The default position ensures circa 120% of baseline habitat value is provided during the construction phase.

- 2.2.28 The proposals are secured by **Schedule 3, Requirement 14** of the DCO and any requests to amend the default position will be subject to an updated assessment using the HEP and will require Natural England approval.
- 2.2.29 To avoid prolonged loss of all hedgerows and grassland habitats throughout the entire 8.5km length of 400kV underground cables through the Mendip Hills and at Sandford substation, the works would be delivered in a phased manner under the Revised Construction Programme. Removal and reinstatement of hedgerows and grassland will be phased to ensure no more than four sections of the 400kV underground cable route will be soil stripped at any one time. The start and end of a section is denoted by the junction bays; the distance between junction bays is largely determined by the length of cable (per cable drum) available on the market. The cable length (per cable drum) is currently anticipated to be between 0.7km and 1.0km and will be confirmed once a cable manufacturer is commissioned. Each section is envisaged to take approximately 70 days to complete the excavation, installation and ground reinstatement elements.
- 2.2.30 Whilst the cables will be laid in phases, the haul road for this project component would remain in place for the duration of works including until testing of the cables is complete.
- 2.2.31 Sandford Substation also lies within the SAC Consideration Zones for horseshoe bats. The following habitats will be reinstated prior to completion of the Sandford substation works (assuming initial site clearance commencing Q1 2018):
- planting along the existing and reinstated orchard line in November/December 2017;
 - orchard tree planting in the north west in November/December 2017;
 - planting (ditch and hedgerow) along the realigned ditch in the first Spring or Autumn following construction of the ditch (November/December 2018 or April/May 2019); and
 - native structure planting north of the pond in November/December 2018.

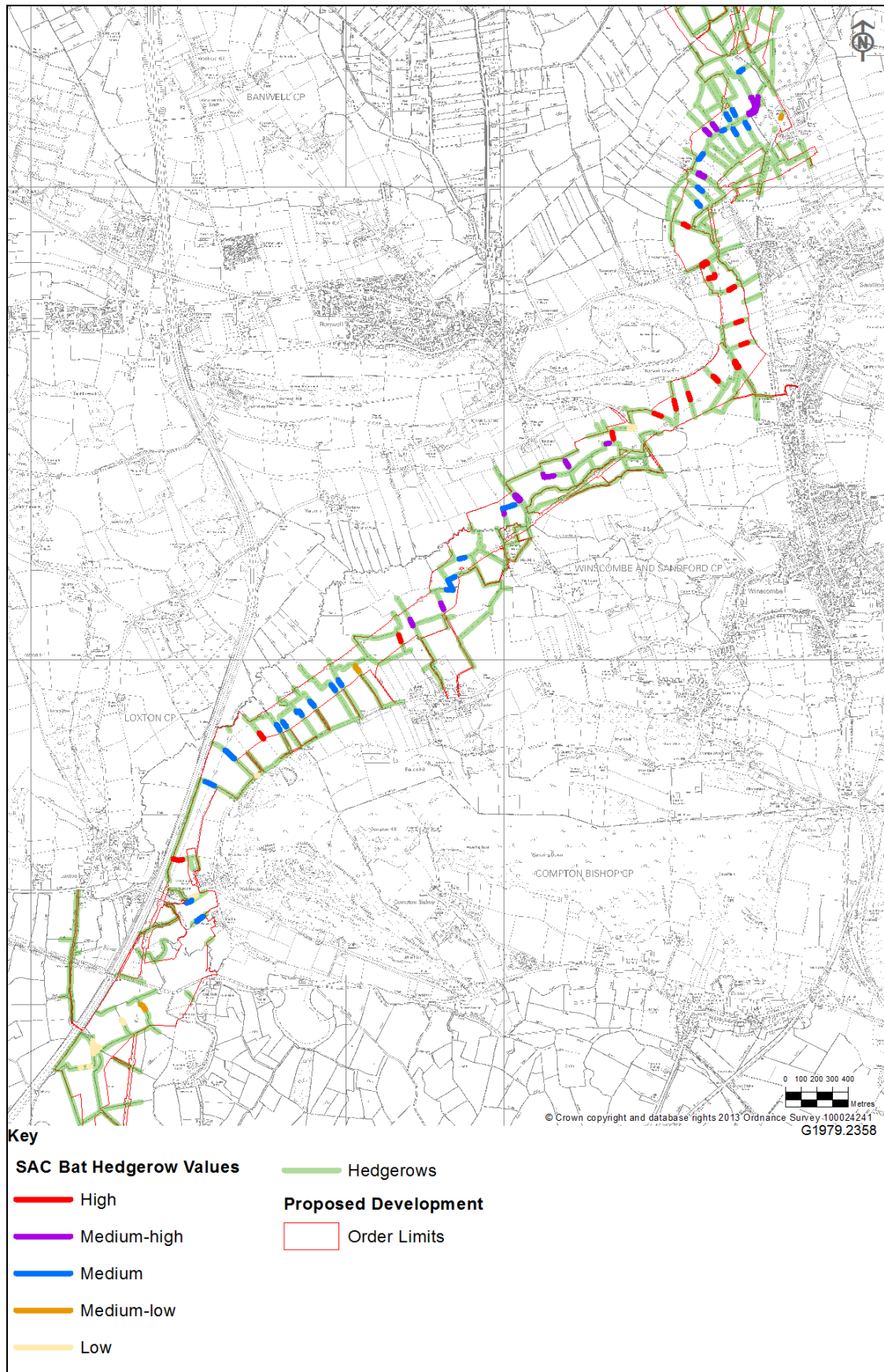
Inset 2.5: SAC Bat Grassland Mitigation



- 2.2.32 To maintain commuting routes during the construction period (and in addition to the measures to minimise hedgerow loss as previously described and outlined in section 3.3), as soon as construction commences temporary flyways will be put across the trenches when not actively worked on and across the haul road at the end of each working day except during the period November to January. These temporary flyways will span the entire length of the removed hedge sections. The use of structures to maintain temporary flight paths during construction and habitat establishment will also be used around the perimeters of Sandford substation compound and construction areas. The Main Contractor will identify a member(s) of staff who is responsible for replacing the bat flyways at the end of each working day. The ECoW will undertake spot checks (recorded within their Daily Log) to ensure the bat flyways are replaced, any failure to do so will be reported via a non-conformance as described in section 1.5 of this document.
- 2.2.33 Use of temporary bat flyways takes account of the various uses a bat may make of linear habitat features. A hedgerow value assessment is provided in the Applicant's Report to Support HRA (**Volume 5.20.1A, paragraphs 5.2.49 to 5.2.54**) (which is supported by the hedgerow assessment in **Volume 5.8.2, Appendix 8B**) and illustrated on **Inset 2.6**; this has been used to determine which approach will be taken to provision of temporary bat flyways as follows:
- Low value – no bat flyway provided.
 - Low-medium value – no bat flyway provided.
 - Medium value – steel mesh fencing with black/green sheeting tied on.
 - Medium-high – steel mesh fencing with brush wood sheeting tied on or solid hoarding.
 - High – steel mesh fencing with brushwood sheeting tied on, deadwood tied on or solid hoarding.
- 2.2.34 During the operational phase of the development the new hedges along the emergency access route to Sandford Substation will have gaps to enable emergency access. However the gaps will be gated to maintain a linear feature and prevent fragmentation.
- 2.2.35 During the hedgerow establishment period bat flyways will be maintained. The planted hedgerows will be fenced on either side with stock-proof fencing and a windbreak mesh will be fitted to one side of this fencing. Windbreak mesh is a high strength extruded plastic fencing mesh designed to offer essential protection for crops, from destructive winds, driving rain and drifting snow. The windbreak mesh should be erected by battening to wooden fence posts. Battening ensures that the forces exerted onto the wind break mesh filaments are spread evenly ensuring that the mesh will not tear. The fence will provide a physical structure for the bats to follow and the wind break provides shelter from wind and to some degree rain. A LCoW will visit reinstated bat flyways (hedgerows) associated with the 400kV underground cables for eight years following planting. During years 1 to 5 management prescriptions and actions will be as for all reinstated hedgerows but with the additional task of maintaining the fencing. During years 6 to 8 there will be quarterly visits to check for fence and hedge defects, any defects will be corrected.

- 2.2.36 The only permanent lighting will be associated with substation sites. Substations are not manned and lighting will only be used if maintenance works are required. Therefore no permanent lighting effects are predicted. If lighting was required as part of normal working hours it is likely that it would be in the late afternoon during winter when bats are less active or hibernating. Any emergency works requiring lighting would be an infrequent event and for short periods and is unlikely to have an effect on bat foraging/commuting.

Inset 2.6: SAC Bat Hedgerow Mitigation



- 2.2.37 The control of artificial lighting will be in accordance with **Schedule 3, Requirement 8** of the DCO. No stage of the authorised development shall commence until written details of any temporary or permanent external lighting to be installed during that stage, including measures to prevent light spillage, have been submitted to and approved by the relevant planning authority.
- 2.2.38 Normal construction work will not require lighting. However, winter working may require task specific lighting due to the short day lengths. Effects will be limited in locations (and limited in duration at anyone location) and will only be experienced at the beginning and end of the bat active season when day lengths are starting to decrease but bats are yet to hibernate.
- 2.2.39 Cable jointing will require 24/7 lighting inside the covered structures that will surround the cable jointing bays. Lighting will be required outside the covered structures for security and access and egress but these will be controlled by motion sensors.
- 2.2.40 Planned temporary construction lighting may be required for installing protective scaffold netting over roads (and other works that might affect the carriageway), which has to be done when the roads are not busy. No mitigation for lighting of these works is proposed due to their short duration and high safety requirements.
- 2.2.41 Construction compounds will not be lit at night outside core working hours except for welfare and site security cabins that will include low level lighting. Motion sensor lighting will be used in areas of high security risk. As these compound areas will remain active for the majority of the construction phase and because lighting is required, there is potential for effects on SAC bat populations to arise. The compound sites where inappropriate lighting has the greatest potential to result in fragmentation of SAC bat foraging habitats are:
- Barton Road compound (horseshoe bat records in locality);
 - Castle Hill compound (multiple horseshoe records associated with boundaries);
 - Towerhead Road compound (horseshoe bat records in locality); and
 - Sandford substation compound and Sandford substation working area (multiple horseshoe records associated with boundaries).
- 2.2.42 The following measures for controlling light pollution are outlined in the CEMP and will also aid in reducing effects on bats:
- a) lights installed will be of the minimum brightness and/or power rating capable of performing the desired function;
 - b) light fittings will be used that reduce the amount of light emitted above the horizontal;
 - c) light fittings will be positioned correctly and directed downwards;
 - d) the direction of lights will seek to avoid spillage onto neighbouring properties;
 - e) Passive Infra-Red (PIR) controlled lights will be considered for use where appropriate as these may be more acceptable to neighbours than those which are controlled by a time switch or are on all the time; and
 - f) unnecessary lights will be switched off.

- 2.2.43 In addition to the measures outlined above, lighting design will incorporate additional measures as necessary as outlined in Bat Conservation Trust Statement on the impact and design of artificial light on bats (May 2011). Where risk of light spillage from compound sites effecting foraging or commuting SAC bats is unavoidable, boarding or other materials will be installed along the boundary fencing to protect retained hedgerows or temporary flyways from light spill and maintain a dark corridor.

2.3 Sites of Special Scientific Interest and National Nature Reserves

- 2.3.1 Each SSSI within the Order Limits of the Proposed Development has been individually assessed for potential impacts in relation to the reasons for designation. Natural England (NE) was consulted on the proposals and findings of field surveys. Where bespoke approaches are required over and above the method statements presented in the habitat and species mitigation sections 3 and 4 of this document these are detailed in the following paragraphs.
- 2.3.2 For all locations where works are required within or immediately adjacent to a SSSI, the ECoW will meet a representative of NE on site no less than 1 month before anticipated start of works to reiterate the agreed mitigation measures and confirm contacts and responsibilities. If any changes are required (e.g. following tender of the construction contract, developments in technology or new survey information), these will be agreed in writing with NE prior to implementation.
- 2.3.3 Prior to any construction, enhancement or reinstatement works taking place, a NE assent to work within a SSSI will be required. In accordance with Section 28E of the Wildlife and Countryside Act 1981(as amended and inserted by Section 75 and Schedule 9 of the Countryside and Rights of Way Act 2000) a notice of proposal to carry out works within the SSSI will be submitted to NE no less than 30 working days prior to works commencing. This application to Natural England (NE) will include but not limited to details of seed mixes and any other planting, timing of works and arrangements for communication between the ECoW and NE. These matters will have been discussed with NE in advance of the application being made.
- 2.3.4 Before any contractor undertakes works within or adjacent to a SSSI or NNR, the ECoW will advise the Contractor of its boundaries and sensitive features in the toolbox talk. The ECoW will also visit each site at the start of each phase of the development to review working arrangements and will make at least weekly visits while works are carried out in the SSSIs and NNRs.
- 2.3.5 On completion of works, including mitigation and reinstatement measures, the ECoW will provide a bespoke report to NE describing the works carried out within the SSSI or NNR. The report will include “as-built” drawings of any permanent infrastructure, ecological or landscape measures reflecting delivery of the agreed works outlined in the Section 28E consent.

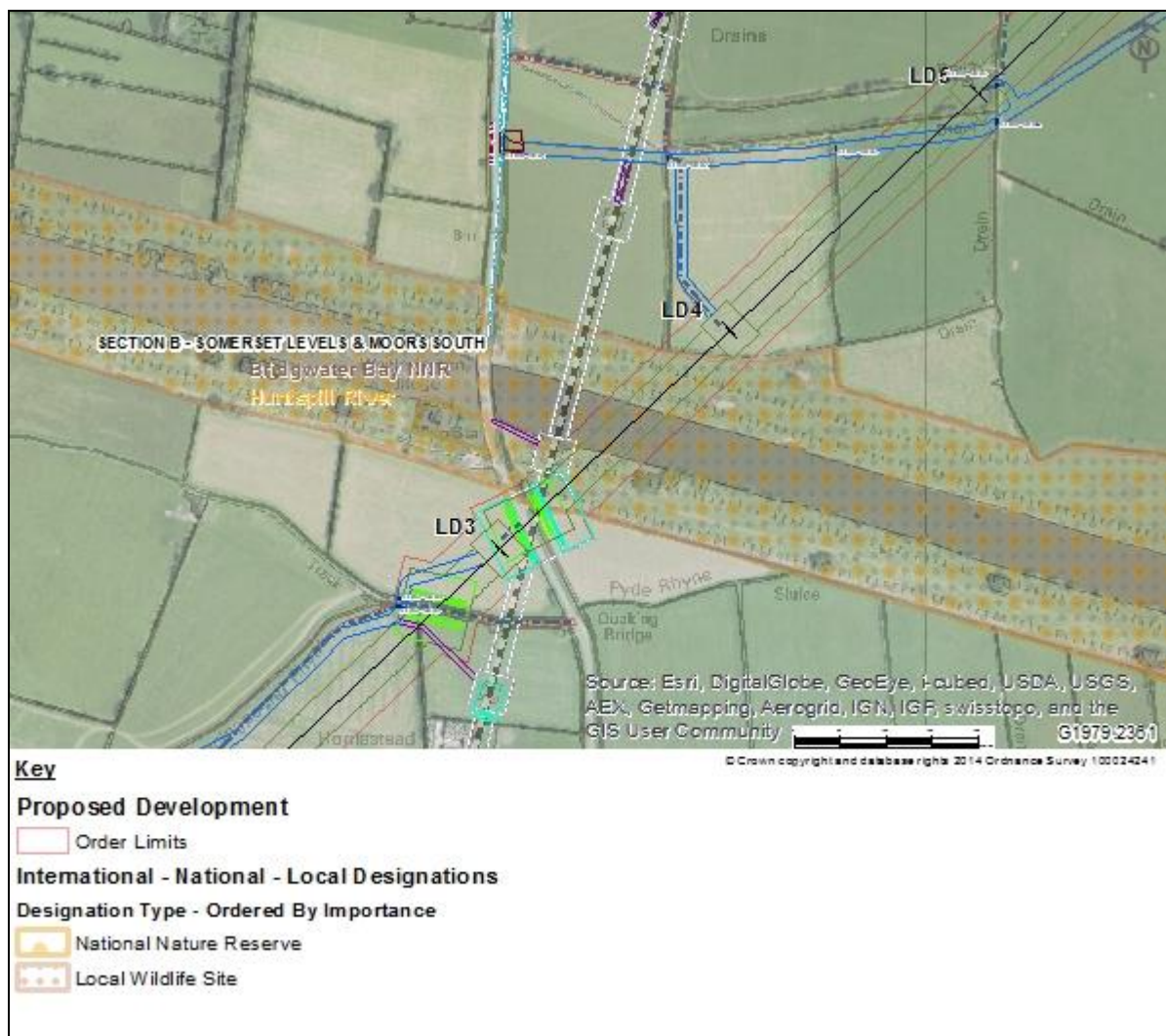
Huntspill River NNR

- 2.3.6 The Huntspill River NNR is an artificial watercourse which supports otter populations and a range of valuable grassland and woodland habitats. One area of the Huntspill River NNR will be affected by the Proposed Development (**Inset 2.7**). This is the working area and scaffolding required to facilitate removal of a 132kV

pylon on the south bank (F149) and construction of the 400kV pylon on the north bank (LD-4).

- 2.3.7 The grassland habitats immediately adjacent to the construction works are common and widespread and no otter holts were recorded in the vicinity. However, there is potential (without mitigation) for the works to result in loss or degradation of the river.
- 2.3.8 National Grid will ensure that the working areas for the 400kV pylon are outside the boundaries of the designation. Scaffolding and 132kV removal works cannot avoid the NNR. For all locations within and adjacent to the NNR, fencing and signs will be used to prevent encroachment outside set working areas. Within the working areas soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation.

Inset 2.7: Huntspill River National Nature Reserve



- 2.3.9 The river banks will be re-surveyed for otter field signs prior to commencement and if baseline conditions have changed the working method will be amended and agreed with Natural England.

Bridgwater Bay SSSI

- 2.3.10 The Bridgwater Bay SSSI supports large numbers of wintering and migrating waders and waterfowl. The ditches and ponds contain a diverse invertebrate fauna including six nationally rare species and eighteen nationally scarce species.
- 2.3.11 Construction works associated with the Proposed Development affecting this designation are as described for the Severn Estuary Ramsar and SPA at Hinkley Point C (**Inset 2.1**). In addition to the impacts and mitigation discussed with regards to the Severn Estuary designation, there is potential for effects on the SSSI invertebrate community to arise from the installation of a temporary culvert.
- 2.3.12 The temporary culvert would be across a ditch along the southern boundary of the designation. The crossing point has been chosen to minimise the length of temporary access road that falls within the designation boundary whilst also minimising potential effect on ditch communities. The ditch is bordered by a hedge along its length; it holds water along the eastern extent but is dry along the western extent. Shaded ditches tend to have lower value invertebrate and plant communities. The crossing point is within the wet section of the ditch but near to the section that was dry during survey.
- 2.3.13 Installation of the culvert will be in accordance with the Invertebrate Method Statement provided at section 4.12 of this document. It sets out the measures that would apply at all watercourse crossings to avoid adverse effects on invertebrates. Invertebrate and plant ditch communities are a qualifying feature of this SSSI and additional supervision and monitoring would be applied. A pre-commencement invertebrate and botanical survey (single visit) of the ditch at the crossing point will be undertaken to provide an updated baseline for mitigation proposals and for future monitoring to be judged against.
- 2.3.14 Dams will be installed under supervision of the ECoW. Over pumping is not anticipated to be required at this location. Where over pumping is required, pumps will be fitted with fine mesh filters to prevent invertebrates from being pulled into the pump. Netting for invertebrates will be carried out by an ecologist in the latter stages of de-watering operations. Invertebrates will be released into an unaffected section of the ditch. Once the working area has been drained down, it is likely that the bed and banks of the ditch will be modified prior to installation of the culvert. During this process (and where safe to do so), any vegetation or silt will be placed on the top of the ditch bank (outside of the de-watered section) and left for at least 24 hours to allow invertebrates to make their way back into the water. Once the culvert, duct or crossing is in place, flow will gradually be allowed to return through the culvert.
- 2.3.15 Bank reinstatement would take place promptly on removal of the culvert. The same approach will be used for removal of temporary culverts on completion of the works. If agreement can be reached with landowners, enhancement of the ditch habitat will be achieved by reinstating affected banks using a shallow angle or stepped profile. Vegetation will be allowed to re-colonise naturally and, in the long-term, will be managed in line with the regime of the wider ditch network. NE has requested that National Grid seeks landowner permission not to replant hedgerows within the SSSIs notified for ditch invertebrate assemblages, in order to maximise sunlight reaching the water surface.
- 2.3.16 The approach of allowing ditches to re-colonise naturally has been agreed with Natural England to avoid the risk of introducing invasive or aggressive species into

the SSSI. Ditches will be surveyed by National Grid one year following completion of construction works to determine if bank habitats are establishing as predicted. Results will be presented in a report and issued to Natural England. If problems with establishment of bankside habitats are identified they will be discussed with Natural England. If necessary, any corrective action will be undertaken by National Grid once SSSI consent is granted by Natural England.

- 2.3.17 Elsewhere within the SSSI where access roads and construction areas are adjacent to wet ditches, the approaches listed in section 4.12 of this document will be employed to prevent accidental pollution and damage to these habitats. Removal of existing infrastructure (132kV or 275kV overhead line) will be accessed using existing easement rights (unless sharing 400kV access roads). No new ditch crossings will be required and no new road surface will be laid. If it is found that ground conditions require, temporary trackway will be used to minimise ground disturbance.
- 2.3.18 The access roads for 400kV construction works will be surfaced. On completion of works, all road substrate will be removed from site and the grassland will be re-seeded to reinstate the agricultural grassland habitat. Fertilisers or pesticides will not be used within SSSI boundaries or adjacent to the SSSI ditches. If the re-seeded grassland fails to establish, use of fertilisers adjacent to the SSSI will only be used if consent is granted by Natural England.

Severn Estuary SSSI

- 2.3.19 The Severn Estuary SSSI is designated for the large numbers of wintering and migrating waders and waterfowl it supports, for coastal and intertidal habitats, migratory fish, and invertebrate assemblages.
- 2.3.20 Construction works associated with the Proposed Development affecting this designation are as described for the Severn Estuary Ramsar and SPA at the River Avon crossing (**Inset 2.2**). No additional impacts are predicted so no additional mitigation is required.

Puxton Moor SSSI

- 2.3.21 The Puxton Moor SSSI comprises a network of ditches and rhynes which support a diverse range of aquatic plants and invertebrates. The F Route removal works, the 400kV construction works and associated access are all just outside (east) of the SSSI boundaries. The construction works within the SSSI for the Proposed Development comprise removal of the existing 132kV AT Route (which will be re-routed outside the SSSI) as shown in **Inset 2.8**. Specifically, if typical working areas are used for pylon AT28 and for the scaffolding across Drove Way, these works would fall within the boundaries of a SSSI ditch. To reach the two existing pylons situated amongst the SSSI ditch network, the access route inevitably also falls within the designation boundaries at points. However, construction traffic for removal works will be limited and will use existing access tracks and culvert crossings.
- 2.3.22 National Grid will adjust working areas at the 132kV pylon location and scaffolding works to ensure they are outside the boundaries of the designation. For all locations within and adjacent to the SSSI, fencing and signs will be used to prevent encroachment outside set working areas. Within the working areas, soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works

fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation.

- 2.3.23 Where National Grid construction works prevent stock from grazing on the banks of the SSSI rhynes, National Grid will monitor habitat conditions and undertake scrub management to prevent changes to the bankside habitats and shading of the water.
- 2.3.24 All works within the SSSI will be carried out under Section 28E consent from Natural England. Where the access routes for the AT and F Route removal works are adjacent to SSSI ditches, the approaches listed in section 4.12 of this document will be employed to prevent accidental pollution and damage to ditch habitats.

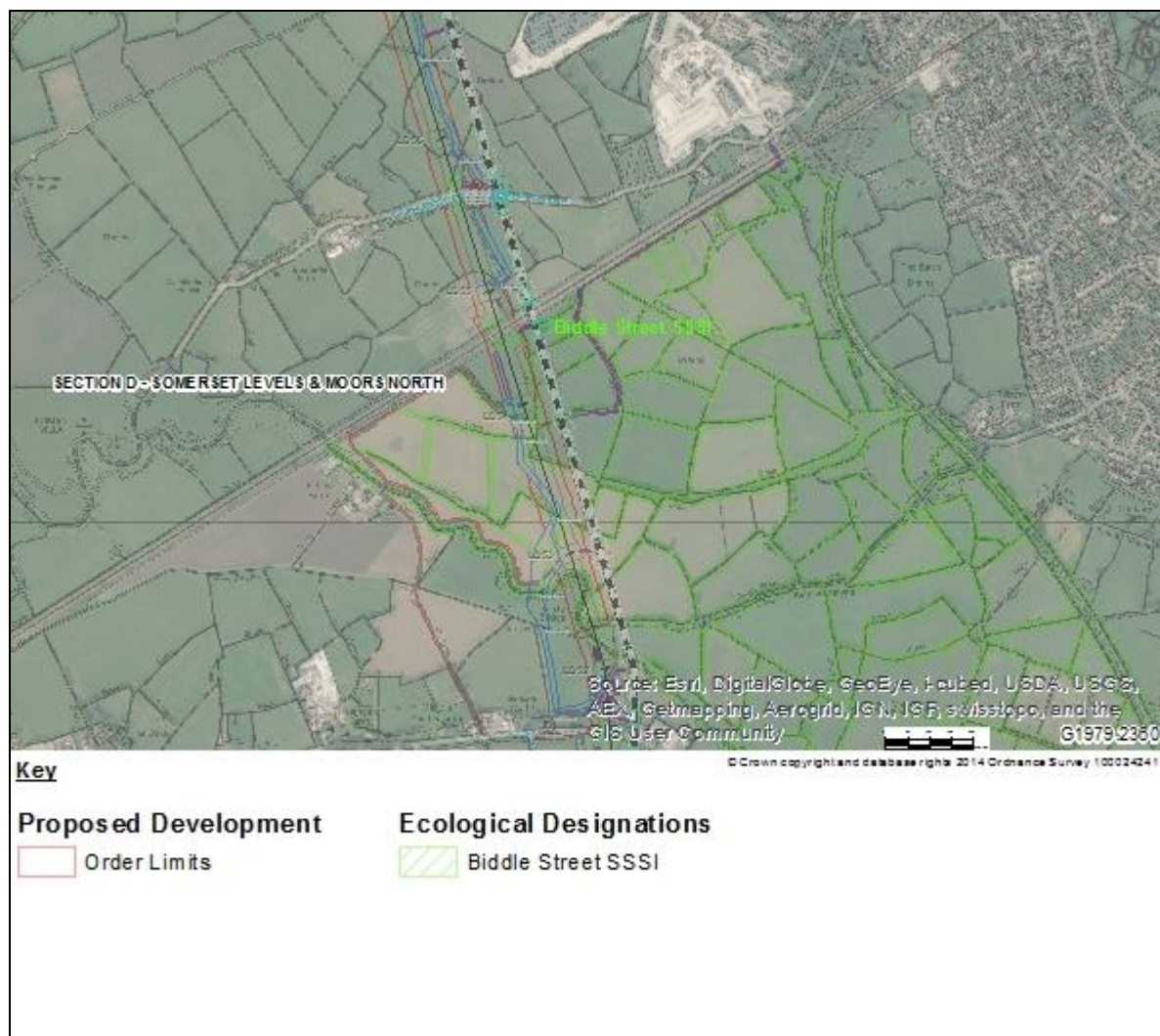
Inset 2.8: Puxton Moor SSSI



Biddle Street Yatton SSSI

- 2.3.25 The Biddle Street Yatton SSSI comprises a network of ditches and rhynes which support a diverse range of aquatic plants and invertebrates. The designation also includes the Congresbury Yeo River, which runs along the south west boundary. Construction works for the Proposed Development at this location include F Route removal and 400kV overhead line installation (**Inset 2.9**). Specifically, the typical working areas for removal of two 132kV pylons (F59 and F61), construction of three 400kV pylons (LD-52, LD-53 and LD-54) and scaffolding across the railway line would encroach into SSSI ditch boundaries. There are also three temporary culverts and one temporary bridge crossing within SSSI ditches.
- 2.3.26 National Grid will adjust working areas at the 132kV and 400kV pylon locations to ensure they are outside the boundaries of the designation. At the scaffolding of the railway line complete avoidance of the designation is not possible due to lack of space and the requirement for the scaffolding to be beneath the existing overhead line. However, it will be possible to avoid the ditch itself. For all locations within and adjacent to the SSSI, fencing and signs will be used to prevent encroachment outside set working areas. Within the working areas soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation.
- 2.3.27 Where National Grid construction works prevent stock from grazing on the banks of the SSSI rhynes, National Grid will monitor habitat conditions and undertake scrub management to prevent changes to the bankside habitats and shading of the water.

Inset 2.9: Biddle Street Yatton SSSI

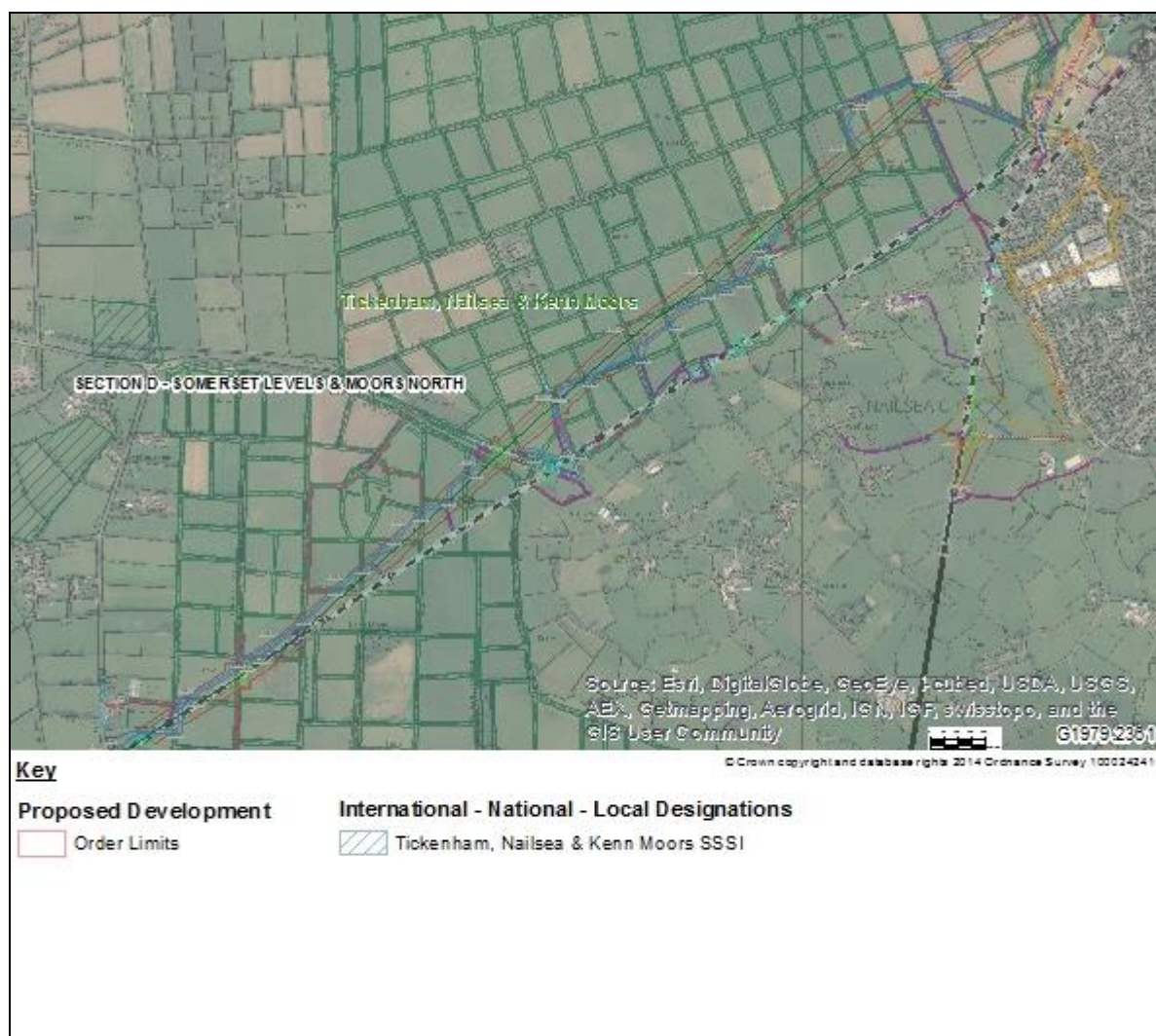


- 2.3.28 Installation, removal, mitigation and monitoring of the two temporary culverts and the one temporary bridge will be as described for the culvert installation within the Bridgwater Bay SSSI and detailed in section 4.12 of this document.
- 2.3.29 Where the access route for the F Route removal works and 400kV construction works are adjacent to SSSI ditches, the approaches listed in section 4.12 of this document will be employed to prevent accidental pollution and damage to these habitats.

Tickenham, Nailsea and Kenn Moors SSSI

- 2.3.30 The Tickenham, Nailsea and Kenn Moors SSSI contains a network of ditches which support a diverse range of aquatic plants and invertebrates. Noteworthy populations of water beetle are found, including 12 nationally rare species. Construction works for the Proposed Development at this location include 132kV F Route and W Route removal, 132kV W Route under-grounding and 400kV overhead line installation (**Inset 2.10 and 2.11**). Specifically, the working areas for removal of eleven 132kV pylons on the F Route (F29, F30, F34, F37, F39, F40 and F44 to F46), a single 132kV pylon on the W Route (W27), construction of twelve 400kV pylons (LD-67 to LD-80) and seven scaffolding locations all encroach into SSSI ditch boundaries. There are also twenty-eight temporary culverts and four temporary bridge crossings within SSSI ditches.

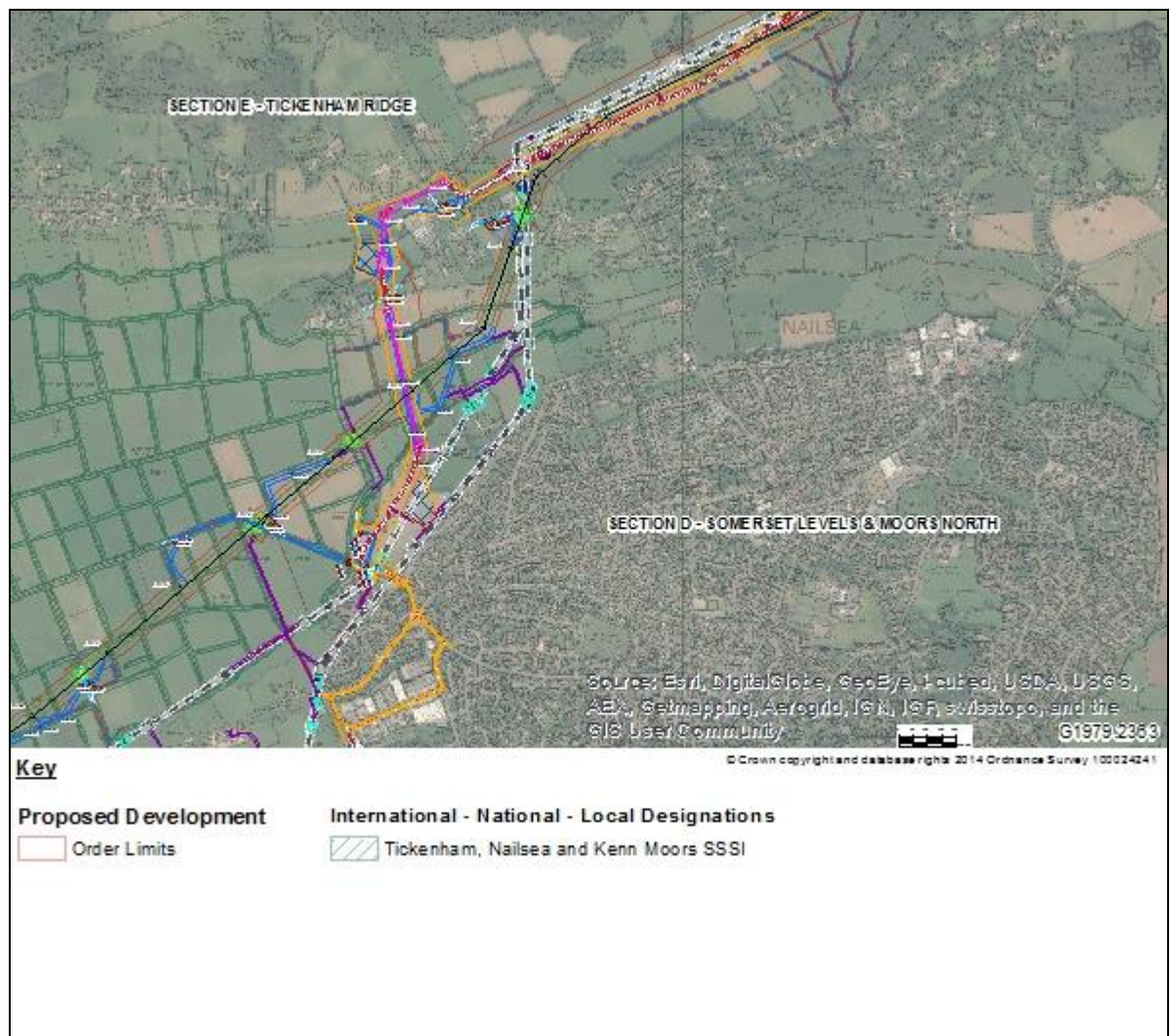
Inset 2.10: Tickenham Nailsea and Kenn Moor SSSI (south)



- 2.3.31 Although the W Route undergrounding passes across the SSSI (**Inset 2.11**), the construction method is horizontal directional drilling (HDD) passing beneath the three SSSI ditches en route. The decision to use HDD was taken following discussions with Natural England as it was concluded it would be less disturbing than an open cut trench method. To accommodate the HDD approach an access road will be required along the works and this will include three SSSI ditch crossings (accounted for in the 32 crossings described above).
- 2.3.32 National Grid will adjust working areas at the 132kV and 400kV pylon locations to ensure they are outside the boundaries of the designation. At the scaffolding locations complete avoidance of the designation is not possible due to confluence of several ditches and the requirement for the scaffolding to be beneath the existing overhead line. However, it will be possible to avoid the ditches themselves. For all locations within and adjacent to the SSSI, fencing and signs will be used to prevent encroachment outside set working areas. Within the working areas soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation.

- 2.3.33 Where National Grid construction works prevent stock from grazing on the banks of the SSSI rhynes, National Grid will monitor habitat conditions and undertake scrub management to prevent changes to the bankside habitats and shading of the water.
- 2.3.34 Installation, removal, mitigation and monitoring of the 28 temporary culverts and the four temporary bridges will be as described for the culvert installation within the Bridgwater Bay SSSI and detailed in section 4.12 of this document.
- 2.3.35 Where the access route for the F Route and G Route removal works and 400kV construction works are adjacent to SSSI ditches, the approaches listed in section 4.12 of this document will be employed to prevent accidental pollution and damage to these habitats.

Inset 2.11: Tickenham Nailsea and Kenn Moor SSSI (north)



2.4 Local Wildlife Sites

- 2.4.1 Each Local Wildlife Site (LWS) (including Sites of Nature Conservation Importance; (SNCIs) and Local Nature Reserves (LNRs)) within the Order Limits of the Proposed Development has been individually assessed for potential impacts in relation to the reasons for designation and the findings of the field surveys. Reference to relevant species and habitat method statements within sections 3 and

4 of this document is provided in the following paragraphs, but only in relation to receptors listed in the site description, where they might be affected by the Proposed Development. Protected and notable species not listed in the citations may also be present within these designations but such information is dealt with in sections 3 and 4 of this document. Where bespoke approaches are required over and above those presented in sections 3 and 4, these are detailed in the following paragraphs.

- 2.4.2 The ECoW will advise the relevant local planning authority and (if applicable) the nature conservation organisation managing each LWS, of the Contractor's intention to commence works. The ECoW will give such notice no less than 1 month before the anticipated start of works and will offer the opportunity for a site meeting to discuss the works and mitigation measures.
- 2.4.3 The Avon Wildlife Trust requested that it provides an ECoW to oversee works within its Portbury Wharf Nature Reserve during construction. National Grid has committed to fund this position.
- 2.4.4 As described in section 2.3, removal of existing 132kV overhead lines will be accessed using existing easement rights (unless sharing 400kV access roads). No new ditch crossings will be required and no new road surface will be laid. If it is found that ground conditions require, temporary trackway will be used to minimise ground disturbance. The access roads for 400kV construction works will be surfaced. On completion of works, all road substrate will be removed from site and the grassland will be re-seeded to reinstate the previous grassland habitat.

Little Wall Lane LWS

- 2.4.5 The Little Wall Lane LWS comprises a rhyne and bankside habitat supporting water vole. Although the designation falls within Order Limits, it is outside working areas. Fencing and signs will be used to avoid encroachment onto this site.

New Ground Covert LWS

- 2.4.6 The New Ground Covert LWS comprises ancient semi-natural broad-leaved woodland with species-rich grassland. Although the designation falls within Order Limits, the only works affecting the designation are potential pruning of trees overhanging or encroaching on an existing access track (outside the LWS) that will be upgraded to take the construction traffic. Fencing and signs will be used to avoid encroachment onto this site.

Borrow Pit Puriton LWS

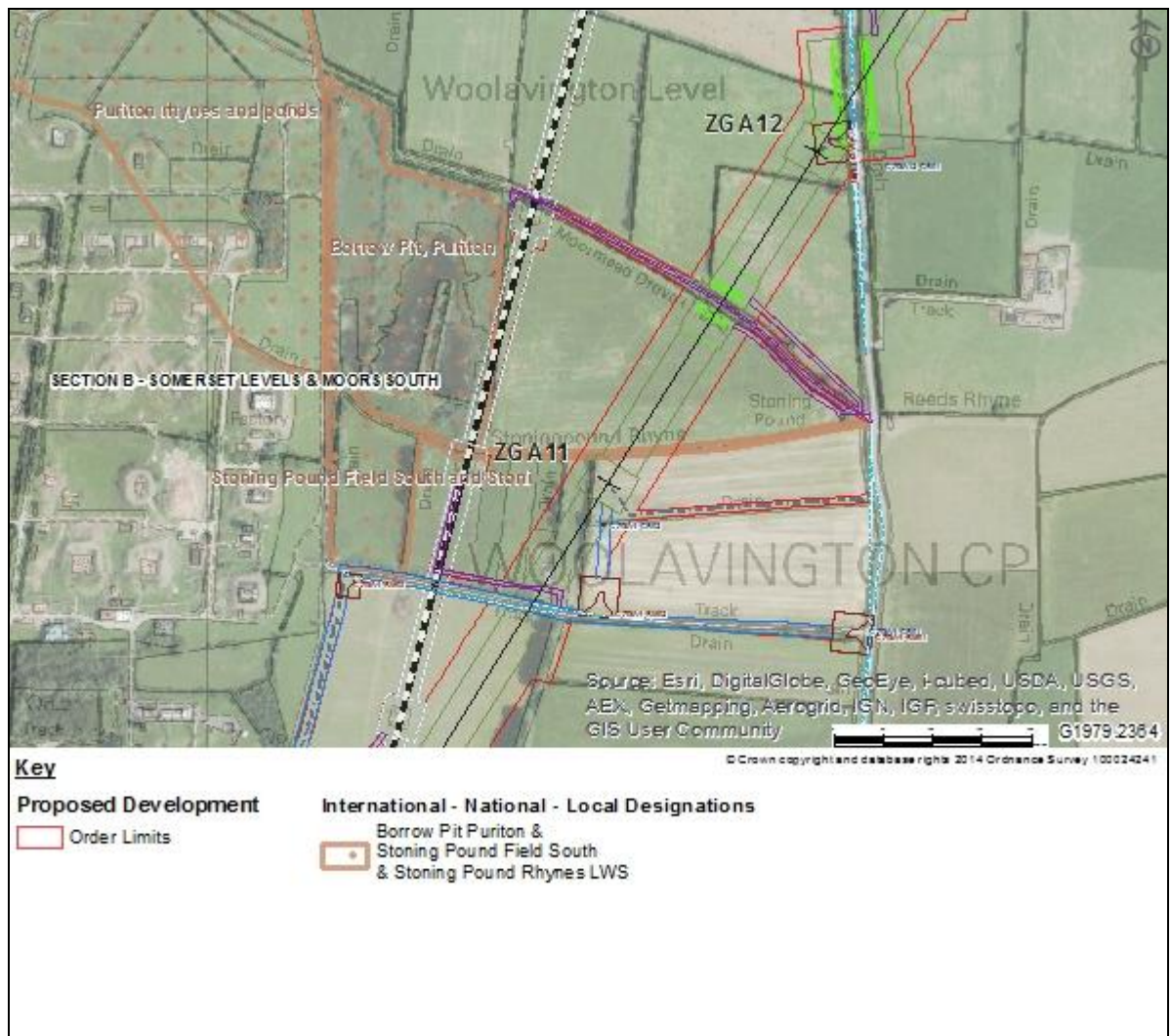
- 2.4.7 The Borrow Pit Puriton LWS comprises a lake with extensive reed beds and notable plant species. It is also recorded as a breeding site for notable bird species. A small part of the typical working area for removal of a single 132kV pylon would be in this designation. The access route runs adjacent to but outside the site boundaries (**Inset 2.12**).
- 2.4.8 National Grid will adjust the 132kV pylon removal working area to ensure it remains outside the boundaries of the designation and within the adjacent agricultural field. Fencing and signs will be used to prevent encroachment outside this area.

Stoning Pound Field South and Stoning Pound Rhyne LWS

- 2.4.9 The Stoning Pound Field and Stoning Pound Rhyne LWS contains species-rich plant communities associated with the rhynes and is used by otter. A small part of

the typical working area for the removal of a single 132kV pylon would be in this designation. The access route runs adjacent to but outside the site boundaries (**Inset 2.12**).

Inset 2.12: Borrow Pit Puriton LWS and Stoning Pound Field South and Stoning Pound Rhyne LWS

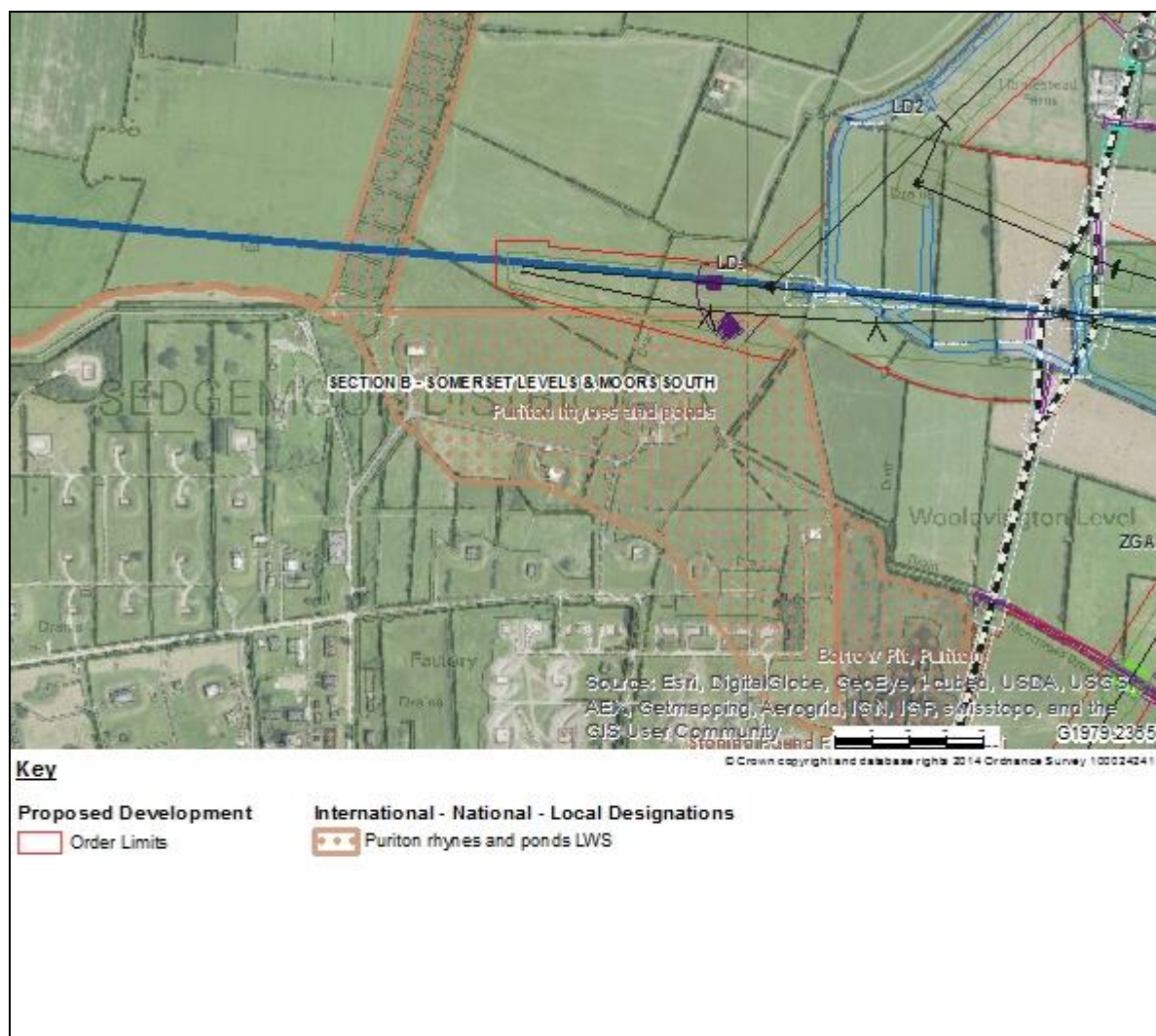


- 2.4.10 National Grid will adjust the 132kV pylon removal working area to ensure it remains outside the boundaries of the designation and within the adjacent agricultural field. Fencing and signs will be used to prevent encroachment outside this area. Within the working area soil piles will be covered by sheeting to prevent run-off into the adjacent Stoning Pound Rhyne.
- 2.4.11 As the working areas are adjacent to a designated rhyne and the citation mentions otter, particular reference is given to the otter method statement in section 4.5 of this report.

Puriton Rhyes and Ponds LWS

- 2.4.12 The Puriton Rhyes and Ponds LWS comprises a network of rhyes, ponds and reed-beds supporting good populations of water vole and regularly used by otters. A temporary 400kV pylon and associated working area falls within the north eastern edge of this designation (**Inset 2.13**).

Inset 2.13: Puriton Rhynes and Ponds LWS



- 2.4.13 It is not possible to move the working areas out of the designation but they are away from aquatic habitats and within a semi-improved agricultural field. Fencing and signs will be used to prevent encroachment outside this area.

Bridgwater Bay (NNR) LWS

- 2.4.14 The Bridgwater Bay LWS extends along the Huntspill River which is used by otters. The site falls within the Huntspill NNR designation (**Inset 2.7**). No additional impacts are predicted or mitigation proposed other than those for the Huntspill NNR.

River Brue LWS

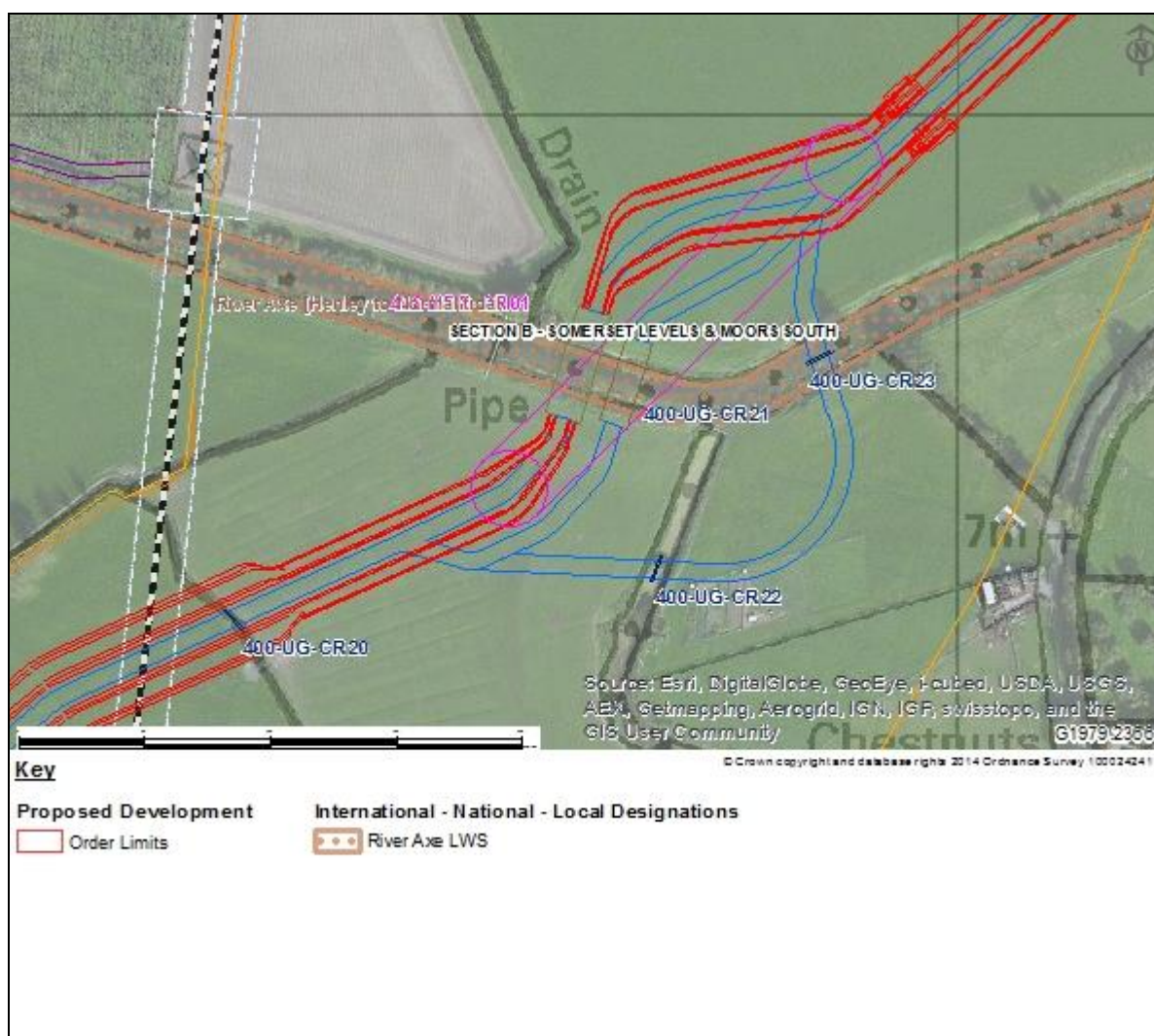
- 2.4.15 The River Brue LWS supports otters and a holt has been recorded within the designation. Although the designation falls within Order Limits, it is outside working areas, being oversailed by the F Route and 400kV overhead lines. Fencing and signs will be used to avoid encroachment onto this site.

River Axe (Henley to normal tidal limits) LWS

- 2.4.16 The River Axe (Henley to normal tidal limits) LWS supports otters. Construction works for the Proposed Development within the designation would include a

temporary construction access bridge (option of two locations) across the River Axe. There are also options for the 400kV underground cable crossing of the River Axe, either horizontal directional drilling (HDD) which would avoid effects on the designation by taking the cables beneath the river, or a permanent cable bridge, which would take the cables over the river. If a typical working area for removal of a single 132kV pylon was used, this would be in the designation on the northern bank of the river. The access route for the 132kV removal runs along the northern edge (outside) the designation (**Inset 2.14**).

Inset 2.14: River Axe (Henley to normal tidal limits) LWS



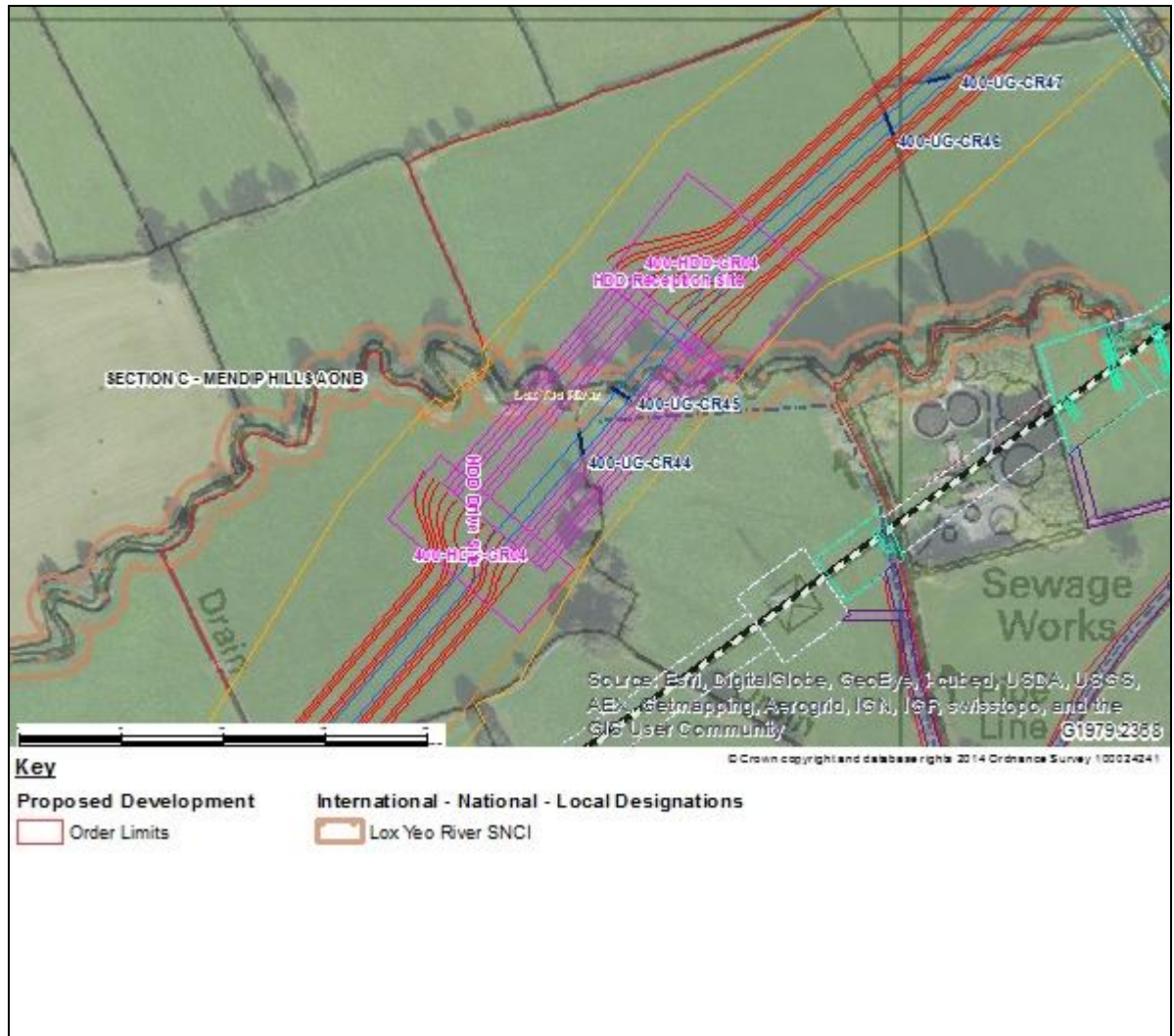
- 2.4.17 National Grid will adjust the 132kV pylon removal working area to ensure it remains outside the boundaries of the designation and within the adjacent agricultural field. It is not possible to avoid encroaching on the LWS for the temporary access bridge crossing or the cable bridge (if this option is taken). Fencing and signs will be used to prevent encroachment outside working areas. Within the working area soil piles will be seeded to prevent run-off into the adjacent river.
- 2.4.18 Bridging works will impact the banks of the River Axe; the watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the river. Alternatively, temporary dams within the watercourse along the banks will be used to create dry working areas where disturbed working areas are separated from the flow of water.

- 2.4.19 If the cable bridge option is taken forward a single tree will be lost. Specific landscaping works have been agreed with the landowner at this location and are provided at **Volume 5.7.3.14A, Figure 7.34**.
- 2.4.20 As the working areas are adjacent to and cross the designated river and the citation mentions otter, particular reference is given to the watercourse crossings information in section 3.4 and the otter method statement in section 4.5 of this report.

Lox Yeo River SNCI

- 2.4.21 The Lox Yeo SNCI includes the river, its marginal vegetation and a range of fish species. Construction works of the Proposed Development include HDD crossing of the 400kV underground cables beneath the river (no construction impacts on the LWS), a temporary bridge to take the 400kV haul road across the river and several scaffolding areas also associated with the F Route removal (**Inset 2.15**). If the typical 132kV pylon removal working area was used, this would encroach on the designated site.

Inset 2.15: Lox Yeo River SNCI



- 2.4.22 National Grid will adjust the 132kV pylon removal working area to ensure it remains outside the boundaries of the designation. It is not possible to avoid encroaching on the LWS for the temporary access bridge crossing or the scaffolding areas. Fencing and signs will be used to prevent encroachment outside working areas. Within the working area, soil piles will be sheeted and/or seeded to prevent run-off into the adjacent river.
- 2.4.23 Bridging works will impact the banks of the river although the watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the river. Alternatively, temporary dams within the watercourse along the banks will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.24 As the working areas are adjacent to and cross the designated river and fish are mentioned in the citation, particular reference is given to the watercourse crossings information in section 3.4 and the fish method statement in section 4.11 of this report.

Dismantled Railway & Adjacent Fields Winscombe SNCI

- 2.4.25 The Dismantled Railway and Adjacent Fields Winscombe SNCI comprises ephemeral/short perennial habitat, with semi-improved neutral grassland and scrub. Although the designation falls within Order Limits, it is outside working areas. Fencing and signs will be used to avoid encroachment onto this site.

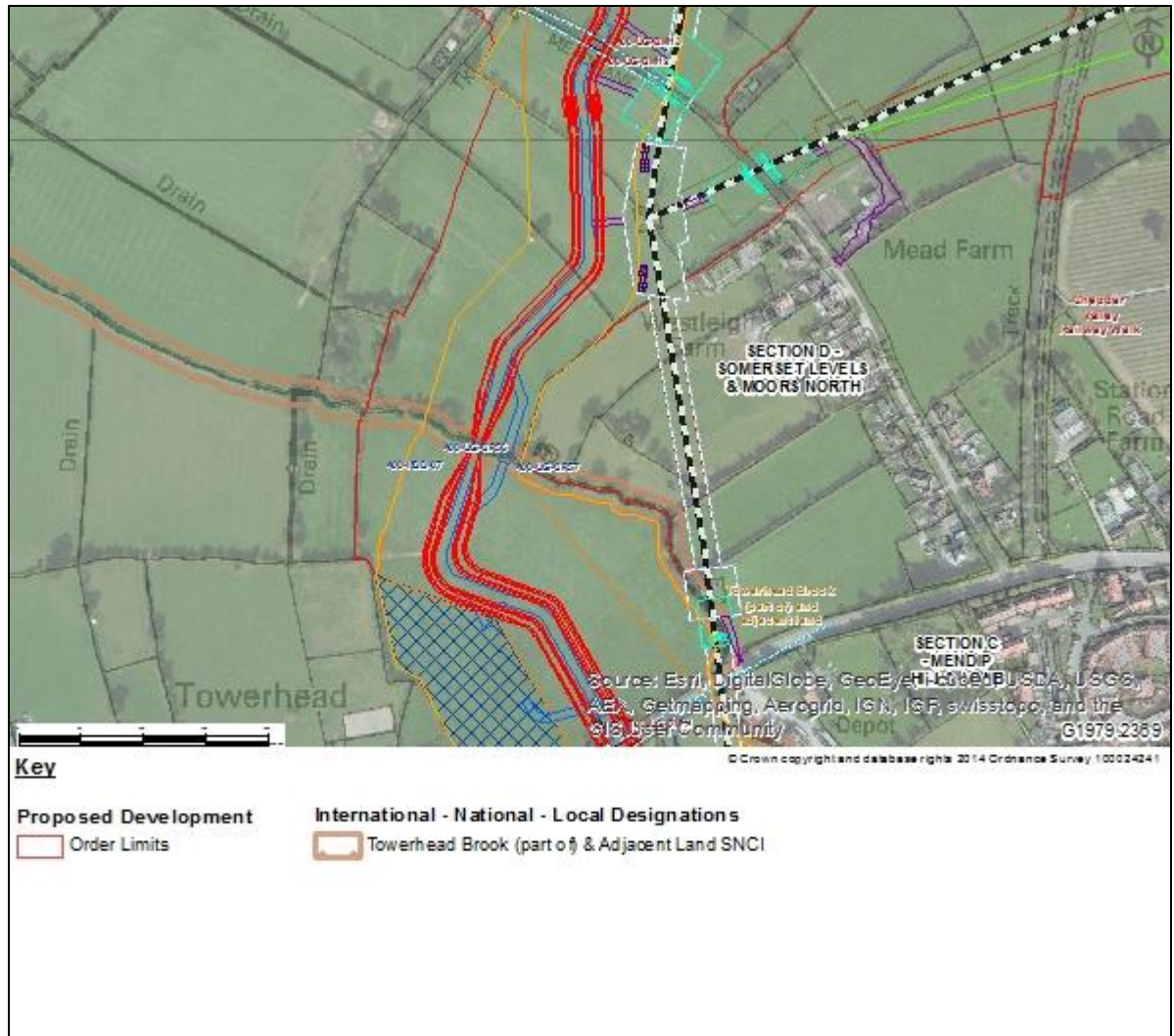
Cheddar Valley Railway Walk LNR

- 2.4.26 The Cheddar Valley Railway Walk LNR is primarily designated for recreational reasons although it provides a wildlife corridor. Although the designation falls within Order Limits, the only component crossing this designation is the access route for the 132kV pylon removal which is an existing track and will not be upgraded. Therefore no impacts are predicted and no specific mitigation proposed.

Towerhead Brook (part of) and Adjacent Land SNCI

- 2.4.27 The Towerhead Brook (part of) and Adjacent Land SNCI designation includes the watercourse and adjacent habitats which support a diverse range of flora and invertebrates. (**Inset 2.16**). South of Towerhead Road the 400kV underground cable swathe runs alongside but does not encroach upon the brook. North of Towerhead Road the underground cable crosses the designation. There is a single temporary construction access route across the brook; there is also a permanent access bridge (for Sandford substation). This bridge will also carry the 400kV cables across the brook. If the typical 132kV pylon removal working area was used it would encroach on the designated area. Scaffolding works would encroach on the designation.
- 2.4.28 National Grid will adjust the 132kV pylon removal working area to ensure it remains outside the boundaries of the designation. It is not possible to avoid encroaching on the LWS for the temporary access bridge crossing, the permanent cable and access bridge or the scaffolding works. Fencing and signs will be used to prevent encroachment outside working areas. Within the working area soil piles will be sheeted and/or seeded to prevent run-off into the adjacent river.
- 2.4.29 Bridge works will impact the banks of the brook, and the watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the brook. Alternatively, temporary dams within the watercourse (along with overpumping if there is a strong flow) will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.30 The permanent access and cable bridge will result in loss of two trees, pruning to 3 other trees and loss of species-poor hedge/scrub habitat along the brook. Specific landscaping works have been agreed with the landowner at this location and are provided at **Volume 5.7.3.14A, Figure 7.36**.
- 2.4.31 The working areas are adjacent to and cross the designated brook and the citation mentions invertebrates. Particular reference is given to the watercourse crossings information in section 3.4 and the invertebrates method statement in section 4.12 of this report.

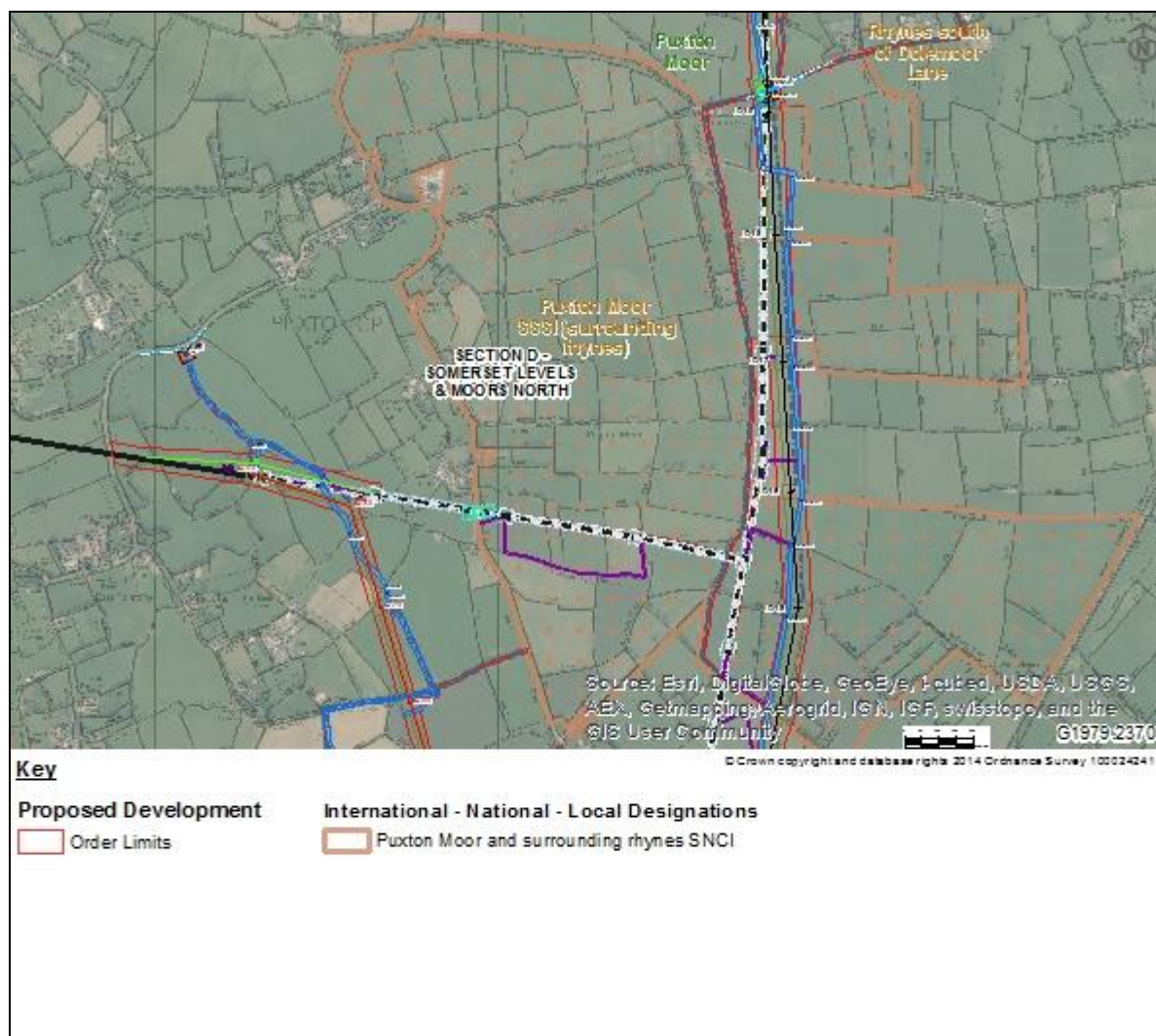
Inset 2.16: Towerhead Brook (part of) and Adjacent Land SNCI



Puxton Moor SSSI and Surrounding Rhynes SNCI

- 2.4.32 The Puxton Moor SSSI and Surrounding Rhynes SNCI includes unimproved and semi-improved neutral grassland and ditches with notable plant and invertebrate species. The construction works of the Proposed Development are similar to those described earlier for the Puxton Moor SSSI. However, as the SNCI designation encompasses the surrounding fields and not just the ditches, more elements of the Proposed Development fall within the site boundaries. These are two F Route 132kV pylon removal working areas completely within the SNCI and one where, if the typical working area was used, would fall partly within the SNCI, three 132kV AT Route pylon removal working areas within the SNCI, two 400kV pylon working areas completely within the SNCI and two where if typical working areas were used would fall partly within the SNCI. The 132kV removal access routes fall within the designation as does the 400kV access. The latter has six culverts within SNCI ditches (**Inset 2.17**).

Inset 2.17: Puxton Moor SSSI Surrounding Rhynes SNCI



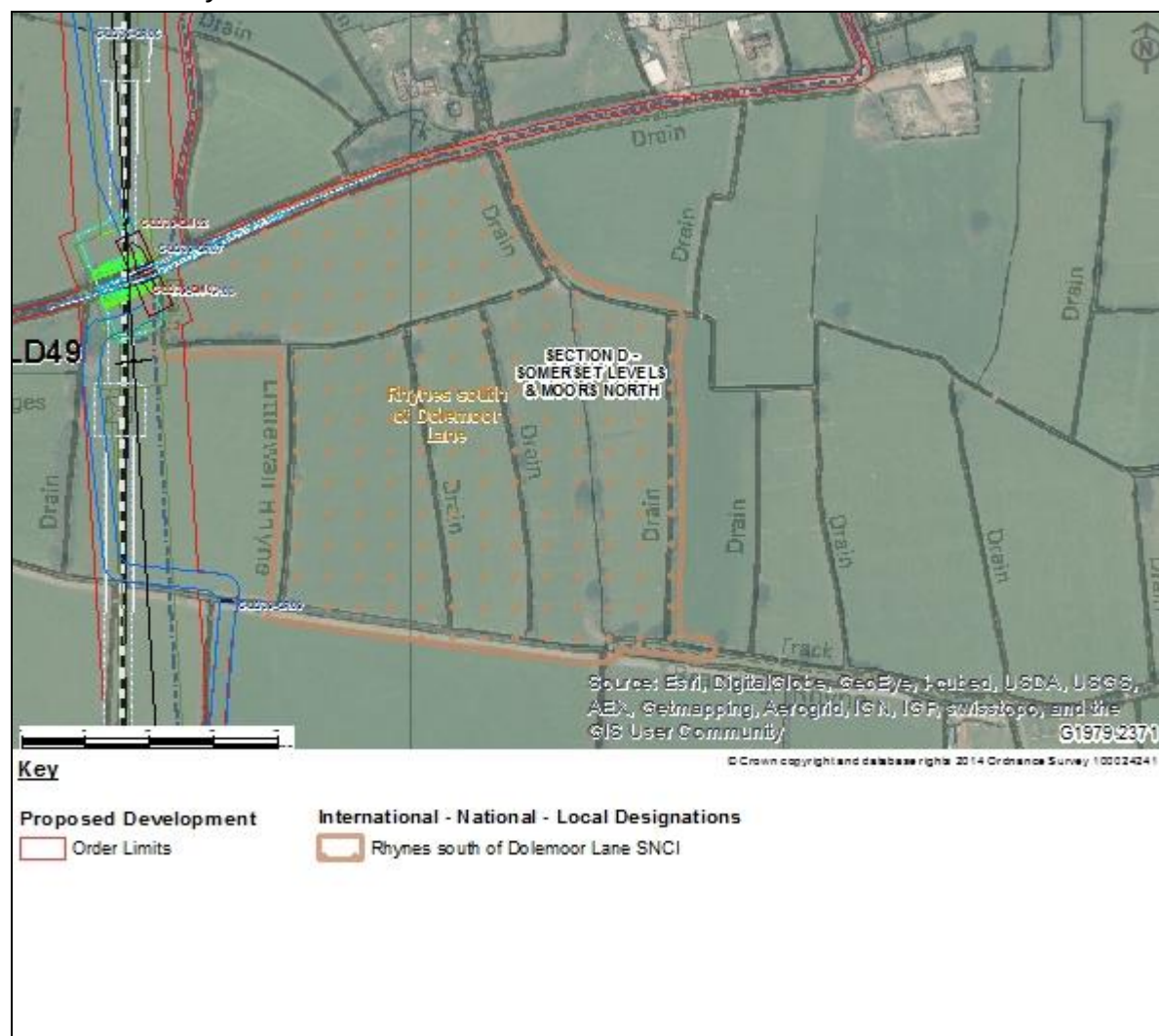
- 2.4.33 National Grid will adjust the 132kV pylon removal and 400kV construction working areas that fall partly within the SNCI to ensure works remains outside the boundaries of the designation. It is not possible to avoid encroaching on the SNCI where pylon working areas fall completely within the designation or for the temporary access road and associated culvert crossings. Fencing and signs will be used to prevent encroachment outside working areas. Within the working area soil piles will be covered in sheeting and/or seeded to prevent run-off into adjacent ditches.
- 2.4.34 None of the fields crossed by the works are unimproved; re-seeding mixes will be as agreed with the landowner, seeking to replicate current conditions.
- 2.4.35 In addition to the approach detailed for the SSSI ditches, as the working areas are adjacent to and cross SNCI designated ditches, and as the SNCI citation mentions invertebrates, particular reference is made to the watercourse crossings information in section 3.4 and the invertebrates method statement in section 4.12 of this report.

Rhynes South of Dolemoor Lane SNCI

- 2.4.36 The Rhynes South of Dolemoor Lane SNCI designation includes semi-improved neutral grassland and ditches and supports notable invertebrate species,

particularly aquatic beetles. Construction works for the Proposed Development that would fall partly within this designation if typical working areas were used comprise a single 400kV working area, an access road and bellmouth and scaffolding area (**Inset 2.18**).

Inset 2.18: Rhynes South of Dolemoor Lane SNCI

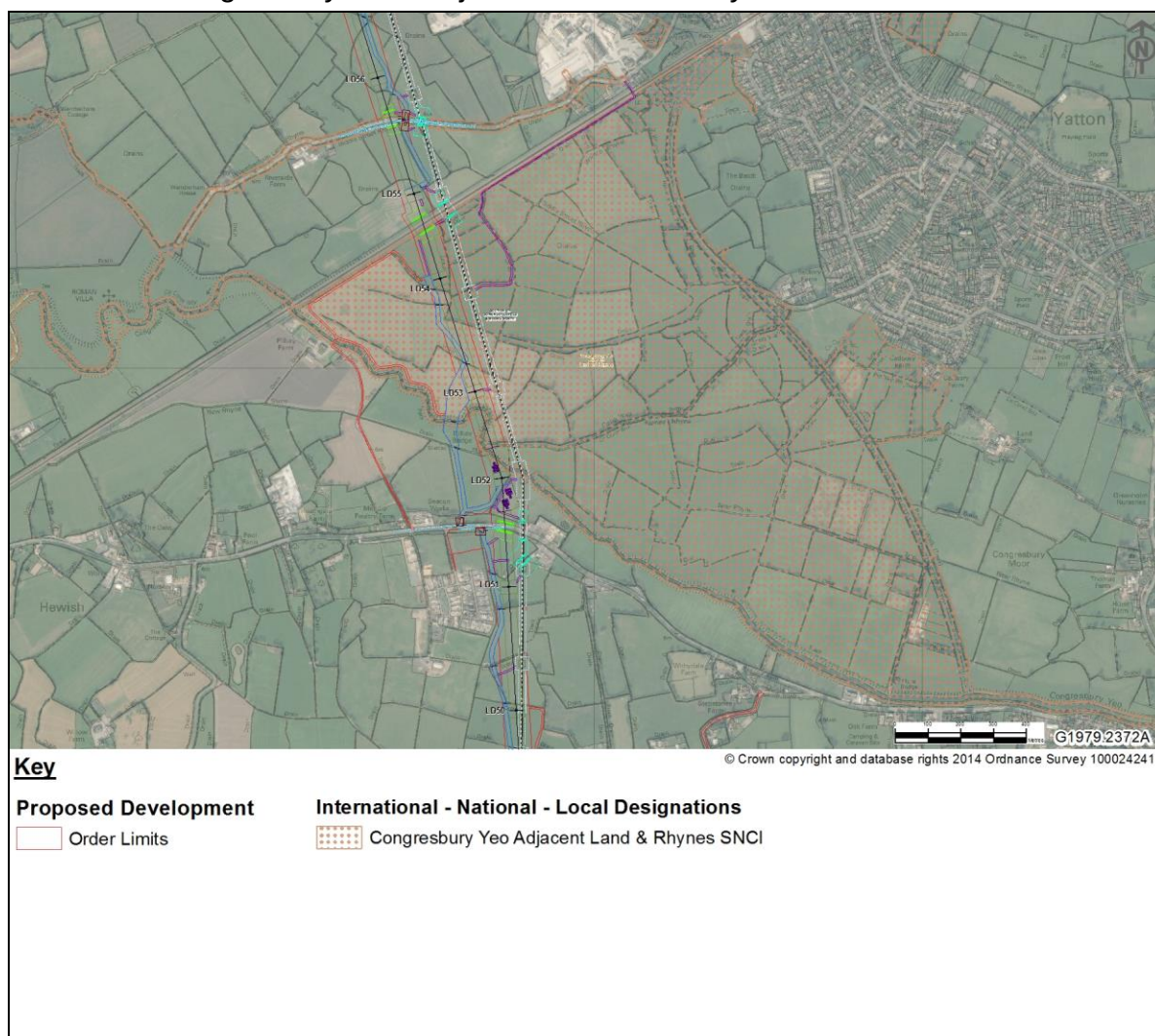


- 2.4.37 National Grid will adjust the 400kV construction and scaffolding working areas to ensure works remain outside the boundaries of the designation. It is not possible to avoid encroaching at the bellmouth works. Fencing and signs will be used to prevent encroachment outside working areas. Within the working area soil piles will be covered in sheeting or seeded to prevent run-off into adjacent ditches.
- 2.4.38 As the SNCI fields crossed by the works are farmed semi-improved neutral grasslands, re-seeding mixes will be as agreed with the landowner, seeking to replicate current conditions.
- 2.4.39 As the working areas are adjacent to and cross SNCI designated ditches, and as the SNCI citation mentions invertebrates, particular reference is made to the watercourse crossings information in section 3.4 and the invertebrates method statement in section 4.12 of this report.

Congresbury Yeo, Adjacent Land and Rhynes SNCI

- 2.4.40 The Congresbury Yeo, Adjacent Land and Rhynes SNCI designation includes a mix of aquatic, grassland and woodland habitats and supports a diverse range of notable ditch flora and invertebrates. The construction works of the Proposed Development are similar to those described earlier for the Biddle Street Yatton SSSI. However, as the SNCI designation encompasses the surrounding fields and not just the ditches, more elements of the Proposed Development fall within the site boundaries. These are three 400kV pylon construction working areas, three 132kV pylon removal working areas where if typical layouts were used would be in the designation, 132kV access routes, 400kV access roads including three temporary culverts and scaffolding at the railway line and at Wemberham Lane in the north (**Inset 2.19**).

Inset 2.19: Congresbury Yeo, Adjacent Land and Rhynes SNCI



- 2.4.41 National Grid will adjust the 132kV pylon removal and 400kV construction working areas as described for Biddle Street Yatton SSSI to avoid ditches. It is not possible to avoid pylon working areas, scaffolding areas and temporary access roads encroaching on the SNCI fields. Fencing and signs will be used to prevent

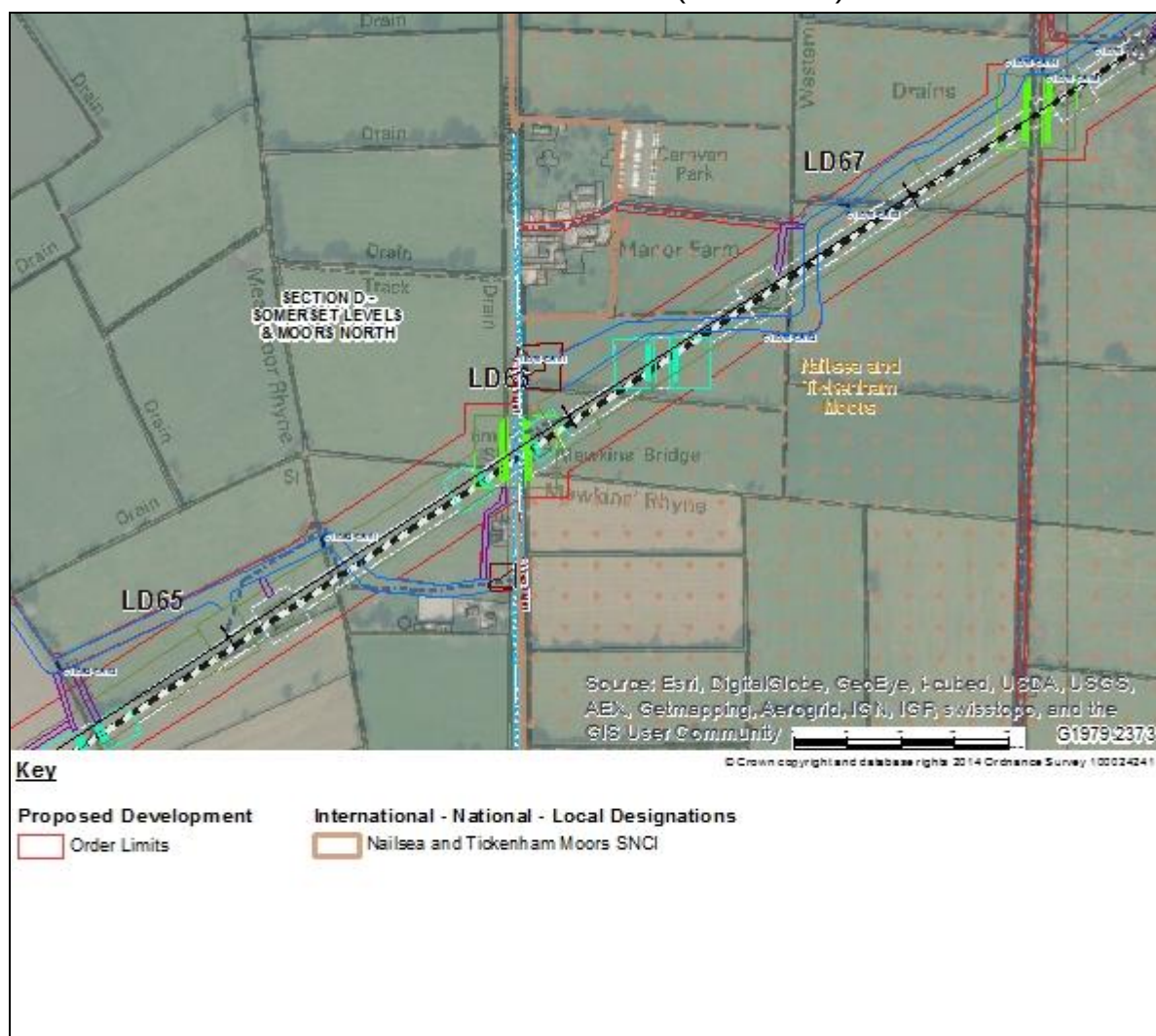
encroachment outside working areas. Within the working area soil piles will be covered in sheeting to prevent run-off into adjacent ditches.

- 2.4.42 No woodland habitats would be affected (a single ash tree will be felled and a further tree pruned). None of the fields crossed by the works are unimproved and re-seeding mixes will be as agreed with the landowner and seeking to replicate current conditions.
- 2.4.43 In addition to the approach detailed for the SSSI ditches, as the working areas are adjacent to and cross SNCI designated ditches, and as the SNCI citation mentions invertebrates, particular reference is given to the watercourse crossings information in section 3.4 and the invertebrates method statement in section 4.12 of this report.

Nailsea and Tickenham Moors SNCI

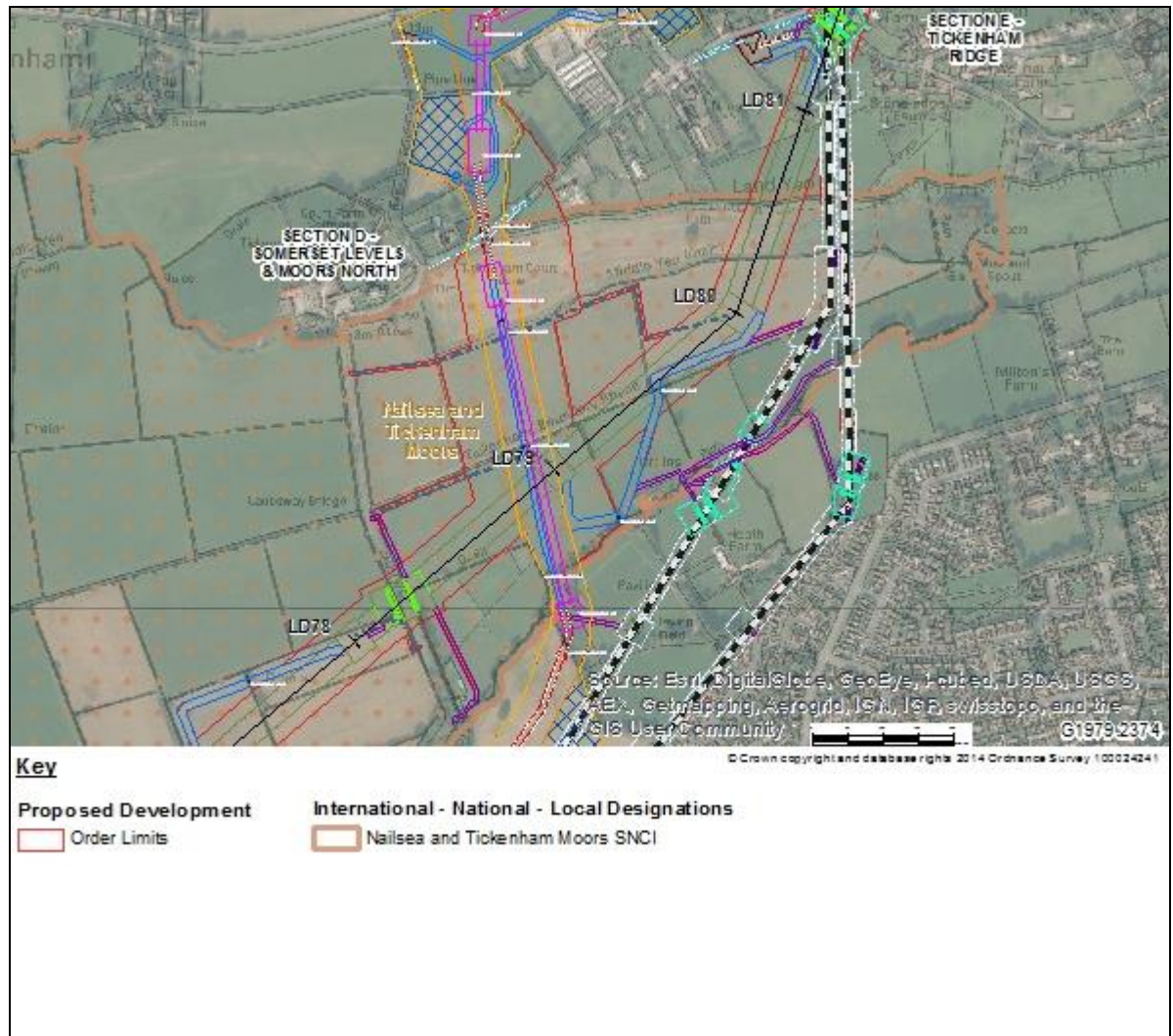
- 2.4.44 The Nailsea and Tickenham Moors SNCI designation includes marshy and semi-improved grassland with a diverse and notable aquatic plant and invertebrate community. The construction works of the Proposed Development are similar to those described earlier for the Tickenham, Nailsea and Kenn Moors SSSI. However, as the SNCI designation encompasses the surrounding fields and not just the ditches (extending slightly further southwest and northeast) (**Inset 2.20 and 2.21**) more elements of the Proposed Development fall within the site boundaries. These are fifteen 400kV pylon construction working areas, thirteen 132kV pylon (F Route and W Route) removal working areas, 132kV W Route underground cable works, 132kV access routes and 400kV access roads. Temporary culverts and bridges are as described for the SSSI, but two additional scaffolding areas are present in the southwest of the SNCI.

Inset 2.20: Nailsea and Tickenham Moors SNCI (south west)



- 2.4.45 National Grid will adjust the 132kV pylon removal and 400kV construction working areas as described for Biddle Street Yatton SSSI to avoid ditches. It is not possible to avoid pylon working areas, scaffolding areas and temporary access roads encroaching on the SNCI fields. Fencing and signs will be used to prevent encroachment outside working areas. Within the working area soil piles will be covered in sheeting to prevent run-off into adjacent ditches.
- 2.4.46 44 trees and parts of 5 tree groups will be felled. Natural England has requested that replacement tree planting is not undertaken adjacent to SSSI ditches. None of the fields crossed by the works are unimproved and re-seeding mixes will be as agreed with the landowner and seeking to replicate current conditions.
- 2.4.47 In addition to the approach detailed for the SSSI ditches, as the working areas are adjacent to and cross SNCI designated ditches, and as the SNCI citation mentions invertebrates, particular reference is given to the watercourse crossings information and invertebrates method statement in section 3.4 and section 4.12 of this report.

Inset 2.21: Nailsea and Tickenham Moors SNCI (northeast)



Nursebatch Farm Fields SNCI

- 2.4.48 The Nursebatch Farm Fields SNCI comprises unimproved and semi-improved neutral and marshy grassland. A single 132kV pylon (W Route) removal working areas falls within the designation. It is not possible to avoid the SNCI but working areas will be fenced and signs installed to avoid encroachment. The works fall within semi-improved grassland and re-seeding mixes will be as agreed with the landowner and seeking to replicate current conditions.

Abbot's Horn SNCI

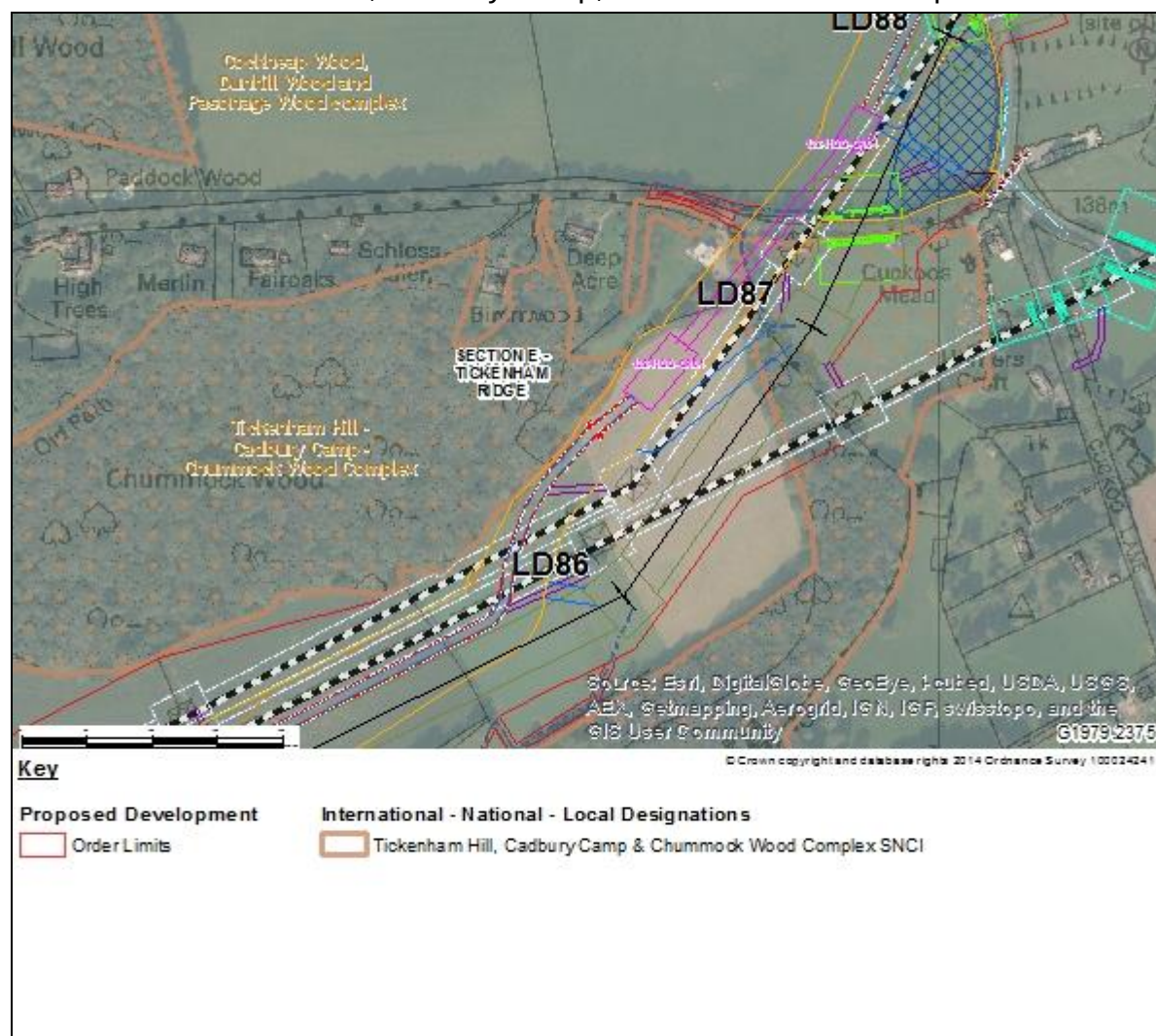
- 2.4.49 The Abbot's Horn SNCI comprises semi-natural broad-leaved woodland including ash and hazel coppice. Although the designation falls within Order Limits, it is outside working areas. Fencing and signs will be used to avoid encroachment onto this site.

Tickenham Hill, Cadbury Camp, Chummock Wood Complex SNCI

- 2.4.50 The Tickenham Hill, Cadbury Camp, Chummock Wood Complex SNCI designation encompasses Tickenham Hill WTR, contains ancient woodland, unimproved and semi-improved calcareous and neutral grassland which supports a range of botanical communities, invertebrates, birds and badger. The limestone grassland

at Cadbury Camp supports several rare plant species. Within this designation, the construction components for the Proposed Development comprise removal of two 132kV pylons (W Route and F Route), construction of a single 400kV pylon and associated access routes and roads and scaffolding areas. The W Route travels alongside the SNCI before passing beneath the SNCI using HDD (**Inset 2.22**).

Inset 2.22: Tickenham Hill, Cadbury Camp, Chummock Wood Complex SNCI



- 2.4.51 National Grid will adjust the 132kV pylon removal and 400kV construction working areas to avoid ancient woodland habitat and contain the works within the semi-improved species-poor grassland area of the designation. A species-rich hedgerow within the SNCI and connected to the woodland may be lost to scaffolding. National Grid will review this when scaffolding contractors have been appointed and will advise the Local Planning Authority of the proposals for scaffolding. This notification would be consistent with the phased approach to updating the BMS as outlined in section 1.1 of this document.
- 2.4.52 It is not possible to avoid tree works within the SNCI when creating the necessary electrical safety clearances beneath the 400kV overhead line. Woodland canopy will be lost, woodland ground flora will be retained but altered light levels may result in a change to species composition. Fencing and signs will be used to prevent encroachment outside working areas.

- 2.4.53 None of the SNCI fields crossed by the works are unimproved and re-seeding mixes will be as agreed with the landowner and seeking to replicate current conditions.
- 2.4.54 As the SNCI citation mentions hedgerows, birds, badgers and invertebrates, as these may be affected by the construction works, particular reference is given to the hedgerow information in section 3.3 and the birds, badger and invertebrates method statements in sections 4.1, 4.6 and 4.12 respectively of this report.

Birch Wood and Prior's Wood SNCI (and Avon Wildlife Trust reserve)

- 2.4.55 The Birch Wood and Prior's Wood SNCI (and Avon Wildlife Trust (AWT) reserve) site contains ancient woodland with a diverse ground flora and an area of neutral grassland which is also botanically diverse. A notable invertebrate community is also present. The AWT nature reserve citation makes particular mention of the ornithological interest of the site.
- 2.4.56 W Route 132kV underground cable swathe and M5 scaffolding areas would be partly in the far northwest corner of the SNCI. It is not possible to avoid the SNCI completely due to the 'pinch point' created by the M5 motorway, but the works avoid the woodland habitats (keeping to arable, semi-improved and bracken habitats). A single ash tree will be felled and two sections of species-poor hedgerow will be lost. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.57 The SNCI and nature reserve citations mention birds and these may be affected by the construction works. Particular reference is given to the birds method statement in section 4.1 of this report.

Fields West of Lower Caswell House SNCI

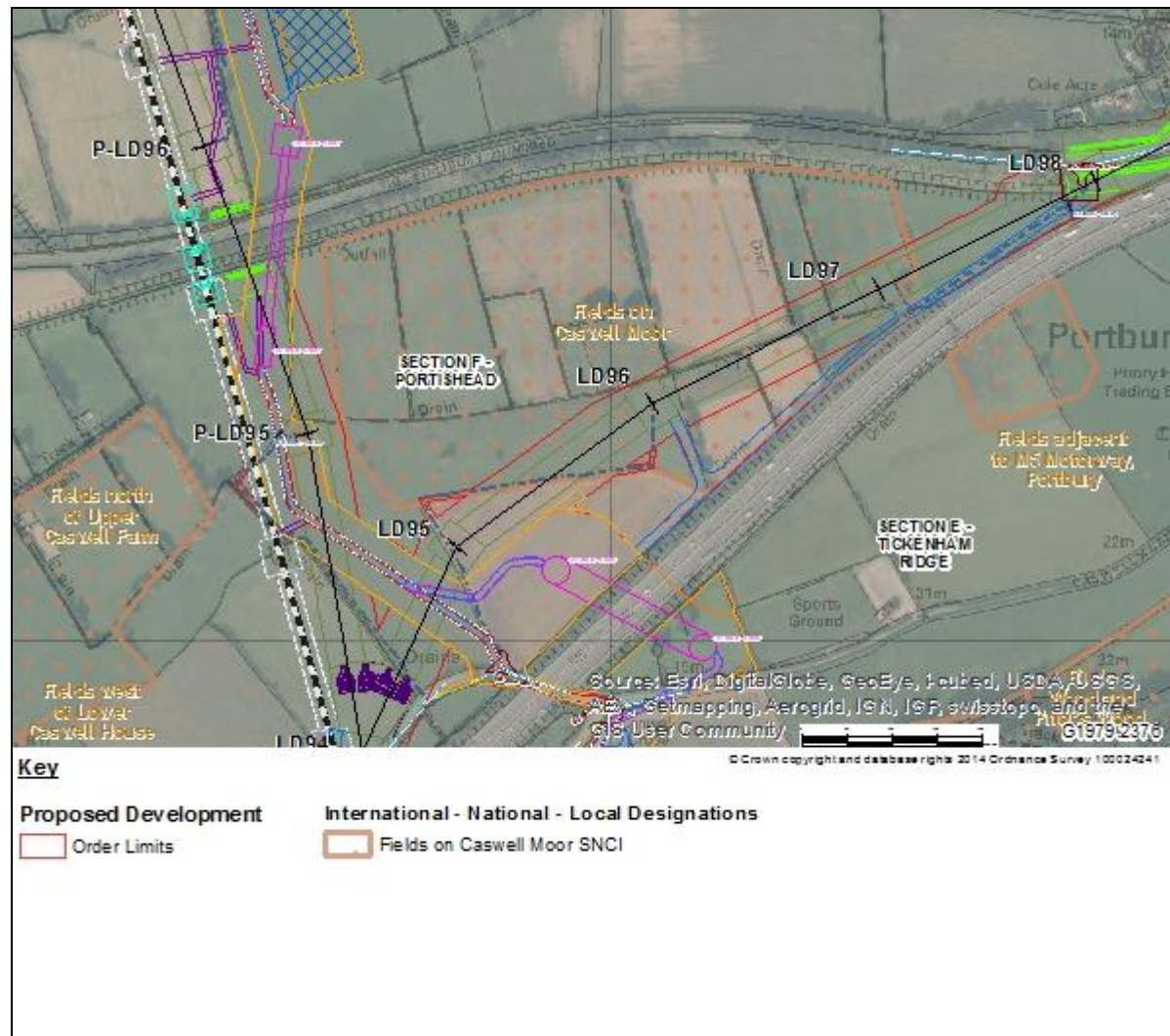
- 2.4.58 The Fields West of Lower Caswell House SNCI contains marshy grassland. The construction components within this SNCI comprise removal of two 132kV pylons and associated access routes. Impacts would be low with the phase 1 habitat survey reporting working areas would be in semi-improved grassland. Fencing and signs will be used to prevent encroachment outside of working areas. No specific mitigation measures over and above those detailed in section 3 and 4 are proposed.

Fields on Caswell Moor SNCI

- 2.4.59 The Fields on Caswell Moor SNCI contains marshy grassland and reedbed habitat supporting passerines and water vole. Under the preferred route (Option A) two 400kV pylon working areas and associated access roads will fall within the designation (**Inset 2.23**).
- 2.4.60 The working areas would avoid the marshy grassland habitat and would be largely in arable and semi-improved grassland. However the parts of the typical pylon working areas would be in or adjacent to ditch habitats which may contain reedbed and support passerines or water vole.
- 2.4.61 National Grid will adjust the 400kV construction working areas to avoid ditch habitats.
- 2.4.62 Broad-leaved plantation and individual trees will be lost to achieve electrical safety clearances. Although these habitats are not listed in the citation, they could support passerines which are in the citation. Fencing and signs will be used to prevent encroachment outside working areas.

- 2.4.63 None of the SNCI fields crossed by the works are marshy grassland or reedbed and re-seeding mixes will be as agreed with the landowner, seeking to replicate current conditions.
- 2.4.64 The SNCI citation mentions passerines and water vole which may be affected by the construction works; particular reference is given to the birds and water vole method statements in sections 4.1 and 4.4 of this report.

Inset 2.23: Fields on Caswell Moor SNCI



Fields between A396 and M5 Motorway Portbury SNCI

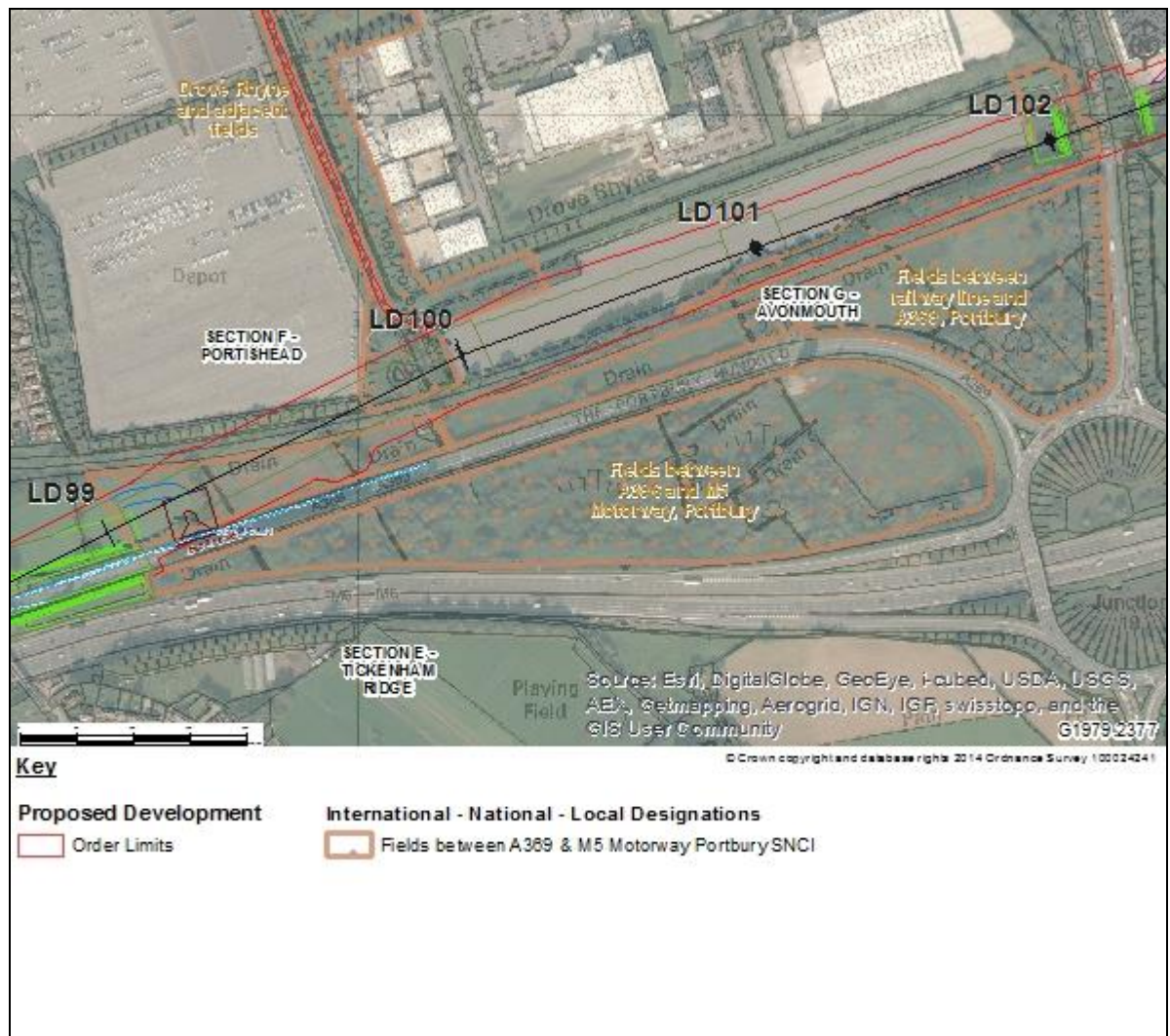
- 2.4.65 The Fields between A396 and M5 Motorway Portbury SNCI is listed for its marshy grassland habitat. Under the preferred route (Option A) the Order Limits of the Proposed Development clip this designation (**Inset 2.24**). However, no working areas fall within the site and no specific mitigation is proposed.

Fields between Railway Line and A396 Portbury SNCI

- 2.4.66 The Fields between Railway Line and A396 and Portbury SNCI is listed for its marshy grassland habitat and encompasses Priory Farm Wildlife Trust Reserve. Under the preferred route (Option A), construction components of the Proposed Development within this designation would comprise a single 400kV pylon's typical working area and associated scaffolding, access road and bellmouth (**Inset 2.24**).

- 2.4.67 The working areas avoid the marshy grassland habitat for which the site is listed. Plantation woodland, scrub and hedgerow habitats will be lost but these are not mentioned in the citation. National Grid will adjust the 400kV construction working areas to minimise hedgerow loss, but access routes and electrical safety clearances are the reason for the majority of unavoidable losses. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.68 None of the SNCI fields crossed by the works are marshy grassland and re-seeding mixes will be as agreed with the landowner, seeking to replicate current conditions.

Inset 2.24: Fields between A396 & M5 Motorway Portbury SNCI and Fields between Railway Line and Portbury SNCI



Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI

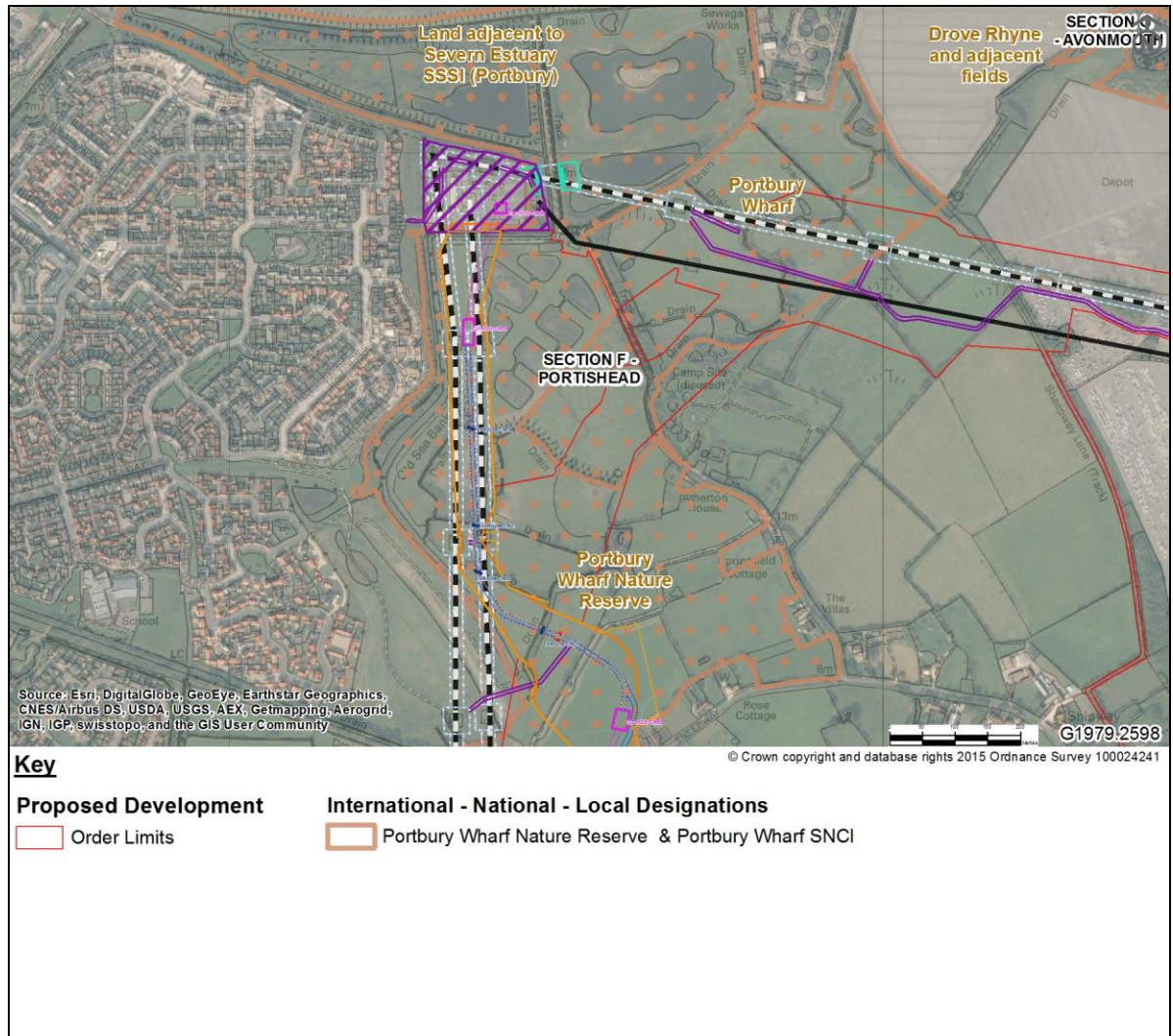
- 2.4.69 The Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI sites contain grazing marsh and open water habitats which support overwintering and migrating wildfowl and wading birds, otter, water vole, diverse dragonfly populations and great crested newt. Construction components of the Proposed Development that fall within these designations comprise 132kV overhead line removal, 132kV undergrounding, 400kV overhead line (alternative route (Option B) only) and associated scaffolding, access routes and roads. **Inset 2.25** shows construction components associated with preferred route (Option A) only and **Inset 2.26** shows those associated with alternative route (Option B) only.
- 2.4.70 With the exception of access and undergrounding crossing points, National Grid will adjust the working areas to avoid open water and ditch habitats. Within the working area soil piles will be covered in sheeting to prevent run-off into adjacent ditches. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.71 As detailed previously for the Severn Estuary designations, working will avoid the wintering bird season to avoid disturbance to SPA and Ramsar bird species using the site and adjacent land.
- 2.4.72 Wetland habitats are important to the designations; National Grid will agree seed mixes with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and their ecologists) and with Bristol Port Company (BPC) and/or their consultants (in relation to each of their land holdings or management responsibilities) to replicate current conditions.
- 2.4.73 National Grid will fund an ECoW during the active construction periods at Portbury Wharf Nature Reserve who will work alongside relevant licence holders and report to the overall ECoW for the Proposed Development. The ECoW is expected to be supplied by Avon Wildlife Trust but this may alter if land ownership changes prior to or during the construction phase. The project ECoW will offer the opportunity to meet with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and their ecologists) and BPC no less than six months before the anticipated start of works within Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI. The agenda for this meeting(s) will be guided by but not necessarily limited to the issues in the DCO Requirements listed below. The outcome of these discussions will be collated into a mitigation statement for the Nature Reserve. Most of the issues covered by the mitigation statement relate to existing Requirements that need Local Authority approval, the mitigation statement will therefore be subject to approval prior to works commencing in the Nature Reserve.
- Requirement 6: Approval and implementation of construction mitigation plans
 - This necessitates LPA approval of management plans for soil, drainage, project environmental, site waste, and tree and hedgerow protection, also schemes or plans for pollution incident control, lighting, emergency response for flood events and archaeological method statements.
 - Requirement 8: Control of artificial light emissions
 - This necessitates LPA approval of temporary or permanent lighting installations.

- Requirement 10: Replacement planting
 - This necessitates LPA approval of a scheme for the planting of trees, groups of trees and hedgerows which shall include details of planting, cultivation and maintenance.
- Requirement 11: Implementation of landscaping and replacement planting
 - This sets out timescales and the need to replace failed planting.
- Requirement 12: Retention and protection of existing trees and hedgerows
 - This necessitates LPA approval of a tree and hedgerow protection strategy which shall include details of proposed tree removal and pruning and an auditable system of compliance.
- Requirement 15: Reinstatement schemes
 - This set out the need to reinstate within 6 months any land affected by the works to its former condition unless otherwise approved by the LPA.
- Requirement 16: Fencing and other means of enclosure
 - This necessitates LPA approval of all proposed temporary and permanent fences, walls or other means of enclosure.
- Requirement 17: Surface water drainage
 - This necessitates LPA approval of all details of the surface and foul water drainage system (including means of pollution control) for both permanent and temporary works.
- Requirement 18: Contaminated land and groundwater
 - This necessitates LPA approval of a written scheme to deal with ground conditions, including contamination of land or groundwater.
- Requirement 21: Accumulation and deposits
 - This necessitates LPA approval of a written scheme for the management of any accumulations or deposits arising from the construction stage.
- Requirement 31: Residential amenity; information dissemination and complaints handling
 - This necessitates LPA approval of a system for informing local residents and occupiers about the works (including details on phasing) and for handling complaints.

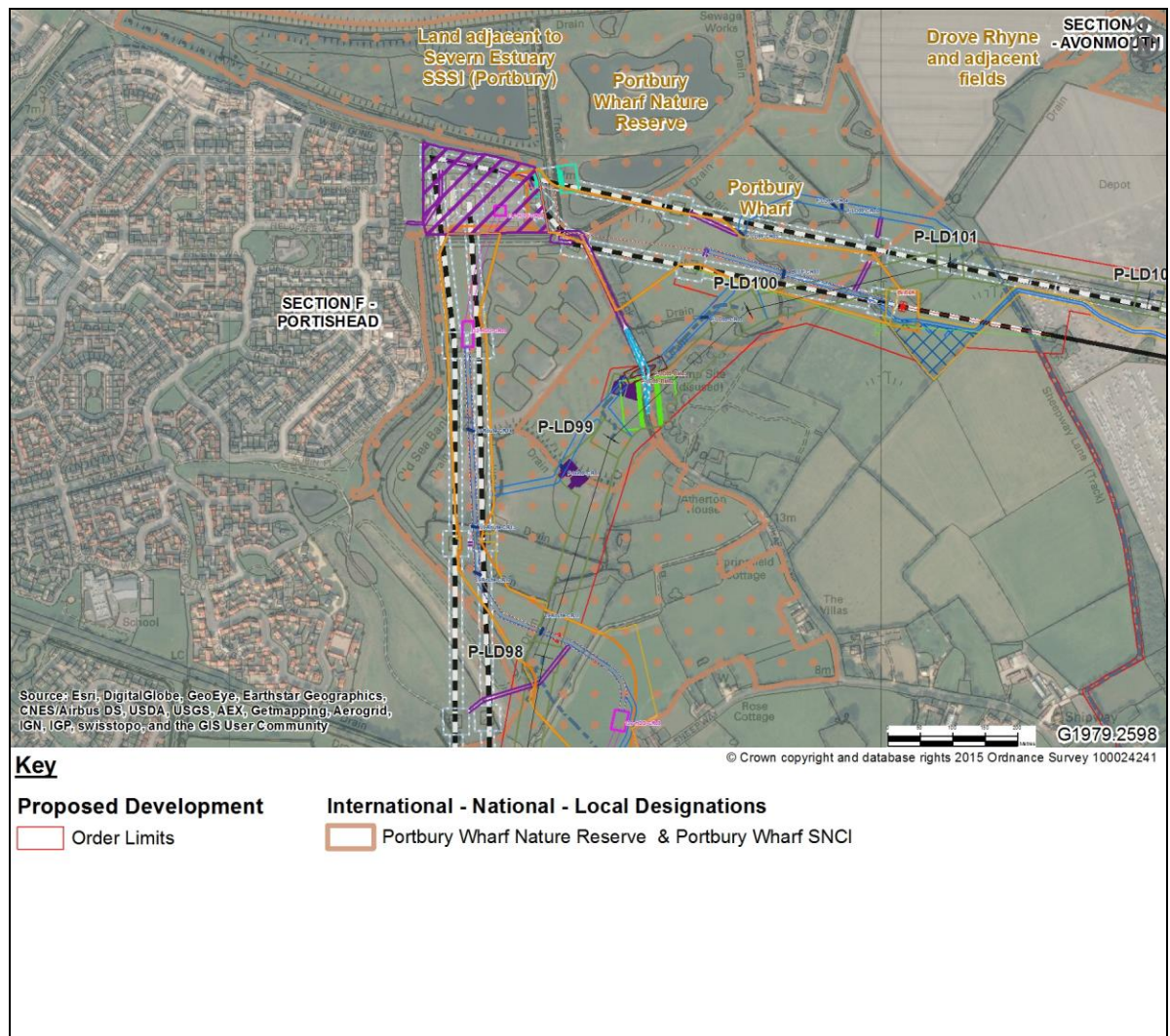
2.4.74 National Grid will install interpretation boards alongside public rights of way in the reserve. These information points will explain to the public the nature of the works, the biodiversity mitigation being undertaken and to provide project contact details should members of the public have any questions or concerns. It is envisaged this will aid in public understanding of the proposals and minimise queries to Avon Wildlife Trust. During the construction phase, National Grid will liaise with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and

their ecologists) to minimise effects for users of the Portbury Wharf Nature Reserve permissive footpaths.

Inset 2.25: Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI (Option A Only)



Inset 2.26: Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI (Option B Only)



- 2.4.75 The citations mention birds, otter, water vole and great crested newts which may be affected by the construction works. Particular reference is given to the birds, water vole, otter and amphibian method statements in sections 4.1, 4.4, 4.5 and 4.9 of this report. As the working areas are adjacent to and cross watercourses, particular reference is also given to the watercourse crossings information in section 3.4 of this report.

Drove Rhyne and Adjacent Fields SNCI

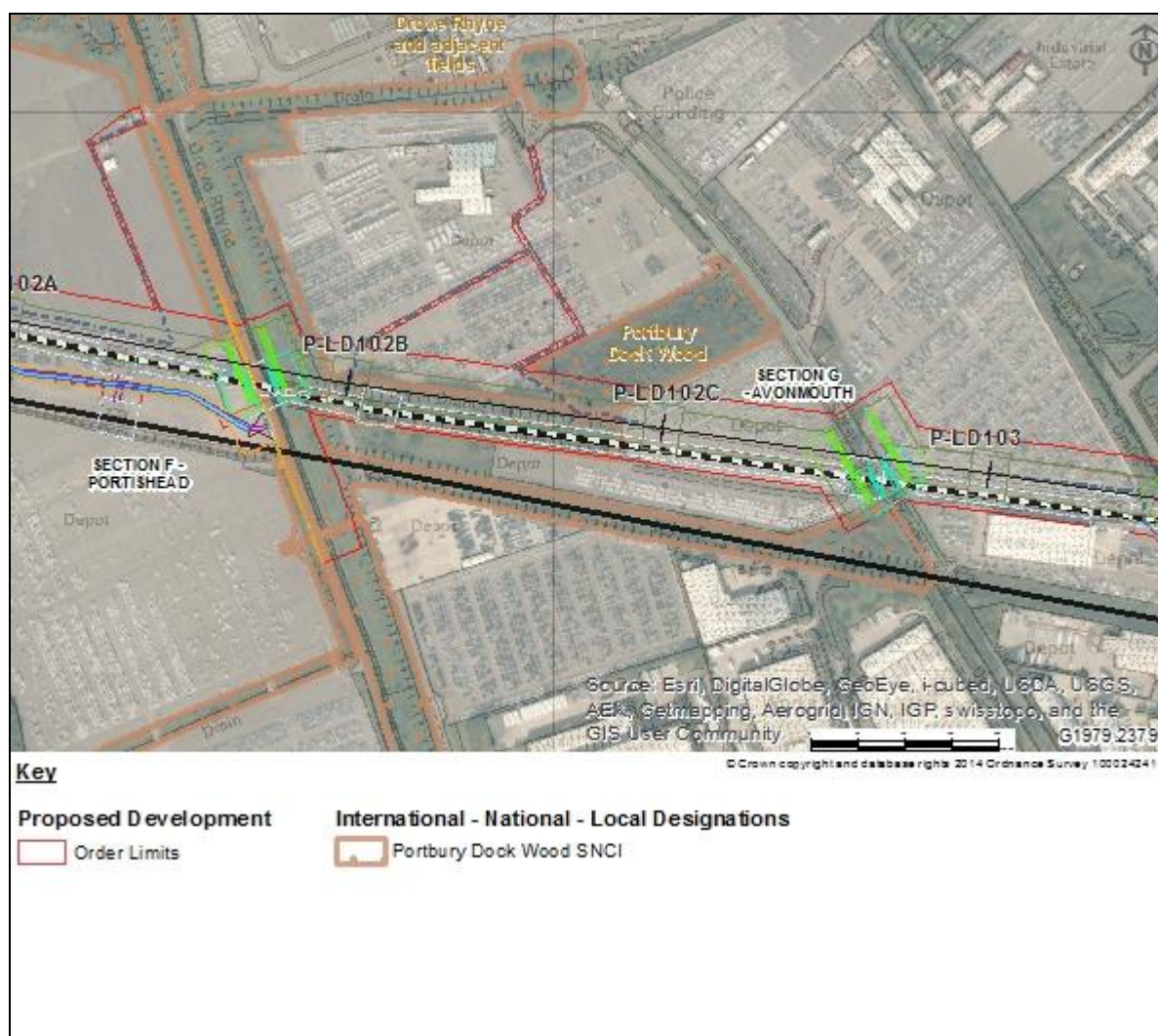
- 2.4.76 The Drove Rhyne and Adjacent Fields SNCI contains swamp, ditches and semi-improved neutral grassland habitats. The construction components of the Proposed Development that fall within this designation comprise working areas associated with two 132kV G Route pylon removal sites and (Option A only) a single 400kV pylon working area and scaffolding and (Option B only) two 400kV pylon working areas (**Inset 2.26**).
- 2.4.77 It is not possible to avoid the SNCI for the 132kV removal works and associated scaffolding.
- 2.4.78 If preferred route (Option A) is constructed, the working area for the 400kV pylon (LD100) will be adjusted to avoid the designation.

- 2.4.79 If alternative route (Option B) is constructed, the working area of one 400kV pylon (P-LD102C) will be adjusted to avoid the designation. It is not possible to avoid the SNCI for the other 400kV pylon working area (P-LD102B).
- 2.4.80 Removal works and (for Option B) construction works will impact the banks of the ditches. The watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the ditch. Alternatively, temporary dams will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.81 Losses of habitat mentioned in the citation would be to isolated patches along ditches and bankside habitats. These will be allowed to re-colonise naturally to reduce the chance of introducing invasive species.
- 2.4.82 As the working areas are adjacent to the designated rhyme, particular reference is given to the watercourse crossings information in section 3.4 of this report.

Portbury Dock Wood SNCI

- 2.4.83 The Portbury Dock Wood SNCI contains semi-natural broad-leaved woodland with a diverse ground flora and notable bird community. The construction components of the Proposed Development that fall within this designation (only for alternative route (Option B)) comprise the oversail of the 400kV overhead line along the south western edge of the designation (**Inset 2.27**).

Inset 2.27: Drove Rhyne and Adjacent Fields SNCI and Portbury Dock Wood SNCI



- 2.4.84 It is not possible to avoid the SNCI. Removal of 0.002ha of semi-natural broad-leaved woodland and four poplar trees will be required to achieve electrical safety clearances. As the SNCI is noted for its bird community, reference is made to the bird method statement in section 4.1 of this report.

Severn Estuary SNCI

- 2.4.85 The Severn Estuary SNCI comprises the intertidal zone of mudflats, sand banks, rocky platforms and saltmarsh, providing very important habitats for plants, waterfowl, invertebrates and migratory fish. It lies within the Severn Estuary SAC, SPA, Ramsar, SSSI designation. No additional impacts are predicted or additional mitigation is proposed over and above that described for the international and national designations.

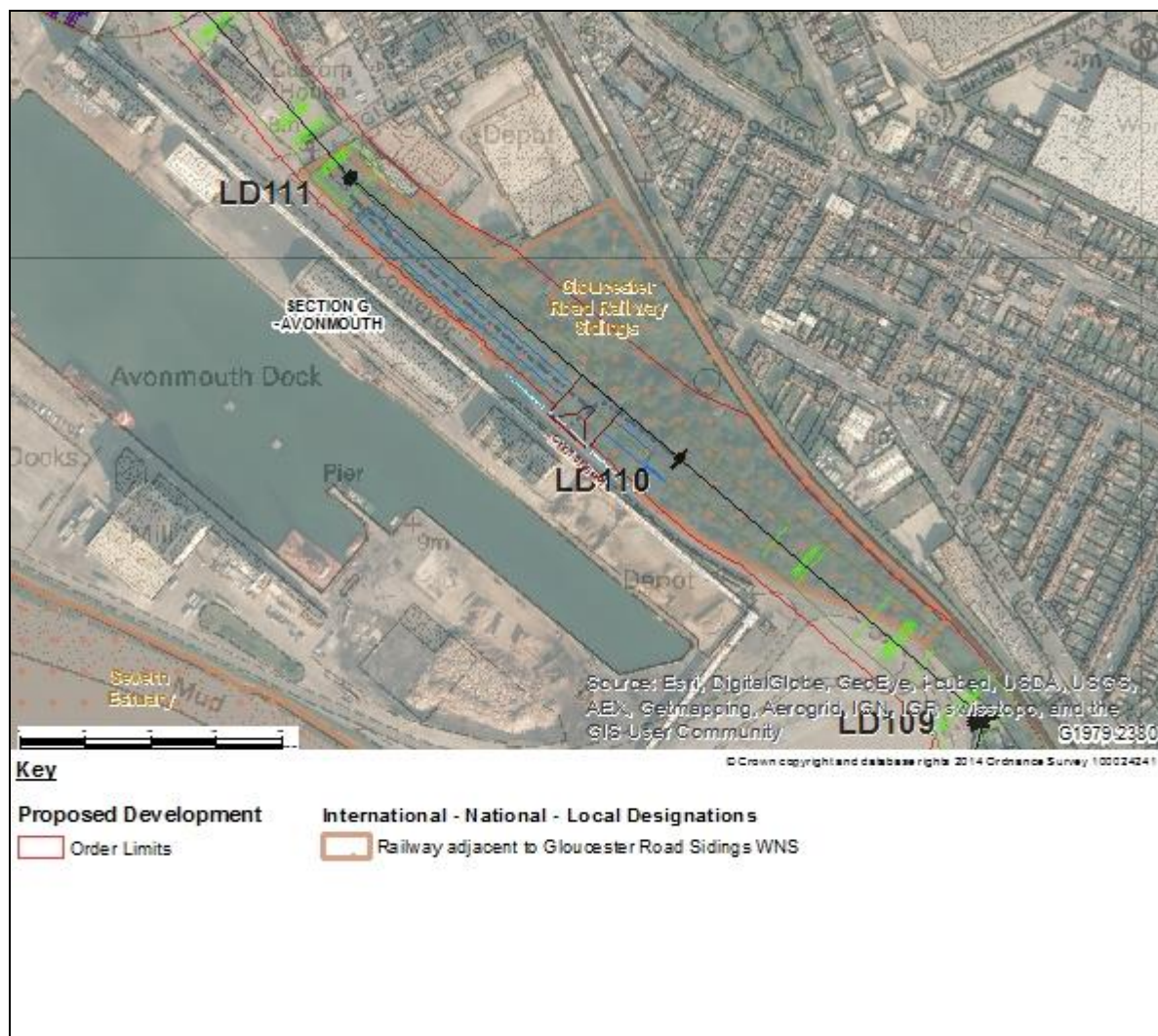
Land adjacent to Severn Estuary SSSI (Portbury) SNCI

- 2.4.86 The Land adjacent to Severn Estuary SSSI (Portbury) SNCI comprises marshy grassland. It lies within the Severn Estuary SAC, SPA, Ramsar, SSSI designation. No additional impacts are predicted and no additional mitigation is proposed over and above that described for the international and national designations.

Gloucester Road Railway Sidings SNCI

- 2.4.87 The Gloucester Road Railway Sidings SNCI contains grassland and dense scrub habitats and supports valuable floral, invertebrate and bird communities. The construction components of the Proposed Development that fall within this designation comprise two 400kV pylon working areas and associated scaffolding, access roads and bellmouth (**Inset 2.28**).

Inset 2.28: Gloucester Road Railway Sidings SNCI



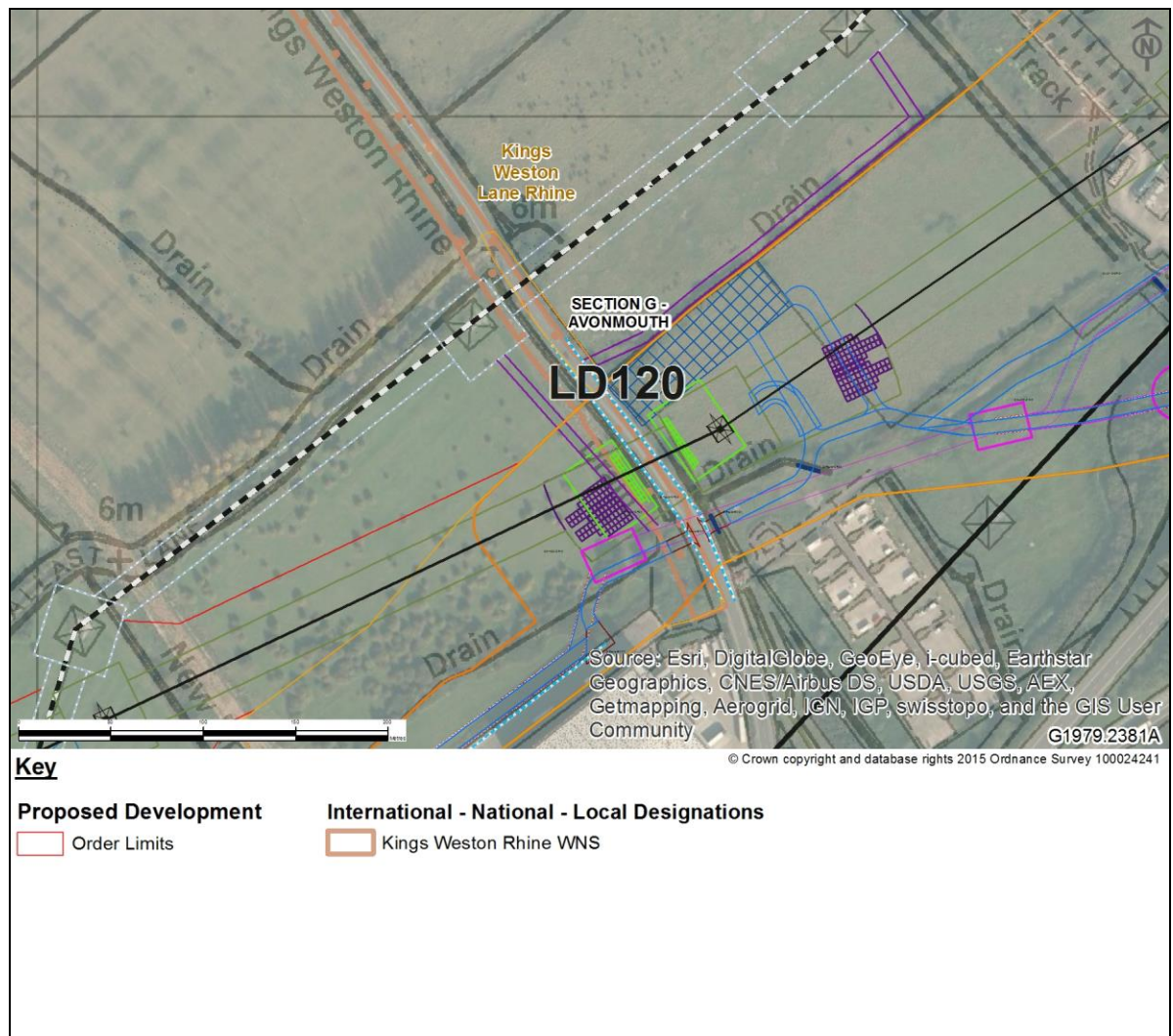
- 2.4.88 It is not possible to avoid the SNCI. In addition to temporary loss of grassland and dense scrub, 1.2ha of semi-natural woodland canopy and 25 trees will be lost to achieve electrical safety clearances. The floral communities are listed in the citation and although the woodland canopy will be lost, the ground flora will be retained but altered light levels may result in a change to species composition.
- 2.4.89 Bristol City Council has granted planning permission within the Gloucester Road Railway Sidings SNCI which coincides with the route of the proposed overhead line. The planning permission is for a change of use to port-related storage (Use Class B8) and an ecological corridor. It is likely that much of the tree clearance required by National Grid will already have been undertaken as a result of the planning permission, although some further tree removal would still be required.

- 2.4.90 As tree removal is required and the woodland SNCI is noted for its bird community, particular reference is made to the bird method statement in section 4.1 of this report.

Kings Weston Lane Rhyme SNCI

- 2.4.91 The Kings Weston Lane Rhyme SNCI has emergent, submerged, floating and bankside vegetation. The construction components of the Proposed Development that fall within this designation comprise 132kV (G Route) pylon removal working area, 132kV (G Route) undergrounding (HDD) and associated access routes and roads including one temporary culvert (**Inset 2.29**).

Inset 2.29: Kings Weston Lane Rhyme SNCI



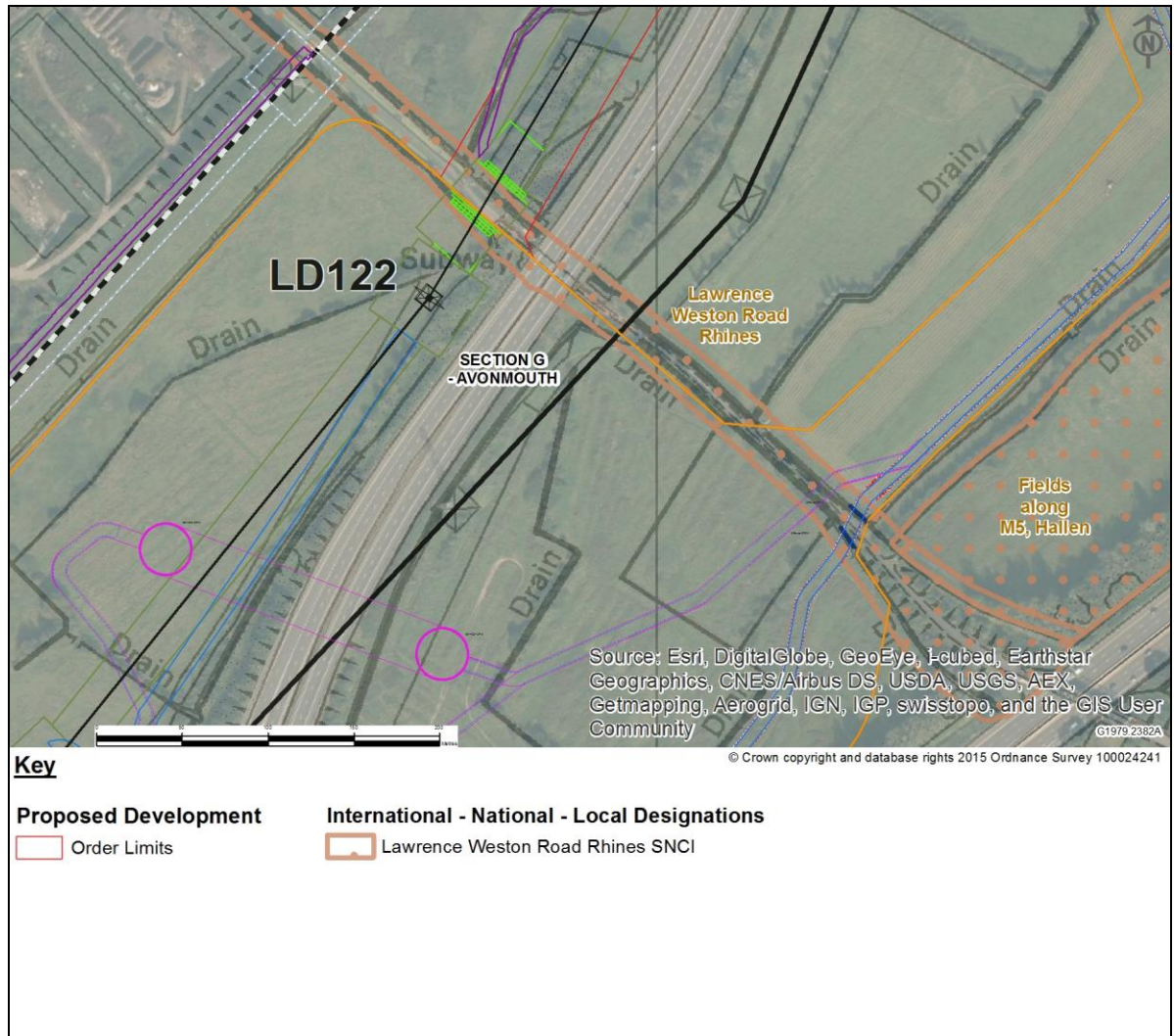
- 2.4.92 National Grid will adjust the 400kV construction working areas to ensure these works remain outside the boundaries of the designation. It is not possible to achieve this for the 132kV removal works but the rhyme will be protected during works. Similarly, it is unlikely the scaffolding can avoid the designation due to the restricted working area south of the rhyme. National Grid will review this when scaffolding contractors have been appointed and will update the LPA in-line with the phased approach to updating the BMS as outlined in section 1.1 of this document. Avoidance of the SNCI is not possible where access roads cross the designation. Fencing and signs will be used to prevent encroachment outside working areas.

- 2.4.93 Works will impact the banks of the rhyne. The watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the ditch. Alternatively, temporary dams will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.94 There would be losses to habitats mentioned in the citation for the site comprising isolated patches along ditches and bankside habitats. These will be allowed to re-colonise naturally to reduce the chance of introducing invasive species.
- 2.4.95 As the working areas are adjacent to and cross the SNCI designated rhyne, particular reference is given to the watercourse crossings information in section 3.4 of this report.

Lawrence Weston Road Rhynes SNCI

- 2.4.96 The Lawrence Weston Road Rhynes SNCI contains rhynes and unimproved calcareous grassland which supports water vole and varied floral and dragonfly communities. The construction components of the Proposed Development that fall within this designation comprise 132kV (G Route) pylon removal working area, scaffolding for 400kV overhead line, 132kV (G Route) undergrounding (options for open cut trenching or HDD) and associated access routes and roads including one temporary culvert for the 132kV underground haul road (**Inset 2.30**).

Inset 2.30: Lawrence Weston Road Rhynes SNCI

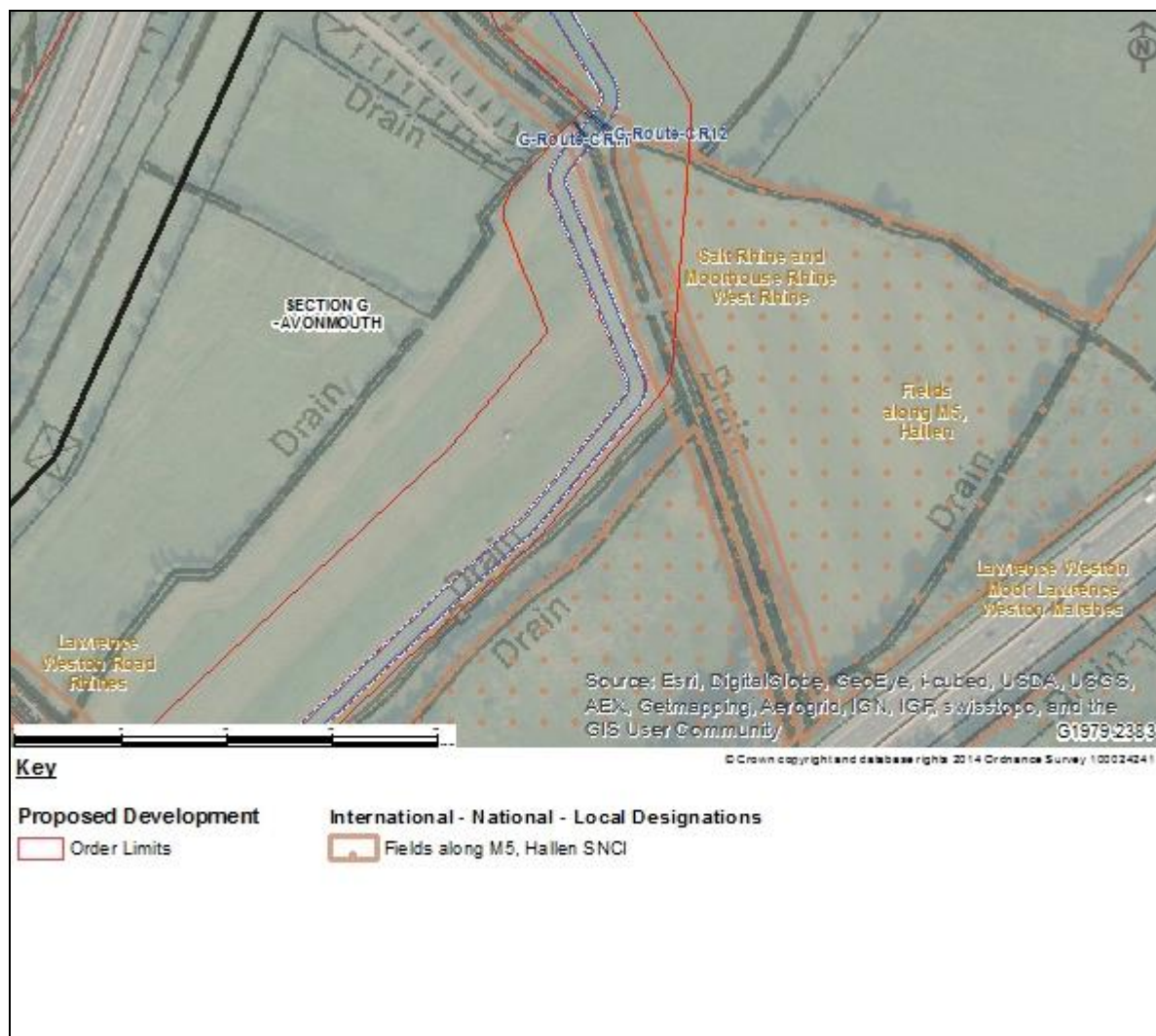


- 2.4.97 National Grid will adjust the scaffolding working areas to avoid the designation. It is not possible to adjust the 132kV removal works to avoid the designation but the rhyne will be protected during works. Avoidance of the SNCI is not possible where access roads and 132kV undergrounding cross the designation. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.98 Works will impact the banks of the rhyne. The watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the ditch. Alternatively, temporary dams will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.99 There would be losses to habitats mentioned in the citation for the site comprising isolated patches along ditches and bankside habitats. These will be allowed to re-colonise naturally to reduce the chance of introducing invasive species. As the working areas are adjacent to and cross the SNCI, designated rhyne and water vole are listed in the citation, particular reference is given to the watercourse crossings information in section 3.4 and the water vole method statement in section 4.4 of this report.

Fields Along M5 Hallen SNCI

- 2.4.100 The Fields Along M5 Hallen SNCI comprises five fields of semi-improved neutral grassland and marshy grassland with ditches and hedgerows. The 132kV underground cable swathe cuts across the northern edge of this site (**Inset 2.31**).

Inset 2.31: Fields Along M5 Hallen SNCI

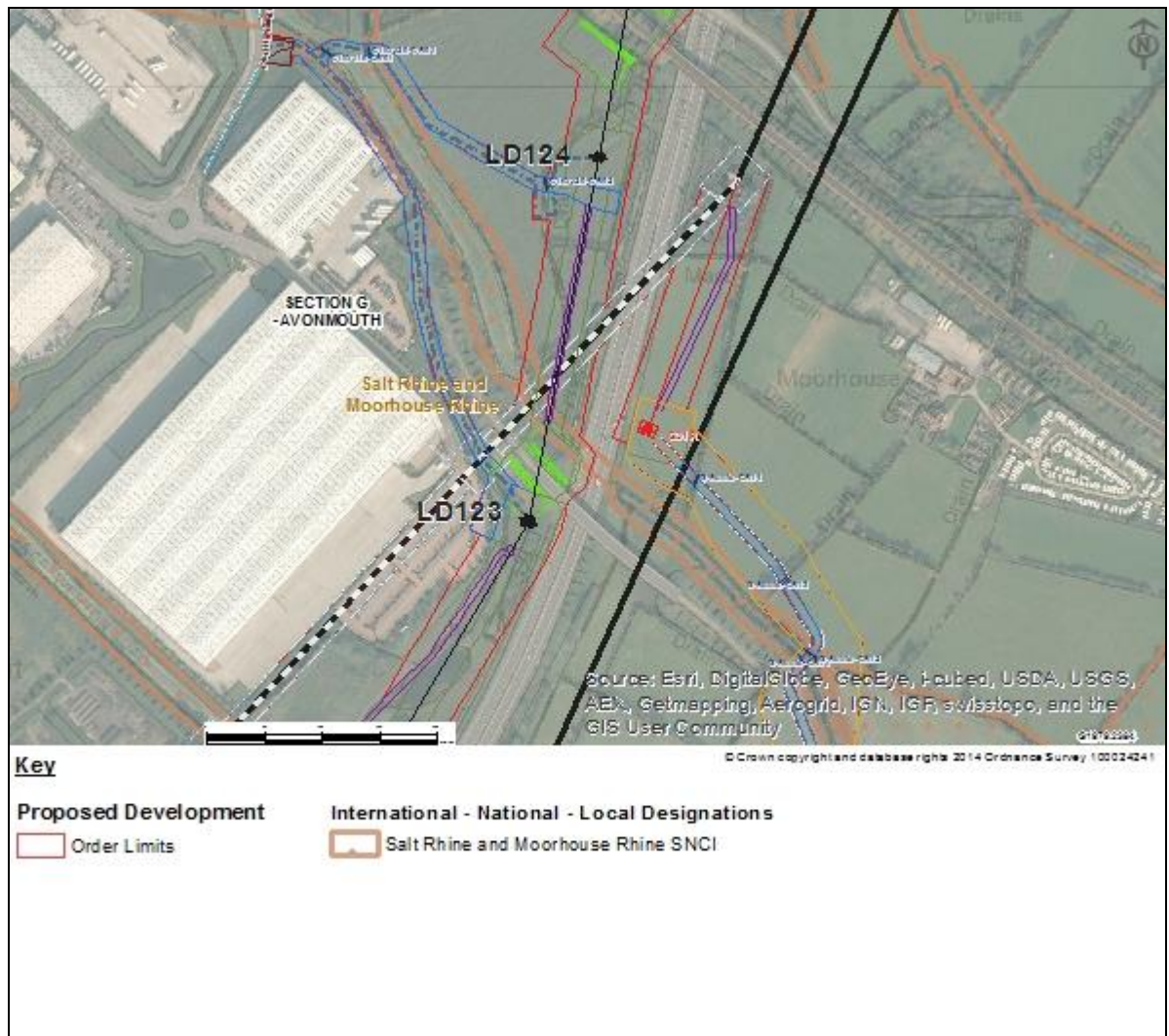


- 2.4.101 Current proposals will result in loss of modified neutral grassland and semi-improved grassland and a short section of hedgerow. National Grid will review this situation to see if avoidance of the designation can be achieved when contractors have been appointed for the 400kV underground cables installation. When the final method has been selected, National Grid will update the LPA in accordance with the phased approach to updating the BMS as outlined in section 1.1 of this document. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.102 The SNCI field crossed by the works is not marshy grassland and re-seeding mixes will be as agreed with the landowner seeking to replicate current conditions.
- 2.4.103 As the working areas cross the SNCI and hedgerows are listed in the citation and will be affected, particular reference is made to the hedgerow information in section 3.3 of this report.

Salt Rhyne and Moorhouse Rhyne West SNCI

- 2.4.104 The Salt Rhyne and Moorhouse Rhyne West SNCI contains brackish rhynes and bankside habitats and supports water vole, along with botanical and invertebrate communities. The construction components of the Proposed Development that fall within this designation comprise 132kV undergrounding and associated haul road and two culverts and 400kV scaffolding and access road with a further two culverts (**Inset 2.32**).

Inset 2.32: Salt Rhyne & Moorhouse Rhyne West SNCI



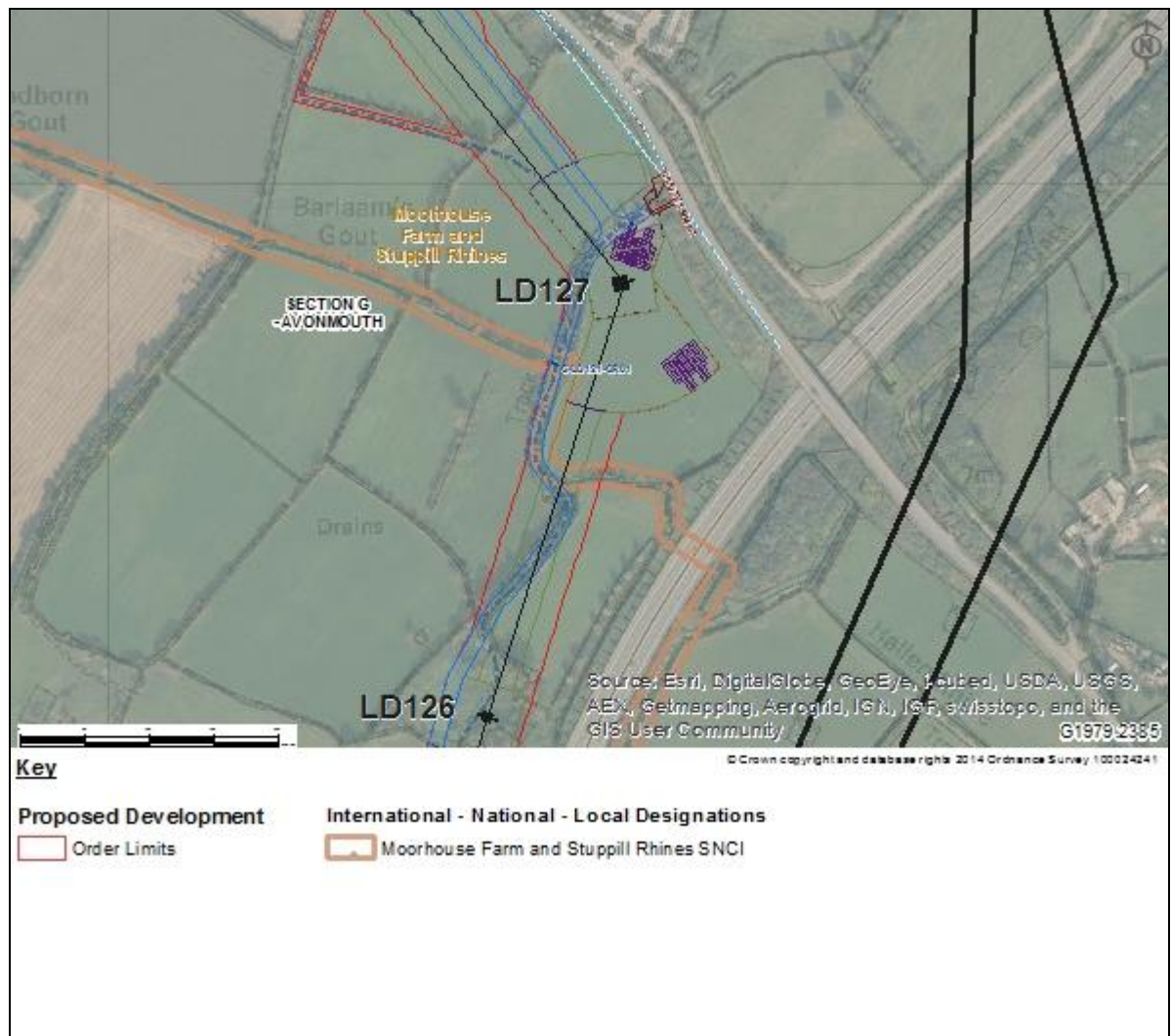
- 2.4.105 It is unlikely the 400kV scaffolding can avoid the designation due to the restricted working area south of the rhyne. National Grid will review this when scaffolding contractors have been appointed and will update the LPA as outlined in section 1.1 of this document. Avoidance of the SNCI is not possible where access roads and 132kV undergrounding cross the designation. Fencing and signs will be used to prevent encroachment outside working areas.
- 2.4.106 Works will impact the banks of the rhyne. The watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the ditch. Alternatively, temporary dams will be used to create dry working areas where disturbed working areas are separated from the flow of water.

- 2.4.107 There would be losses to habitats mentioned in the citation for the site comprising isolated patches along ditches and bankside habitats. These will be allowed to re-colonise naturally to reduce the chance of introducing invasive species.
- 2.4.108 As the working areas cross the SNCI and ditches, water vole and invertebrates are listed in the citation and will be affected; particular reference is made to the watercourse crossing information in section 3.4 and the water vole and invertebrate methods statements in section 4.4 and 4.12 of this report.

Moorhouse Farm and Stuppill Rhynes SNCI

- 2.4.109 The Moorhouse Farm and Stuppill Rhynes SNCI contains rhynes with interesting floral and dragonfly communities. The construction components of the Proposed Development that fall within this designation comprise a 400kV access road and associated culvert. An access road and working areas lie adjacent to the designation boundaries (**Inset 2.33**).
- 2.4.110 Avoidance of the SNCI is not possible where the access road (and culvert) crosses the designated rhyne. Fencing and signs will be used to prevent encroachment outside the crossing point.
- 2.4.111 Works will impact the banks of the rhyne. The watercourse will be protected through the use of bunds to retain and re-direct run-off, siltation and pollution, where no works are required within the ditch. Alternatively, temporary dams will be used to create dry working areas where disturbed working areas are separated from the flow of water.
- 2.4.112 There would be losses to habitats mentioned in the citation for the site comprising isolated patches along ditches and bankside habitats. These will be allowed to re-colonise naturally to reduce the chance of introducing invasive species.
- 2.4.113 As the working areas cross the SNCI and rhyne and invertebrates are listed in the citation and will be affected, particular reference is given to the watercourse crossing information in section 3.4 and the invertebrate method statement in section 4.12 of this report.

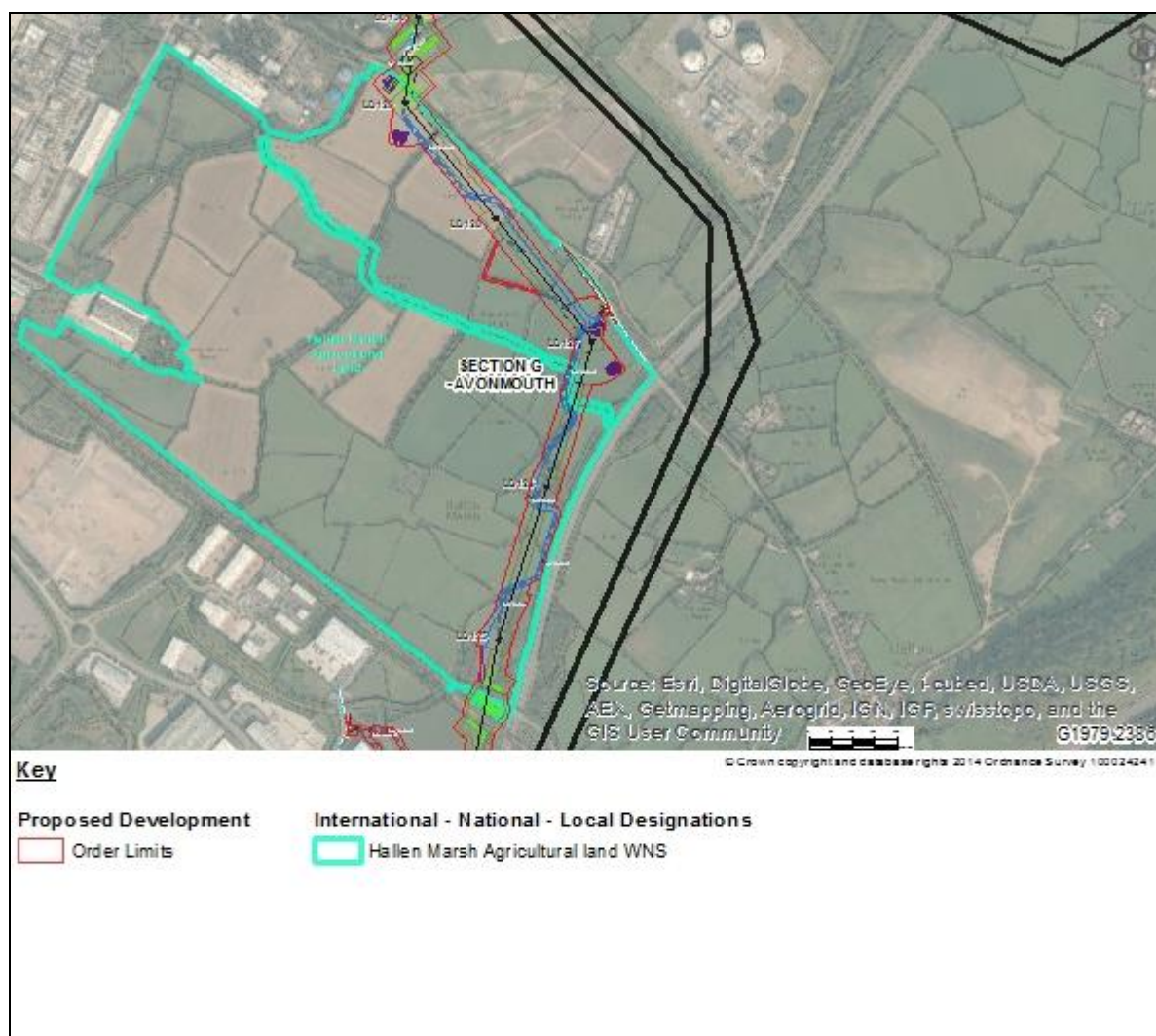
Inset 2.33: Moorhouse Farm and Stuppill Rhynes SNCI



Hallen Marsh – Severn Estuary Future Offsetting Land

- 2.4.114 Hallen Marsh is identified in local planning policy as future offsetting land for the Severn Estuary Ramsar and SPA. Hallen Marsh is currently unsuitable for Ramsar and SPA bird species but the aim is for future developers to contribute to habitat enhancement works to compensate for potential adverse effects on the Severn Estuary SPA and Ramsar as a result of development at the Severnside Enterprise Area.
- 2.4.115 The Proposed Development takes the new 400kV overhead line along the eastern and northern boundaries of Hallen Marsh adjacent to the M49 motorway and Severn Road (**Inset 2.34**).
- 2.4.116 No specific mitigation measures are required during the construction period as the site is not currently used by Ramsar and SPA birds.
- 2.4.117 In recognition of the future purpose of the land National Grid has committed to fitting bird flight diverters on the overhead line through Hallen Marsh when a trigger associated with habitat enhancement works is met. The details of this commitment are set out in **Schedule 3, Requirement 13** of the DCO.

Inset 2.34: Hallen Marsh Agricultural Land WNS

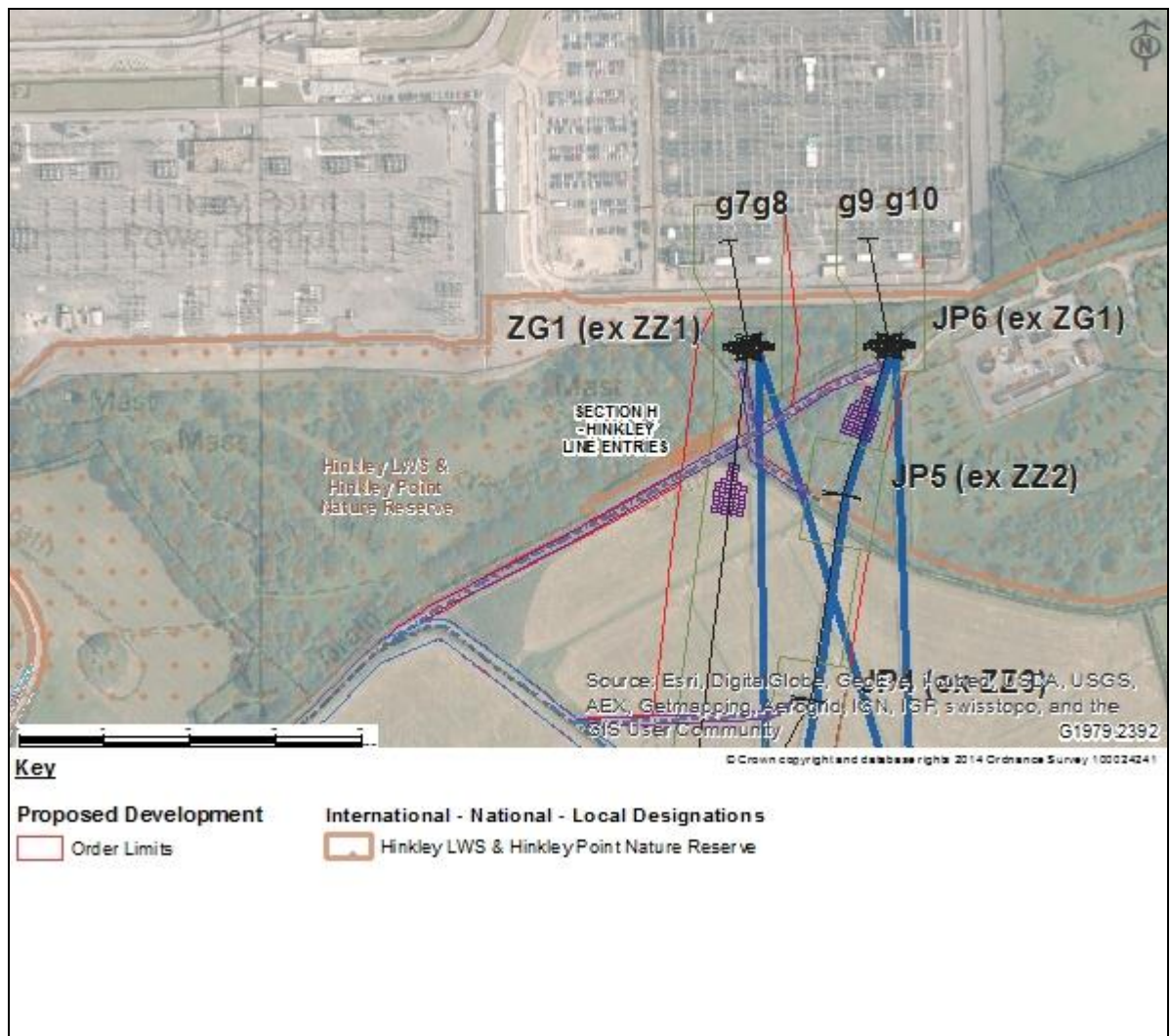


Hinkley LWS and Hinkley Point Nature Reserve

- 2.4.118 The Hinkley LWS and Hinkley Point Nature Reserve falls within the larger boundaries of the LWS. The sites contain species-rich hedgerows, neutral and unimproved grassland with diverse floristic and butterfly communities. The scrub habitats also support an interesting bird assemblage. The construction components of the Proposed Development that fall within this designation comprise replacement of the existing overhead line entries into the Hinkley Point substation which would involve three pylon working areas and two associated access roads (**Inset 2.35**).
- 2.4.119 The construction works will result in the loss of hedgerow, modified neutral grassland and semi-improved grassland, semi-natural broad-leaved woodland and the canopy of broad-leaved plantation for working areas and to achieve electrical safety clearances. Woodland ground flora will be retained beneath the overhead lines but altered light levels may result in a change to species composition.
- 2.4.120 National Grid is committed to replanting trees on a 4:1 basis. In addition, National Grid will meet with EDF a minimum of two months in advance of works commencing in this area to agree detailed site specific issues.

2.4.121 As the working areas cross the LWS and the bird assemblage is listed in the citation and will be affected through tree and scrub loss, particular reference is made to the bird method statement in section 4.1 of this report.

Inset 2.35: Hinkley LWS and Hinkley Point Nature Reserve



Inset 2.36: Key to Construction Components of the Proposed Development

	Proposed 400kV Overhead Alignment Centreline / Pylon		400kV Underground Cable Alignment
	132kV Overhead Line Conductor / Pylon;		132kV Underground Cable Alignment
	132kV Temporary Diversion Pylon		HDD Underground Cable Alignment
	Sandford Substation - Site Access Road		HDD Marker
	Visibility Splay		HDD Alternative - Haul Road
	Other Access Route		Underground Cable Limits of Deviation
	New Build Working Area		Underground Easement
	400kV Scaffolding and Scaffolding Working Area		Culvert Locations
	132kV Scaffolding and Scaffolding Working Area		Construction Haul Road
	Dismantling Working Area		Visibility Splay
	Equi-Potential Zone Working Area		HDD Marker
	Compound		Underground Cable Limits of Deviation
	Proposed Sandford 400/132kV Substation Work Area		Underground Cable Easement
	Proposed South of the Mendip Hills 400kV Cable Sealing End Compound Work Area		Proposed 132kV Substation Work Area
	Proposed Bridgwater Tee 400kV Cable Sealing End Compound Work Area		Bellmouth Easement
	Bellmouth Easement		Existing Track Upgrade
	Existing Track Upgrade		Permanent Bridge
	Permanent Bridge		Temporary Bridge
	Temporary Bridge		

3 HABITATS

3.1 Overview

- 3.1.1 This section sets out the measures required to avoid potential detrimental effects on habitats of principal importance for biodiversity (Section 41 habitats, Natural Environment and Rural Communities Act 2006) or habitats prioritised in Local Biodiversity Action Plans (LBAP habitats). It also sets out measures to prevent the spread of invasive plants.
- 3.1.2 The approach is informed by the extended Phase 1 habitat survey undertaken in 2012 and 2013 and presented within the ES (**Volume 5.8.3, Figure 8.2**). A number of further ecological studies have been undertaken since the submission of the DCO application which cover geographic areas not previously surveyed due to site access restrictions and survey timing constraints. Reference to this outstanding information was made within the submitted ES where it was stated that the intention to provide an update to address these points. This information has been submitted to PINS under a separate cover (**Volume 5.28**) and does not materially change the findings of the ES.

3.2 Habitat Protection – General Principles

- 3.2.1 The following principles apply to all habitats in the working areas, including those habitats which do not enjoy special protection. Method statements are provided later in this section for hedgerows and watercourse crossings and for dealing with invasive species.
- 3.2.2 In each working area, the ECoW will identify the relevant ecological receptors by reference to the Environmental Constraints Plans (**Volume 5.3.3, Figure 3.7**).
- 3.2.3 Where habitats are affected in a designated wildlife site, the procedures for prior notification and liaison with regulatory bodies and landowners will apply, as detailed in section 2.
- 3.2.4 In advance of any construction works commencing, the ECoW will be consulted and will provide a toolbox talk. All contractors will sign to confirm attendance at the toolbox talk and acceptance and understanding of the BMS.
- 3.2.5 Working areas will be kept to the strict minimum required with the ECoW demarcating sensitive habitats to ensure contractors operate within the agreed working limits.
- 3.2.6 Working arrangements within the Order Limits will be agreed with the ECoW. The ECoW will verify each location and access position within the working area and advise on potential for micro-siting of construction access tracks, equipment placement and other activities and also on mitigation requirements as necessary.
- 3.2.7 Access into and out of the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside the agreed access routes and working area.
- 3.2.8 To protect nesting birds, no hedge, woodland removal or large-scale ground vegetation clearance will take place within the breeding bird season (March to August inclusive), unless nesting bird checks by the ECoW indicate that no breeding birds will be affected. If nesting birds are identified an exclusion buffer will be erected around the nest. The size of the exclusion buffer will be determined on a 'case-by-case' basis by the ECoW. A minimum standoff of 5m will be implemented,

but this distance is likely to be substantially increased in many cases such as for ground nesting birds. The buffer is likely to be greater than 20m if nesting Schedule 1 species are detected. There will be no works in the exclusion area and the nest will be left undisturbed until the young have left the nest.

- 3.2.9 Existing trees to be retained will be protected during the development. Protection measures will comply with BS5837 (2012) standards for tree protection.
- 3.2.10 All tree and hedgerow works will comply with BS3998:2010 Tree Work – Recommendations.
- 3.2.11 In order to restrict spread of tree pathogens, all equipment and machinery and vehicles used for tree, hedge and shrub removal will be cleaned and disinfected and used in accordance with Forestry Commission's contemporary biosecurity guidance. The ECoW will advise on whether each working area is to be regarded as "low-risk" or "high-risk" in relation to the required level of biosecurity precautions as set out in *Biosecurity – good working practice for those involved in forestry, Forestry Commission November 2012*.
- 3.2.12 Cut vegetation will not be stockpiled in the working area as this may create suitable habitats for protected species. Locations for storing arisings for biodiversity purposes will be specified by the ECoW. Cut vegetation will be removed from the working area daily or chipped and spread thinly in areas agreed with the ECoW and subject to landowner agreement. Alternatively it may be stored in areas unlikely to be disturbed until it can be removed or chipped.
- 3.2.13 Any vegetation clearance in areas with invasive species will be dealt with in accordance with the method statement for invasive species and the Waste Management Plan (**Volume 5.26.2C**).
- 3.2.14 Topsoil will be conserved where possible. Soils and habitats will be reinstated on conclusion of works. The approach to managing segregation and reinstatement of top and sub soils is addressed in **Volume 5.9.1 and 5.9.2** of the ES (Ground Environment).
- 3.2.15 Fires will be completely prohibited on site. A no smoking policy will be implemented except in designated areas of the site.
- 3.2.16 Machinery will be switched off when not in use. Where practicable to do so, machinery will be stored in pylon sites which are subject to 24 hour security. All tools will be secured overnight in a locked container or compound.
- 3.2.17 Temporary storage of materials and equipment will only be undertaken in areas pre-agreed with the ECoW.
- 3.2.18 To minimise the risk of pollution of watercourses (including ditches), contractors will adhere to the Watercourse Crossings Method Statement as detailed in section 3.4 of this BMS, during all works near any water feature. This method statement is informed by the Environment Agency (EA) Pollution Prevention Guidelines.
- 3.2.19 Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund will be impermeable to the material stored and of adequate capacity. Leaking or empty drums will be removed from the site immediately and disposed of via a registered waste disposal contractor.

- 3.2.20 A variety of standard construction measures will be employed to prevent run-off and siltation of watercourses, including construction drainage solutions, bunds, sediment traps and grass seeding of spoil piles.
- 3.2.21 Further guidance with regard to pollution prevention, the storage of materials and waste disposal is detailed within the CEMP (**Volume 5.26.1C**) and Waste Management Plan (**Volume 5.26.2C**), which should be referred to.
- 3.2.22 Contractors will be instructed on maintaining vigilance for environmental issues. If at any time a protected species is found or suspected to be present or there are any issues with sensitive habitats all works in the affected area will cease immediately and advice sought from the ECoW.

3.3 Hedgerows

- 3.3.1 This section of the BMS discusses the effects of the works on hedgerows, and sets out mitigation measures.
- 3.3.2 The approach is informed by the findings of the Phase 1 habitat survey (**Volume 5.8.2, Appendix 8E and Volume 5.8.3, Figure 8.2**), the hedgerow assessment (**Volume 5.8.2, Appendix 8D and Volume 5.8.3, Figure 8.5**) and the Arboricultural Impact Assessment (**Volume 5.21.2, 5.21.2 and 5.21.3**).

Potential Impacts

- 3.3.3 Works will require the removal of hedgerows either in full or partially. This will have the following 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, including loss of food resource and interruption of commuting routes for bats.

Hedgerow Method Statement

- 3.3.4 The general requirements for good working practice and ensuring biosecurity will apply as described at section 3.2.

Marking Out Affected Areas and Micro siting to Reduce Impacts

- 3.3.5 Prior to construction works commencing in each working area, all sections of hedge due for removal or requiring pruning will be marked out by the Contractor, and the ECoW shall confirm this to ensure contractors operate within the agreed working limits.
- 3.3.6 Micro siting of works to minimise effects on hedges will include using existing gaps or gated access points along hedgerows and small scale adjustments to working areas to enable retention of better quality features within Order Limits. This will be achieved through the ECoW verifying hedgerow sections for removals or pruning and advising on adjustments and mitigation requirements as required.
- 3.3.7 Where hedgerow removal is required in a designated wildlife site or where significant loss of important hedgerows is required that differs from that granted in

the DCO, the procedures for prior notification and liaison with regulatory bodies and landowners will apply as detailed in section 2.

Inspections for Protected and Invasive Species Prior to Hedgerow Works

- 3.3.8 Once the hedgerows have been marked out in each working area, the affected hedgerows will be subject to inspections for protected and invasive species. Where possible, these inspections shall be completed at least 4 months before the intended removal of the hedge. Where this lead-in time is not possible, it is accepted that delays to the programme may result if protected or priority species issues occur. During bird breeding season, checks will be required no more than 48 hours in advance of clearance works. The protected species inspection requirements are summarised below.
- 3.3.9 Trees in affected sections of hedgerow will be subject to prior ecological survey for bat roosts. These surveys will be guided by the findings of the 2012-2014 ground based assessments and climbing inspections. If bat roosts are found, additional precautions for these species will apply as set out in section 4.2. Licensable works with regard to bats will adhere to timescales detailed within the Natural England (NE) bat licence method statement. Further precautions are described in section 4.2.
- 3.3.10 Although dormouse was not found within the Order Limits, records are known in the wider area. As a precaution, hedges to be removed in areas within 1km of known dormouse records will be subject to a pre-construction check for the species, and appropriate precautions taken in accordance with methods described in section 4.3.
- 3.3.11 All hedges to be removed will be subject to inspection for badger setts. If these are found, additional precautions for these species will apply. Licensable works with regard to badger will adhere to timescales detailed within the NE licence method statement. Further precautions are described in section 4.6.
- 3.3.12 Where recorded during Phase 1 habitat surveys, bluebells along hedgerows will be translocated to adjacent sections of retained hedgerows (within the Order Limits) prior to hedgerow removal.

Retention of Bat Commuting Corridors

- 3.3.13 Hedgerow removal may affect bat commuting along the proposed underground cable route (including 132kV undergrounding sections) and the Sandford Substation works. Where hedgerow removal will result in gaps of more than 15m, temporary mobile linear features (temporary bat flyways) will be used to ensure that bat flight corridors are maintained at night during the active season (March to October inclusive) (see section 4.2).

3.4 Watercourse Crossings

- 3.4.1 This section of the BMS discusses the effects of the works on watercourses and sets out mitigation measures. The Watercourse Crossings Schedule is included as Appendix E. **Table 3.1** sets out the Main Rivers in the Proposed Development's working areas; Towerhead Brook is also included, although it is an Ordinary Watercourse.

Table 3.1 Main River Crossings Potentially Affected by the Proposed Development

Main River Crossings	Project Component/Working Area	Approx. Distance from Water Edge to Development
King's Sedgemoor Drain	400kV overhead line over sails. Lattice pylon working area >9m from river bank.	10m to nearest access road for 400kV overhead line. 25m to nearest 400kV pylon working area. 132kV pylon dismantling area adjacent to river.
Huntspill River	400kV overhead line over sails. T-pylon working area >9m from river bank.	105m to nearest 400kV pylon working area. 50m to scaffold working area. 132kV pylon dismantling area adjacent to river.
River Brue	400kV overhead line over sails. Scaffolding used to cross River. >9m from the river bank.	10m to scaffold. 125m to nearest 400kV pylon working area. 35m to 132kV pylon dismantling area.
River Axe	There is an option for a permanent 400kV cable bridge over the river or alternatively the cables will be installed via HDD. With either option, a temporary access bridge crossing will also be constructed.	5m to nearest access road for 132kV overhead line removal. 132kV pylon dismantling area adjacent to river. Cable bridge crosses river.
Lox Yeo River	HDD of 400kV underground cable route. A temporary access bridge crossing will also be constructed.	Temporary culvert to be installed in bank side for 400kV underground on-line haul road. 400kV underground HDD working area immediately adjacent to Lox Yeo. Scaffolding associated with 132kV removal crosses Lox Yeo.
Towerhead Brook*	A permanent 400kV cable bridge (or culvert) and emergency works access route will be constructed over the brook. A temporary access bridge crossing will also be constructed.	Temporary culvert to be installed in bank side for 400kV haul road. 400kV underground working area immediately adjacent to Towerhead Brook. Scaffolding associated with 132kV removal crosses Towerhead Brook.
Land Yeo	HDD of 132kV underground cable route (W Route). A temporary bridge will be constructed over the river for access.	5m to compound. Temporary culvert to be installed in bank side for 132kV undergrounding.
River Avon	400kV overhead line over sails. T-pylon working area significantly greater than 9m from river bank.	65m to 400kV pylon working area. 75m to 132kV dismantling working area.

Main River Crossings	Project Component/Working Area	Approx. Distance from Water Edge to Development
River Kenn	400kV overhead line over sails. T-pylon working area and scaffolding >9m from river bank. Access roads cross the River but are shown to use existing tracks.	400kV pylon working area encroaches onto river bank. Scaffold working area adjacent to river. 132kV dismantling working area also encroaches onto river.
Congresbury Yeo/River Yeo	400kV overhead line over sails. A temporary access crossing will be installed.	400kV EPZ working area crosses Congresbury Yeo. 25m to nearest 400kV pylon working area. Spanned by working area for 132kV dismantling.

*Towerhead Brook is not a Main River but has been included due to the proposed permanent crossing.

- 3.4.2 With the exception of a permanent cable bridge across the River Axe (option only) and cable bridge or culvert across Towerhead Brook and temporary construction access across the River Axe, Towerhead Brook, Lox Yeo River, the Land Yeo and Congressbury Yeo, there will be no direct impacts on the main rivers listed in **Table 3.1**. The underground cable will cross the River Axe either via HDD beneath the river bed or within a clear span permanent cable bridge over the river thereby avoiding direct impacts to the river. The other main rivers will be over sailed by the 400kV overhead line.
- 3.4.3 Where possible working areas will be greater than 9m away from rivers and ditches. Where this is not possible National Grid will follow Environment Agency PPG guidance on working in and near watercourses including applying for any necessary consents. Where SSSIs are designated for ditch habitats, the approach is detailed in section 2.3.
- 3.4.4 The proposed route oversails a number of smaller watercourses including numerous ditches, rhynes and streams, including several that fall within SSSIs.
- 3.4.5 In addition, the temporary access routes will require installation of culverted road crossings across a number of these field ditches and streams.
- 3.4.6 Many watercourses within the Order Limits support water vole. Otter are also known to be prevalent in the area. Watercourses in the area also support significant populations of fish and aquatic invertebrates. Given the sensitivity and mobility of these species, National Grid will manage each crossing point with caution and with reference to relevant species method statements provided in section 4 of this document. A summary of each crossing point and relevant ecological survey findings is provided at Appendix E.

Other Works near Watercourses

- 3.4.7 The potential for other adverse impacts arises where watercourses are affected by works adjacent to watercourses including de-watering of excavations, pumping into watercourses.

Watercourse Crossings Method Statement

- 3.4.8 This method statement applies to all watercourses, including field ditches that may be seasonally dry.

Marking Out Affected Areas and Micro Siting to Reduce Impacts

- 3.4.9 Prior to construction works commencing in each working area, all watercourse crossings will be marked out by the appointed contractor, and the ECoW will confirm this to ensure contractors operate within the agreed working limits. The lead-in period will allow sufficient time for inspections for water vole, otter and lesser silver water beetle to take place within the appropriate season, and for subsequent vegetation management to be implemented to humanely displace water vole. Please refer to sections 4.4, 4.5 and 4.12 of this document for species specific details.
- 3.4.10 Where the watercourse is in a designated wildlife site, the procedures for notification and liaison with regulatory bodies and landowners will apply, as detailed in section 2 of this BMS.

Inspections for Protected and Invasive Species Prior to Works

- 3.4.11 Once the watercourse crossings have been marked out in each working area, they will be subject to inspections for protected and invasive species. These inspections will be carried out between March-September to ensure that they are within the optimal time of year and that presence of certain species is not overlooked. Where this lead-in time is not possible, it is accepted that delays to programme may result if protected or priority species issues occur. The protected species inspection requirements are summarised below.
- 3.4.12 All watercourse crossings that will be temporarily or permanently affected by infrastructure (i.e. excluding watercourses that are only oversailed), will be subject to prior ecological survey for water voles and otters. If the species are found, the additional precautions for these species will apply. These precautions are described in sections 4.4 and 4.5 of this BMS.

Avoidance of Pollution and Sediment Loading

- 3.4.13 The CEMP (**Volume 5.26.1C**) provides details on soil management (a Soil Management Plan will be delivered via **Schedule 3, Requirement 6** of the DCO) and pollution prevention measures. **Volume 5.10.1** of the Environmental Statement should also be referred to with regard to pollution prevention and sediment loading.
- 3.4.14 Dewatering techniques will be used to prevent water from entering excavations.
- 3.4.15 Water containing silt will not be pumped or allowed to flow into watercourses. Silty water will be pumped or fed into the silt traps and settlement tanks to ensure only clean surface water is discharged to watercourses and ditches.
- 3.4.16 The amount of exposed ground will be minimised in the working area to reduce the risk of silty surface water runoff.
- 3.4.17 Soil will only be stockpiled in locations agreed with the ECoW, where practicable to be sited at least 10m away from any watercourses. Silt fences will be used around stockpiled soil where considered appropriate by the ECoW and the contractors. These measures will also require prior agreement with the EA as part of any Flood Defence Consent application.

- 3.4.18 Any spoil piles associated with undergrounding works or installation of construction haul roads will be seeded to minimise soil being washed into watercourses.
- 3.4.19 Access roads and approaches to river crossings will be regularly brushed and scraped by contractors. Only approved access roads will be used by the contractors in compliance with the Construction Traffic Management Plan (**Volume 5.26.5C**).
- 3.4.20 Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund will be impermeable to the material stored and of adequate capacity.
- 3.4.21 Leaking or empty drums will be removed from the site immediately and disposed of via a registered waste disposal contractor.
- 3.4.22 Suitable spill kits or absorbent materials will be held in the vicinity of the watercourses during works. In the event of any spillage, the spilt material should be contained and the ECoW notified immediately.

Biosecurity and Invasive Species

- 3.4.23 Where invasive aquatic species are encountered, the appointed contractor will implement measures to avoid the spread of these species, bearing in mind their local distribution. The contractor will not be required to eradicate the species. Options for avoiding the spread of invasive aquatic species including raking the species out and placing it in a dry stockpile away from working areas until it dies or removing it to tip.
- 3.4.24 Vehicles and machinery used at watercourse crossings infested with invasive species will not be moved to other watercourse crossing points until they have been cleaned and disinfected.

Protection of Retained Watercourses

- 3.4.25 All retained ditches will be protected from construction activity, vehicle movements and storage of materials through the installation of steel mesh fencing to prevent encroachment.
- 3.4.26 Where feasible, haul roads, working areas, laydown areas and general construction activities will maintain the 9m buffer along each from each ditch and watercourse.
- 3.4.27 Where maintenance of a 9m buffer cannot be achieved due to the nature of the works, further measures will be implemented as described below for installation of culverts.
- 3.4.28 Where SSSIs are designated for ditch habitats, (Puxton Moor, Nailsea, Tickenham and Kenn Moors and Biddle Street Yatton) the SSSI designation extends to a distance of 6m from bank top. The approach to avoiding ditches is detailed in section 2.3.
- 3.4.29 The above precautions will also apply to decommissioning of the works, including removal of temporary access culverts.

Installation of Culverts

- 3.4.30 No less than 48 hours before the installation of culverts or other infrastructure in the watercourse channel or banks, all vegetation will be trimmed to 75mm above

ground level, and all aquatic vegetation will be raked out and placed on watercourse bank tops outside the working area.

- 3.4.31 Any additional precautions required by the presence of protected species, notably water voles, will be implemented, as detailed in section 4.4 of this BMS.
- 3.4.32 Immediately prior to culvert installation, an appropriately licensed ecologist shall net the watercourse and remove any fauna to a nearby section of watercourse. Alternatively, a mini digger with a small bucket may be effective in transferring material, particularly that containing bottom-dwelling species of invertebrates. The approach at any crossing will take account of health and safety considerations. Further information is provided in section 4.12.
- 3.4.33 On completion of culvert installation, including headwalls, all disturbed areas shall be allowed to regenerate naturally. If works are in winter months (October to February inclusive), exposed soil on banks will be reinstated using turf or coir mats or other measures to reduce soil washing into the watercourse.
- 3.4.34 Where the culvert installation is temporary, the choice of grass seeding mix for the temporary spoil piles is at the contractor's discretion with the exception of reseeded within SSSIs or LWS. In SSSIs the seed mixes would be approved by Natural England. In LWSs seed mixes would be discussed with the LPA and the landowner. All seed mixes will be of native origin and will aim to result in a rapid and sustainable colonisation of exposed spoil. The choice of seed mix used will replicate existing habitats with equivalent species mixes.

Reinstating Watercourses within 400kV or 132kV Underground Cables Swathe

- 3.4.35 Where underground cables are being installed beneath smaller watercourses and field ditches, cable trenches would be backfilled and the natural channel form reinstated, immediately following the installation of cable ducts.
- 3.4.36 Where a pipe or box culvert has been temporarily used in order to install cable duct formations beneath, then these would be removed (see the relevant section below).

Removal of Temporary Culverts or Bridges and Reinstatement of Watercourses

- 3.4.37 Prior to removal of culverts, the ECoW will supply a protected and invasive species assessment of the watercourse, including a survey of banks and channel within order limits up to 25m from the culvert. This assessment will be based on a survey at an appropriate season no more than 12 months prior to culvert removal and will set out measures for dealing with protected and invasive species, as detailed elsewhere in this BMS.
- 3.4.38 No less than 48 hours before the removal of culverts or other infrastructure in the watercourse channel or banks, all vegetation within 5m of the culvert mouths will be re-checked by the ECoW or assistant ecologist before strimmed to 75mm above ground level, and all aquatic vegetation will be raked out and placed on watercourse bank tops outside the working area.
- 3.4.39 Any additional precautions required by the presence of protected species (identified either during the survey or the re-check), notably water voles and great crested newts will be implemented as detailed in section 4.4 and 4.9 of this BMS.

- 3.4.40 Immediately prior to culvert removal, an appropriately licensed ecologist will inspect the site and will net the accessible channel and remove fauna to a nearby section of the watercourse.
- 3.4.41 The RAMS for the Installation of Pipe and Box Culverts at Water Crossing Along the Cable Route (at **Volume 5.3.2, Appendix 3G**) states that to remove temporary culverts, prior to main works the flow of the watercourse needs to be diverted around the section of temporary culvert. The watercourse will be bunded at either end of the culvert length to be installed using bags filled with agreed material. Water backing up at the upstream bund shall be pumped directly from this point to the far side of the downstream bund where the water will continue on its course downstream. The enclosed bunded area will be pumped out downstream until clear of water and the bund walls altered until minimal water ingress has been achieved. An area of sufficient length will be clear in which the works can be carried out.
- 3.4.42 Soil, granular fill and single-sided filter materials and geotextile membranes will be carefully removed to expose the culvert, with soil being stored in stockpiles for re-use. Any concrete header walls will also be removed off-site. The culvert will be lifted out with an excavator and the concrete bed and any granular fill below removed down to and including the geotextile membrane originally laid. The culvert, concrete and granular fill and geotextile membrane will be taken off-site and suitably disposed of. Within 7 days of the culvert being removed, the banks and channel will be re-profiled, to match the adjoining stretches of watercourse, providing that any reinstatement in publicly accessible areas is at a gradient of no steeper than 1:3.
- 3.4.43 Temporary bridges will be removed from site in sections using a crane. The concrete footings, granular fill and geotextile membranes to either side of the watercourse will be carefully excavated and removed off-site, and sub-soil and top-soil replaced. Fill materials used to create lead-up ramps (where bridges are set higher than the surrounding ground-level) will also be removed.
- 3.4.44 Once reinstatement has been completed, the bund walls will be removed and the pumps stopped.

Re-establishing Vegetation and Enhancing Ecological Habitat on Reinstated Watercourses

- 3.4.45 Where short stretches of smaller watercourses and field ditches are affected and sufficient native vegetation remains in the adjacent channel, vegetation will be allowed to re-colonise naturally. Alternatively, re-seeding and re-planting of the banks and channel shall be carried out using floral mixes in line with Flora of the Bristol Region, with the agreement of the landowner. The use of silt fencing and bank protection will be considered during the regeneration phase.
- 3.4.46 Depending on local conditions, consideration will be given to planting sections of watercourses with specimens translocated from the immediate up and downstream reaches of the watercourse in order to minimise the risk of introducing invasive species.

Detailed Design for Watercourse Reinstatement

- 3.4.47 The detailed design and reinstatement of small watercourses and drainage ditches will be informed by pre-condition surveys, including topographical and photographic

surveys, which will provide an accurate record of the existing condition of the watercourse.

- 3.4.48 The detailed designs for watercourse reinstatement and realignment will be prepared in consultation with a hydro-geomorphological specialist as part of the Drainage Management Plan, which will be submitted to and approved by the relevant planning authority or other relevant statutory body prior to the commencement of authorised development for that stage (**Schedule 3, Requirement 6** of the DCO). The ECoW will also provide input into the detailed designs.

3.5 Invasive Plants

- 3.5.1 The Phase 1 habitat survey identified the presence of a number of non-native invasive species included on Schedule 9 of the WCA. Details of the locations of these species are presented within **Volume 5.8.3, Figure 8.58**.

Potential Impacts

- 3.5.2 It is an offence under the Wildlife and Countryside Act 1981 (as amended) to '*plant or otherwise cause to spread in the wild*' species listed on Schedule 9 of the W&CA. This includes where the spread of species is a result of spreading or transferring soil from one area to another.
- 3.5.3 The Environmental Protection Act 1990 also imposes a duty of care on persons concerned with controlled waste. This includes any materials incorporating species such as Japanese knotweed, material including soil, general waste and ash arising from the burning of Japanese knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed, Himalayan balsam or Australian swamp stonecrop may lead to prosecution under Section 33 and 34 of the Environmental Protection Act 1990 and Section 14 of the Wildlife and Countryside Act 1981 (as amended).

Invasive Terrestrial Plants Method Statement

- 3.5.4 Generic methods of working would be adopted as detailed in section 2 of this BMS. Further guidance as detailed within the CEMP (**Volume 5.26.1C**) and Waste Management Plan should also be adhered to with regard to removal and disposal of non-native invasive species.
- 3.5.5 Pre-construction surveys will be undertaken in advance of each phase of the works where vegetation removal is required, coupled with monitoring if required. This will establish an accurate ecological baseline for Japanese knotweed, Himalayan balsam and any other invasive species within the working area.
- 3.5.6 Prior to construction works commencing, a 7m exclusion zone will be erected around all stands of Japanese knotweed. There are currently no known areas of Japanese knotweed within 7m of the Order Limits.
- 3.5.7 An exclusion zone will also be erected around stands of Himalayan balsam. This species is currently known within the Order Limits at the River Brue (East Huntspill) and West Brook (Hinkley Point C). The exact width of these exclusion zones will be determined by the ECoW.

- 3.5.8 The exclusion zone will be demarcated by fencing or tape and ‘Invasive Species’ warning signage to denote species and restrictions imposed. Construction works resulting in ground or soil disturbance will be avoided where feasible within the exclusion zones, as will tracked and/or heavy machinery.
- 3.5.9 If vegetation clearance works are required within the exclusion zones; cut vegetation and associated soils within the areas containing invasive species will be treated as contaminated waste and appropriately disposed of accordingly. This may require disposal at a licensed landfill site.
- 3.5.10 Equipment used for vegetation cutting will be washed in designated areas after use to ensure there is no spread of invasive species. The CEMP (**Volume 5.26.1C**) will be adhered to with regard to on site arrangements for washing equipment.

3.6 Invasive Aquatic Plants

- 3.6.1 The Phase 1 habitat survey identified the presence of a number of non-native invasive species included on Schedule 9 of the WCA. Details of the locations of these species are presented within **Volume 5.8.3, Figure 8.58**.

Potential Impacts

- 3.6.2 It is an offence under the Wildlife and Countryside Act 1981 (as amended) to ‘*plant or otherwise cause to spread in the wild*’ species listed on Schedule 9 of the W&CA. This includes where the spread of invasive species is a result of spreading or transferring soil from one area to another.

Method Statement

- 3.6.3 Removal and management of aquatic invasive species will be in accordance with current Environment Agency (EA) Guidance.
- 3.6.4 Generic methods of working will be adopted as detailed in section 2 of this BMS. The watercourse crossings method statement as detailed in this BMS will also be referenced with regard to management of aquatic invasive species.
- 3.6.5 Further guidance as detailed within the CEMP (**Volume 5.26.1C**) and Waste Management Plan (**Volume 5.26.2C**) will also be adhered to.
- 3.6.6 Removal of aquatic invasive species will also consider the implications for associated species water vole, otter, fish and invertebrates. The relevant method statements for these species are detailed in sections 4.4, 4.5, 4.11 and 4.12 of this BMS.
- 3.6.7 Pre-construction surveys will be undertaken in advance of each phase of the works where vegetation removal is required, coupled with monitoring if required. This will establish an accurate ecological baseline for species such as curly waterweed and parrots feather or other invasive species within the working area.
- 3.6.8 Removal of these aquatic invasive species will be dealt with according to species, location e.g. within a SSSI and in adherence to EA guidance for the species concerned. Methods used may include raking the species out and placing it in a dry stockpile along the bank away from working areas until it dies or removing it to tip or spraying.

- 3.6.9 Vehicles and machinery used at watercourse crossings infested with invasive species shall be not be moved to other watercourse crossing points until they have been cleaned and disinfected in accordance with the relevant EA guidelines.
- 3.6.10 Use of herbicides along watercourse is subject to EA permit and will require consultation with the EA prior to use.
- 3.6.11 If necessary a precautionary zone will be established in working areas adjacent to invasive aquatic species. This will be demarcated by fencing or tape and 'Invasive Species' warning signage to denote species and restrictions imposed. The extent of any zone will be determined on a case by case basis but may include areas where invasive species are temporarily stockpiled or where works vehicles may be contaminated.
- 3.6.12 Equipment used for vegetation raking, netting or cutting will be washed in designated areas after use to ensure there is no spread of invasive species. The CEMP (**Volume 5.26.1C**) will be adhered to with regard to locations and on site arrangements for washing equipment.

4 SPECIES

4.1 Birds

- 4.1.1 This section of the BMS summarises the potential impacts of the Proposed Development on birds. The section also provides a description of the type of works that may affect habitats for birds and provides proposals for working period method statements.

Bird Survey Summary

- 4.1.2 In most locations only small numbers of waders, wildfowl and raptors were found to use the survey area during winter. Mute swan and mallard were the most abundant wildfowl species adjacent to the Proposed Development. The largest concentration of wading birds was recorded at Portbury Wharf, where a group of 16 lapwing, 22 tufted duck, 16 wigeon, 12 gadwall, 9 shoveler, 5 mallard and 2 shelduck were recorded at the main pool during one visit. Small numbers of teal were also recorded on rhynes and drains within Nailsea Moor and Puxton Moor. Small groups of lapwing were recorded on Huntspill Moor, Puxton Moor and Nailsea Moor. Small numbers of snipe were recorded in scattered localities throughout the survey area.
- 4.1.3 Farmland bird species recorded within the survey area included low numbers of dunnock, linnet, reed bunting skylark and starling. Aggregations of starling were recorded in a few areas, with the largest groups recorded on Huntspill Moor, Woolavington and north of Mark.
- 4.1.4 The majority of the land assessed was found to hold low potential for waders and wildfowl. A small number of fields were assessed as holding moderate potential for waders and wildfowl. Only 2 fields or field groups were assessed as holding high potential for wildfowl (including Portbury Wharf and Avonmouth Sewage Works).
- 4.1.5 During the breeding bird survey the areas found to hold the greatest abundance of breeding birds included land adjacent to Huntspill River, south of Southwick, south of Rooks Bridge, west of Yatton, Portbury Wharf and Hallen Marsh. Schedule 1 species recorded include kingfisher, Cetti's warbler, common crossbill and barn owl.
- 4.1.6 A pair of kingfisher was recorded on the Lox Yeo River during the breeding bird survey suggesting this species may breed near to this location. A single kingfisher was also recorded flying along rhynes on Nailsea Moor. Cetti's warbler was recorded in a few localities throughout the Proposed Development area with concentrations at Portbury Wharf. A single common crossbill was recorded in one location in woodland between the Chummock Wood and Mogg's Wood at Tickenham Ridge. Barn owl was recorded at Portbury Wharf and is known to breed within nest boxes in that location.
- 4.1.7 Yatton and Congresbury Wildlife Action Group (YACWAG) is known to have installed a number of barn owl nest boxes in the Yatton, Congresbury Moor and Kenn Moor area. National Grid will consult YACWAG to obtain the most up to date locations of these prior to works being undertaken.
- 4.1.8 Generally low numbers of flight lines of wildfowl were recorded flying within 250m of the proposed overhead line. Wildfowl species recorded included mallard, mute swan, teal and shelduck. Wader species recorded included lapwing, golden plover, snipe, redshank and curlew. The majority of wader flight lines recorded were

lapwing, however most of these flight lines were recorded more than 250m from the Proposed Development. The majority of the lapwing which flew within 250m of the Proposed Development flew high above the height associated with collision risk. A relatively large number of golden plover flight lines were also recorded, however this concerned a single group of birds that circled high to the south west of the route on one occasion close to dusk during 48 hours of survey.

- 4.1.9 Two radar studies were undertaken for wind farm projects within the Huntspill area by FERA during 2011. These were carried out at the same time as vantage point surveys undertaken by TEP. The radar studies indicate that there may be movements of birds between the Somerset Levels and Moors and the Severn Estuary towards the southern end of the proposed connection (between Bridgwater and Highbridge). These movements may potentially involve some SPA designated species, notably small ducks such as teal and wigeon. Additional analysis of the same data undertaken by FERA during 2013 indicated a movement of duck species across the Proposed Route near to the River Brue and across the section between Southwick and Mark.
- 4.1.10 Although the radar study indicates movements by wildfowl, the number of birds that made the movements, the species' involved, the height at which they fly and the frequency of these movements are not known.

Potential Impacts

- displacement during construction works (potentially affecting both breeding and non-breeding birds);
 - habitat loss (both breeding and non-breeding birds); and
 - risk of collision with overhead cables and towers resulting in bird mortality, during migration flights, or during daily movements between roosting and feeding areas, or during normal daily flight patterns. This potentially affects raptors, herons, waders and wildfowl most frequently during winter and passage periods.
- 4.1.11 Full details of survey methods, limitations and results of the bird surveys are presented within the ES (**Volume 5.8.2, Appendix 8F**) and are also shown in **Volume 5.8.3, Figures 8.7 to 8.26** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting **Volume 5.28.2, Appendix 28A** and **Volume 5.28.3.1, Figures 8.17B to 8.19B**.

Bird Method Statement

- 4.1.12 The proposals for bird mitigation are set out in **Table 4.1**.

Table 4.1 Bird Method Statements

Potential Impact	Disturbance or destruction of active bird nests in hedges, shrubs, trees or dense vegetation.
Area Affected/Location	All hedges, shrubs, trees or dense vegetation within Proposed Development.
Time Period during which effect may occur	March to August inclusive (bird breeding season).

Mitigation Measure Proposed	
All hedges, shrubs, trees or dense vegetation will be retained as far as is practicable. Where these measures are not possible and works are needed to be carried out during the bird breeding season, all areas to be affected will be checked for evidence of nesting birds no more than 48hrs prior to the vegetation removal or tree felling works taking place. If any active bird nests are discovered these will be given a minimum standoff of 5m (this may increase depending on species, proposed works and location) where no potentially disturbing works will take place until the young have fledged and the nest vacated. A second nesting bird check would then be undertaken to ensure the tree or vegetation does not contain any further active nests prior to felling or removal works taking place.	
Potential Impact	Disturbance, destruction of active nests of ground nesting birds
Area Affected/Location	Open fields within Nailsea Moor, Kenn Moor, Puxton Moor and Tickenham Ridge.
Time Period during which effect may occur	March to August
Mitigation Measure Proposed	
Where the development passes through open fields within the listed locations during the period where an effect may occur, a nesting bird check would be carried out by an ecologist to establish whether ground nesting birds such as lapwing and skylark are nesting within that location. If active bird nests are located, the nest would be marked and all potentially disturbing works within at least 20m of the nest location would be stopped until the active nest had been vacated. Prior to works in the area commencing a further nesting bird survey would be required to establish that no active bird nests were present within the area.	
Potential Impact	Barn owl Disturbance, destruction or displacement of active barn owl nests
Area Affected/Location	Any works within 50m of barn owl boxes. Any mature trees proposed for removal (locations)
Time Period during which effect may occur	Any time of year
Mitigation Measure Proposed	
Barn owls are protected under Schedule 1 of the Wildlife and Countryside Act and so are protected from disturbance during the breeding season. Barn owls may breed at any time of year. Where works are proposed to be undertaken within 50m of a known barn owl box, the box will be inspected for signs of current nesting activity by a licensed barn owl surveyor a maximum of 24hrs prior to works commencing. Should barn owls be found to be nesting, no works will take place within a minimum disturbance buffer distance of 50m surrounding the nest location while the nest is active. Retained trees with the potential to support breeding barn owl may fall within disturbance distances of works. These will be identified by a licensed ecologist and covered by the measures outlined in this method statement.	

Any nest boxes lost through the development would be re-instated on a 2:1 basis. The replacement nest boxes will be sited in appropriate habitat as near as possible to the locations of the nest boxes to be removed. There is one barn owl nest box at Portbury Wharf Nature Reserve which it is known will be lost if Option B is taken forward. This will be re-instated as detailed above. Within Portbury Wharf Nature Reserve, if it is not possible to achieve a minimum 100m buffer from barn owl boxes where breeding has been confirmed, an additional barn owl box will be installed in a nearby location but away from works prior to works commencing.	
Potential Impact	Cetti's Warbler Disturbance or destruction of active Cetti's Warbler nests
Area Affected/Location	Any removal of dense vegetation or scrub throughout the Proposed Development.
Time Period during which effect may occur	March to August
Mitigation Measure Proposed	
Cetti's warbler is protected under Schedule 1 of the Wildlife and Countryside Act and so is protected from disturbance during the breeding season. Any removal of dense vegetation within the period March to August will require a nesting bird check no more than 48hrs prior to works taking place. If Cetti's warbler is suspected to be nesting, a licensed ecologist may be required to check the nest directly. If Cetti's warbler is breeding, a minimum standoff of 20m will be applied to the nest. This disturbance buffer may be increased at the discretion of the licensed ecologist depending on the proposed works and the habitats present.	
Potential Impact	Kingfisher Disturbance and destruction of active kingfisher nests
Area Affected/Location	Any works within 8m of a watercourse.
Time Period during which effect may occur	March to September
Mitigation Measure Proposed	
Kingfisher is protected under Schedule 1 of the Wildlife and Countryside Act 1981 and so is protected from disturbance during the breeding season. A standoff of at least 5m will be applied to all watercourses. This will be increase to 9m in any SSSI. A kingfisher survey will be undertaken by an ecologist prior to works within 8m of a watercourse in the detailed locations. If kingfisher is suspected of nesting, a further survey will be undertaken by a licensed ecologist a maximum of 24hrs prior to works taking place to establish whether the kingfisher nest is active. If kingfisher is established to be breeding, a minimum standoff of 20m will be applied to the nest. This disturbance buffer may be increased at the discretion of the licensed ecologist depending on the proposed works and the habitats present.	

Potential Impact	Common Crossbill Disturbance or destruction of active common crossbill nests
Area Affected/Location	Any woodland between the Chummock Wood and Mogg's Wood, near to Cadbury Camp Lane.
Time Period during which effect may occur	Any time of year
Mitigation Measure Proposed	
Common crossbill is protected under Schedule 1 of the Wildlife and Countryside Act and so is protected from disturbance during the breeding season. If any tree removal is required from this section a nesting bird check for common crossbill will be undertaken of the trees no more than 48hrs prior to works taking place. If common crossbill is suspected to be nesting, a licenced ecologist will check the nest directly. If common crossbill is established to be breeding, a minimum standoff of 20m will be applied to the nest location. This disturbance buffer may be increased at the discretion of the licenced ecologist depending on the proposed works and the habitats present	
Potential Impact	Habitat Loss (breeding and non-breeding birds)
Area Affected/Location	All hedges, shrubs, trees or dense vegetation within Proposed Development. Any locations where nest boxes may be lost through development. Any wet grassland areas (e.g. Nailsea Moor, Kenn Moor)
Time Period during which effect may occur	Any time of year
Mitigation Measure Proposed	
All hedges, shrubs, trees or dense vegetation will be re-instated following works through replacement planting Any nest boxes lost through the development will be re-instated on a 2:1 basis. Replacement nest boxes will be sited in appropriate habitat as near as possible to the locations of removed nest boxes. All watercourses will be avoided where possible and alterations to hydrology minimised. Any loss of wet grassland habitat will be re-instated following development works.	
Potential Impact	Disturbance/displacement to wintering birds
Area Affected/Location	Portbury Wharf
Time Period during which effect may occur	September to April
Mitigation Measure Proposed	
Any works within 250m of the pools at Portbury Wharf will avoid the period September to April. This period is when wintering birds are especially sensitive to losing feeding time due to disturbance. Any vegetation clearance work will target September to avoid nesting and wintering birds but if it is not possible to complete clearance works in one month then any clearance	

between October and March will avoid periods of prolonged freezing conditions when birds are more energetically stressed. Vegetation clearance works will not be undertaken following seven consecutive days of frozen conditions in line with JNCC guidance.	
Potential Impact	Potential future displacement
Area Affected/Location	Hallen Marsh
Time Period during which effect may occur	September to April
Mitigation Measure Proposed	
The new 400kV overhead line will pass through the eastern and northern edge of Hallen Marsh. This area is proposed as offsetting habitat for any future proposals at Avonmouth and Severnside that affect the Severn Estuary SPA and Ramsar bird populations. Overhead lines may have a displacement effect on some SPA bird species and the presence of the overhead line could reduce the area of habitat available. Due to the location of the proposed line adjacent to existing linear features such as roads, tracks and hedgerows, this effect is likely to be minimal. However, to compensate for any potential effect, National Grid will commit funds to the Severnside mitigation area fund for habitat creation works by Bristol City Council as and when tenancy issues on the land allow.	
Potential Impact	Impacts on birds nesting opportunistically in working areas
Area Affected/Location	Any works area within development.
Time Period during which effect may occur	Breeding season – March to August
Mitigation Measure Proposed	
If any sections of bare ground of more than 0.5ha are left undisturbed (more than 50m from an active working area) for more than 1 week during the breeding season, the area will be checked by an ecologist for any opportunistic nesting bird species. If nesting birds are found, measures appropriate to the species, location and proposed works will be implemented as advised by the ecologist to ensure nests are not destroyed or disturbed while active.	
Potential Impact	Collision risk to wintering birds
Area Affected/Location	Three areas identified to install bird flight diverters South of Mark. Monitoring to be carried out in additional sections south of the Mark. Bird flight diverters will be fitted at Hallen Marsh if a trigger is met.
Time Period during which effect may occur	Winter and Spring/Autumn migration periods.
Mitigation Measure Proposed	

Bird diverters are proposed at three locations in the south of the new 400kV connection: Pylon ZGA1 through to Pylon ZGA3 (2 spans), Pylon LD2 through to Pylon LD5 (3 spans), Pylon LD8 through to Pylon LD11 (3 spans).

National Grid will undertake bird collision monitoring along the connection south of Mark (pylon LD17). The detailed monitoring strategy and bird mortality thresholds are set out in **Volume 5.33.1** and will be secured by **Schedule 3, Requirement 13** of the DCO.

Bird diverters are not proposed at Hallen Marsh due to low levels of bird use in this area. Following proposed future habitat enhancement works at Hallen Marsh the use of this area by wintering birds may increase. Therefore National Grid has committed to fitting bird diverters at Hallen Marsh when a trigger associated with habitat enhancement works has been met. The details are set out in **Schedule 3, Requirement 13** of the DCO.

Bird diverters are not proposed at Portbury Wharf. Under either route option existing overhead lines at Portbury Wharf will be removed. Under Option B the new 400kV overhead line will be southeast of habitat used by SPA birds. Vantage Point surveys indicate little inland movement of collision risk species from Portbury Wharf Nature Reserve across the proposed 400kV route. Should bird use of the area change in the future, National Grid will implement the National Grid Bird Diverter Protocol which is presented at **Volume 5.8.2, Appendix 8G**.

Vantage point surveys confirm that few bird movements cross the proposed location of the overhead line at the River Avon. This is likely to be due to the presence of the M5 bridge which alters bird flight behaviour reducing potential collision risk. There are currently two existing overhead lines that cross the River Avon at this point and the new line will replace one of these. Should bird use of the area change in the future, National Grid will implement the National Grid Bird Protocol to fit bird diverters as laid out in **Volume 5.8.2, Appendix 8G**.

4.2 Bats

- 4.2.1 This section of the BMS summarises the potential effects of the Proposed Development on bats. The section also provides a description of the type of works that may affect habitats for bats and provides proposals for working period method statements.
- 4.2.2 Loss of tree roosts will be carried out under NE licence and this section summarises the licensed mitigation. The mitigation for bats does however, go beyond the licenced works in order to ensure that there are no adverse effects on the various SAC's, designated for their bat interest.
- 4.2.3 Populations of bat species known to be roosting within the Order Limits will be maintained and their foraging and commuting habitat enhanced.

Bat Survey Summary

- 4.2.4 A data search identified numerous records of common bat species such as common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's bat (*Myotis daubentonii*), Natterer's bat (*Myotis nattereri*), brown long-eared bat (*Plecotus auritus*), noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*), whiskered bat (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*) along the route corridor.
- 4.2.5 21 bat tree roosts were identified during surveys in 2013 and a further 6 tree roosts in 2014. Design changes have sought to avoid as many of these roosts as possible and losses have been reduced to 6 tree roosts under Option A and 7 if Option B is taken forward. A draft licence application has been submitted to Natural England and covers the approach to removed and retained roosts.
- 4.2.6 Three SACs designated for their bat interest are within 10km of the Proposed Development. These are shown in **Table 4.2**:

Table 4.2 SACs with Bats as Qualifying Features

Name	Description	Distance from Proposed Development
North Somerset and Mendip Bats SAC	The site is designated for its semi-natural dry calcareous grasslands, Tilio-Acerion forests and cave systems which provide important hibernation habitat for lesser and greater horseshoe bats and maternity habitat for greater horseshoe bats.	Within 500m of Proposed Development in Section C Within 1.5km north of the line entries at Churchill substation Within 3km east of Section D
Mendip Limestone Grasslands SAC	The site is designated for its European dry heaths, semi-natural dry calcareous grasslands, Tilio-Acerion forests and cave systems. It is also designated for greater horseshoe bat	150m from cable route in Section C Within 100m of access route and construction compound in Section C
Exmoor and Quantock Oakwoods SAC	This site is designated in part for the presence of barbastelle and Bechstein's bats.	Over 6km from Hinkley Point C line entries in Section H

- 4.2.7 Details of survey methods, limitations and results of the bat surveys are presented within **Volume 5.8.3, Figures 8.28 to 8.36, Volume 5.8.2, Appendix 8H** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting **Volume 5.28.2, Appendix 28B** and **Volume 5.28.3.1, Figure 8.28B**.

Potential Impacts

- 4.2.8 Where the Proposed Development directly affects habitat suitable to support bats there is potential for the following impacts to occur:
- direct death or injury to bats during tree felling works;
 - loss of roost opportunities including the direct loss of 6 (Option A), or 7 (Option B) tree roosts;
 - obstruction to open foraging habitat;
 - loss of foraging habitat;
 - fragmentation of daily and seasonal commuting corridors via hedgerow or tree loss; and
 - temporary disturbance from construction activity including the effects of lighting, particularly in association with the use of artificial lighting within 4km of horseshoe bat roosts.
- 4.2.9 It is likely that there will be short term disturbance at various stages in the construction programme. The level of disturbance will depend on the location of the tree in relation to the type of works taking place. Initially disturbance may be caused by construction of temporary access roads, substation works and CSE compounds. Disturbance to bat roosts may also occur during the construction of the overhead line and underground cable routes as well as during the removal of the 132kV existing overhead lines but to varying degrees. Short term disturbance will affect all 27 bat roosting trees identified to differing degrees.

Bat Method Statement

- 4.2.10 Generic methods of working would be adopted as detailed in sections 3.2 and 3.3 of this BMS. Refer to Bat Tree Roost plans (**Volume 5.8.3, Figure 8.28** and **Volume 5.28.3.1, Figure 28B**) for approximate locations of the groups of trees and individual trees.
- 4.2.11 All works to known roosts will be carried out under Natural England licence. The bat licence method statement must be referred to in concurrence with this BMS. A draft bat licence has been approved by NE EPS licensing team. If the DCO is granted a full licence will be applied for in line with NE approach to NSIP EPS licensing.
- 4.2.12 Pre-construction re-inspection surveys comprising aerial assessments and if necessary, bat emergence surveys will be undertaken as required in advance of each phase of the works throughout the duration of construction of the Proposed Development. If required, the bat emergence surveys will be undertaken at an appropriate time of year for bats (May to September inclusive). The purpose of the surveys will be to establish whether roosting bats are present in any of the trees

due to be felled. The surveys will comply with contemporary Bat Conservation Trust (BCT) Guidance.

- 4.2.13 AWT is known to have installed a number of bat boxes in the Portbury Wharf Nature Reserve. National Grid will consult AWT to obtain the most up to date locations of these prior to pre-construction surveys being undertaken.
- 4.2.14 Should the results of these surveys identify any previously unrecorded bat roosts, the NE licence will be amended to cover tree removal to facilitate the construction works.
- 4.2.15 Following the surveys a review of the proposed works will be undertaken. Where possible, works including access tracks will be micro sited to ensure works are not undertaken within 30m of a bat roost.
- 4.2.16 Prior to construction works commencing a buffer area will be marked out around all roosts within 30m of works using high-visibility tape or fencing as appropriate. Table 4.3 presents the locations and potential impacts of the 27 roosts to be affected by the Proposed Development.

Table 4.3 Roost Locations and Potential Impacts

Tree Number	Grid Reference	Bat Species	Common name	Construction Impact
1a	ST 48641 75111	<i>Myotis nattereri</i>	Natterer's	The tree falls within the working area for the 132kV pylon removal. Works can avoid any direct impact on the tree. The tree will not be directly impacted.
17	ST 34132 41952	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	The tree is within a hedgerow lying adjacent to a temporary access road. The access road will be realigned to avoid the tree. The tree will not be directly impacted by works.
21aB	ST 33036 40920	<i>Myotis mystacinus</i>	Whiskered	The tree is in a woodland adjacent to the proposed 400kV overhead line. The tree will not be directly impacted by works.
36	ST 35633 44857	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	The tree is in the 400kV pylon working area and the electrical safety clearance from the proposed 400kV overhead line. The tree will need to be removed.

Tree Number	Grid Reference	Bat Species	Common name	Construction Impact
63	ST 36583 48337	<i>Myotis spp.</i>	Myotis	The tree lies beneath the proposed 400kV overhead line and is in the electrical safety clearance. Installation of road crossing scaffolding may also directly impact the tree. The tree will need to be removed.
86a	ST 48519 75756	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	The tree is in a compound area and lies adjacent to a 132kV access road. The compound and access road can be re-located to avoid the tree. The tree will not be directly impacted by the works.
91a	ST 48483 76294	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	The tree lies beneath the proposed 400kV overhead line under Option B and is in the electrical safety clearance. The tree will need to be removed under Option B only.
106a	ST 51522 78013	<i>Pipistrellus spp.</i>	Pipistrelle	The tree lies adjacent to the limits of deviation (LoD) of the 400kV overhead line and restriction of pylon location within the LoD will ensure the tree is not within the electrical safety clearance zone. The tree will not be directly impacted by the works.
115a	ST 48577 76392	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	The tree will be avoided by all works and will not be affected.
118a	ST 48525 76510	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	The tree is between the 'equipotential protection zones' if alternative route (Option B) although these may be able to be adjusted to avoid tree loss. However, it is also on the edge of the 400kV overhead line swathe for alternative route (Option B). The tree may need to be removed under Option B only.
122	ST 39593 57400	<i>Pipistrellus spp.</i>	Pipistrelle	The tree will be avoided by all works and will not be affected.
135a	ST 45798 69996	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	The tree will be avoided by all works and will not be affected.

Tree Number	Grid Reference	Bat Species	Common name	Construction Impact
183a	ST 41319 59726	<i>Pipistrellus spp.</i>	Pipistrelle	The tree will be avoided by all works and will not be affected.
191	ST 41208 59738	<i>Pipistrellus spp.</i>	Pipistrelle	The tree lies along Towerhead Brook adjacent to a permanent bridge and the 400kV underground cable route. The tree will not be directly impacted by the works.
250	ST 41584 60491	<i>Pipistrellus spp.</i>	Pipistrelle	The tree falls within the new Sandford Substation location. The tree will need to be removed.
366	ST 41956 67963	<i>Plecotus spp.</i>	Long eared	The tree lies beneath the proposed 400kV overhead line and is in the electrical safety clearance. The tree will need to be removed.
367	ST 41962 67959	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	The tree lies beneath the proposed 400kV overhead line and is in the electrical safety clearance. The tree will need to be removed.
415	ST 44321 69706	<i>Pipistrellus spp.</i>	Pipistrelle	The tree lies adjacent to the limits of deviation (LoD) of the 400kV overhead line but not within the electrical safety clearance. The tree will not be directly impacted by the works
461	ST 47039 72304	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	The tree lies close to the access road for the 132kV removal and for the 400kV construction. The access roads will be re-aligned to avoid the tree. The tree will not directly be impacted by the works.
553	ST 37442 52684	<i>Myotis nattereri</i>	Natterer's	The tree will be avoided by all works and will not be affected.
653	ST 50536 75935	<i>Pipistrellus spp.</i>	Pipistrelle	The tree lies beneath the proposed 400kV overhead line on preferred route (Option A) and is in the electrical safety clearance violation. The tree will need pollarding only if preferred route (Option A) is built which may result in loss of roost.

Tree Number	Grid Reference	Bat Species	Common name	Construction Impact
735	ST 45283 70695	<i>Pipistrellus spp.</i>	Pipistrelle	Tree retained.
693	ST 40586 58431	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Tree retained.
690	ST 37929 54723	<i>Pipistrellus spp.</i>	Pipistrelle	Tree retained.
685	ST 36589 47535	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Tree retained. Pruning may be required in 10 years.
729	ST 42491 68424	<i>Myotis nattereri</i>	Natterer's	Tree retained but pruning will be required.
691	ST 38015 55803	<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Tree retained.

- 4.2.17 Where trees containing roosts require felling, a programme of exclusion to ensure that no bats remain within the roost prior to felling will be implemented. This will be undertaken in accordance with the methods detailed within the NE licencing requirements.
- 4.2.18 Roost trees will be removed using section felling and will be undertaken in the presence of a licensed ecologist and the ECoW (unless the ECoW is a licensed bat worker and can supervise the works independently). The roost will be destroyed using controlled methods either by hand or with appropriate machinery.
- 4.2.19 Where removal of a bat tree roost or significant pruning is necessary, 3 replacement boxes will be installed on a mature tree close to the original roost. Boxes will be fixed to ensure no loss of roost structure or type. Where orientation of original roosting feature is specific at least one box will be in this direction. Hibernation boxes will be included where the cavity in the lost tree roost is greater than 40cm deep.
- 4.2.20 Specifications regarding design and type of artificial roost are detailed with the licence method statement.
- 4.2.21 Roosts will only be destroyed at a time of year when bats are not present (assessed by a conclusive check), or avoiding the most sensitive seasons for that type of roost. Breeding roosts would not be subject to any destruction during the breeding season (April-August inclusive). Hibernation roosts would not be subject to any destruction within the hibernating season (November to March inclusive).
- 4.2.22 Individual and low numbers of bat droppings were found at Ashtrees Farm but emergence surveys in 2014 did not record any bats using the buildings. The farm buildings will be oversailed by the 400kV overhead line and will be demolished as part of the Proposed Development. Bat roost surveys generally have to be updated after a year; therefore repeat surveys will be undertaken in the active season prior to demolition. If updated surveys identify roosting bats, National Grid will maintain

the favourable conservation status of the bats by retaining and enhancing one of the farm buildings as a bat roost.

- 4.2.23 Any bat roost subject to works under licence will be monitored during and after the works as per the NE bat licence method statement.
- 4.2.24 Significant impacts on bats are anticipated from the 400kV underground cables installation in the Mendip Hills and construction of Sandford Substation. The approach to maintaining bat flight paths, foraging habitat and minimising lighting impacts during construction are set out in section 2.2 of this report under the approach to the North Somerset and Mendips Bat SAC and Mendips Limestone Grassland SAC.
- 4.2.25 Linear stretches of vegetation will be maintained as 2m high lines of scrub and hedge where such features are crossed by the overhead line. This will maintain bat commuting corridors during the construction works.
- 4.2.26 Other than the areas of permanent losses, hedgerows will be replanted in their original positions and agricultural grasslands re-seeded on phased completion of the works. The hedgerow planting mixes and specifications are described in the Arboricultural Impact Assessment (**Volume 5.21.2, 5.21.2 and 5.21.3**).
- 4.2.27 Site-specific planting schemes have been previously referenced (see paragraph 2.2.23). Other than the areas of permanent losses, hedgerows will be replanted in their original positions and agricultural grasslands re-seeded on phased completion of the works.

4.3 Dormouse

- 4.3.1 Dormouse is a European Protected Species and is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 (as amended).
- 4.3.2 This section of the BMS summarises the potential effects of the Proposed Development on dormouse. The section provides a description of the type of works that may affect dormouse habitats and provides proposals for working period method statements.

Dormouse Survey Summary

- 4.3.3 A data search did not identify any dormouse records within the Order Limits however it showed several dormouse records at Mendip Hills AONB and Tickenham Ridge within 1km of the Order Limits boundaries. Although woodland habitat within the Order Limits is sparse, there are several areas where woodland is present adjacent to the Order Limits boundaries where hedgerows are prevalent across the landscape.
- 4.3.4 No evidence of dormouse was found during the surveys carried out in 2012. Details of the dormouse survey findings and location plans are presented in **Volume 5.8.2, Appendix 8I**.

Potential Impacts

- 4.3.5 The following section represents a precautionary approach as no dormouse has been identified within the Order Limits of the Proposed Development.

- 4.3.6 Where hedge and woodland removal works fall within areas where dormouse have been recorded in the wider area (Mendip Hills AONB and Tickenham Ridge) the Proposed Development has some limited potential to result in the following impacts:
- death and/or direct injury of dormouse;
 - direct loss of hibernation or foraging habitat;
 - direct loss of nesting habitat;
 - loss of connectivity between dormouse habitat; and
 - fragmentation and isolation of dormouse populations.
- 4.3.7 This represents a precautionary approach as there is currently no evidence that dormouse populations use habitat within the Order Limits.

Dormouse Method Statement

- 4.3.8 The mitigation and enhancement strategy for dormouse focuses on long term (post-construction) maintenance of habitat connectivity and enhancing existing habitat to encourage distribution of the species within the wider area.
- 4.3.9 Generic methods of working with regard to hedgerow or tree removals will be adopted in areas which provide potential habitat for dormouse. Section 3.3 of this BMS details the methodology for works affecting hedgerows. The Arboricultural Impact Assessment (**Volume 5.21.1**) provides methods for tree removal.
- 4.3.10 Prior to removal of hedgerows or woodland habitat within the Mendip Hills AONB or between Stone Edge Batch and the M5 Motorway, the ECoW will instigate hand searches for evidence of dormice, dormouse nests and, where relevant, feeding remains. If evidence of dormouse activity is found works will cease in that area, Natural England will be consulted and a licence application will be submitted to NE for the proposed works.
- 4.3.11 A licence application is likely to include the following approaches:
- where sections of hedgerow require removal and support dormouse, these will be subject to pre-construction checks by the ECoW immediately prior to works. If dormice are found to be present, an exclusion zone of 5m will be established along the hedge until it can be confirmed that no dormice are present;
 - where practicable, hedges will be translocated in order to minimise the time taken for new habitat to become established. However, dormouse records and surveys have suggested dormouse are absent from the route and as such the use of this method is not anticipated;
 - the use of 'dead hedging' will be utilised in the interim periods between hedge removal and prior to hedge replanting or translocation, in order to maintain connectivity between dormouse habitats. These will be searched by a licensed ecologist each time they are moved to ensure no dormouse nests have been constructed overnight;
 - clearance will seek to minimise removal of species valuable to dormouse where possible, for example bramble, hazel and oak;
 - where ground clearance is required, this will be done by hand to minimise disturbance and injury to any animals;

- species planting in suitable areas will reflect the habitat preferences of dormice. This would include species important for dormice as listed above and a range of mixed shrub hedges that provide alternative food sources. Additional guidance on suitable hedge planting is detailed within the Off-Site Planting Enhancement Strategy; and
- further opportunities for additional habitat enhancement would be sought to ensure habitat links and maintenance of local population such as provision of nest boxes, gapping up hedgerows etc.

4.4 Water Vole

- 4.4.1 Water vole presence-and-absence surveys were undertaken of all suitable ditches and watercourses along the connection corridor during 2012, 2013 and 2014. Incidental observations of the presence of water voles were also recorded during other surveys undertaken during 2012 and 2013.

Survey Summary

- 4.4.2 Water voles were found to be present in suitable ditches and watercourses throughout the Proposed Development area. Large areas were also identified within each route section where no water voles were identified.
- 4.4.3 The high level of connectivity of ditches throughout the Order Limits allows the potential for water voles to move into areas that were unoccupied during the 2012, 2013 and 2014 surveys prior to the start of works. There is potential that water voles may occupy habitats where the species was found to be absent during the surveys prior to the commencement of works. The potential for water voles to occupy previously unoccupied habitats is taken into account in the mitigation strategy detailed below.
- 4.4.4 Full details of survey methods, limitations and results of the water vole surveys are presented within **Volume 5.8.3, Figure 8.46, Volume 5.8.2, Appendix 8J** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting **Volume 5.28.2, Appendix 28C** and **Volume 5.28.3.1, Figure 8.46B**.

Potential Impacts

- 4.4.5 Where the Proposed Development directly affects habitat suitable to support water voles there is potential for the following impacts to occur:
- direct loss of water vole habitat;
 - death and/or injury of water voles;
 - fragmentation of water vole populations;
 - habitat and water quality change; and
 - effects of displacement.
- 4.4.6 Impacts of the proposed works will be limited to where works fall within 5m of the top of the bank of ditches and watercourses, including any works within a ditch or watercourse.

- 4.4.7 Although the scheme covers a large area, the potential for impacts on water vole to result from the proposed development are primarily associated with locations where watercourses are affected by:
- crossing of proposed underground cable routes (400kV and 132kV);
 - construction of lattice pylons for overhead lines (400kV and 132kV);
 - construction of T-pylons (400kV);
 - removal of existing 132kV overhead lines;
 - construction of CSE compounds;
 - construction of or extensions to Sandford substation site;
 - temporary crossings for construction access tracks (if these require a temporary bridge or culvert); and
 - works adjacent to watercourses including de-watering of excavations, pumping into watercourses.

Water Vole Method Statement

- 4.4.8 The Water Vole Method Statement for the Proposed Development was drafted and submitted to Natural England for review. Natural England has confirmed their acceptance of this document. The full Water Vole Method Statement is detailed in **Appendix F**.
- 4.4.9 The guidance on water vole mitigation and licensing requirements are currently under review and changes to advice may occur during the examination period for the HPCCP. It is understood that the likely changes will include a requirement for two survey visits rather than one, a reduction in the threshold (length) of affected water vole habitat that would necessitate trapping (rather than passive displacement) and potentially although currently not certain, the need to licence displacement activities (rather than just trapping). It is not currently possible to produce a draft licence application as the works being proposed do not at this time require a licence. However, National Grid commits to adhering to any consenting requirements that might apply prior to or during the construction of the Proposed Development. The method statement provided in full at **Appendix F** has been designed to take account of the potential changes to water vole mitigation guidance as follows:
- The pre-commencement surveys allow for a two visit strategy.
 - The proposed displacement works are all below the proposed 50m threshold.
- 4.4.10 It is therefore considered that should licensing for displacement be introduced, then the approach to mitigation would be appropriate for any licence application be it under an individual consultant Class licence or a site specific licence.
- 4.4.11 The overriding approach of the water vole method statement is that of displacement rather than trapping. However, National Grid acknowledges that there is a small risk that water voles will remain within the affected burrows, notwithstanding the displacement proposals. Should this occur, a trapping licence will be obtained from Natural England and trapping will be undertaken utilizing best practice, in accordance with the Water Vole Conservation Handbook.

4.5 Otter

Otter Survey Summary

- 4.5.1 Surveys for otter were undertaken across the Order Limits in 2012, 2013 and 2014.
- 4.5.2 The main rivers flowing within the area of the Proposed Development and the network of rhynes surrounding them offer the most suitable habitat for otter. **Table 3.1** lists the main rivers potentially affected by the development and the project components associated with them.
- 4.5.3 Otter presence was confirmed in only 4 locations in nearly 500 stretches of watercourse surveyed. Field evidence found to confirm this presence included prints, feeding remains and otter spraints. No otter holt or couch or sightings of otter were found during the 2012 to 2014 survey.
- 4.5.4 Despite the absence of otter holts or couches within the Order Limits, this species is known to be prevalent within the area and it is considered highly likely that they will be using watercourses within the Proposed Development boundaries as transitional or ranging habitat.
- 4.5.5 Details of survey methods, limitations and results of the otter surveys are presented at **Volume 5.8.3, Figure 8.47, Volume 5.8.2, Appendix 8J** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting **Volume 5.28.2, Appendix 28C**.

Potential Impacts

- 4.5.6 Where the Proposed Development directly affects habitat suitable to support otter there is potential for the following impacts to occur:
- direct loss of otter habitat including holts and couches;
 - disturbance from construction;
 - direct injury or death;
 - obstruction to passage along riparian corridor; and
 - habitat and water quality changes.
- 4.5.7 Impacts of the proposed works will be limited to locations where works fall within 150m of a natal den, 30m of a holt and 10m of the top of the bank of ditches and watercourses, including any works within a ditch or watercourse.
- 4.5.8 Although the Proposed Development covers a large area, the potential for impacts on otter are primarily associated with locations where watercourses are affected by:
- crossing of proposed underground cable routes (400kV and 132kV);
 - construction of lattice pylons for overhead lines (400kV and 132kV);
 - construction of T-pylons (400kV);
 - removal of existing 132kV overhead lines;
 - construction of CSE compounds;
 - construction of or extensions to substation site;
 - temporary crossings for construction access tracks (if these require a temporary bridge or culvert); and
 - works adjacent to watercourses including de-watering of excavations, pumping into watercourses.

- 4.5.9 A detailed assessment of the impacts associated with activities anticipated to affect otter or their habitats is presented within **Volume 5.8.1**.

Otter Method Statement

- 4.5.10 Generic methods of working in watercourses would be adopted as detailed in section 3.4 of this BMS.
- 4.5.11 Pre-construction surveys will be undertaken a maximum of four months prior to the start of the construction works. Pre-construction surveys will inspect for breeding sites, holts, couches and resting places. In the event that otter holts or other rest areas are found during pre-construction checks, NE will be consulted and a licence sought to allow works to commence. A licence application is likely to include the following approaches:
- if any resting places are identified within 50m of the working area it may be necessary to create new features in advance of works commencing. These activities potentially will be completed under NE licences;
 - all works near water will be undertaken in accordance with the Watercourse Crossing Method Statement as described in section 3.4 above, to ensure protection against pollution;
 - disturbance during the works would be minimised by imposing a buffer of least 30m around any otter holt, couch or resting place before any work starts on site. This buffer would be fenced to restrict construction disturbance, whilst not affecting otter movements. It would be clearly demarcated using coloured tape, chestnut pale fencing, steel mesh fencing or similar;
 - if a holt is identified and supports or is suspected of supporting otter cubs works within 150m of the natal den will cease for approximately 8-10 weeks until the cubs are mobile, or presence of cubs is ruled out;
 - access to the riparian corridor utilised by otter would be retained at all times; Impacts to established otter paths and traditional routes between such areas (such as field drains) during the construction phase would be minimised;
 - excavations and trenches will be boarded or fenced if works are not completed daily. In exceptional circumstances, if trenches are required to be left open overnight then measures will be put in place to ensure otters, badgers and other mammals cannot become trapped in them. This will include the provision of ramps or mammalladders to ensure animals can exit excavations. This must be agreed in advance with the ECoW who will also be responsible for overseeing the installation of a means of egress from the excavations; and
 - culvert pipes stored on site will be capped or if caps are not available, stored vertically to prevent otter entrapment.
- 4.5.12 Night time disturbance to otters during the construction phase is unlikely. 24 hour working will be limited to underground cable joint bays which will take place under cover thereby minimising potential disturbance from noise, light and general activity. During winter periods, works may extend into dusk and dawn periods, but safety considerations will limit these incidents. Works in the vicinity of watercourses showing signs of regular use by otters would not take place at night or within two hours of sunset or sunrise.

- 4.5.13 Micro-siting of pylon installation and works access will be agreed with the ECoW. The ECoW will verify each pylon location and access position within the working area and will advise on adjustments and/or additional mitigation requirements.
- 4.5.14 The EA has requested that any incidents of otter kills (traffic casualties) noted during the works are recorded. These will be logged and the records will be provided to Cardiff University (if the current otter research project is still ongoing). If requested by Cardiff University, any otter carcasses found will be retained and (if possible frozen). The speed limit on the construction site will be enforced to help reduce collision risk for wildlife such as otter.

4.6 Badger

Badger Survey Summary

- 4.6.1 Badger surveys were undertaken in the route corridor during the habitat surveys of 2012 and 2013 along with additional targeted badger surveys in 2013 and 2014. The presence of any badger setts encountered was recorded.
- 4.6.2 This information was used to identify any setts located within the working area and access tracks or within 30m of these areas, to determine which setts could potentially be directly impacted by works. These setts were revisited to record a greater level of detail suitable to inform avoidance through scheme design or licence applications where avoidance is not feasible. Details of survey methods, limitations and results of the badger surveys are presented within **Volume 5.8.3, Figure 8.48, Volume 5.8.2, Appendix 8K** and the 2014 Ecology Update Report (**Volume 5.28.1**), supporting (and confidential) **Volume 5.28.2, Appendix 28D** and **Volume 5.28.3.1, Figure 8.48B**.

Potential Impacts

- 4.6.3 Where the Proposed Development directly affects habitat suitable to support badger there is potential for the following impacts to occur:
- direct loss of badger habitat including foraging and shelter opportunities;
 - death and/or injury of badger; and
 - fragmentation of badger habitat.
- 4.6.4 22 badger setts with potential to be affected were identified. It is expected that badger licences will be required for closure of 4 subsidiary or outlier setts and disturbance of 3 main setts.

Badger Method Statement

- 4.6.5 All works within 30m of known badger setts will be carried out under Natural England licence. A draft badger licence has been approved by NE licensing team. This has been resubmitted following the 2014 surveys to include an additional 2 main setts (these setts will be retained but works will come within 30m). If the DCO is granted, an application will be made for a full licence in accordance with NE's approach to NSIP licensing.
- 4.6.6 Pre-construction surveys will be undertaken in advance of each phase of construction works commencing. The surveys will be undertaken a maximum of 12

months prior to the start of construction. Pre-construction surveys will include a minimum of 30m beyond pylon locations and access tracks, increasing to 100m in areas of potential high noise and vibration.

- 4.6.7 The pre-construction surveys will assess whether setts are active, inactive or defunct.
- 4.6.8 All active setts will be marked using tape prior to any works commencing. The distance of the exclusion zone from the sett will be determined by the ECoW on a case-by-case basis. No works will be undertaken within the badger sett exclusion zone.
- 4.6.9 In advance of any construction works commencing, the ECoW will be consulted and will provide a toolbox talk. All contractors will sign to confirm attendance at the toolbox talk and acceptance and understanding of this BMS.
- 4.6.10 Any new potential badger setts identified during vegetation clearance works by the ECoW or contractors will be verified and undergo a status check by the ECoW. If it is determined that an active badger sett has been found that will be directly affected by the proposed construction works, then works will cease immediately. The impact of the proposed work will then be assessed by the ECoW and appropriate mitigation recommended.
- 4.6.11 Micro-siting of pylon installation and works access will be agreed with the ECoW and where possible will be modified to ensure all ground works are a minimum of 30m from any sett. The ECoW will verify each pylon location and access route within the working area and will advise on adjustments and mitigation requirements.
- 4.6.12 The acceptable working distance from a badger sett can be assessed only on a case-by-case basis and is dependent on the extent and type of the proposed works. Destruction of a badger sett will only be undertaken as a last resort. In most cases the badger sett will be protected from disturbance and potential damage by the exclusion zone marked in advance of construction works commencing. Where appropriate any setts subject to disturbance under licence may be temporarily excluded until the works are completed.
- 4.6.13 There are currently no proposals for closure of a main sett and no requirements in the draft badger licence to create a replacement sett. However, in the unlikely event that a replacement sett is required, the construction of an artificial sett would be completed six months prior to the start of works to close the existing sett.
- 4.6.14 There are requirements in the draft licence to exclude and close outlier or subsidiary setts. Disturbance to a badger sett will only be permitted under licence from July to November inclusive under strict ECoW supervision. This is to avoid the period between December to June when badgers are likely to be breeding and are more susceptible to disturbance.
- 4.6.15 To exclude badgers from a sett, badger gates will be installed and initially be left open to allow badgers to enter and exit the sett. Following a period of monitoring for approximately 7 days, the gates will then be set to allow badgers to exit but prevent them from re-entering. Sand traps will be installed at the entrance to any holes and these would be monitored daily to record any evidence of badger activity.
- 4.6.16 Once it is confirmed that no badgers are present in the holes, the gates will be closed permanently and the sett destroyed under licence by hand or using appropriate machinery under supervision of the ECoW.

- 4.6.17 No trees or shrubs will be felled in such a way that they fall within 20m of a badger sett. If necessary, section felling will be used to ensure there is no ground disturbance or damage to an existing sett.
- 4.6.18 No cut vegetation will block existing badger paths identified by the ECoW.
- 4.6.19 Trenches or excavations near badger setts will not be left open overnight and will be either boarded or fenced off at the end of each day or egress ramps will be provided.
- 4.6.20 Badger foraging areas will be maintained as far as possible during the construction works and will not be obstructed.
- 4.6.21 Soils and habitats will be reinstated on conclusion of works.
- 4.6.22 Excavated soil will be stored in an area agreed with the ECoW and will not obstruct existing badger paths or interfere with any active setts by preventing access and egress. Areas of excavated spoil will also be subject to periodic checks by the ECoW in order to ensure that these have not become colonised by badger.
- 4.6.23 Where amphibian fencing intersects a badger path, ramps will be provided to allow badger movement throughout the site.
- 4.6.24 Where construction fencing is installed along haul roads or underground construction swathes, it will be made permeable to badger to allow movement across the local landscape.
- 4.6.25 No buckets or barrels of liquid would be left uncovered or heavy objects left propped against trees or other structures overnight. Badgers are highly inquisitive and strong mammals and will push over objects.
- 4.6.26 Any temporarily exposed pipe system to be capped when contractors are off site to prevent badger from gaining access.

4.7 Brown Hare

- 4.7.1 The section provides a description of the potential effects of the Proposed Development on brown hare, the type of works that may affect its habitats and provides proposals for working period method statements.

Brown Hare Survey Summary

- 4.7.2 Targeted surveys for brown hare were not undertaken as part of the assessment however, areas with suitable habitat for this species were identified as part of the Phase 1 habitat survey and are described in the Environmental Statement (**Volume 5.8.1**). Brown hare is primarily associated with open field habitats, preferring mixed agricultural areas that provide shorter grassland for foraging through the year, interspersed with features for shelter such as hedgerows and scrub. Brown hare is anticipated to use these habitats, for at least parts of the year, as part of the wider landscape

Potential Impacts

- 4.7.3 Habitat suitable to support brown hare within the Order Limits of the Proposed Development may be affected by construction activities. Impacts are likely to include:
 - death or injury of brown hare;

- disturbance during construction; and
- loss of habitat or fragmentation/isolation.

- 4.7.4 Construction of the pylons will necessitate the removal of vegetated areas and the clearance of soil using machinery. Leverets will be particularly susceptible to these activities as they are left alone in forms during the day and may be reluctant to move from their places of refuge.
- 4.7.5 There is also potential for hares to be killed through becoming trapped in any excavations, pits, piping, chemical containers or wire mesh associated with construction activities. However, it is unlikely that significant numbers of hares would be killed as a result of these activities.
- 4.7.6 Hares could be killed as they attempt to cross access roads or temporary crossings for construction traffic. The likelihood of this occurring is low as construction traffic will be limited to 15mph.

Brown Hare Method Statement

- 4.7.7 The existing arable fields, grassland, hedgerows and woodland within the Order Limits are likely to provide sufficient foraging areas for brown hare. Removal of vegetation in these areas to facilitate construction access to working areas will be carried out in the presence of the ECoW.
- 4.7.8 During March to September pre-construction checks for leverets will be made by the ECoW immediately ahead of site clearance in arable and pasture fields.
- 4.7.9 Generic best practice measures as detailed in sections 2 and 3 of this BMS will be adhered to in order to prevent disturbance to brown hare.
- 4.7.10 Excavations will be boarded or fenced at the end of each day to prevent hares becoming trapped. Where closing excavations is not possible, ramps would be provided to allow any trapped animals to escape.

4.8 Hedgehog

- 4.8.1 The section provides a description of the type of works that may affect hedgehog habitats and provides proposals for working period method statements.

Hedgehog Survey Summary

- 4.8.2 Targeted surveys for hedgehog were not undertaken as part of the assessment however, areas with suitable habitat for this species were identified as part of the Phase 1 survey and are described in the Environmental Statement (**Volume 5.8.1**). The desk study identified records of hedgehog between Puxton (the southern-most record lies north west of Puxton) and Crook's Marsh. Many of the records are of road casualties with a small number of sightings.
- 4.8.3 The majority of the habitat in the Order Limits is available to the species with the exception of areas of seasonal flooding or where significant barriers to their dispersal occur.

Potential Impacts

- 4.8.4 Where the Proposed Development directly affects habitat suitable to support hedgehog there is potential for impacts to occur as a result of construction activities. Impacts are likely to include:

- death or injury of hedgehogs;
- disturbance during construction; and
- loss of habitat or fragmentation/isolation.

Hedgehog Method Statement

- 4.8.5 The removal of hedgerow and areas of rough field margins will be minimised to avoid disturbance or loss of habitat used by hedgehog for shelter and foraging.
- 4.8.6 Connectivity along field margins and hedgerows will be retained where feasible via the methods detailed within the hedgerow method statement in section 3.3.
- 4.8.7 Where vegetation removal is required, this will be undertaken in the presence of the ECoW.
- 4.8.8 Generic best practice measures as detailed in section 2 of this BMS will be adhered to in order to prevent disturbance to hedgehog.
- 4.8.9 Excavations will be boarded or fenced using steel mesh fencing at the end of each day to prevent hedgehog becoming trapped. Where closing excavations is not possible, ramps will be provided to allow any trapped animals to escape.

4.9 Amphibians

- 4.9.1 This BMS provides a description of the works that may affect amphibian habitats and provides proposals for working method statements. The method statement is primarily focused on great crested newts which will be disturbed under a NE licence. Common toad is considered alongside great crested newt (GCN).

Amphibian Survey Summary

- 4.9.2 The landscape across the Order Limits is dominated by an extensive network of field ditches (particularly characteristic of the Somerset Levels). Approximately 2,750 ditches were identified within 250m of the Order Limits. In addition to the ditches, approximately 300 ponds were also located within 250m of the Order Limits.
- 4.9.3 At the metapopulation level, 5 'Medium' and 18 'Small' size populations were identified along the route (in Sections A, B and D to F). Incidental records of toad were noted during the GCN surveys. Records of toads were found to be widespread across the Order Limits ranging from Bridgwater in the south to Avonmouth in the north. Toads were recorded in only one ditch at Hinkley Point. Smooth newt and common frog were also present across the survey area.
- 4.9.4 Full details of survey methods, limitations and results of the amphibian surveys are presented within **Volume 5.8.2, Appendix 8L, Volume 5.8.3, Figure 8.50 to 52** and the 2014 Ecology Update Report (**Volume 5.28.1**) and supporting **Volume 5.28.2, Appendix 28E** and **Volume 5.28.3.1, Figures 8.50B to 8.52B**.
- 4.9.5 The GCN licence method statement shows the location of the breeding ponds and ditches and surrounding terrestrial habitat.

Potential Impacts

- 4.9.6 Where the proposed development directly affects habitat suitable to support species of amphibians, there is potential for impacts to occur as a result of construction activities. Impacts are likely to include:
- death or injury of amphibians;
 - loss of habitat used for foraging;
 - barriers to amphibian movements;
 - disturbance of aquatic breeding habitats (3 ditches supporting GCN will be crossed); and
 - loss of hibernacula features.
- 4.9.7 22 sites have been identified where works will be undertaken under Natural England licence for great crested newt (GCN). Works in 21 of these sites are temporary (excluding the very small permanent loss of habitat to pylon bases) and will mostly comprise the installation of stone access tracks during construction. At Sandford construction of the substation will result in a permanent loss of terrestrial habitat for GCN.

Great Crested Newt Method Statement

- 4.9.8 All works to GCN habitat will be carried out under Natural England licence. A draft GCN licence has been reviewed by NE EPS licensing team. This draft licence has been updated with the results of the 2014 surveys and any amendments to the GCN licence method statement as a result of NE's comments will be reflected in updates to the BMS. If the DCO is granted, an application will be made for a full licence in accordance with NE's approach to NSIP EPS licensing. The licence documentation details the full scope of legal requirements for works affecting great crested newts and will dictate said works. The following summary is only provided as a high level overview.

Pre-commencement Survey

- 4.9.9 The surveys of 2013 and 2014 provide a reliable estimate of population size and distribution until at least 2016. For any working areas where construction will start after October 31st 2016, a repeat aquatic survey will be carried out of ponds or ditches within 250m of works. The survey techniques will be agreed with NE and the results will be used, if needed, to obtain a modification to the licence.

Capture and Exclusion Techniques

- 4.9.10 All construction areas within 250m of GCN breeding water bodies will be excluded and trapped, using Temporary Amphibian Fencing (TAF) and pitfall traps. The GCN NE licence method statement includes drawings illustrating the proposed TAF lines and trap positions.
- 4.9.11 Pitfall traps will be installed every 10m along the internal edge of the exclusion fence. Drift fencing will be installed to increase trapping efficiency. Drift fences will be sited at locations where amphibian capture is most likely such as alongside ditches and hedges.
- 4.9.12 Where necessary, stock proof fencing will be installed 1m on the outside of the amphibian exclusion fencing to protect it from livestock and farming practices, or from public access, for example alongside footpaths.

- 4.9.13 Trapping will continue for 30 or 60 eligible nights depending on the population size in nearby water bodies. On completion of the trapping period, refuge habitats in the excluded areas will be subject to destructive searching and hand-capture.
- 4.9.14 Destructive searching of any hedgerows, scrub or other places of refuge within the trapped site areas will be undertaken within the 25-30 day or 55-60 day period depending on the GCN population size. Trapped areas will be mown or strimmed within the last 5 days of the trapping period to encourage the remaining amphibians to move.
- 4.9.15 Captured amphibians will be taken to a release site close to the breeding water body as detailed in the GCN NE licence method statement.
- 4.9.16 The TAF will be maintained for the duration of construction works. During the period of capture, fence inspections and repairs will be carried out daily by the licensed ecologist to ensure the integrity of the apparatus. On completion of capture and installation of ditch crossings, the perimeter TAF will be formally handed over from the licenced ecologist to the main contractor along with a duty of care procedure and a toolbox talk.
- 4.9.17 During any periods of engineering activity within an excluded area, the contractor will inspect (and repair) the TAF and associated stock proof fence daily and maintain a log of inspections and repairs. During periods when there is no engineering activity, the contractor will carry out a fence inspection and repair and log once a month. This is adequate for most of the farmed areas, but the frequency of inspections will be greater in areas near public footpaths and areas of greater public presence.
- 4.9.18 The licensed ecologist will make separate inspections and minor repairs on a monthly basis (two monthly in winter).
- 4.9.19 In most instances where contractors require access through the perimeter TAF to access works areas, a newt-proof gate will be installed by fixing a flap of heavy-duty membrane to a field gate. In some instances where traffic is at regular high levels or a gate is not permitted, the access point may remain open, and to deflect newts accessing the carriageway, the perimeter TAF on each side of the construction track will be turned outwards by 90 degrees at the point where it meets the access point and the TAF will be continued for at least 5m.
- 4.9.20 At Sandford Substation, TAF will also be used beyond the 250m zone to ensure the perimeter of the works areas remains inaccessible to ranging newts. Here one-way TAF will be used in combination with Reasonable Avoidance Measures (RAMs) such as hand-searching techniques, since the substation site is over 400m from known GCN breeding sites. Pitfall trapping is not proposed.
- 4.9.21 The majority of works are of a temporary nature, and following installation of pylons, underground cables, temporary access roads and compounds, the existing habitats and land uses will be restored. The TAF will then be removed, enabling GCN to recolonize terrestrial habitats.

Reasonable Avoidance Measures (RAMS)

- 4.9.22 Construction areas between 250m and 500m from known GCN breeding ponds will be subject to RAMs. This avoids the need to install TAF. RAMs include habitat manipulation, hand searches of potential amphibian shelter habitats, use of Artificial

Cover Objects that do not entrap amphibians (ACOs) and targeted works supervision. Captured amphibians will be moved to the release site. Excavations in this area will not be left open overnight, or will be provided with egress ramps and subject to inspection.

Temporary Loss of GCN Water Body

- 4.9.23 There will be no permanent loss of aquatic habitat, either ponds or ditches, at any of the locations where GCN were recorded. However there will be three temporary crossings along ditches where GCN were found to be present during the 2013 surveys. The ditches in question are at Rooks Bridge and Portbury Wharf and illustrated in the GCN NE licence method statement. The crossings at Rooks Bridge will require culverts to be installed to enable construction access roads to be built. A section of the ditch at Portbury Wharf will be open cut to allow the 132kV underground cables (BW Route) to be installed into Portishead Substation. As the ditches support flowing water, it would not be possible to enclose them with TAF for a long period. TAF will be placed along the ditch banks and trapped for 30 or 60 days dependent on the GCN population size. On completion of trapping and outside the GCN breeding season, the banks will be strimmed and searched and the ditch netted prior to infilling and culvert placement.
- 4.9.24 On completion of the works, the culverts will be removed. Under the supervision of a licenced ecologist hand-searching for GCN, the culverts will be removed and the ditch banks re-profiled to match existing retained sections. Topsoil will be applied to 250mm depth and the banks will be re-seeded with a standard grass mix suitable for water body banks. Once reinstatement is complete, amphibian fencing will be removed.

Habitat Restoration and Creation

- 4.9.25 The terrestrial habitats subject to temporary exclusion and construction works will be reinstated to their former condition. Opportunities will be taken to enhance amphibian conditions, notably through the creation of species-rich hedges with amphibian refuge opportunities incorporated into the hedge bases.
- 4.9.26 At Sandford Substation, where the scheme involves a permanent loss of GCN habitat, improvements will be made to nearby areas to improve amphibian holding-capacity. Terrestrial habitats will be replaced broadly on a 1:1 basis, but with enhanced quality of refuge habitat. The design of the habitat improvements will ensure that existing amphibian dispersal corridors are maintained or replaced.
- 4.9.27 Temporary engineering features such as culverts will be removed on project completion. These removal and reinstatement operations will occur within the areas excluded by perimeter TAF. Culvert crossings and final removal of perimeter TAF will be subject to supervision by an ecologist and will take place during seasons when amphibians are active, in accordance with guidelines.
- 4.9.28 Removal of engineering features and habitat reinstatement in the 250m to 500m zone will be subject to prior hand-searching and use of RAMs (as listed above) to prevent injury to amphibians.

Maintaining Connectivity during Works

- 4.9.29 The intention is to install temporary road crossings as soon as possible to release the ditch for its previous use by wildlife, so that the ditches remain as wildlife connections during the period of construction and amphibian exclusion.
- 4.9.30 The footprint of each ditch crossing will be within a larger area subject to general exclusion using perimeter fencing as outlined above.
- 4.9.31 Trapping and removing of newts from within the excluded areas will include drift fences installed along the bank tops and used for capture of amphibians. Bankside vegetation will be strimmed in the crossing footprint under supervision. The strimming will be carried out in two stages: initially to 150mm height and subsequently to ground level.
- 4.9.32 At several locations in the Order Limits, linear sections of amphibian fencing will be required to exclude GCN from working areas. NE has requested that regular GCN crossing points are provided across these areas to prevent GCN populations from becoming fragmented and isolated from breeding or foraging grounds. The location of these crossing points is provided in the GCN NE licence method statement. Outside of winter, site staff will be responsible for opening and closing these crossing points to ensure GCN are able to move across the working areas at night. The ECoW will be responsible for ensuring (and keeping records to demonstrate) that these crossing points are operated as set out in the licence; non-conformance reports will be issued where this is not the case.

Common Toad Method Statement

- 4.9.33 In areas covered by the GCN method statement, common toad and other amphibians will be humanely captured and released along with the newts. Outside of these areas, common toad is likely to be associated with watercourses and hedges.
- 4.9.34 Hedgerow and watercourse crossing method statements should be referred to in relation to vegetation management in areas likely to support common toad. The reptile method statement will also be referred to.
- 4.9.35 The ECoW will undertake a hand search ahead of vegetation clearance along ditch and watercourse habitats. Any toads captured will be translocated to areas of similar habitat.

4.10 Reptiles

- 4.10.1 This section provides a description of the works that may affect reptile habitats and provides proposals for working method statements.

Reptile Survey Summary

- 4.10.2 Reptile surveys targeted locations where 400kV and 132kV undergrounding, the new substation site and CSE compounds and associated access and haul roads overlapped with areas showing high capacity for reptiles. Phase 1 habitat survey maps and target notes, aerial images of the wider landscape and surveyor knowledge were used to identify potential high capacity areas. Few areas within the Order Limits of the Proposed Development were considered to have high capacity for reptiles. However a precautionary approach was taken and, by

considering the influence of the wider landscape, seventeen locations were identified for survey.

- 4.10.3 A combination of survey methods were used, including artificial refuge survey, searching of existing features likely to shelter reptiles and careful observation of basking and moving reptiles. Survey findings and historic records show widespread distribution of low numbers of reptiles throughout much of the area where the Proposed Development would take place. It was concluded that all areas of suitable habitat could support low numbers of reptiles.
- 4.10.4 Results of the reptile survey results are provided in **Volume 5.8.2, Appendix 8M**. The locations of the seventeen reptile survey sites are shown in **Volume 5.8.3, Figure 8.53 and 8.54**.

Potential Impacts

- 4.10.5 Where the Proposed Development directly affects habitat suitable to support species of reptile there is potential for impacts to occur as a result of construction activities. Impacts are likely to include:
- death or injury of reptiles;
 - loss of habitat used for basking and foraging; and
 - loss of hibernacula features.
- 4.10.6 Elements of the Proposed Development that are temporary with small working areas or affecting sub-optimal habitats include:
- underground sections of 400kV and 132kV cabling;
 - construction of new pylons;
 - removal of existing 132kV pylons;
 - construction of temporary and semi-permanent haul roads and crossings;
 - temporary laydown areas; and
 - temporary compounds.
- 4.10.7 Impacts in undergrounding sections of the scheme will include topsoil stripping and storage, haul road construction, trench construction and installation of cables prior to removal of haul roads and reinstatement of topsoil and habitats.
- 4.10.8 Temporary and semi-permanent haul roads will be constructed from stone and will involve topsoil stripping and storage in a bund alongside the haul road. Stone will then be laid along the stripped section. Haul roads and topsoil storage easements will be approximately 10m wide although wider sections may be required where traffic is greater or where passing places are required. Where haul roads meet ditches, temporary crossings (culverts and temporary bridges) will also be constructed. Following completion, stone roads will be removed, topsoil replaced and habitats reinstated. Crossings will also be removed on temporary haul routes; however culverts will remain on semi-permanent access routes.
- 4.10.9 Construction and removal of pylons will require the construction of stone working areas, approximately 40m x 40m. For new pylon construction areas only topsoil will be stripped from the working area and a stone base laid within which all works will be undertaken. Following the completion of the works the stone base will be removed, topsoil re-laid and habitats reinstated.

- 4.10.10 Temporary laydown areas and temporary compounds will require stripping of topsoil and laying of a stone base, on which office accommodation, machinery, vehicles and materials can be stored. Following completion the stone base will be removed, topsoil replaced and habitats reinstated.
- 4.10.11 All of these works have the potential to directly impact reptiles causing death or injury during the site set up stages, where soil stripping and stone laying will be undertaken. Following this stage the sites will generally be unsuitable for use by reptiles and they are unlikely to enter the working area. Mitigation will be required to ensure reptiles have been removed from the site prior to the site set-up.
- 4.10.12 The proposals also have potential to cause habitat loss, including loss of hibernation features, and fragmentation of habitats and populations. However, the works are temporary and following completion of works habitats will be reinstated and fragmentation effects removed. Where hibernation features are lost, mitigation will be required to replace these.
- 4.10.13 Additionally, suitable reptile habitats across the majority of the Proposed Development area are often associated with field boundaries, limiting the potential for impacts to small strips of habitat within large areas of generally unsuitable habitats (intensively grazed grassland and arable farmland).
- 4.10.14 There will be a small permanent loss of habitats from the base of pylons. However the loss of this small area of habitats is unlikely to have an impact on reptile populations in the area due to the low numbers of reptiles present within the Proposed Development area.
- 4.10.15 A semi-permanent access road will be constructed within Reptile Survey Site 6 (adjacent to Towerhead Brook). This was found to support 3 species of reptile. However, only low populations of each species were identified during the surveys and works will be temporary, with habitats reinstated following completion. Mitigation for temporary and small working areas will be sufficient for this element of the works.

Construction of Permanent Structures

- 4.10.16 Elements of the Proposed Development that are permanent with large working areas or affecting high value reptile habitat or with large reptile populations include:
- Sandford Substation (new substation); and
 - CSE compounds.
- 4.10.17 Sandford Substation will result in the construction of new areas of hard standing within which the new substation infrastructure will be constructed. The substation is a permanent development and will include landscaping around its margins.
- 4.10.18 Part of the site of the Sandford Substation has suitable habitat for reptiles and was surveyed during 2013. A low population of grass snake was identified in the surveyed area. Because of the large size of the site there is potential for greater numbers of grass snake to be present and mitigation will be required.
- 4.10.19 Permanent CSE compounds are required at Bridgwater Tee and South of the Mendip Hills. The footprint of each CSE compound is relatively small although

temporary construction works will affect a larger area than the finished compounds. Landscaping will be included around each compound.

- 4.10.20 The site of the two Bridgwater Tee CSE compounds is not in an area of high quality reptile habitat. The western compound would be in an area of arable farmland and has no potential to impact upon reptiles. The eastern compound would be in an area of grassland where hedgerows and ditches are present. There is some potential for reptiles to be present within the site of the eastern compound.
- 4.10.21 The South of Mendip Hills CSE was surveyed as part of the 2013 reptile surveys. No reptiles were identified during the surveys however the site is considered to provide habitat suitable for reptiles.
- 4.10.22 Due to the low population sizes of reptile species identified throughout the Proposed Development site, it is not anticipated that replacement habitats will be required as mitigation for loss of habitat. Where the Proposed Development affects habitat suitable to support reptiles, mitigation to prevent impacts directly affecting reptiles will be required.

Reptile Method Statement

- 4.10.23 Due to the temporary nature of the majority of the works, reasonable avoidance measures (RAMs) to prevent injury or impacts to reptiles will be implemented across the Proposed Development. Specific mitigation is detailed where there would be permanent impacts and large working areas. These measures will also benefit common toad.

Temporary Short Term Works, Small Working Areas and Works Affecting Sub-optimal Habitats

- 4.10.24 The following methods will be used to prevent reptiles from being affected during the construction phase.

Pre-commencement Survey

- 4.10.25 During the 12 months prior to the start of works, all habitats will be assessed for their potential to support reptiles. The presence of potential hibernation features within the working area will also be recorded.
- 4.10.26 The purpose of the assessment will be to determine where reptiles may be present and therefore where impacts may take place. Where no suitable reptile habitat is present and no impact predicted no further action will be required. Where suitable reptile habitat is present and potential impacts are predicted, displacement of reptiles from the working area will be required

Displacement

- 4.10.27 Following the identification of suitable reptile habitats, a process of habitat degradation will be undertaken. Working areas in areas of habitat suitable for reptiles will be subjected to a staged strimming regime to encourage reptiles to leave the working area and also dissuade reptiles from entering the site.
- 4.10.28 Reptile displacement would take place between March and June, during suitable weather conditions and taking account of seasonal conditions. During the spring months reptiles will be active and females will not yet be carrying eggs. Displacement during spring also allows reptiles to become established in the adjacent habitats prior to colder conditions in winter.

- 4.10.29 Working areas will firstly be cut to a height of 150mm (arisings removed) across all reptile habitat to be affected by works. Each area will be progressively cut from the centre of the working area toward the edges, taking care not to affect the lower sward, to encourage movement of reptiles into adjacent habitats under their own volition.
- 4.10.30 Following the initial cut, potential sheltering and hibernation features will be removed by hand where size allows. This will include features such as log piles, branches, piles of stone and rubble, and large grass tussocks. These features will be placed/carefully created in the adjacent habitat to maintain availability for use by reptiles. Following a minimum of 5 days following the initial cut, a second cut to a height of 10-50mm will take place (arisings again removed). Any reptile encountered during the clearance works will be relocated by hand using the method and welfare precautions set out under 'Works Overlapping with Great Crested Newt Licenced Trapping Activities' below.
- 4.10.31 Larger features suitable for sheltering reptiles, such as fallen trees and rocks, will be moved using machines under the supervision of an ecologist following completion of vegetation clearance.
- 4.10.32 Slow-worms do not tend to bask out in the open, as is observed in the common lizard, instead preferring to hide under objects that will be warmed by the sun or will create their own warmth such as compost heaps or dead wood. The species is also less mobile. Where features that may support slow worms below ground are present, excavation using machinery may be required under the supervision of an ecologist. Again, any slow worms found will be moved to suitable adjacent habitat and released by hand.
- 4.10.33 Following clearance, the vegetation in working areas will be kept short to maintain these as unfavourable and discourage reptiles from re-entering the area. Once topsoil stripping has been undertaken the site will no longer be suitable for use by reptiles.
- 4.10.34 If during displacement activities large numbers of reptiles are being encountered the ECoW will consult the LPA ecologist to determine if a trapping scheme is required and agree the details of any such scheme.

Construction of Permanent Structures

- 4.10.35 Where potential impacts would cover a large (non-linear) area such as the site of Sandford Substation, passive displacement is unlikely to be successful because of the larger distances that reptiles are required to move. In these instances, a scheme of exclusion, trapping and relocation will be required.
- 4.10.36 Additionally, where hibernation features are present within the site a similar trapping scheme will be required.

Pre-commencement Survey

- 4.10.37 During the 12 months prior to the start of works, all habitats will be assessed for their potential to support reptiles. The presence of potential hibernation features within the working area will also be recorded.
- 4.10.38 The purpose of the survey will be to determine where reptiles may be present and where impacts may take place. Where no suitable reptile habitat is present and no impact is predicted no further action will be required. Where suitable reptile habitat

is present and potential impacts are predicted, displacement of reptiles from the working area will be required as detailed above for the temporary structures. Exclusion and trapping may also be required.

Exclusion and Trapping

- 4.10.39 Following the identification of suitable reptile habitats, a process of exclusion, trapping and translocation will take place.
- 4.10.40 Exclusion and trapping schemes will be undertaken between March and June, during suitable weather conditions. During the spring months reptiles will be active and females will not yet be carrying eggs. Trapping and translocation during spring also allows reptiles to become established in the adjacent habitats prior to colder conditions in winter. Where necessary trapping can extend beyond June but should not extend beyond mid-September. However, hot dry weather conditions may reduce reptile capture rates and account will be taken of this when assessing trapping success.
- 4.10.41 Habitats identified as providing suitable reptile habitat that will be affected by works will be fenced using reptile proof fencing. The fence will enclose all reptile habitats to be affected.
- 4.10.42 Artificial Cover Objects (ACOs), consisting of a mix of 0.5m² corrugated metal sheets and roofing felt tiles will be placed within the fenced areas within suitable positions. A minimum of 50 ACOs per hectare will be used for trapping schemes.
- 4.10.43 During the trapping period, vegetation will be cut under the supervision of an ecologist to encourage reptiles to move closer to the ACOs. Cutting will be carried out in two stages as described for 'Temporary Short Term Works' above.
- 4.10.44 Due to the low population sizes of reptiles identified, a minimum 60 days of trapping will be undertaken at each exclusion area. A minimum 5 days without capture or observation at the end of the 60 day trapping period will be used to deem that the area is free of reptiles.
- 4.10.45 Reptiles will be caught by hand and transferred to the release site using a cloth sack. Where adders may be present snake poles and gauntlets will be used.
- 4.10.46 Following completion of the trapping period, a destructive search of habitats will be undertaken. This will include destruction of features suitable to support sheltering reptiles, using machines under the supervision of an ecologist. This is likely to include the destruction of potential hibernation features where destruction cannot be avoided. Features which may also support slow worms below ground may require careful excavation under the supervision of a suitably qualified ecologist (as described for 'Temporary Short Term Works' above) to ensure that animals are not present. Where small numbers of reptiles are captured during the destructive search they would be moved to the receptor area. Where large numbers of reptiles are identified during the destructive search, the option of recommencing trapping will be considered.
- 4.10.47 Due to the low population sizes identified across the development site, captured reptiles can be moved directly to adjacent suitable habitats.
- 4.10.48 Where hibernation features are to be lost, replacement features would be constructed outside of the excluded area prior to the start of the trapping scheme.

- 4.10.49 Following successful clearance of reptiles, the exclusion fencing will remain in place and works will begin in the site. Following completion of works, including any landscaping works, habitats will be reinstated and exclusion fencing removed.

Works Overlapping with Great Crested Newt Licenced Trapping Activities

- 4.10.50 Where great crested newt breeding ponds are present within 250m of areas affected by the proposed development, translocation schemes will be implemented under licence from NE. The translocation scheme will involve installing amphibian proof fencing around all affected areas and the implementation of a trapping scheme.
- 4.10.51 Where amphibian-proof fencing is installed, it will not be possible to displace reptiles by manipulating habitats as their movements will be prevented by the amphibian exclusion fence.
- 4.10.52 Where NE GCN licensed clearance overlaps with potential reptile habitats, the area will be cleared of reptiles as well as GCN using reptile trapping methods. A mix of tin and felt ACOs will be placed within the fenced areas in suitable places.
- 4.10.53 Ecologists checking pitfall traps for amphibians will also inspect ACOs for reptiles. During checking ecologists will carry both a bucket for collecting amphibians and a cloth sack for collecting reptiles. It is likely that where pitfall traps are used to capture amphibians, reptiles will also be captured. Amphibians may also be found using ACOs for shelter.
- 4.10.54 Amphibians and reptiles will be released in different locations to prevent predation. To minimise fragmentation effects on reptiles within Portbury Wharf Nature Reserve, National Grid will include reptile crossing points across linear sections of amphibian fencing where the fencing will be in place longer than one year.
- 4.10.55 Clearance will be in accordance with the NE GCN licence method statement.

4.11 Fish

- 4.11.1 The section provides a description of the potential effects of the Proposed Development on fish and aquatic habitats and provides proposals for working period method statements.

Fish Survey Summary

- 4.11.2 No specific fish surveys were undertaken, however, records of fish were made during the course of the 2013 invertebrate surveys. European eel was recorded in ditches in Section D and Section B. Bullhead was recorded from three ditches in Section F. Stone Loach were also found in Sections E and F.
- 4.11.3 Environment Agency (EA) survey data on fish was obtained. The EA surveys recorded a range of species at each EA sampling point. The majority of these are common freshwater fish, however, there are multiple records of European eel (NERC species, Avon BAP priority species and IUCN Red List – Critically Endangered), at each of the sampling locations. Desk study records are shown in **Volume 5.8.3, Figure 8.57**.

Potential Impacts

- Death or injury to fish during construction of temporary access crossings and installation of underground cables across watercourses.

- Fragmentation or severance of fish migration routes during open-cut installation of underground cables, installation of temporary crossing points and during de-watering periods.
- Disturbance at spawning sites during installation of underground cables.
- Prevention of passage along eel migration routes during underground installations and within de-watered sections.
- Death or injury to eel on land from construction traffic and/or activity.

Fish Method Statement

- 4.11.4 Sensitive working methods will be employed at all watercourse crossings and at all works within 9m of a watercourse. Dams either side of any de-watered working area (sandbags, piling or other material) will be carefully installed under supervision of the ECoW to avoid killing or injury of fish or eels.
- 4.11.5 Watercourses with significant flow will be over-pumped or have temporary culverts installed (where cable ducting is installed beneath the watercourse) during the de-watered stage; or alternatively, the works will be undertaken in two stages, dividing the watercourse down the centre of the channel using sandbags and de-watering one section at a time. The latter method is appropriate for installing bridge crossings rather than culvert crossings or cable ducting, allowing works to be undertaken on one bank at a time.
- 4.11.6 Fish rescues will be carried out in the latter stages of de-watering operations. Fish will be released into the adjacent channel (up or downstream release, to be determined on a case-by-case basis depending on the connectivity of the watercourse and the time of year. The ECoW will identify the fish release site in a brief method statement to be produced prior to each fish rescue operation.
- 4.11.7 Watercourses will be netted during the de-watering process, with fish placed in temporary bankside water-tanks. Fish species and numbers will be recorded prior to their release at the agreed location. The works will be undertaken by Sub-Contractors who are accredited under the 'Performing Section 30 Fish Health Checks Accreditation Scheme'. This Accreditation Scheme has been developed in response to discussions between the EA and the Institute of Fisheries Management (IFM). The Accreditation Scheme evaluates the experience and technical ability of individuals to perform fish examinations, to meet the requirements of the EA under Section 30 of the Salmon & Freshwater Fisheries Act 1975 (SFFA) and similar requirements under future legislation.
- 4.11.8 Some fish species retreat into burrows in the riverbed during de-watering and may not be recovered by netting. Further discussions with the EA will take place to determine if electrofishing is required at any locations. Discussion with EA will also inform the need for permits and licencing for fish rescue and translocation methods. This section will be updated following those discussions.
- 4.11.9 Once the culvert, duct or crossing is in place, flow will gradually be allowed to return through the culvert.
- 4.11.10 All watercourses will be reinstated on completion of works. Where hedgerow removal has been required in bankside habitats to facilitate works, replacement hedgerows will be planted. Where trees have been lost it will not be possible to plant replacement trees within the easement of the underground cable or overhead line.

- 4.11.11 Bankside and in-channel vegetation will be allowed to regenerate naturally.
- 4.11.12 Speed limits and defined access/haul routes will be adhered to during construction in order to minimise risk to eels on land. There is a low risk that eels traversing land may be obstructed by soil bunds or become caught in open excavations. Temporary soil bunds will have regular gaps to reduce flood risks and breaks will also be present at hedgerow crossings, these gaps will also serve to reduce any barrier effects to eels traversing land. Sloped edges to open trenches will be used to allow egress for any caught wildlife including eels.

4.12 Invertebrates

- 4.12.1 The section provides a description of the type of works that may affect invertebrate habitats and provides proposals for working period method statements.

Invertebrate Survey Summary

- 4.12.2 Aquatic and terrestrial invertebrate surveys were undertaken within the Order Limits during 2013. Over 100 watercourses were assessed for their suitability to support aquatic invertebrate communities with detailed surveys undertaken on a selection of these habitats. Surveyed ditches were then scored for their aquatic invertebrate assemblages. The high level of connectivity of ditches throughout the survey area allows the potential for invertebrates to move across the Order Limits and the findings of the surveys provide a good assessment of the invertebrate species and communities present within the Order Limits.
- 4.12.3 Full details of survey methods, limitations and results presented within **Volume 5.8.3, Figure 8.55 and 8.56 and Volume 5.8.2, Appendix 8N.**

Potential Impacts

- 4.12.4 Where the Proposed Development directly affects habitat suitable to support rare or endangered invertebrates (those classified as Vulnerable or Near Threatened, following IUCN red data book criteria) there is potential for the following impacts to occur:
- Direct loss of invertebrate habitat.
 - Death and/or injury of invertebrates.
 - Fragmentation of invertebrate populations.
- 4.12.5 Impacts of the proposed works will be limited to locations where works fall within 9m of the top of the bank of ditches and watercourses, including any works within a ditch or watercourse.
- 4.12.6 The only invertebrate recorded which is protected under the Wildlife and Countryside Act 1981 (as amended) is the lesser silver water beetle *Hydrochara caraboides*.
- 4.12.7 Although the scheme covers a large area, the potential for impacts on invertebrates to result from the proposed development is primarily at locations where watercourses are affected by:
- crossing of proposed underground cable routes (400kV and 132kV);
 - construction of lattice pylons for overhead lines (400kV and 132kV);

- construction of T-pylons (400kV);
- removal of existing 132kV overhead lines;
- construction of CSE compounds;
- construction of or extensions to substation site;
- temporary crossings for construction access tracks (if these require a temporary bridge or culvert); and
- works adjacent to watercourses including de-watering of excavations, pumping into watercourses.

Invertebrate Method Statement

- 4.12.8 All retained ditches will be protected from construction activity, vehicle movements and storage of materials through the installation of steel mesh fencing to a minimum of 9m from the top of each ditch and water course bank to prevent encroachment into potential invertebrate habitats.
- 4.12.9 All haul roads, working areas, laydown areas and general construction activities will maintain the 9m buffer along each from each ditch and watercourse where possible. Where maintenance of the 9m buffer cannot be achieved due to the nature of the works, such as underground sections and creation of access road crossings, further measures will be implemented as described below.
- 4.12.10 Within the SSSIs 9m buffers will be prioritised due to the greater sensitivity of ditch habitats within these areas.
- 4.12.11 In addition to direct damage to habitats there is potential for damage to occur through reduction of habitat and water quality. This could be caused through direct pollution from fuel or chemical spills, or surface runoff carrying pollution and sediments into ditches and watercourses.
- 4.12.12 Silt traps will be installed in ditches and watercourses which are affected by works to prevent materials being transported into adjacent habitats.
- 4.12.13 Spill trays will be used to ensure that any spillages are unable to enter ditches or watercourses.
- 4.12.14 Bunds will be created where working areas are adjacent to retained ditches and watercourses to prevent sediments and pollution being washed into the ditches through surface run off.
- 4.12.15 If any ditches require pumping prior to works (e.g. prior to loss of ditch or during works within ditch) settlement tanks and controlled outflows will be used.
- 4.12.16 Wherever possible National Grid will use existing crossing points of ditches and watercourses for use with temporary haul routes. However it is not possible to avoid invertebrate habitats in every instance and mitigation is therefore required.
- 4.12.17 Sensitive working methods will be employed at all watercourse crossings and at all works within 9m of a watercourse. Dams either side of any de-watered working area (sandbags, piling or other material) will be carefully installed under supervision of the ECoW to minimise effects on habitat features used by ditch invertebrates.
- 4.12.18 Watercourses with significant flow will be over-pumped during the de-watered stage; or alternatively, the works will be undertaken in two stages, dividing the watercourse down the centre of the channel using sandbags and de-watering one section at a time. The latter method is appropriate for installing bridge crossings

rather than culvert crossings or cable ducting, allowing works to be undertaken on one bank at a time.

- 4.12.19 On all SSSI ditches and where survey information or habitat assessment indicates a ditch is likely to be a high value for invertebrates, pumps will be fitted with fine mesh filters to prevent invertebrates from being pulled into the pump. These ditches will also be netted for invertebrates in the latter stages of de-watering operations. Invertebrates will be released into the adjacent channel (up or downstream release).
- 4.12.20 Once the working area has been drained down, it is likely that the bed and banks of the ditch will be modified prior to installation of the culvert. During this process, any vegetation or silt will be placed on the top of the ditch bank (outside of the de-watered section) and left for at least 24 hours to allow invertebrates to make their way back into the water.
- 4.12.21 Once the culvert, duct or crossing is in place, flow will gradually be allowed to return through the culvert.
- 4.12.22 All watercourses will be reinstated on completion of works. Where trees have been lost it will not be possible to plant replacement trees within the easement of the underground cable or overhead line.
- 4.12.23 Where hedgerow removal has been required in bankside habitats to facilitate works, replacement hedgerows will be planted. NE has requested that no replanting of trees or hedgerows is undertaken within the SSSIs notified for ditch invertebrate assemblages.
- 4.12.24 Bankside and in-channel vegetation will be allowed to regenerate naturally.
- 4.12.25 The same approach will be used for removal of temporary culverts on completion of the works.

Lesser Silver Water Beetle

- 4.12.26 Work in Somerset and Cheshire has shown that *H. caraboides* like water bodies with the following features:
 - still, or very slow-flowing water;
 - shallow, often seasonally inundated water bodies;
 - leafy or detritus-rich substrates;
 - clear water, without excessive growth of floating duckweeds;
 - abundant invertebrate prey, especially small Crustacea and *Asellus aquaticus*; and
 - mats of floating sweet-grass *Glyceria fluitans*.
- 4.12.27 A ditch crossing (C-LD1-CRO3) in Woolavington (south of Huntspill) off Causeway is proposed over a ditch where the lesser silver water beetle *H. caraboides* was recorded.
- 4.12.28 Prior to the commencement of works (between April and August) for crossing points along this ditch, a licensed surveyor will net all floating vegetation within 10 metres of the crossing point. Any *H. caraboides* egg cocoons, larvae, pupae or adults found would be relocated upstream (if a flow exists) away from the areas of work. Egg cocoons and larvae are sedentary, whereas adults are mobile and can be

found away from breeding sites but in the same eco-systems. Cocoons would be placed in areas free of *Lemna* spp.

- 4.12.29 Once the netting has been completed, work will commence on the de-watering and construction of the crossing points.
- 4.12.30 Discharged water is to flow gently into the watercourse to avoid disturbance to the substrate and prevent localised turbulence in the ditch.
- 4.12.31 Upon completion of the construction of the crossing point, the water will be allowed to flow back under the water crossing.
- 4.12.32 The process will be repeated upon decommissioning of the crossing.

5 PROCESSES FOR REPORTING AND AGREEING AMENDMENTS

5.1 Overview

- 5.1.1 The BMS should be considered as a live document and will be updated throughout each construction phase of the development. Amendments to any aspect of the Proposed Development will be agreed with the relevant organisations as listed in **Table 5.1** below.

Table 5.1 Process for Agreeing Proposed Development Amendments

Species/Site Affected	Agreement Process
Effect on protected species.	Natural England will be contacted and licences updated accordingly.
Effect on watercourses.	The Environment Agency will be contacted and any additional licences will be obtained.
Changes within local designations.	LPA will be contacted and changes agreed.
Changes within nature reserves.	Organisation managing the site will be contacted and changes agreed.
Changes within SSSIs.	Natural England will be contacted and Section 28E procedures will be followed.

Appendix A – Ecological Clerk of Works – Daily Log Template

NATIONAL GRID, HINKLEY POINT C CONNECTION PROJECT

ECOLOGICAL CLERK OF WORKS - DAILY LOG

Date	
Name	
Reference for any supporting documents	

Location		Other Persons	
Task			
Relevant Legislation			
Observations/Actions			

Location		Other Persons	
Task			
Relevant Legislation			
Observations/Actions			

Location		Other Persons	
Task			
Relevant Legislation			
Observations/Actions			

Location		Other Persons	
Task			
Relevant Legislation			
Observations/Actions			

Appendix B – Ecology & Biodiversity – Non-compliance Alert Template

NATIONAL GRID, HINKLEY POINT C CONNECTION PROJECT

ECOLOGY & BIODIVERSITY NON-COMPLIANCE ALERT

Location			
Date		Time	
Reported by			
Reported to			
Persons/Organisations involved			

Species/Habitats Affected
Relevant Legislation(s)
Relevant licence or method statement document(s)

Description of Non-compliance

Immediate Action Taken (if any)**Further Action Required (if any)****Environmental Manager Use Only**

Non-compliance alert ID		Reference of any other relevant documents	
Received By		Date	
Further Action Required	Y/N	Recommended By	
Date Closed		Closed By	

Appendix C – Ecology & Biodiversity – Remedial Action Report Template

NATIONAL GRID, HINKLEY POINT C CONNECTION PROJECT

REMEDIAL ACTION REPORT

Relevant Daily Log Date(s)		Relevant Non-compliance report ID	
Location			
Remedial Action Required			
Affected Species/Habitats			
Relevant Legislation/Licence Method Statement.			
Details of any statutory bodies consulted			
Approved By		Date	

Corrective Action Taken		Person Responsible	Date Completed
Closed by		Date Closed	

Appendix D – Bat Foraging Habitat Provisions



Hinkley Point C Connection Project

JULY 2015

**APPENDIX D TO VOLUME 5.26.3C – BIODIVERSITY MITIGATION STRATEGY: BAT
FORAGING HABITAT PROVISIONS**

Document Control			
Document Properties			
Organisation		National Grid	
Author		Elizabeth Seal, TEP	
Approved By		Francis Hesketh, TEP	
Title		Biodiversity Mitigation Statement: Appendix D – Bat Foraging Habitat Provisions	
Document Reference		Volume 5.26.3C – Appendix D	
Version History			
Date	Version	Status	Description/Changes
26/04/2015	A	Superseded	Draft version for consultation
27/05/2015	B	Superseded	Amendments following Joint Council review
03/07/2015	C	Live	Updated version for submission to PINS

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1 INTRODUCTION

1.1 Purpose of this Document

- 1.1.1 This document (**Appendix D of Volume 5.26.3C**) demonstrates how National Grid would ensure that sufficient foraging habitat would be available to lesser horseshoe and greater horseshoe bats during the construction of the Proposed Development. The focus of this approach is on horseshoe bats associated with the North Somerset & Mendip Bats Special Area of Conservation (SAC) and the Mendip Limestone Grasslands SAC. The provisions cover the 400kV undergrounding works within the influence of these two bat SAC sites (i.e. the 400kV undergrounding through Mendip Hills Area of Outstanding Natural Beauty).
- 1.1.2 This document provides the detail of the approach set out in the Applicant's Report to Support Habitats Regulation Assessment (**Volume 5.20.1A and Volume 5.20.2B**) and the main body of the Biodiversity Mitigation Statement (**Volume 5.26.3C**).

2 METHOD

2.1 Overview

- 2.1.1 To mitigate the construction phase loss of bat foraging habitats (due to the 400kV cable trenching and associated working areas) National Grid has expanded the Order Limits of the Proposed Development to encompass non construction land. Habitat improvements for bats will be undertaken on this land to offset the loss of habitats during construction.
- 2.1.2 The Somerset Habitat Evaluation Procedure (HEP) Methodology (Somerset County Council, June 2014) is used to objectively quantify the mitigation provided for bats. Previously known as the Somerset Biodiversity Offsetting Method, HEP is a procedure founded on calculating species-specific, geographically-sensitive habitat values.
- 2.1.3 HEP has been used to calculate the current value of the habitats for horseshoe bats and quantify the value of the proposed construction phase habitats.

2.2 Habitat Evaluation Procedure Method

Habitat Score

- 2.2.1 The HEP calculates Habitat Units (HU) for a site using a Habitat Suitability Index (a score of quality) for a species and the total area of that habitat. The Integrated Habitat System (IHS) developed by Somerset Environmental Records Centre (SERC) is the foundation for the habitat classification used in the HEP. Habitat codes (over 400 categories) are drawn from existing classifications widely used by ecologists (Broad Habitat Types, Priority Habitat Types, Annex 1 of the Habitats Directive and Phase 1 Habitat Survey).
- 2.2.2 HEP analyses the ecological requirements of a species, using literature review and professional judgement to determine an appropriate index score for each Habitat, Matrix, Formation and Management code. Each IHS Habitat code is assigned a score on a scale of 0 to 6. The definitions used in the HEP method is adapted from

the *‘Wildlife Habitat Handbook for the Southern Interior Ecoprovince’*, *British Columbia, Ministry of Environment (Ritcey et al, 1988)*. Table 1 presents the descriptions provided in the HEP method:

Table 1: Habitat Code Scores

Score	Category	Description
6	Excellent	Provides for essential life requisites, including feeding, reproduction or special needs and supports a relatively high population density, implied >70% chance of occurrence, can support positive recruitment. May be a critical life-cycle association.
5	Very Good	Provides for essential life requisites, including feeding, reproduction or special needs and supports a relatively high population density, implied 50 - 70% chance of occurrence, can support positive recruitment.
4	Good	Provides for a life requisites, including feeding, reproduction or special needs and supports a relatively high population density, implied 40 - 50% chance of occurrence, can support a stable population.
3	Average	Provides for moderately required life needs, including feeding, reproduction or special needs and supports a relatively moderate population density, implied 25 - 40% chance of occurrence, can support a stable population.
2	Marginal	Provides for marginally required life needs, including feeding, reproduction or special needs and supports a relatively modest population density, implied 15 - 25% chance of occurrence, can support a small Population.
1	Poor	Provides for a non-essential life needs, including feeding, reproduction or special needs and supports a relatively low population density, implied <15% chance of occurrence.

Modifiers

2.2.3 The Habitat score is modified by the matrix, formation and management codes:

- Matrix codes (for example if a grassland field contains scrub or trees) are added to or subtracted from the Habitat code to a maximum score of 6 (i.e. an excellent habitat cannot score higher than 6). Where there is no matrix score a default of 0 is used.
- Formation codes (e.g. is the open water a pond or large lake?) are scored on a scale of 0 to 1. This is a multiplier. Where the Formation type does not alter the suitability of the habitat then a default score of 1 is used).
- Management codes (e.g. is the grassland cattle grazed or the woodland coppiced?) are scored on a scale of 0 to 1. This is a multiplier. Where the Management type does not alter the suitability of the habitat then a default score of 1 is used.

- 2.2.4 In summary, the HSI metric is {Habitat (0 to 6)} + or – {Matrix (0 to 6, to a total maximum of 6)} x {Formation (0 to 1)} x {Management (0 to 1)}. Thus the maximum HSI metric score is 6.

Consideration Zones

- 2.2.5 This score is multiplied by the Consideration Zone (CZ) score (determined by the location of the habitat in relation to the species record). A Consideration Zone is determined by either the home range or dispersal distance of the species being assessed and divided into three Density Bands. These are determined by HEP through review of existing literature and professional judgement. Band 'A' is closest to the record and scores the highest whilst Band 'C' is furthest from the record and scores the lowest. Where CZs between SACs overlap, the highest Band score is used.
- 2.2.6 When multiple species require mitigation the HEP procedure suggests the species most sensitive to change is used as an umbrella species on which the calculations can be run. As the mitigation in this assessment is only targeting two species (of equal importance) the calculations have been run for both the lesser horseshoe bat and greater horseshoe bat. The Habitat, Matrix, Formation and Management scores and Density Band distances for these species were provided by Somerset County Council in early 2014 and updated in January 2015. The scores are given in the detailed tables at Annexes A to D. The density band distances for both horseshoe bat species are shown at Table 2.

Table 2: Horseshoe Bat Consideration Zones

Band Category	Distance from Record (metres)		Band Score
	Lesser Horseshoe	Greater Horseshoe	
A	500m	500m	3
B	2750m	3400m	2
C	5000m	5750m	1

Risk Multipliers

- 2.2.7 The HEP also requires the calculation of Delivery Risk, Spatial Risk and Temporal Risk as fraction multipliers of the Habitat score. These risk multipliers have all been assessed at 1 and as such do not affect the overall score. The following paragraphs show how these multipliers have been determined.
- 2.2.8 Delivery risk ensures the level of difficulty in creating or restoring a habitat type is taken into account. For this project the habitats are either already present (i.e. proposals are to change management practices) or involve creation of improved grassland habitats. Thus the risk value is assessed as low and therefore the multiplier is 1.
- 2.2.9 Spatial risk ensures the location of replacement habitat (i.e. is it accessible to the species population affected) is taken into account. For this project the construction works lie between the two bat SAC sites (north Somerset & Mendip Bats SAC in the north and west, Mendip Limestone Grasslands SAC in the south and east) and the habitat enhancement works are adjacent to (either side of) the construction

footprint. The spatial risk factor has therefore been assessed as low with a multiplier value of 1.

- 2.2.10 Temporal risk ensures the difference between implementation of the development and the functionality/maturity of the offsetting habitat is taken into account. For this project the changes to the management enhancement practices will be implemented at the start of the 6 year construction period and the seeding will take place following the creation of the soil stockpiles. With this in mind there is only a minimal expected time lag, far below the 5 years provided as the lowest value in the guidance, therefore for this scheme the multiplier value has been set at 1.

3 BASELINE CONDITIONS

3.1 Baseline Mapping

- 3.1.1 Each field along the 400kV undergrounding section has been given a unique field number. Where there are multiple habitats within the same field, the area is subdivided with the use of a letter i.e. 1a, 1b etc. The same numbering system applies to boundary features. As required by the HEP method; a standard width of 3m has been assumed for hedgerows/tree lines. This 3m width allows an area to be generated (in hectares) from measurement of a linear feature.
- 3.1.2 The impact of the Proposed Development on each field feature is referenced with a decimal system. Field areas where there will be total habitat loss due to construction activity (i.e. cable swathe, haul road, compound sites) are denoted with a '.1' following the field number. Field areas taken up with subsoil and topsoil stockpiles are denoted with a '.2' following the field number. Finally field areas allocated for bat foraging habitat are denoted with a '.3' following the field number.
- 3.1.3 The impact of the Proposed Development on each boundary feature is also referenced using a decimal system. The difference here is that '.1' references a feature that will be removed during the construction period and '.2' references a retained boundary feature that surrounds a field allocated for bat foraging habitat.
- 3.1.4 As described within the guidelines, for each field subdivision it is determined whether the area in question will be either lost or retained/enhanced, this is represented by '.1' and '.3' respectively. For this project there is also a third category (category '.2') within the field spreadsheets which relates to subsoil and topsoil stockpiles which will be seeded to create temporary grassland. The area of field that falls within this area is considered to be both lost (in terms of current habitat) and also retained/enhanced (through the seeding of spoil piles).

3.2 Baseline Habitat, Matrix, Formation and Management Codes

- 3.2.1 All boundary features have been considered. Where there is a ditch located beneath a dense hedgerow, the hedgerow as the dominant feature has been allocated a habitat score and used within the calculations. Where there is open water along a boundary i.e. a drain, stream or river, as the dominant feature this score has been included.
- 3.2.2 The HEP makes no allowance for seasonal variation in habitat type or management. It assumes that where a habitat is valued at a particular score at one

time of the year, this classification will remain throughout the entire year. It is therefore important to identify the habitat or management score during the period of most importance to the species in question. This assessment has selected the management or habitat employed for the longest period between the key months for bat activity (April – October).

- 3.2.3 In allocating habitat and management type scores a number of best fit options have been made to fit the HEP code options available. Where necessary, these decisions have been discussed with Larry Burrows (Somerset County Council ecologist and lead author of the HEP). Such decisions include assessing drains as canals, tree lines as intact or defunct hedgerows and the underground trenching as freshly ploughed land. Further details on habitat types and management practice codes which have been used within the calculations are provided in Tables 3 and 4.

Table 3: Baseline habitat types allocated in the assessment

Baseline Habitat		
Label (Type)	Code	Explanation
Fields		
Grassland, probably improved	GP0	Improved or semi-improved grassland fields that weren't shown to have a diverse species sward based on Phase 1 and NVC information.
Cereal crops	CR2	Arable land based on Phase 1 information that supported cereal crops including maize and wheat.
Broad-leaved woodland	WB3	Small areas of woodland as identified within the Phase 1 information generally along rivers/streams.
Built-up areas/gardens	UR0	Area of house and garden.
Boundaries		
Non-important Hedgerows	LF11Z	A hedgerow not considered 'important' based on the Hedgerow Regulations 1997.
Important Hedgerows	LF111	A hedgerow considered 'important' based on the Hedgerow Regulations 1997.
Line of Trees	LF12	A line of trees which were generally a field boundary feature.
Rivers and Streams	AR0	A river or stream.
Other Standing Open Water & Canals	ASZ	A ryhne with standing water. Has the appearance of a canal.
Wall	LF23	Wall as a boundary feature.
Fence	LF26	Fence as a boundary feature

Table 4: Baseline management codes allocated in the assessment

Baseline Management		
Label (Type)	Code	Explanation
Fields		
Silage	GM21	Grassland cut 2-3 times a year during summer months when grass is at its richest. Not grazed at any time of the year.
Cattle Grazed	GM11	Field predominantly cattle grazed during spring, summer and autumn months.
Sheep Grazed	GM12	Field predominantly sheep grazed during spring, summer and autumn months.
Cereal crops not managed for wildlife	CL5Z	Field with cereal crops during summer months. Land not specifically managed for wildlife.
Pollarded Woodland	WM6	Small strips of woodland along streams/rivers where top and side branches are pollarded.
Domestic	UA3	Area of house and garden considered domestic.
Boundaries		
Cut Hedgerow	LM1	Hedgerow flailed up to twice a year.
Uncut Hedgerow	LM2	Hedgerow not cut annually.
Overgrown Hedgerow	LM3	Hedgerow obviously unmanaged due to current formation.
Intact Hedgerow	LH1	Consistent line of trees.
Defunct Hedgerow	LH2	Gappy line of trees.
Canal-side with Woodland	LT11	Rhyne bordered with woodland.
Canal-side with Scrub or Hedgerow or Standard Trees	LT12	Rhyne bordered with scrub or hedgerow and standard trees.
Canal-side with Scrub or Hedgerow	LT13	Rhyne bordered with scrub or hedgerow.
Canal-side with Grassland	LT15	Rhyne bordered with grassland banks only.
River-side with Scrub or Hedgerow or Standard Trees	LT22	Stream or river bordered with scrub or hedgerow and standard trees
River-side with Scrub or Hedgerow	LT23	Stream or river bordered with scrub or hedgerow.
River-side with Grassland	LT25	Stream or river bordered with grassland banks only.
No management technique allocated for fence or wall.		

3.3 Baseline Results

- 3.3.1 The Habitat Unit (HU) scores for the current site conditions within the Order Limits (including the bat foraging habitats) are presented in Table 5. The full assessment is provided in Annexes A to D.

Table 5: Baseline Habitat Unit (HU) Scores

Feature	Sub Total (HU)	Total (HU)
Lesser Horseshoe Bat		
Fields	248.7	353.6
Boundaries	104.9	
Greater Horseshoe Bat		
Fields	867.4	937.5
Boundaries	70.1	

4 DEFAULT CONSTRUCTION PHASE CONDITIONS

4.1 Construction Phase Mapping

- 4.1.1 The mapping procedure set out for baseline conditions also applies to the construction phase assessment.

4.2 Construction Phase Habitat, Matrix, Formation and Management Codes

- 4.2.1 As with the allocation of codes to the baseline conditions, the proposed habitat and management scores are taken from the management or habitat employed for the longest period between the key months for bat activity (April – October). For example, a farmer may not graze cattle on the land over winter, but it would still be appropriate to score the habitat management as cattle grazed as this dominates the period April to October.
- 4.2.2 In allocating habitat and management type scores a number of best fit options have been made to fit the HEP code options available. In addition to those codes discussed in Section 3, soil stockpiles (which will be seeded) are coded as unmanaged improved grassland. These areas will be within the fenced works area and will not be subject to any form of management.
- 4.2.3 The default proposed construction phase management assumes no grazing of grassland fields. This is a precautionary approach to the assessment and further explanation of this approach is provided in Section 5. Further details on habitat types and management practice codes which have been used within the calculations are provided in Table 6 and Table 7.

Table 6: Proposed construction phase habitat types allocated in the assessment

Proposed Construction Phase Habitat		
Label (Type)	Code	Explanation
Fields		
Freshly ploughed	CR4	Area of soil stripping for cable trench/compounds.
Grassland, probably improved	GP0	Area of existing grassland or area of newly seeded grassland (topsoil & subsoil piles or previously arable land).

Proposed Construction Phase Habitat		
Label (Type)	Code	Explanation
Broad-leaved Woodland	WB3	Area of woodland cover not lost to development but within working area.
Built-up areas/gardens	UR0	Area of house and garden.
Boundaries		
Non-important Hedgerows	LF11Z	A hedgerow not considered 'important' based on the Hedgerow Regulations 1997.
Important Hedgerows	LF111	A hedgerow considered 'important' based on the Hedgerow Regulations 1997.
Line of Trees	LF12	A line of trees which were generally a field boundary feature.
Rivers and Streams	AR0	A river or stream.
Other Standing Open Water & Canals	ASZ	A ryhne with standing water. Has the appearance of a canal.
Wall	LF23	Wall as a boundary feature.
Fence	LF26	Fence as a boundary feature

Table 7: Proposed construction phase management codes allocated in the assessment

Proposed Construction Phase Management		
Label (Type)	Code	Explanation
Fields		
Unmanaged	GM4	Area of existing grassland or area of newly seeded grassland (topsoil & subsoil piles or previously arable land) left unmanaged.
Unmanaged Woodland	WM7	Area of existing woodland that will be left unmanaged.
Domestic	UA3	Area of house and garden that will be occupied during works.
Boundaries		
Uncut Hedgerow	LM2	Hedgerow cut alternate sides annually and topped once every 2 years maximum.
Overgrown Hedgerow	LM3	Hedgerow previously considered overgrown and left unmanaged.
Intact Hedgerow	LH1	No additional management proposed same as baseline.
Defunct Hedgerow	LH2	No additional management proposed same as baseline.
Canal-side with Woodland	LT11	No additional management proposed same as baseline.
Canal-side with Scrub or Hedgerow or Standard Trees	LT12	No additional management proposed same as baseline.
Canal-side with Scrub or Hedgerow	LT13	No additional management proposed same as baseline.

Proposed Construction Phase Management		
Label (Type)	Code	Explanation
Canal-side with Grassland	LT15	No additional management proposed same as baseline.
River-side with Scrub or Hedgerow or Standard Trees	LT22	No additional management proposed same as baseline.
River-side with Scrub or Hedgerow	LT23	No additional management proposed same as baseline.
River-side with Grassland	LT25	No additional management proposed same as baseline.
No management technique allocated for fence or wall.		

4.3 Construction Phase Results

- 4.3.1 The Habitat Unit (HU) Scores for the construction phase habitats are presented in Table 8. The full assessment is provided in Annexes A to D. It should be noted when viewing the supporting plans that net gains and losses in any land parcel will in part be due to the size of land parcel (i.e. large fields will experience more extreme variation in losses and gains).
- 4.3.2 The construction phase habitat and management proposals are illustrated on plans at Annexes E (fields) and F (boundaries). For presentation purposes, the keys in the plans combine habitat and management types where the matrix score is the only differentiating factor. HEP codes are provided in the keys.
- 4.3.3 Large net gains in field scores are achieved where cereal crops are converted to unmanaged grassland habitats; although there are limited cereal fields in the baseline conditions. Other gains are achieved by converting silage fields to unmanaged grassland; silage fields are more prevalent in the landscape. The avoidance of using grazing Management Codes results in a net loss for some areas (for greater horseshoe bats) despite being located outside construction areas; a further explanation on this matter is provided at Section 5.
- 4.3.4 The net gains achieved in boundary scores are largely due to the cessation of hedgerow cutting across the large retained hedgerow compared with the relatively small hedgerow losses.

Table 8: Proposed Construction Phase Habitat Unit Scores

Feature	Sub Total (HU)	Total (HU)
Lesser Horseshoe Bat		
Fields	261.2	440.4
Boundaries	179.2	
Greater Horseshoe Bat		
Fields	942.5	1,133.0
Boundaries	190.5	

4.4 Summary

- 4.4.1 The habitat and management types proposed in this document represent a default position that National Grid is confident can be achieved when it takes control of the

land during the construction phase of the Proposed Development. The main approaches are conversion of cereal crops to grassland, ceasing silage crops and ending cutting of hedgerows. In other words, this approach demonstrates the mitigation option that will be implemented by National Grid in a situation without landowner co-operation.

- 4.4.2 The results of these proposals are summarised in Table 9 and show they will ensure an enhancement of habitat value (increased Habitat Units) from baseline conditions.

Table 9: Summary of Mitigation

Bat Species	Baseline Score (HU)	Construction Phase Score (HU)	Net Gain (HU)	% of Baseline Score Achieved During Construction Phase
Lesser Horseshoe	353.6	440.4	86.8	124.5%
Greater Horseshoe	937.5	1,133.0	195.5	120.8%

- 4.4.3 It is not possible to create a uniformed distribution of construction phase net gains across the assessment area because the net gain achieved is dependent on the baseline value of the habitat and the size of the land parcel. Therefore, improvements may not be possible where baseline values are already high and net changes will be greater in larger land parcels. However, the proposals ensure that a mix of net habitat gains and losses are located within each of the Bands associated with each of the SACs (there are 5 such Bands).
- 4.4.4 To provide a better understanding of the baseline and construction phase habitat values the plans provided at Annex G and H illustrate the absolute Habitat Suitability score (applying all modifiers except the area (ha) multiplier) for each bat species; this demonstrates that no areas along the route of the Proposed Development are devoid of value for either species of horseshoe bat.

5 PRECAUTIONARY PRINCIPLES

5.1 Consideration Zones

- 5.1.1 This assessment has taken a precautionary approach to applying the Consideration Zones. The HEP method is based on applying these codes to a species record (i.e. a bat roost location). The CZs for this assessment have instead been applied to the outer boundaries of the SAC units (whereas in reality, the actual roost sites will be further from the construction works area). Both horseshoes species have a Band A distance of 500m and this has been applied to the SAC boundaries resulting in two areas where the Order Limits fall within Band A. If these Bands were instead applied to roost locations within the SAC the area of the Proposed Development within Band A would decrease.
- 5.1.2 To provide perspective, the area of a 500m band from a central point is 6.25ha, whereas the total area of the closest unit (Banwell Ochre Caves SSSI) of the North Somerset & Mendip Bats SAC is just under 12ha (the width of the unit ranges from c150m to c450m). The total area of the closest unit (Crook Peak to Shute Shelve

SSSI) of the Mendip Limestone Grasslands SAC is just under 263ha (the width of the unit ranges from c250m to c3800m). These SAC boundaries are likely (if not designed) to encompass habitats required to support the species which are qualifying features of the designation.

5.2 Construction Phase Losses

- 5.2.1 The habitat losses used in this calculation are based on a worst case scenario; that of all field habitats within the cable swath being soil stripped. In reality this is unlikely to be the case. The cable swath boundaries provide a degree of flexibility for the cable contractors and this flexibility is greatest around Horizontal Directional Drill locations and areas where several construction options are proposed (i.e. the River Axe crossing)

5.3 Management Type

- 5.3.1 As a default position the management code applied to grassland habitats within the bat foraging land is limited to GM4 (unmanaged). The management codes GM11 (cattle grazed) and GM12 (sheep grazed) are not used. It is highly likely that cattle grazing and possibly also sheep grazing will be undertaken on at least some bat foraging fields. The modifier scores associated with both of these grazing regimes for lesser and greater horseshoe bats is 1. The modifier score for GM4 is 1 for lesser horseshoe bat and 0.75 for greater horseshoe bat. In other words, changing grassland management type from unmanaged to grazed will not alter the habitat index score, with the exception of greater horseshoe bat for which there would be an increase in value.

5.4 Phasing

Phased construction works

- 5.4.1 The calculations assume all habitats along the 400kV undergrounding works will be lost on day one of the construction phase. In reality works during Year 1 will be dominated by construction of the haul road and installation of associated compounds. Additionally, cable installation (and associated soil stripping) will proceed in sections.

Phased reinstatement

- 5.4.2 Furthermore, with the exception of the haul road, habitats will be reinstated in phases (replacing open trenches with grasslands and hedgerow gaps with newly planted hedgerows).

6 MECHANISM FOR SECURING AND AMENDING PROPOSALS

6.1 DCO Requirements

- 6.1.1 The bat foraging habitats fall within the Order Limits of the Proposed Development and as such National Grid is seeking the rights through the DCO to implement the mitigation proposals.
- 6.1.2 The provision of construction phase bat foraging habitats is secured primarily through DCO Requirement 14.

- 6.1.3 The information on bat foraging information is included in the Biodiversity Mitigation Strategy (BMS), this is an Appendix to the Construction Environmental Management Plan (CEMP); as such the proposals are also secured via DCO Requirement 5. Requirement 5 is not the primary mechanism for securing the bat foraging mitigation but there is no conflict between the Requirements 5 and 14.

6.2 Amendments

- 6.2.1 DCO Requirement 14 will allow for proposals to be amended if approved by Natural England.
- 6.2.2 The opportunity to seek approved amendments to these proposals relates to National Grid's ongoing discussions with landowners to reach voluntary agreements on their land. Any amendments to the default bat foraging proposals set out in this document would be run through the same assessment procedure. The full assessment would be presented to Natural England for review and approval. Requests for amendments will only be presented to Natural England where a minimum 110% of baseline value (Habitat Units) is achieved for both lesser and greater horseshoe bat species.
- 6.2.3 If no voluntary landowner agreements are reached National Grid will implement the scheme as set out in this document.

Exclusions

- 6.2.4 As set out in Section 5 of this document, the current calculations do not prescribe any grazing management types although it is highly likely grazing will be undertaken. Because grazing would not decrease the value of unmanaged grasslands (and would increase it for greater horseshoe bats), there would be no requirement to seek an amendment to the Default proposals to allow grazing on any grassland habitats.

6.3 Monitoring

- 6.3.1 The BMS and CEMP establish the provision of an Ecological Clerk of Works (ECoW) for the Proposed Development. These documents set out the management structure and approach to implementing, monitoring and reporting on the provisions set out in the BMS including this Appendix to the BMS. The ECoW will therefore, ensure the habitat conversions and habitat management types are implemented as set out in the approved proposal. Where any deviation from the approved approach is identified, the ECoW will be responsible for reporting the non-conformance and identifying and ensuring implementation of remedial measures.
- 6.3.2 The ECoW will be responsible for monitoring the bat foraging habitats to check they are being managed in accordance with the prescriptions set out within Annex A to H of this document. Every parcel of bat foraging land would be visited no less than three times a year (approximately once every 4 months).
- 6.3.3 If any amendments to the default position are requested once the construction phase has commenced, the ECoW will be responsible for advising on, and if appropriate requesting Natural England approval for amendments. Monitoring implementation of any amendments will be as set out in the preceding paragraph.

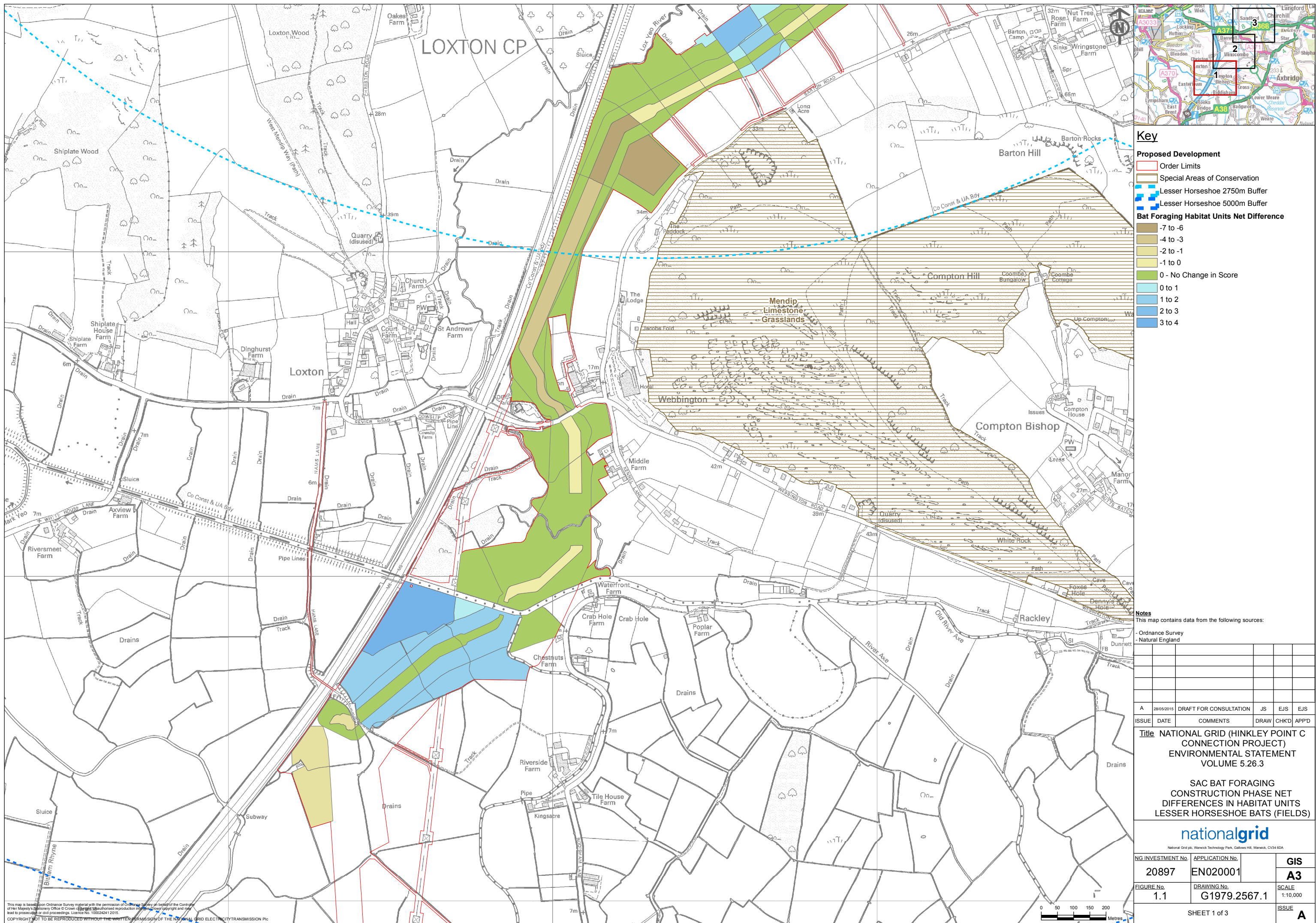
ANNEX A
HEP CALCULATIONS & PLANS
LESSER HORSESHOE BAT: FIELDS

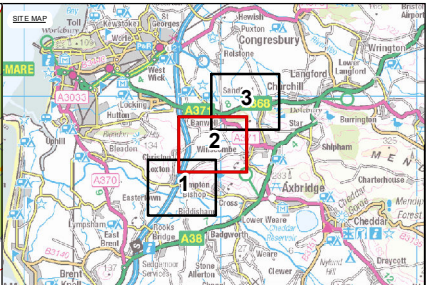
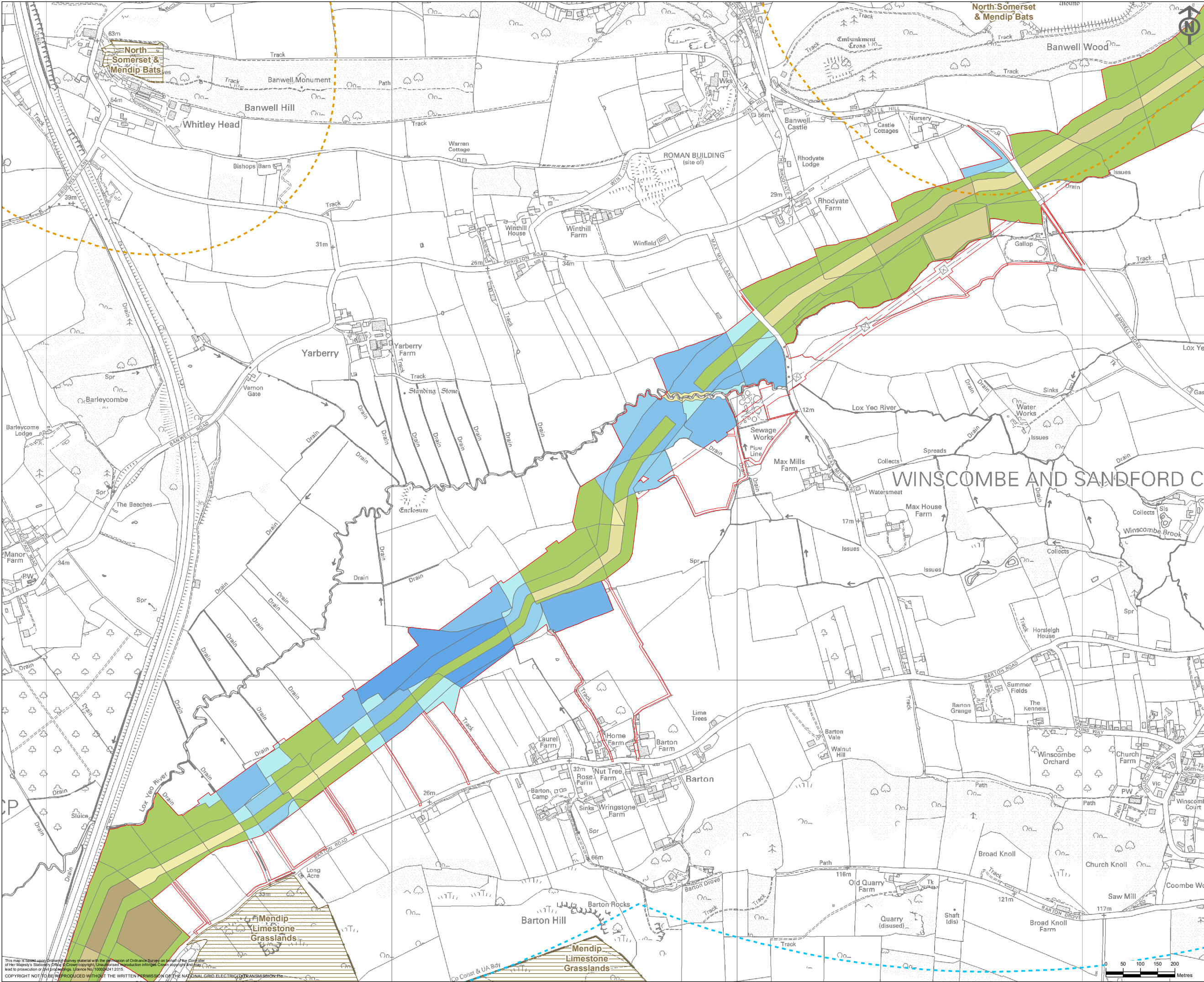
District / Borough:					Site: Hinkley Point C Connection								Date: 22/10/14		Ref No: 1979.79.001				Map Reference:									
Sheet No:1			Species: Lesser Horseshoe Bats (Fields)																									
Field / Compartment No.	PIL ID	Total Area (hectares)	Current habitat	Available for future use by species' population? Y/N	IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		Total HSI Score	Choose either Lost or Enhanced and enter 0 in the other column		Future habitat / land use	Future IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		HSI Score	Future Habitat Units	Net gain on site			
													Habitat Units Lost	Habitat Units Retained, Accessible and to be Enhanced														
1.1	331	0.398	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
1.2	331	1.817	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	1.817	1.81700			
1.3	331	1.295	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	1		1	1.295	1.29500			
4.1	331	0.877	Grassland	Y	GP0.OT3.GM21	1	0	1	0	1		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
4.2	331	1.632	Grassland	Y	GP0.OT3.GM21	1	0	1	0	1		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	1.632	1.63200			
4.3	331	1.947	Grassland	Y	GP0.OT3.GM21	1	0	1	0	1		0	0.00000	0.00000	Bat Foraging Land	GP0.OT3.GM4	1	0	1	1	1		1	1.947	1.94700			
5.1	331	0.606	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
5.2	331	1.39	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	1.39	1.39000			
5.3	331	1.103	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	1		1	1.103	1.10300			
6.2	331	0.385	Grassland	Y	GP0.TS21.GM21	1	0	1	0	1		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	0.385	0.38500			
6.3	331	3.267	Grassland	Y	GP0.TS21.GM21	1	0	1	0	1		0	0.00000	0.00000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	1		1	3.267	3.26700			
8.3	331	0.011	Grassland	Y	GP0.GM21	1	0	1	0	1		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	1		1	0.011	0.01100			
10.1	298	0.85	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	1	1		1	0.85000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
10.2	298	5.205	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	1	1		1	0.00000	5.20500	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	5.205	0.00000			
10.3	298	0.25	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	1	1		1	0.00000	0.25000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	1		1	0.25	0.00000			
11.2	298	1.571	Cereal crops	Y	CR2.CL5Z	1	0	1	1	1		1	0.00000	1.57100	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	1.571	0.00000			
15.1	298	0.392	Grassland	Y	GP0.TS21.GM11	1	0	1	1	1		1	0.39200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
15.2	298	2.175	Grassland	Y	GP0.TS21.GM11	1	0	1	1	1		1	0.00000	2.17500	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	2.175	0.00000			
15.3	298	0.64	Grassland	Y	GP0.TS21.GM11	1	0	1	1	1		1	0.00000	0.64000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	1		1	0.64	0.00000			
16.1	298	0.455	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.91000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000			
16.2	298	1.137	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	2.27400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	2.274	0.00000			
16.3	298	0.973	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	1.94600	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	1.946	0.00000			
16a.3	298	0.022	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.044	0.04400			
17.1	298	0.507	Grassland	Y	GP0.GM11	1	0	1	1	1		1	0.50700	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
17.2	298	1.238	Grassland	Y	GP0.GM11	1	0	1	1	1		1	0.00000	1.23800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	1.238	0.00000			
17.3	298	1.653	Grassland	Y	GP0.GM11	1	0	1	1	1		1	0.00000	1.65300	Bat Foraging Land	GP0.GM4	1	0	1	1	1		1	1.653	0.00000			
21.1	808	3.301	Grassland	Y	GP0.TS21.SC21. GM11	1	0	1	1	1		1	3.30100	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1		0	0	0.00000			
21.2	808	3.272	Grassland	Y	GP0.TS21.SC21. GM11	1	0	1	1	1		1	0.00000	3.27200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1		1	3.272	0.00000			
21.3	808	1.906	Grassland	Y	GP0.TS21.SC21. GM11	1	0	1	1	1		1	0.00000	1.90600	Bat Foraging Land	GP0.TS21.SC21.G M4	1	0	1	1	1		1	1.906	0.00000			
22.1	808	0.32	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.64000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000			
22.2	808	0.678	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	1.35600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.356	0.00000			
22.3	808	0.645	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	1.29000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	1.29	0.00000			
23.3	808	0.176	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.352	0.35200			
24.1	808	0.374	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.74800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000			
24.2	808	0.897	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	1.79400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.794	0.00000			
24.3	808	1.432	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	2.86400	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.864	0.00000			
25.1	808	0.368	Cereal crops	Y	CR2.OT3.CL5Z	1	0	1	1	2		2	0.73600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000			
25.2	808	0.712	Cereal crops	Y																								

55.2	1241	0.402	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.804	0.80400
55.3	1241	1.089	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.178	2.17800
56.1	1867	0.789	Grassland	Y	GP0.GM12	1	0	1	1	2		2	1.57800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
56.2	1867	1.492	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	2.98400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	2.984	0.00000
56.3	1867	1.98	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	3.96000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	3.96	0.00000
57.1	1867	0.51	Grassland	Y	GP0.GM12	1	0	1	1	2		2	1.02000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
57.2	1867	0.795	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	1.59000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.59	0.00000
57.3	1867	0.312	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	0.62400	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.624	0.00000
60.1	1934	1.141	Grassland	Y	GP0.GM12	1	0	1	1	3		3	3.42300	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
60.2	1934	1.722	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	5.16600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	5.166	0.00000
60.3	1934	0.395	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	1.18500	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	1.185	0.00000
61.1	1934	0.463	Grassland	Y	GP0.GM12	1	0	1	1	3		3	1.38900	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
61.2	1934	0.668	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	2.00400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	2.004	0.00000
61.3	1934	0.195	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	0.58500	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	0.585	0.00000
62.1	1934	1.492	Grassland	Y	GP0.GM12	1	0	1	1	2		2	2.98400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
62.2	1934	0.326	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	0.65200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.652	0.00000
62.3	1934	0.176	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	0.35200	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.352	0.00000
63.2	1934	0.08	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	0.16000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.16	0.00000
63.3	1934	1.33	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	2.66000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.66	0.00000
64.1	1691	0.384	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
64.2	1691	1.002	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	2.004	2.00400
64.3	1691	0.19	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.38	0.38000
67.3	916	1.773	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	2		2	3.546	3.54600
68.1	916	0.313	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
68.2	916	0.847	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.694	1.69400
68.3	916	0.492	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	2		2	0.984	0.98400
71.1	871	0.121	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
71.2	871	0.309	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.618	0.61800
71.3	871	1.08	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.16	2.16000
72.1	871	0.646	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
72.2	871	2.04	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	4.08	4.08000
72.3	871	2.4	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	4.8	4.80000
73.1	871	0.136	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
73.2	871	0.474	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.948	0.94800
73.3	871	1.014	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.028	2.02800
74.1	871	0.264	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
74.2	871	0.456	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.912	0.91200
74.3	871	0.366	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.732	0.73200
75.3	871	1.174	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.348	2.34800
79.1	871	0.259	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.51800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
79.2	871	0.669	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	1.33800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.338	0.00000
79.3	871	0.349	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	0.69800	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.698	0.00000
84.1	171	0.332	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
84.2	171	0.784	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.568	1.56800
84.3	171	0.183	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.366	0.36600
85.3	171	0.025	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.05	0.05000
86.3	171	0.475	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.95	0.95000
87.2	125	0.206	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.412	0.41200
87.3	125	1.427	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	2		2	2.854	2.85400
87a.2	125	0.054	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	2		8.64	0.00000	0.46656	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.108	-0.35856

87a.3	125	0.038	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	2		8.64	0.00000	0.32832	Bat Foraging Land	WB3.WF114.WM7	6	0	0.8	1	2		9.6	0.3648	0.03648
88.1	125	0.538	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
88.2	125	1.476	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	2.952	2.95200
88.3	125	0.955	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	1.91	1.91000
88a.2	126	0.053	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	2		8.64	0.00000	0.45792	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.106	-0.35192
89.1	125	0.525	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
89.2	125	0.645	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.29	1.29000
89.3	125	0.727	Grassland	Y	GP0.GM21	1	0	1	0	2		0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	1.454	1.45400
94.1	460	0.501	Grassland	Y	GP0.TS21.GM11	1	0	1	1	2		2	1.00200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
94.2	460	1.097	Grassland	Y	GP0.TS21.GM11	1	0	1	1	2		2	0.00000	2.19400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	2.194	0.00000
94.3	460	0.102	Grassland	Y	GP0.TS21.GM11	1	0	1	1	2		2	0.00000	0.20400	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	2		2	0.204	0.00000
95.1	460	0.164	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.32800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
95.2	460	0.418	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	0.83600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.836	0.00000
96.1	460	0.269	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.53800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
96.2	460	0.746	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	1.49200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.492	0.00000
96.3	460	0.449	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	0.89800	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.898	0.00000
101.1	460	0.035	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.07000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
101.2	460	0.23	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	0.46000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.46	0.00000
101.3	460	0.86	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	1.72000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	1.72	0.00000
104.1	460	0.514	Grassland	Y	GP0.GM11	1	0	1	1	2		2	1.02800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
104.2	460	0.932	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	1.86400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.864	0.00000
104.3	460	1	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	2.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2	0.00000
105a.1	460	0.239	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.47800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
105a.2	460	0.644	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	1.28800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.288	0.00000
105a.3	460	1.165	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	2.33000	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	2.33	0.00000
105b.1	460	0.26	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.52000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
105b.2	460	0.6	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	1.20000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.2	0.00000
105b.3	460	0.497	Grassland	Y	GP0.GM11	1	0	1	1	2		2	0.00000	0.99400	Bat Foraging Land	GP0.GM4	1	0	1	1	2		2	0.994	0.00000
113.1	191	0.568	Grassland	Y	GP0.GM12	1	0	1	1	3		3	1.70400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
113.2	191	1.15	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	3.45000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	3.45	0.00000
113.3	191	1.387	Grassland	Y	GP0.GM12	1	0	1	1	3		3	0.00000	4.16100	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	4.161	0.00000
114.1	404	1.203	Grassland	Y	GP0.SC1.GM11	1	0	1	1	3		3	3.60900	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
114.2	404	3.033	Grassland	Y	GP0.SC1.GM11	1	0	1	1	3		3	0.00000	9.09900	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	9.099	0.00000
114.3	404	1.465	Grassland	Y	GP0.SC1.GM11	1	0	1	1	3		3	0.00000	4.39500	Bat Foraging Land	GP0.SC1.GM4	1	0	1	1	3		3	4.395	0.00000
114a.3	404	0.399	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	3		12.96	0.00000	5.17104	Bat Foraging Land	WB3.WF114.WM7	6	0	0.8	1	3		14.4	5.7456	0.57456
118.1	404	2.347	Grassland	Y	GP0.TS21.GM11	1	0	1	1	3		3	7.04100	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
118.2	404	1.845	Grassland	Y	GP0.TS21.GM11	1	0	1	1	3		3	0.00000	5.53500	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	5.535	0.00000
118.3	404	1.406	Grassland	Y	GP0.TS21.GM11	1	0	1	1	3		3	0.00000	4.21800	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	3		3	4.218	0.00000
124.1	389	0.002	Grassland	Y	GP0.GM11	1	0	1	1	3		3	0.00600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
124.2	389	0.177	Grassland	Y	GP0.GM11	1	0	1	1	3		3	0.00000	0.53100	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	0.531	0.00000
126.1	389	0.321	Grassland	Y	GP0.GM11	1	0	1	1	3		3	0.96300	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
126.2	389	0.237	Grassland	Y	GP0.GM11	1	0	1	1	3		3	0.00000	0.71100	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	0.711	0.00000
126a.2	389	0.106	Housing and garden	Y	UR0.UA3	1	0	1	0			0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1			0	0	0.00000
127.1	410	0.533	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	1.59900	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
127.2	410	1.16	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	3.48000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	3.48	0.00000
127.3	410	1.311	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	3.93300	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	3.933	0.00000
129.1	410	0.56	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	1.68000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
129.2	410	1.457	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	4.37100	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	4.371	0.00000
129.3	410	2.723	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	8.16900	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	8.169	0.00000
130.1	410	0.868	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	2.60400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
130.2	410	1.456	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	4.36800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	4.368	0.00000
130.3	410	2.061	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	6.18300	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	6.183	0.00000
135.2	410	0.048	Cereal crops	Y	CR2.CL5Z	1	0	1	1	2		2	0.00000	0.09600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	0.096	0.00000
136.1	410	0.446	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	1.33800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3		0	0	0.00000
136.2	410	1.271	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	3.81300	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3		3	3.813	0.00000
136.3	410	1.394	Cereal crops	Y	CR2.CL5Z	1	0	1	1	3		3	0.00000	4.18200	Bat Foraging Land	GP0.GM4	1	0	1	1	3		3	4.182	0.00000
141.1	423	0.273	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.54600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2		0	0	0.00000
141.2	423	0.763	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	1.52600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2		2	1.526	0.00000

143.1	423	1.483	Grassland	Y	GP0.SC2.GM12	1	0	1	1	2	2	2.96600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
143.2	423	0.04	Grassland	Y	GP0.SC2.GM12	1	0	1	1	2	2	0.00000	0.08000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.08	0.00000
143.3	423	0.1	Grassland	Y	GP0.SC2.GM12	1	0	1	1	2	2	0.00000	0.20000	Bat Foraging Land	GP0.SC2.GM4	1	0	1	1	2	2	0.2	0.00000
144.1	423	0.125	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.25000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
144.2	423	0.398	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.79600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.796	0.00000
145.3	423	0.006	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.01200	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	0.012	0.00000
148.1	423	0.265	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.53000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
148.2	423	0.696	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	1.39200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	1.392	0.00000
148.3	423	1.517	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	3.03400	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	3.034	0.00000
152.1	423	0.823	Grassland	Y	GP0.GM12	1	0	1	1	2	2	1.64600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
152.2	423	0.024	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.04800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.048	0.00000
153.2	423	0.004	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.00800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.008	0.00000
153.3	423	0.006	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.01200	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	0.012	0.00000
156.1	863	0.48	Grassland	Y	GP0.GM21	1	0	1	0	3	0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	3	0	0	0.00000
156.2	863	0.922	Grassland	Y	GP0.GM21	1	0	1	0	3	0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3	3	2.766	2.76600
156.3	863	0.921	Grassland	Y	GP0.GM21	1	0	1	0	3	0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	3	3	2.763	2.76300
156c.2	866	0.035	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	3	12.96	0.00000	0.45360	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	3	3	0.105	-0.34860
156c.3	866	0.138	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	3	12.96	0.00000	1.78848	Bat Foraging Land	WB3.WF114.WM7	6	0	0.8	1	3	14.4	1.9872	0.19872
160.1	1241	0.564	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
160.2	1241	1.366	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	2.732	2.73200
160.3	1241	1.168	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	2.336	2.33600
160a.2	1242	0.094	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	2	8.64	0.00000	0.81216	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.188	-0.62416
160a.3	1242	0.104	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.8	0.9	2	8.64	0.00000	0.89856	Bat Foraging Land	WB3.WF114.WM7	6	0	0.8	1	2	9.6	0.9984	0.09984
161.1	423	1.177	Grassland	Y	GP0.GM12	1	0	1	1	2	2	2.35400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
161.3	423	0.006	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.01200	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	0.012	0.00000
162.2	1953	0.217	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.43400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.434	0.00000
162.3	1953	0.394	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	0.78800	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	0.788	0.00000
163.3	1936	0.857	Grassland	Y	GP0.GM12	1	0	1	1	2	2	0.00000	1.71400	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	1.714	0.00000
164.3	2036	1.06	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	2.12	2.12000
165.3	2036	1.409	Grassland	Y	GP0.TS21.GM21	1	0	1	0	2	0	0.00000	0.00000	Bat Foraging Land	GP0.TS21.GM4	1	0	1	1	2	2	2.818	2.81800
166.1	2036	1.405	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	2	0	0	0.00000
166.2	2036	0.052	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	2	2	0.104	0.10400
166.3	2036	0.145	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	0.29	0.29000
167.3	2036	0.53	Grassland	Y	GP0.GM21	1	0	1	0	2	0	0.00000	0.00000	Bat Foraging Land	GP0.GM4	1	0	1	1	2	2	1.06	1.06000
168.3	808	0.005	Grassland	Y	GP0.GM11	1	0	1	1	1	1	0.00000	0.00500	Bat Foraging Land	GP0.GM4	1	0	1	1	1	1	0.005	0.00000
169.2	1832	1.228	Grassland	Y	GP0.GM13	1	0	1	1	1	1	0.00000	1.22800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1	1	1.228	0.00000
170.1	932	1.363	Grassland	Y	GP0.GM12	1	0	1	1	1	1	1.36300	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1	0	0	0.00000
170.2	932	1.362	Grassland	Y	GP0.GM12	1	0	1	1	1	1	0.00000	1.36200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1	1	1.362	0.00000
171.1	335	1.667	Grassland	Y	GP0.GM12	1	0	1	1	1	1	1.66700	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	1	1	0	0	0.00000
171.2	335	0.082	Grassland	Y	GP0.GM12	1	0	1	1	1	1	0.00000	0.08200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	1	0	1	1	1	1	0.082	0.00000
												0.00000	0.00000										
												0.00000	0.00000										
												63.62200											
												Maximum HUs											
												Spatial Risk	1										
												Delivery Risk	1										
												Temporal Risk	1										
												Sum HUs Required	63.622										





Key

Proposed Development

- Order Limits
- Special Areas of Conservation
- Lesser Horseshoe 500m Buffer
- Lesser Horseshoe 2750m Buffer
- Lesser Horseshoe 5000m Buffer

Bat Foraging Habitat Units Net Difference

- 7 to -6
- 4 to -3
- 3 to -2
- 2 to -1
- 1 to 0
- 0 - No Change in Score
- 0 to 1
- 1 to 2
- 2 to 3
- 3 to 4
- 4 to 5

Notes
This map contains data from the following sources:

- Ordnance Survey
- Natural England

ISSUE	DATE	COMMENTS	DRAW	CHK'D	APPD
A	28/05/2015	DRAFT FOR CONSULTATION	JS	EJS	EJS

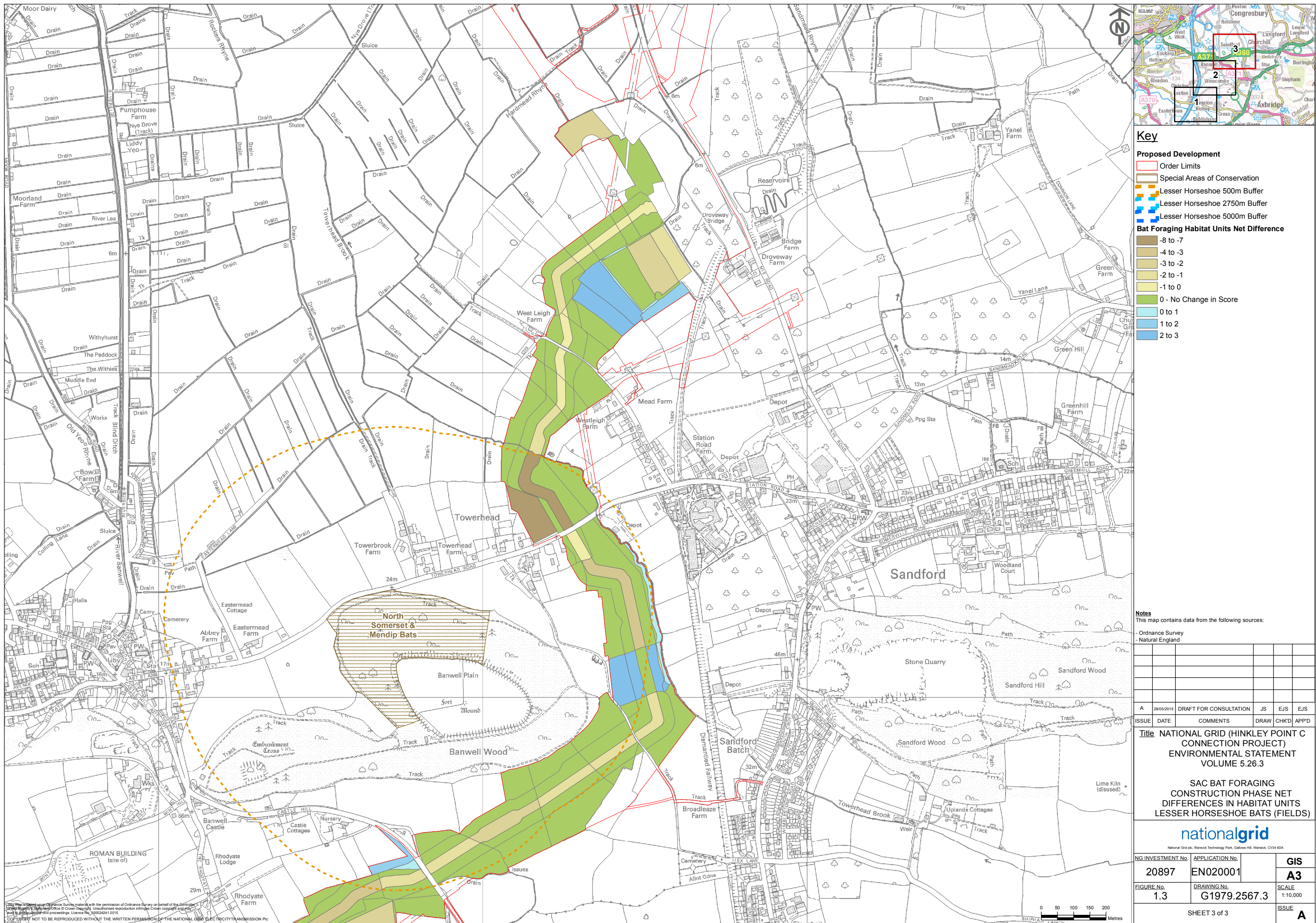
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.26.3

SAC BAT FORAGING
CONSTRUCTION PHASE NET
DIFFERENCES IN HABITAT UNITS
LESSER HORSESHOE BATS (FIELDS)

nationalgrid
National Grid plc, Warwick Technology Park, Galvans Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS A3
20897	EN020001	
FIGURE No.	DRAWING No.	SCALE
1.2	G1979.2567.2	1:10,000
SHEET 2 of 3		ISSUE
		A

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ANNEX B
HEP CALCULATIONS & PLANS
LESSER HORSESHOE BAT: BOUNDARIES

District / Borough:					Site: Hinkley Point C Connection								Date: 22/10/14		Ref No: 1979.79.002b				Map Reference:									
Sheet No:2			Species: Lesser Horseshoe Bats (Boundaries)																									
Hedge No.	PIL ID	Total Area (length * 3m = hectares)	Current habitat	Available for future use by species' population? Y/N	IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		Total HSI Score	Choose either Lost or Enhanced and		Future habitat / land use	Future IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		HSI Score	Future Habitat Units	Net gain on site			
													Habitat Units Lost	Habitat Units Retained, Accessible and to be Enhanced														
B1.2	331	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.08280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2484	0.16560			
B2.1	331	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.02520	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1		0	0	0.00000			
B2.2	331	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.09000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.27	0.18000			
B3.2	331	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.09720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2916	0.19440			
B4.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.07380	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2214	0.14760			
B5.2	331	0.065	Drain	Y	ASZ.AC11.LT12	5	0	1	1	1		5	0.00000	0.32500	Boundary of bat foraging land	ASZ.AC11.LT12	5	0	1	1	1		5	0.325	0.00000			
B6.2	331 & 298	0.128	River	Y	AR0.AC2.LT25	5	0	1	0	1		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	1		0	0	0.00000			
B7.2	331	0.103	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.18540	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.5562	0.37080			
B8.2	331	0.104	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	1		5.4	0.00000	0.56160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.5616	0.00000			
B9.2	331	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.03600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.108	0.07200			
B10.2	331	0.092	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.16560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.4968	0.33120			
B11.2	331	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.06660	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.1998	0.13320			
B12.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.07380	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2214	0.14760			
B13.2	331	0.086	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.15480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.4644	0.30960			
B14.2	331	0.236	River	Y	AR0.AC2.LT25	5	0	1	0	1		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	1		0	0	0.00000			
B15.2	331	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.05400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.162	0.10800			
B16.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.07380	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2214	0.14760			
B17.1	331	0.021	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.03780	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1		0	0	0.00000			
B17.2	331	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.13140	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.3942	0.26280			
B18.2	331	0.07	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.12600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.378	0.25200			
B19.2	331	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.07740	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2322	0.15480			
B20.2	331	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.05400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.162	0.10800			
B21.2	331	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.03420	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.1026	0.06840			
B22.1	331	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.01620	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1		0	0	0.00000			
B22.2	331	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.10260	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.3078	0.20520			
B23.2	331	0.078	River and Hedgerow	Y	AR0.AC2.LT23	5	0	1	1	1		5	0.00000	0.39000	Boundary of bat foraging land	AR0.AC2.LT23	5	0	1	1	1		5	0.39	0.00000			
B24.2	331	0.079	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.14220	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.4266	0.28440			
B25.2	331	0.083	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.14940	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.4482	0.29880			
B26.2	331	0.11	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.19800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.594	0.39600			
B27.2	331	0.116	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.20880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.6264	0.41760			
B27a.2	331	0.068	River and Hedgerow/s crub	Y	AR0.AC2.LT23	5	0	1	1	1		5	0.00000	0.34000	Boundary of bat foraging land	AR0.AC2.LT23	5	0	1	1	1		5	0.34	0.00000			
B28.2	298	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.11160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.3348	0.22320			
B29.2	298	0.022	Tree boundary	Y	LF12.LH1	6	0	1	1	1		6	0.00000	0.13200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1		6	0.132	0.00000			
B30.2	298	0.042	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	1		5.4	0.00000	0.22680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.2268	0.00000			
B31.2	298	0.07	Tree boundary	Y	LF12.LH1	6	0	1	1	1		6	0.00000	0.42000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1		6	0.42	0.00000			
B32.2	298	0.009	Stream	Y	AR0.AC2.LT25	5	0	1	0	1		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	1		0	0	0.00000			
B33.2	298	0.116	Tree boundary	Y	LF12.LH2	6	0	1	1	1		6	0.00000	0.69600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	1		6	0.696	0.00000			
B34.2	298	0.112	Tree boundary	Y	LF12.LH1	6	0	1	1	1		6	0.00000	0.67200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1		6	0.672	0.00000			
B35.2	298	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.10800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.324	0.21600			
B36.2	298	0.055	Tree boundary	Y	LF12.LH2	6	0	1	1	1		6	0.00000	0.33000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	1		6	0.33	0.00000			
B37.2	298	0.034	Stream	Y	AR0.AC2.LT25	5	0	1	0	1		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	1		0	0	0.00000			
B38.2	298	0.013	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	1		5.4	0.00000	0.07020	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.0702	0.00000			
B39.2	298	0.11	Tree boundary	Y	LF12.LH1	6	0	1	1	1		6	0.00000	0.66000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1		6	0.66	0.00000			
B40.2	298	0.022	Drain	Y	ASZ.AC11.LT11	5	0	1	1	1		5	0.00000	0.11000	Boundary of bat foraging land	ASZ.AC11.LT11	5	0	1	1	1		5	0.11	0.00000			

B41.2	298	0.011	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.00000	0.06600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1	6	0.066	0.00000
B43.2	298	0.026	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	1	5.4	0.00000	0.14040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.1404	0.00000
B44.2	298	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.08460	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.2538	0.16920
B45.2	298	0.043	Drain	Y	ASZ.AC11.LT12	5	0	1	1	1	5	0.00000	0.21500	Boundary of bat foraging land	ASZ.AC11.LT12	5	0	1	1	1	5	0.215	0.00000
B46.2	298	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.04320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.1296	0.08640
B47.2	298	0.02	Drain	Y	ASZ.AC11.LT15	5	0	1	0	1	0	0.00000	0.00000	Boundary of bat foraging land	ASZ.AC11.LT15	5	0	1	0	1	0	0	0.00000
B48.2	298	0.041	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.00000	0.24600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1	6	0.246	0.00000
B49.2	298	0.008	Stream	Y	AR0.AC2.LT22	5	0	1	1	1	5	0.00000	0.04000	Boundary of bat foraging land	AR0.AC2.LT22	5	0	1	1	1	5	0.04	0.00000
B50.2	298	0.123	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.00000	0.73800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1	6	0.738	0.00000
B51.1	298	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.03060	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1	0	0	0.00000
B51.2	298	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.06300	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.189	0.12600
B52.2	298	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.13140	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.3942	0.26280
B53.1	298 & 871	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2	0	0	0.00000
B53.2	298 & 871	0.083	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.29880	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.8964	0.59760
B54.2	298	0.05	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.18000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.54	0.36000
B55.1	298 & 871	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2	0	0	0.00000
B55.2	298 & 871	0.077	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.27720	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.8316	0.55440
B56.2	298 & 871	0.023	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2	10.8	0.00000	0.24840	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.2484	0.00000
B57.2	298 & 871	0.028	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.10080	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.3024	0.20160
B58.2	298 & 871	0.018	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.06480	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.1944	0.12960
B59.2	298 & 871	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.05040	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.1512	0.10080
B60.2	298 & 871	0.037	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.13320	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.3996	0.26640
B61.2	298	0.046	Stream	Y	AR0.AC2.LT22	5	0	1	1	2	10	0.00000	0.46000	Boundary of bat foraging land	AR0.AC2.LT22	5	0	1	1	2	10	0.46	0.00000
B62.2	298	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.00000	0.06120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.1836	0.12240
B63.2	298	0.013	Drain	Y	ASZ.AC11.LT15	5	0	1	0	2	0	0.00000	0.00000	Boundary of bat foraging land	ASZ.AC11.LT15	5	0	1	0	2	0	0	0.00000
B64.2	298	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.00000	0.09720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.2916	0.19440
B65.2	298 & 171	0.022	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2	3.6	0.00000	0.07920	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2	10.8	0.2376	0.15840
B66.1	298	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.01440	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1	0	0	0.00000
B66.2	298	0.135	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.24300	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.729	0.48600
B67.2	298	0.033	Stream	Y	AR0.AC2.LT22	5	0	1	1	1	5	0.00000	0.16500	Boundary of bat foraging land	AR0.AC2.LT22	5	0	1	0.9	1	4.5	0.1485	-0.01650
B68.2	298	0.012	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	1	5.4	0.00000	0.06480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.0648	0.00000
B69.2	808	0.07	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	1	1.8	0.00000	0.12600	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	1	5.4	0.378	0.25200
B70.1	808	0.006	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.03600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1	0	0	0.00000
B70.2	808	0.059	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.00000	0.35400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1	6	0.354	0.00000
B71.1	808	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.06300	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1	0	0	0.00000
B71.2	808	0.126	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.22680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.6804	0.45360
B72.1	808	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.06840	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2	0	0	0.00000
B72.2	808	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.00000	0.06840	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.2052	0.13680
B74.2	808	0.141	Fence line	Y	LF26	0	0	1	0	1	0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	1	0	0	0.00000
B75.2	808	0.065	Tree boundary	Y	LF12.LH1	6	0	1	1	1	6	0.00000	0.39000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	1	6	0.39	0.00000
B76.1	808	0.021	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.03780	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	1	0	0	0.00000
B76.2	808	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.02160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.0648	0.04320
B77.2	808	0.028	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.05040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.1512	0.10080
B78.2	808	0.081	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.14580	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.4374	0.29160
B79.2	808	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1	1.8	0.00000	0.07560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1	5.4	0.2268	0.15120
B80.2	808	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.00000	0.09720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.2916	0.19440
B81.1	808	0.013	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2	10.8	0.14040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2	0	0	0.00000
B81.2	808	0.036	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2	10.8	0.00000	0.38880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.3888	0.00000
B82.2	808	0.018	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2	3.6	0.00000	0.06480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2	10.8	0.1944	0.12960

B83.2	808	0.042	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.45360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4536	0.00000
B84.1	808	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B84.2	808	0.074	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.26640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7992	0.53280
B85.2	808	0.024	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.08640	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2592	0.17280
B86.2	808	0.031	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.33480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3348	0.00000
B87.2	808	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.10440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3132	0.20880
B88.2	808	0.026	Stream	Y	AR0.AC2.LT25	5	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	2		0	0	0.00000
B89.2	808	0.044	Drain	Y	ASZ.AC11.LT13	5	0	1	1	2		10	0.00000	0.44000	Boundary of bat foraging land	ASZ.AC11.LT13	5	0	1	1	2		10	0.44	0.00000
B90.2	808	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5076	0.33840
B91.2	808	0.037	Fence line	Y	LF26	0	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	2		0	0	0.00000
B91a.2	808	0.013	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.15600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.156	0.00000
B91b.2	808	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.05040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1512	0.10080
B92.2	808	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.13680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4104	0.27360
B93.2	808	0.011	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.11880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1188	0.00000
B94.2	808	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4644	0.30960
B95.2	808	0.016	Drain	Y	ASZ.AC11.LT15	5	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	ASZ.AC11.LT15	5	0	1	0	2		0	0	0.00000
B96.2	808	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.10800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.324	0.21600
B97.1	808	0.03	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.32400	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B97.2	808	0.061	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.65880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6588	0.00000
B98.2	808	0.053	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.19080	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5724	0.38160
B99.2	808	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.19440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5832	0.38880
B100.2	808	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4644	0.30960
B101.2	808	0.074	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.26640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7992	0.53280
B102.2	808	0.127	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.22860	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.6858	0.45720
B103.2	808	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	1		1.8	0.00000	0.06480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	1		5.4	0.1944	0.12960
B105.2	871 & 171	0.063	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.22680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6804	0.45360
B106.2	871 & 171	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3672	0.24480
B107.1	871 & 171	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B107.2	871 & 171	0.096	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.34560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.0368	0.69120
B108.2	871	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.07920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2376	0.15840
B109.2	171	0.052	Stream	Y	AR0.AC2.LT25	5	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	AR0.AC2.LT25	5	0	1	0	2		0	0	0.00000
B110.2	171	0.034	Drain	Y	ASZ.AC11.LT12	5	0	1	1	2		10	0.00000	0.34000	Boundary of bat foraging land	ASZ.AC11. LT12	5	0	1	1	2		10	0.34	0.00000
B111.1	871 & 171	0.003	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.03600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B111.2	871 & 171	0.021	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.25200	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.252	0.00000
B112.1	871 & 171	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.06120	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B112.2	871 & 171	0.052	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.18720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5616	0.37440
B114.2	171	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.13320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3996	0.26640
B115.2	871	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.10440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3132	0.20880
B119.2	871	0.054	Stream	Y	AR0.AC2.LT22	5	0	1	1	1		5	0.00000	0.27000	Boundary of bat foraging land	AR0.AC2.LT22	5	0	1	1	1		5	0.27	0.00000
B120.2	871	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.26280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7884	0.52560
B121.1	871 & 1691	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B121.2	871 & 1691	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.10440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3132	0.20880
B122.2	871 & 1691	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4968	0.33120
B123.2	871	0.032	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.11520	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.3456	0.23040
B124.2	1691	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5076	0.33840
B125.1	871 & 1691	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.05040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B125.2	871 & 1691	0.087	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.31320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.9396	0.62640
B126.1	871 & 1691	0.003	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.01080	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B126.2	871 & 1691	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1404	0.09360

B127.2	871 & 1691	0.036	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.38880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3888	0.00000
B128.1	871	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B129.1	871	0.014	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.15120	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B129.2	871	0.003	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.03240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0324	0.00000
B130.1	871	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.02880	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B130.2	871	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.06120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1836	0.12240
B131.2	871	0.085	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.30600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.918	0.61200
B131a.2	871	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.13680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4104	0.27360
B132.1	871	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.02160	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B132.2	871	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15840	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4752	0.31680
B133.2	871	0.059	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.21240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6372	0.42480
B134.2	871 & 916	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.07920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2376	0.15840
B135.2	871	0.09	Stream	Y	AR0.AC2.LT22	5	0	1	1	2		10	0.00000	0.90000	Boundary of bat foraging land	AR0.AC2.LT22	5	0	1	1	2		10	0.9	0.00000
B136.2	871	0.084	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.30240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.9072	0.60480
B137.2	871	0.154	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.55440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.6632	1.10880
B138.2	916	0.132	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.47520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.4256	0.95040
B139.2	916	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4536	0.30240
B140.2	916	0.015	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.05400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.162	0.10800
B143.2	871	0.061	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.21960	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6588	0.43920
B144.2	916 & 871	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1404	0.09360
B150.2	916 & 871	0.047	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.16920	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5076	0.33840
B150a.2	916 & 871	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.20520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6156	0.41040
B150b.1	916 & 871	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.05040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B150b.2	916 & 871	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.05040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1512	0.10080
B151.2	916	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12960	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3888	0.25920
B151a.2	916	0.025	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.09000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.27	0.18000
B152.1	916 & 3012	0.017	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.06120	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B152.2	916 & 3012	0.048	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.17280	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5184	0.34560
B154.2	871	0.083	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.29880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.8964	0.59760
B155.2	916 & 871	0.116	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	1.25280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.2528	0.00000
B156.2	916 & 3012	0.023	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.08280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2484	0.16560
B157.2	916 & 3012	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.10800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.324	0.21600
B161.2	3012	0.021	Wall	Y	LF23	1	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF23	1	0	1	0	2		0	0	0.00000
B162.2	3012	0.007	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.08400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.084	0.00000
B168.2	3012 & 916	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7776	0.51840
B170.2	3012 & 916	0.068	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.24480	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.7344	0.48960
B171.2	3012	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B172.2	3012	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.11520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3456	0.23040
B173.2	3012	0.028	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.336	0.00000
B175.2	3012	0.146	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.52560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.5768	1.05120
B175a.1	3012	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.05040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B175a.2	3012	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.16560	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.4968	0.33120
B176.1	3012	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B176.2	3012	0.022	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.07920	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2376	0.15840
B177.1	3012	0.013	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.15600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B178.1	3012	0.008	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.02880	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B178.2	3012	0.002	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.00720	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.0216	0.01440
B179.1	3012 & 125	0.008	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.02880	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B179.2	3012 & 125	0.023	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.08280	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2484	0.16560

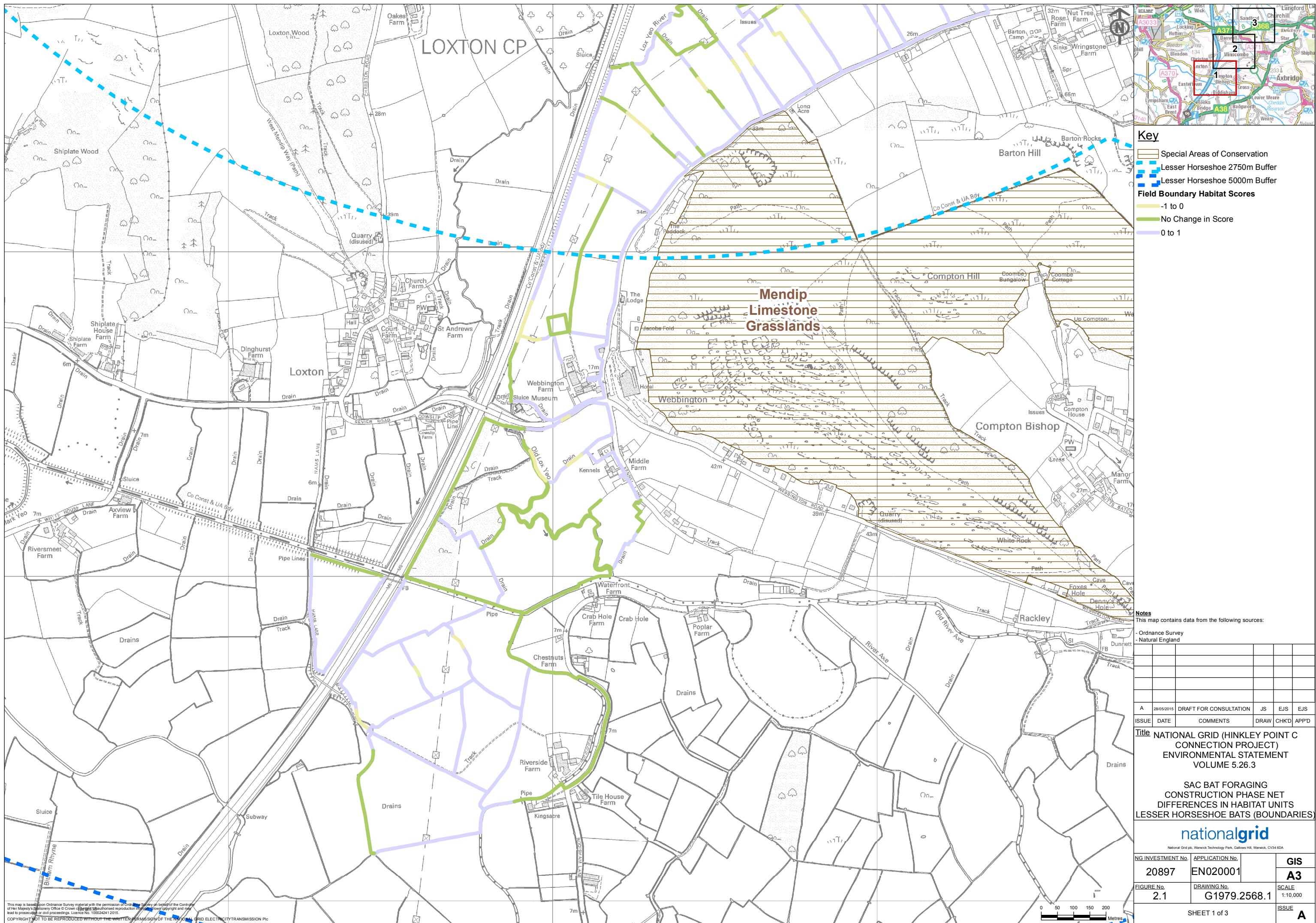
B180.2	3012	0.015	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.05400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.162	0.10800
B181.2	125	0.002	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.00720	Boundary of bat foraging land	LF111.	6	0	1	0.9	2		10.8	0.0216	0.01440
B182.1	125	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.02160	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B182.2	125	0.031	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.11160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3348	0.22320
B183.2	125	0.084	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.30240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.9072	0.60480
B185.1	125	0.004	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.01440	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B185.2	125	0.065	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.23400	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.702	0.46800
B186.2	125	0.026	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.09360	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2808	0.18720
B187.1	125 & 3012	0.015	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.05400	0.00000	UG Cable Swathe	LF27.UL2	6	0	1	0	2		0	0	0.00000
B187.2	125 & 3012	0.045	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.16200	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.486	0.32400
B188.2	125 & 3012	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.18360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5508	0.36720
B191.2	125 & 3012	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.18360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5508	0.36720
B193.2	125	0.123	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.44280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.3284	0.88560
B193a.2	125	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1296	0.08640
B194.2	3012	0.018	Tree boundary	Y	LF12.WM0	6	0	1	1	2		12	0.00000	0.21600	Boundary of bat foraging land	LF12.WM7	6	0	1	1	2		12	0.216	0.00000
B195.2	3012	0.056	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.20160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6048	0.40320
B196.2	3012	0.028	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.336	0.00000
B197.2	3012	0.08	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.96000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.96	0.00000
B198.2	3012	0.085	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.30600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.918	0.61200
B199.2	3012	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.07200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.216	0.14400
B200.2	3012	0.092	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.33120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.9936	0.66240
B215.2	125	0.048	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.57600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.576	0.00000
B215a.2	125	0.032	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.11520	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.3456	0.23040
B216.2	125	0.067	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.80400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.804	0.00000
B216a.2	125	0.025	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.30000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.3	0.00000
B217.2	1242	0.038	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.45600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.456	0.00000
B218.2	1241	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.20520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6156	0.41040
B219.1	1241	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.11520	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B219.2	1241	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.03240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0972	0.06480
B220.1	1241	0.012	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04320	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B220.2	1241	0.025	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.09000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.27	0.18000
B221.2	1241	0.014	Fence line	Y	LF26	0	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	2		0	0	0.00000
B222.2	1241	0.068	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.24480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7344	0.48960
B223.2	1241	0.033	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.11880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3564	0.23760
B235.2	1241	0.031	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.11160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3348	0.22320
B239.2	1241	0.066	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.23760	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7128	0.47520
B240.1	1241	0.015	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.05400	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B240.2	1241	0.071	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.25560	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.7668	0.51120
B241.2	1867	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7776	0.51840
B241a.1	1867	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.05040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B241a.2	1867	0.053	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.19080	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5724	0.38160
B242.1	1867	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.12240	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B242.2	1867	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4212	0.28080
B243.2	1867 & 1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.02160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0648	0.04320
B244.2	1867 & 1934	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.08640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2592	0.17280
B245.2	1867	0.028	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.336	0.00000
B246.2	1867	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.02880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0864	0.05760
B247.2	1867 & 1953	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.13680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4104	0.27360
B248.2	1867	0.044	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.52800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.528	0.00000

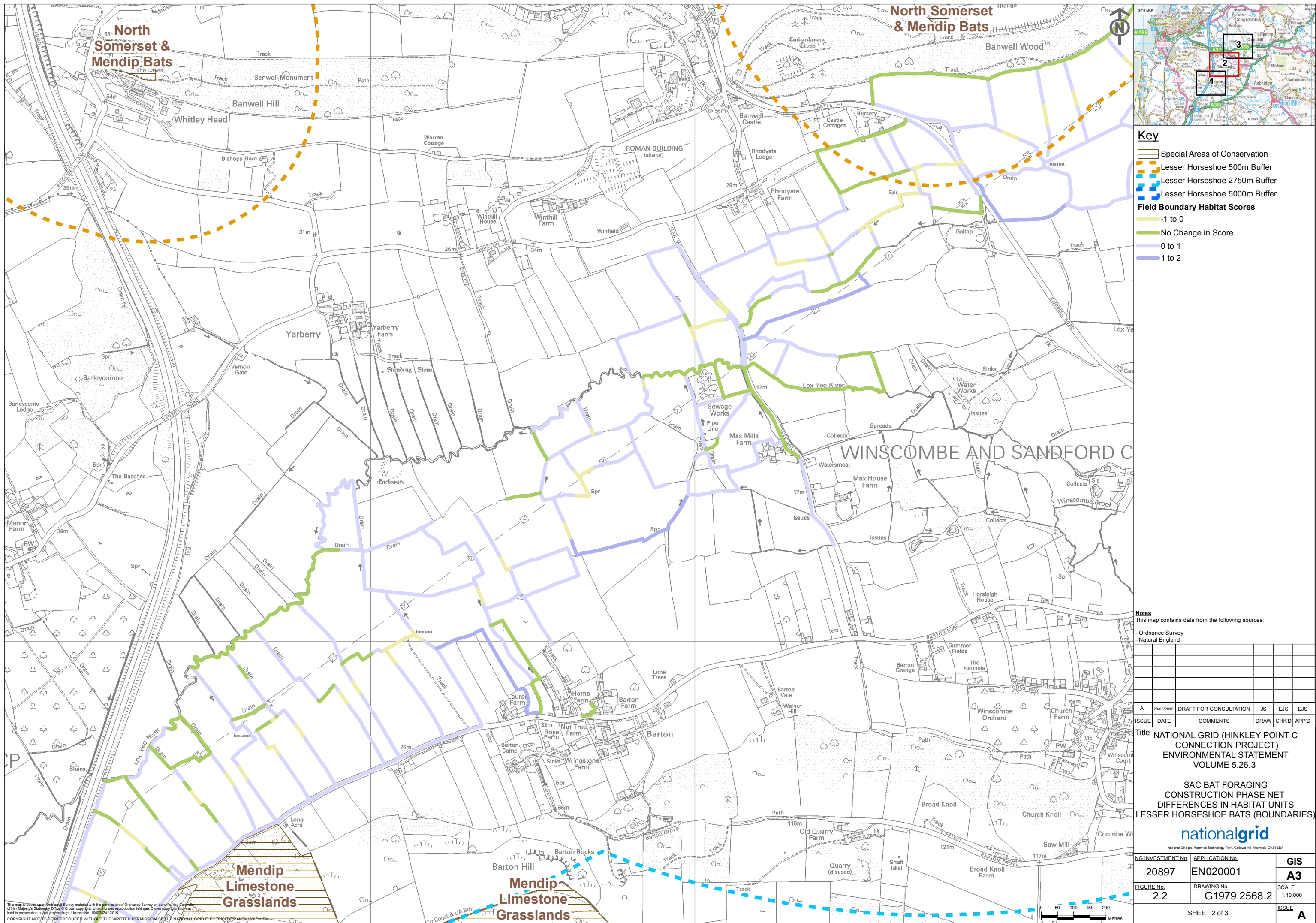
B249.2	1953 & 1867	0.087	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.31320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.9396	0.62640
B250.2	1867	0.146	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.52560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.5768	1.05120
B251.2	171	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3672	0.24480
B252.2	171	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.18000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.54	0.36000
B253.2	171	0.107	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	1.28400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	1.284	0.00000
B254.2	171	0.074	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.88800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.888	0.00000
B255.2	171	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B256.2	171	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.13680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4104	0.27360
B257.2	171	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12960	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3888	0.25920
B259.2	1867	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4212	0.28080
B261.1	1867 & 1934	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B261.2	1867 & 1934	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3672	0.24480
B262.2	1934	0.032	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.384	0.00000
B264.2	1934 & 1936	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.05040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1512	0.10080
B265.2	1934	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.03240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0972	0.06480
B266.1	1934	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.23040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B266.2	1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.02160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0648	0.04320
B267.1	1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.02160	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B267.2	1934	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4212	0.28080
B268.2	1934	0.049	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.17640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5292	0.35280
B269.2	1934 & 478	0.068	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	1.10160	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.1016	0.00000
B270.2	478	0.101	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	1.63620	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.6362	0.00000
B271.2	478	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.22680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.6804	0.45360
B272.2	478	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.23220	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.6966	0.46440
B273.2	478	0.015	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.24300	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.243	0.00000
B274.2	478	0.021	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	0.37800	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	0.378	0.00000
B275.1	478	0.005	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.02700	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B275.2	478	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.33480	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.0044	0.66960
B276.1	1934 & 478	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.15660	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B276.2	1934 & 478	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.11880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.3564	0.23760
B277.2	1934	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.20520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.6156	0.41040
B280.2	1936	0.062	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.74400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.744	0.00000
B282.2	1934 & 1867	0.02	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.24000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.24	0.00000
B283.2	1934 & 1867	0.005	Fence line	Y	LF26	0	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	2		0	0	0.00000
B284.1	1934	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.07560	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B284.2	1934	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.07020	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.2106	0.14040
B285.1	1934	0.007	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.02520	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B285.2	1934	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.07200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.216	0.14400
B286.2	191	0.079	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.42660	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.2798	0.85320
B287.2	191	0.134	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	2.41200	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	2.412	0.00000
B288.2	191	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.25380	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.7614	0.50760
B289.2	191	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.23220	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.6966	0.46440
B290.1	191	0.004	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.02160	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B290.2	191	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.27540	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.8262	0.55080
B291.2	191 & 410	0.069	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.37260	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.1178	0.74520
B292.1	191 & 410	0.016	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.08640	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B292.2	191 & 410	0.048	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.7776	0.51840
B293.2	410	0.111	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.59940	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.7982	1.19880

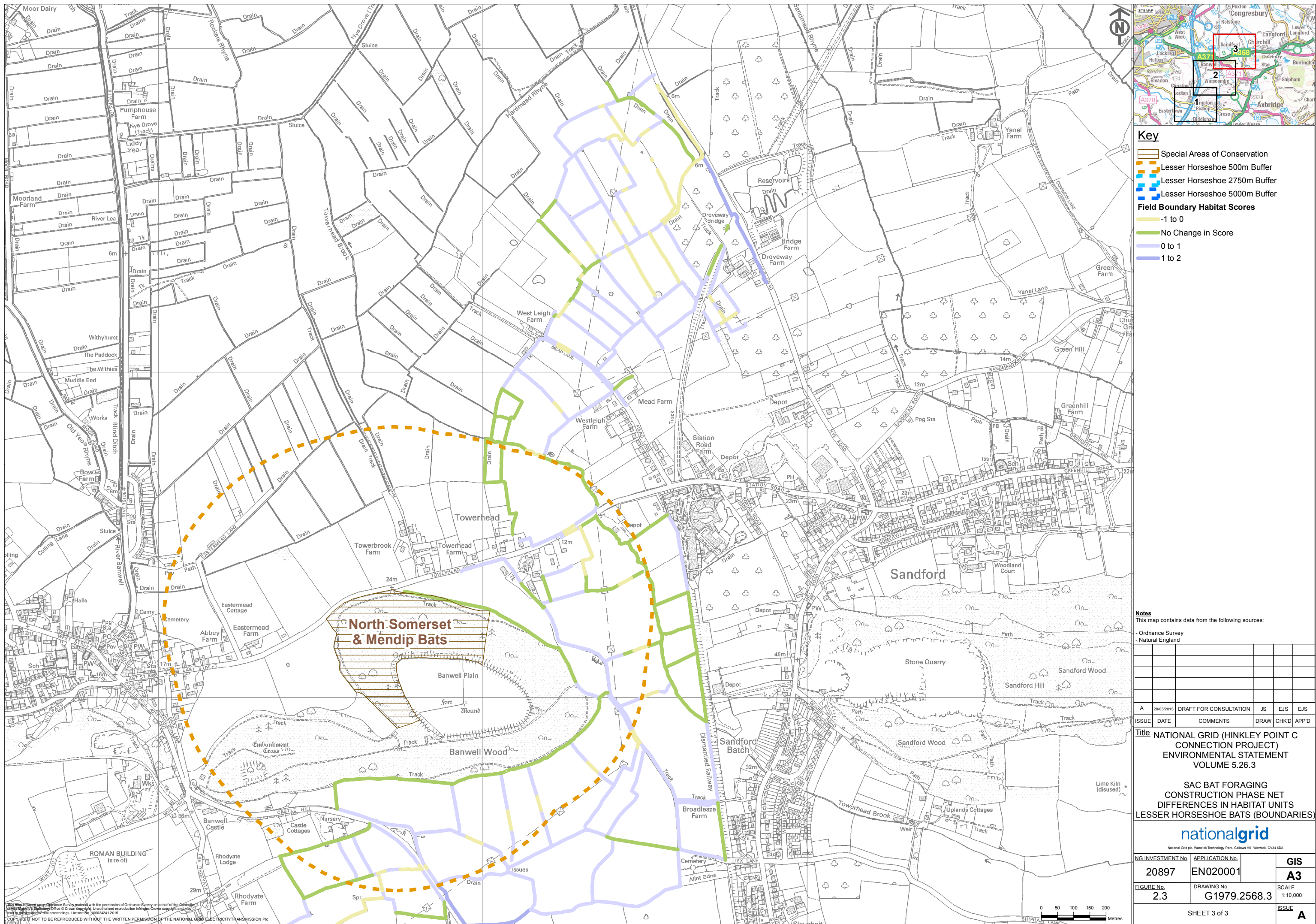
B294.2	410	0.053	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.19080	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5724	0.38160
B295.2	410	0.082	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.29520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.8856	0.59040
B296.1	410	0.018	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.09720	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B296.2	410	0.066	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.35640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.0692	0.71280
B297.1	410	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.07560	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B297.2	410	0.067	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.36180	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.0854	0.72360
B298.2	410	0.181	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	3.25800	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	3.258	0.00000
B299.1	410	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.07560	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B299.2	410	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.24840	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.7452	0.49680
B300.1	410	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.07020	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B300.2	410	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.23220	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.6966	0.46440
B301.1	410	0.005	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.01800	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B301.2	410	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.17640	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5292	0.35280
B302.2	410	0.051	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.18360	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5508	0.36720
B304.2	410	0.068	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.73440	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7344	0.00000
B305.2	410	0.115	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.41400	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	1.242	0.82800
B306.2	410	0.12	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.43200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	1.296	0.86400
B307.2	410	0.067	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.24120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7236	0.48240
B308.2	410	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.22320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6696	0.44640
B309.2	410	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.16560	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.4968	0.33120
B309a.2	410	0.045	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.486	0.32400
B310.2	410	0.054	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.64800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.648	0.00000
B311.2	410	0.04	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.432	0.28800
B312.2	410	0.04	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.432	0.28800
B313.1	410	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.07020	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B313.2	410	0.091	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.49140	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	1.4742	0.98280
B314.1	410 & 863	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.07020	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B314.2	410 & 863	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.23220	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.6966	0.46440
B315.2	410 & 405	0.05	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.54000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.54	0.00000
B316.2	410	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.26280	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.7884	0.52560
B317.2	404	0.091	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	1.09200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	1.092	0.00000
B318.2	404	0.033	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.39600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.396	0.00000
B319.2	863 & 404	0.017	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.20400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.204	0.00000
B320.2	863 & 404	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B321.2	404	0.031	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.37200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.372	0.00000
B322.2	423 & 404	0.029	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.34800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.348	0.00000
B323.2	404	0.035	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.37800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.378	0.00000
B324.2	404	0.031	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.37200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.372	0.00000
B325.2	404	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.57600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.576	0.00000
B327.2	404	0.076	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.27360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.8208	0.54720
B328.2	404	0.046	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.74520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.7452	0.00000
B329.2	404	0.098	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.76400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.764	0.00000
B330.2	865	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.24840	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.7452	0.49680
B331.2	865 & 404	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.38880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.1664	0.77760
B332.2	865	0.017	Fence line	Y	LF26	0	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	3		0	0	0.00000
B333.2	865	0.016	Fence line	Y	LF26	0	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	3		0	0	0.00000
B334.2	865	0.07	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.37800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	1.134	0.75600

B335.2	865	0.19	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	3.42000	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	3.42	0.00000
B336.2	865	0.028	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.15120	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.4536	0.30240
B337.2	865 & 404	0.035	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	3		5.4	0.00000	0.18900	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.567	0.37800
B338.1	865 & 404	0.013	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.21060	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B338.2	865 & 404	0.026	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.00000	0.42120	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.4212	0.00000
B339.1	404	0.014	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.22680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B339.2	404	0.045	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.00000	0.72900	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.729	0.00000
B340.2	404 & 389	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.18900	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.567	0.37800
B341.2	404	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.04860	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.1458	0.09720
B342.2	404 & 389	0.025	Drain	Y	ASZ.AC11.LT15	5	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	ASZ.AC11.LT15	5	0	1	0	3		0	0	0.00000
B343.2	404 & 389	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.15660	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.4698	0.31320
B344.1	389	0.022	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.35640	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B344.2	389	0.016	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.2592	0.00000
B345.1	423 & 389	0.033	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.53460	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B345.2	423 & 389	0.001	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	3		16.2	0.00000	0.01620	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	3		16.2	0.0162	0.00000
B346.1	389	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.06480	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B346.2	389	0.01	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.05400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.162	0.10800
B347.1	404	0.011	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.05940	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B347.2	404	0.048	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.7776	0.51840
B348.2	404	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	3		5.4	0.00000	0.18360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.5508	0.36720
B349.2	404	0.06	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.97200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.972	0.00000
B350.2	404	0.016	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.25920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.2592	0.00000
B351.2	404	0.041	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.73800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.738	0.00000
B352.2	404	0.077	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	1.38600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	1.386	0.00000
B352a.1	404	0.018	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.21600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B352a.2	404	0.027	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.32400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.324	0.00000
B352b.2	404	0.018	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.21600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.216	0.00000
B355.2	404	0.035	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	3		16.2	0.00000	0.56700	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	3		16.2	0.567	0.00000
B356.2	460	0.047	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.56400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.564	0.00000
B357.2	460	0.017	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.20400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.204	0.00000
B358.2	460	0.067	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.80400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.804	0.00000
B359.2	460	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.15480	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.4644	0.30960
B360.1	460	0.011	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.03960	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B360.2	460	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.21600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.648	0.43200
B361.2	460	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.08640	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2592	0.17280
B362.1	460	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B362.2	460	0.071	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.25560	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.7668	0.51120
B362a.2	460	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.14040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4212	0.28080
B363.2	460	0.05	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.18000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.54	0.36000
B372.2	863	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04320	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1296	0.08640
B373.2	863	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15840	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4752	0.31680
B374.1	460	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B374.2	460	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.17640	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5292	0.35280
B374a.2	460	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.27	0.18000
B375.2	460	0.026	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2808	0.18720
B376.1	460 & 2036	0.02	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	2		10.8	0.21600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B376.2	460 & 2036	0.042	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	2		10.8	0.00000	0.45360	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.4536	0.00000
B377.2	460	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.20520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6156	0.41040

B378.2	460 & 2036	0.076	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.27360	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.8208	0.54720
B379.2	2036	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.23040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6912	0.46080
B380.2	863	0.021	Fence line	Y	LF26	0	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	0	0	1	0	2		0	0	0.00000
B382.2	863 & 2036	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16560	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4968	0.33120
B383.2	2036	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.15840	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.4752	0.31680
B385.2	423 & 2036	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12240	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3672	0.24480
B386.2	423 & 2036	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2916	0.19440
B387.2	2036	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09720	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2916	0.19440
B388.2	2036	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.23040	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.6912	0.46080
B389.1	423 & 2036	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.19440	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B389.2	423 & 2036	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.02880	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0864	0.05760
B390.1	423	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.19440	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B390.2	423	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1404	0.09360
B391.2	423	0.08	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.28800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.864	0.57600
B391a.2	423	0.019	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.06840	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2052	0.13680
B392.1	423	0.077	Important Hedgerow	Y	LF111.LM2	6	0	1	0.9	2		10.8	0.83160	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B393.2	423	0.049	Drain	Y	ASZ.AC11.LT15	5	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	ASZ.AC11.LT15	5	0	1	0	2		0	0	0.00000
B394.1	423	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.12600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B394.2	423	0.001	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.00360	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.0108	0.00720
B395.1	423	0.044	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.52800	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B395.2	423	0.001	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.01200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.012	0.00000
B397.2	423	0.021	Hedgerow	Y	LF11Z.LM2	6	0	1	0.9	2		10.8	0.00000	0.22680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.2268	0.00000
B398.2	423	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.11520	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.3456	0.23040
B399.2	423	0.04	Drain	Y	ASZ.AC11.LT13	5	0	1	1	2		10	0.00000	0.40000	Boundary of bat foraging land	ASZ.AC11.LT13	5	0	1	1	2		10	0.4	0.00000
B400.2	423	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.04680	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.1404	0.09360
B401.1	423	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.05040	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B401.2	423	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.27	0.18000
B402.1	423	0.024	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.08640	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B402.2	423	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.05040	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.1512	0.10080
B403.1	423	0.004	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.01440	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B403.2	423	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.17640	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.5292	0.35280
B404.2	423	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.09000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.27	0.18000
B404a.2	423	0.019	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.06840	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2052	0.13680
B405.1	423	0.02	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.07200	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B405.2	423	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.16560	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.4968	0.33120
B406.1	423	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.21600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B406.1	423	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.13320	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B407.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B407.2	423	0.062	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.22320	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.6696	0.44640
B409.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B409.2	423	0.035	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.12600	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.378	0.25200
B410.2	423	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.18000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.54	0.36000
B410a.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B410a.2	423	0.034	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.12240	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.3672	0.24480
B411.2	423	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.16920	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.5076	0.33840
B412.2	423 & 460	0.023	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.08280	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.2484	0.16560
B413.2	423	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0.3	2		3.6	0.00000	0.12600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.9	2		10.8	0.378	0.25200
B414.1	423 & 2036	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.04680	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B414.2	423 & 2036	0.036	Important Hedgerow	Y	LF111.LM1	6	0	1	0.3	2		3.6	0.00000	0.12960	Boundary of bat foraging land	LF111.LM2	6	0	1	0.9	2		10.8	0.3888	0.25920







ANNEX C
HEP CALCULATIONS & PLANS
GREATER HORSESHOE BAT: FIELDS

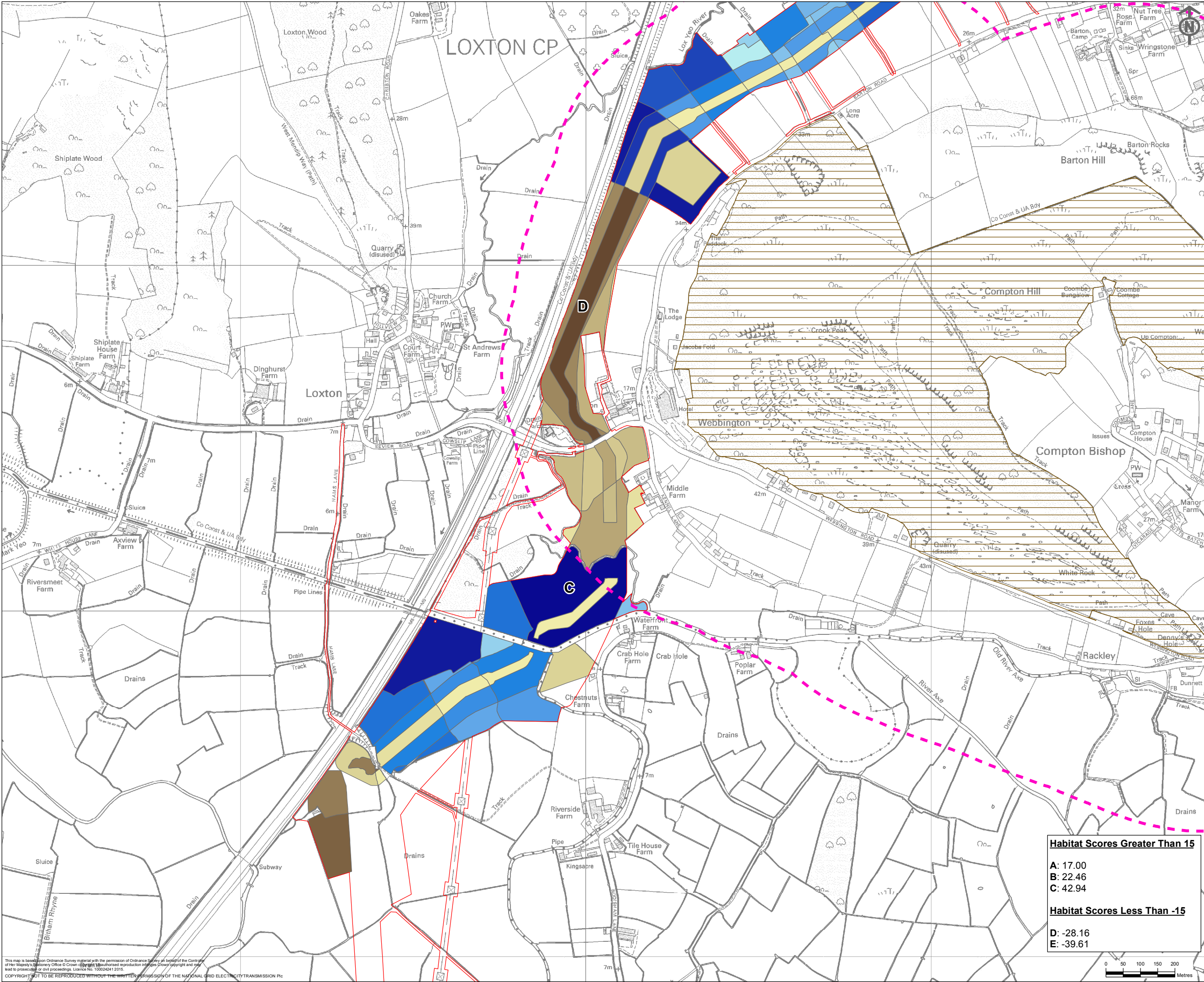
District / Borough:					Site: Hinkley Point C Connection							Date: 27/04/15		Ref No: 1979.79.003				Map Reference:							
Sheet No: 3			Species: Greater Horseshoe Bats (Fields)																						
Field / Compartment No.	PIL ID	Total Area (hectares)	Current habitat	Available for future use by species' population? Y/N	IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		Total HSI Score	Choose either Lost or Enhanced and enter 0 in the other column		Future habitat / land use	Future IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		HSI Score	Future Habitat Units	Net gain on site
													Habitat Units Lost	Habitat Units Retained, Accessible and to be Enhanced											
1.1	331	0.398	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.63680	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
1.2	331	1.817	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	2.90720	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	10.902	7.99480
1.3	331	1.295	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	2.07200	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	7.77	5.69800
4.1	331	0.877	Grassland	Y	GP0.OT3.GM21	4	0	1	0.2	2		1.6	1.40320	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
4.2	331	1.632	Grassland	Y	GP0.OT3.GM21	4	0	1	0.2	2		1.6	0.00000	2.61120	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	9.792	7.18080
4.3	331	1.947	Grassland	Y	GP0.OT3.GM21	4	0	1	0.2	2		1.6	0.00000	3.11520	Bat Foraging Land	GP0.OT3.GM4	4	0	1	0.75	2		6	11.682	8.56680
5.1	331	0.606	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.96960	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
5.2	331	1.39	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	2.22400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	8.34	6.11600
5.3	331	1.103	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.76480	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	6.618	4.85320
6.2	331	0.385	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	0.61600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.31	1.69400
6.3	331	3.267	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	5.22720	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	19.602	14.37480
8.3	331	0.011	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.01760	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.066	0.04840
10.1	298	0.85	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	0.25	3		0.75	0.63750	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
10.2	298	5.205	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	0.25	3		0.75	0.00000	3.90375	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	46.845	42.94125
10.3	298	0.251	Cereal crops	Y	CR2.TS21.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.18825	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	3		9	2.259	2.07075
11.2	298	1.571	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	2		0.5	0.00000	0.78550	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	9.426	8.64050
15.1	298	0.392	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	4.70400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
15.2	298	2.175	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	0.00000	26.10000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	19.575	-6.52500
15.3	298	0.64	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	0.00000	7.68000	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	3		9	5.76	-1.92000
16.1	298	0.455	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.34125	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
16.2	298	1.137	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.85275	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	10.233	9.38025
16.3	298	0.973	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.72975	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	8.757	8.02725
16a.3	298	0.022	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.05280	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	0.198	0.14520
17.1	298	0.507	Grassland	Y	GP0.GM11	4	0	1	1	3		12	6.08400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
17.2	298	1.238	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.00000	14.85600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	11.142	-3.71400
17.3	298	1.653	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.00000	19.83600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	14.877	-4.95900
21.1	808	3.301	Grassland	Y	GP0.TS21.SC21. GM11	4	0	1	1	3		12	39.61200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
21.2	808	3.272	Grassland	Y	GP0.TS21.SC21. GM11	4	0	1	1	3		12	0.00000	39.26400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	29.448	-9.81600
21.3	808	1.906	Grassland	Y	GP0.TS21.SC21. GM11	4	0	1	1	3		12	0.00000	22.87200	Bat Foraging Land	GP0.TS21.SC21.G M4	4	0	1	0.75	3		9	17.154	-5.71800
22.1	808	0.32	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.24000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
22.2	808	0.678	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.50850	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	6.102	5.59350
22.3	808	0.645	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.48375	Bat Foraging Land	GP0.GM4	1	0	1	0.75	3		2.25	1.45125	0.96750
23.3	808	0.176	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.42240	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	1.584	1.16160
24.1	808	0.374	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.28050	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
24.2	808	0.897	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.67275	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	8.073	7.40025
24.3	808	1.432	Cereal crops																						

39.2	3012	1.112	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	8.89600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	6.672	-2.22400
39.3	3012	1.422	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	11.37600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	8.532	-2.84400
54.1	1241	0.307	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.49120	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
54.2	1241	0.415	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.66400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.49	1.82600
55.1	1241	0.145	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.23200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
55.2	1241	0.402	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.64320	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.412	1.76880
55.3	1241	1.089	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.74240	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	6.534	4.79160
56.1	1867	0.789	Grassland	Y	GP0.GM12	4	0	1	1	2		8	6.31200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
56.2	1867	1.492	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	11.93600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	8.952	-2.98400
56.3	1867	1.98	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	15.84000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	11.88	-3.96000
57.1	1867	0.51	Grassland	Y	GP0.GM12	4	0	1	1	2		8	4.08000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
57.2	1867	0.795	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	6.36000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	4.77	-1.59000
57.3	1867	0.312	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	2.49600	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	-2.49600
60.1	1934	1.141	Grassland	Y	GP0.GM12	4	0	1	1	3		12	13.69200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
60.2	1934	1.722	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	20.66400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	15.498	-5.16600
60.3	1934	0.395	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	4.74000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	3.555	-1.18500
61.1	1934	0.463	Grassland	Y	GP0.GM12	4	0	1	1	3		12	5.55600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
61.2	1934	0.668	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	8.01600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	6.012	-2.00400
61.3	1934	0.195	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	2.34000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	1.755	-0.58500
62.1	1934	1.492	Grassland	Y	GP0.GM12	1	0	1	1	2		2	2.98400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
62.2	1934	0.326	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	2.60800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	1.956	-0.65200
62.3	1934	0.176	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	1.40800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	1.056	-0.35200
63.2	1934	0.08	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.64000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.48	-0.16000
63.3	1934	1.33	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	10.64000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	7.98	-2.66000
64.1	1691	0.384	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.92160	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
64.2	1691	1.002	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	2.40480	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	9.018	6.61320
64.3	1691	0.19	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.45600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	1.71	1.25400
67.3	916	1.773	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	2.83680	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	10.638	7.80120
68.1	916	0.313	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.50080	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
68.2	916	0.847	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	1.35520	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	5.082	3.72680
68.3	916	0.492	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	0.78720	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	2.952	2.16480
71.1	871	0.121	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.29040	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
71.2	871	0.309	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.74160	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	2.781	2.03940
71.3	871	1.08	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	2.59200	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	9.72	7.12800
72.1	871	0.646	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	1.03360	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
72.2	871	2.04	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	3.26400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	12.24	8.97600
72.3	871	2.4	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	3.84000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	14.4	10.56000
73.1	871	0.136	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.32640	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
73.2	871	0.474	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	1.13760	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	4.266	3.12840
73.3	871	1.014	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	2.43360	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	9.126	6.69240
74.1	871	0.264	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.42240	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
74.2	871	0.456	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.72960	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.736	2.00640

74.3	871	0.366	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.58560	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	2.196	1.61040
75.3	871	1.174	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.87840	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	7.044	5.16560
79.1	871	0.259	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.19425	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
79.2	871	0.669	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.50175	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	6.021	5.51925
79.3	871	0.349	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.26175	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	3.141	2.87925
84.1	171	0.332	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.79680	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
84.2	171	0.784	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	1.88160	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	7.056	5.17440
84.3	171	0.183	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.43920	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	1.647	1.20780
85.3	171	0.025	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	0.06000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	0.225	0.16500
86.3	171	0.475	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	1.14000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	4.275	3.13500
87.2	125	0.206	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	0.32960	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	1.236	0.90640
87.3	125	1.427	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	2.28320	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	8.562	6.27880
87a.2	125	0.054	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.36450	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.324	-0.04050
87a.3	125	0.038	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.25650	Bat Foraging Land	WB3.WF114.WM7	6	0	0.75	1	2		9	0.342	0.08550
88.1	125	0.538	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.86080	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
88.2	125	1.476	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	2.36160	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	8.856	6.49440
88.3	125	0.955	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.52800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	5.73	4.20200
88a.2	126	0.053	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.35775	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.318	-0.03975
89.1	125	0.525	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.84000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
89.2	125	0.645	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.03200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	3.87	2.83800
89.3	125	0.727	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.16320	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	4.362	3.19880
94.1	460	0.501	Grassland	Y	GP0.TS21.GM11	4	0	1	1	2		8	4.00800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
94.2	460	1.097	Grassland	Y	GP0.TS21.GM11	4	0	1	1	2		8	0.00000	8.77600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	6.582	-2.19400
94.3	460	0.102	Grassland	Y	GP0.TS21.GM11	4	0	1	1	2		8	0.00000	0.81600	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	0.612	-0.20400
95.1	460	0.164	Grassland	Y	GP0.GM11	4	0	1	1	2		8	1.31200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
95.2	460	0.418	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	3.34400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.508	-0.83600
96.1	460	0.269	Grassland	Y	GP0.GM11	4	0	1	1	2		8	2.15200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
96.2	460	0.746	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	5.96800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	4.476	-1.49200
96.3	460	0.449	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	3.59200	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	2.694	-0.89800
101.1	460	0.035	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.28000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
101.2	460	0.23	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	1.84000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	1.38	-0.46000
101.3	460	0.86	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	6.88000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	5.16	-1.72000
104.1	460	0.514	Grassland	Y	GP0.GM11	4	0	1	1	2		8	4.11200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
104.2	460	0.932	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	7.45600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	5.592	-1.86400
104.3	460	1	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	8.00000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	6	-2.00000
105a.1	460	0.239	Grassland	Y	GP0.GM11	4	0	1	1	2		8	1.91200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
105a.2	460	0.644	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	5.15200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	3.864	-1.28800

105a.3	460	1.165	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	9.32000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	6.99	-2.33000
105b.1	460	0.26	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	2.08000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	-2.08000
105b.2	460	0.6	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	4.80000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	3.6	-1.20000
105b.3	460	0.497	Grassland	Y	GP0.GM11	4	0	1	1	2		8	0.00000	3.97600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	2.982	-0.99400
113.1	191	0.568	Grassland	Y	GP0.GM12	4	0	1	1	3		12	6.81600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75			0	0	0.00000
113.2	191	1.15	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	13.80000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75			0	0	-13.80000
113.3	191	1.387	Grassland	Y	GP0.GM12	4	0	1	1	3		12	0.00000	16.64400	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	12.483	-4.16100
114.1	404	1.203	Grassland	Y	GP0.SC1.GM11	4	0	1	1	3		12	14.43600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
114.2	404	3.033	Grassland	Y	GP0.SC1.GM11	4	0	1	1	3		12	0.00000	36.39600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	27.297	-9.09900
114.3	404	1.465	Grassland	Y	GP0.SC1.GM11	4	0	1	1	3		12	0.00000	17.58000	Bat Foraging Land	GP0.SC1.GM4	4	0	1	0.75	3		9	13.185	-4.39500
114a.3	404	0.399	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	3		10.125	0.00000	4.03988	Bat Foraging Land	WB3.WF114.WM7	6	0	0.75	1	3		13.5	5.3865	1.34663
118.1	404	2.347	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	28.16400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
118.2	404	1.845	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	0.00000	22.14000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	16.605	-5.53500
118.3	404	1.406	Grassland	Y	GP0.TS21.GM11	4	0	1	1	3		12	0.00000	16.87200	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	3		9	12.654	-4.21800
124.1	389	0.002	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.02400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
124.2	389	0.177	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.00000	2.12400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	1.593	-0.53100
126.1	389	0.321	Grassland	Y	GP0.GM11	4	0	1	1	3		12	3.85200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
126.2	389	0.237	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.00000	2.84400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	2.133	-0.71100
126a.2	389	0.106	Housing and garden	Y	UR0.UA3	1	0	1	0	3		0	0.00000	0.00000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	0.954	0.95400
127.1	410	0.533	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.39975	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
127.2	410	1.16	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.87000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	10.44	9.57000
127.3	410	1.311	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.98325	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	11.799	10.81575
129.1	410	0.56	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.42000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
129.2	410	1.457	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	1.09275	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	13.113	12.02025
129.3	410	2.723	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	2.04225	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	24.507	22.46475
130.1	410	0.868	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.65100	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
130.2	410	1.456	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	1.09200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.25	3		3	4.368	3.27600
130.3	410	2.061	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	1.54575	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	18.549	17.00325
135.2	410	0.048	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	2		0.5	0.00000	0.02400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.288	0.26400
136.1	410	0.446	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.33450	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
136.2	410	1.271	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	0.95325	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	11.439	10.48575
136.3	410	1.394	Cereal crops	Y	CR2.CL5Z	1	0	1	0.25	3		0.75	0.00000	1.04550	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	12.546	11.50050
141.1	423	0.273	Grassland	Y	GP0.GM12	4	0	1	1	2		8	2.18400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
141.2	423	0.763	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	6.10400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	4.578	-1.52600
143.1	423	1.483	Grassland	Y	GP0.SC2.GM12	4	0	1	1	2		8	11.86400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
143.2	423	0.04	Grassland	Y	GP0.SC2.GM12	4	0	1	1	2		8	0.00000	0.32000	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.24	-0.08000
143.3	423	0.1	Grassland	Y	GP0.SC2.GM12	4	0	1	1	2		8	0.00000	0.80000	Bat Foraging Land	GP0.SC2.GM4	4	0	1	0.75	2		6	0.6	-0.20000
144.1	423	0.125	Grassland	Y	GP0.GM12	4	0	1	1	2		8	1.00000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
144.2	423	0.398	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	3.18400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	2.388	-0.79600
145.3	423	0.006	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.04800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.036	-0.01200
148.1	423	0.265	Grassland	Y	GP0.GM12	4	0	1	1	2		8	2.12000	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
148.2	423	0.696	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	5.56800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	4.176	-1.39200
148.3	423	1.517	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	12.13600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	9.102	-3.03400
152.1	423	0.823	Grassland	Y	GP0.GM12	4	0	1	1	2		8	6.58400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000

152.2	423	0.024	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.19200	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.144	-0.04800
153.2	423	0.004	Grassland	Y	GP0.GM12	1	0	1	1	2		2	0.00000	0.00800	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.024	0.01600
153.3	423	0.006	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.04800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.036	-0.01200
156.1	863	0.48	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	1.15200	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	3		0	0	0.00000
156.2	863	0.922	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	2.21280	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	3		9	8.298	6.08520
156.3	863	0.921	Grassland	Y	GP0.GM21	4	0	1	0.2	3		2.4	0.00000	2.21040	Bat Foraging Land	GP0.GM4	4	0	1	0.75	3		9	8.289	6.07860
156c.2	866	0.035	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.23625	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.21	-0.02625
156c.3	866	0.138	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.93150	Bat Foraging Land	WB3.WF114.WM7	6	0	0.75	1	2		9	1.242	0.31050
160.1	1241	0.564	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.90240	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
160.2	1241	1.366	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	2.18560	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	8.196	6.01040
160.3	1241	1.168	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.86880	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	7.008	5.13920
160a.2	1242	0.094	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.63450	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.564	-0.07050
160a.3	1242	0.104	Semi-natural woodland	Y	WB3.WF114.WM6	6	0	0.75	0.75	2		6.75	0.00000	0.70200	Bat Foraging Land	WB3.WF114.WM7	6	0	0.75	1	2		9	0.936	0.23400
161.1	423	1.177	Grassland	Y	GP0.GM12	4	0	1	1	2		8	9.41600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
161.3	423	0.006	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.04800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.036	-0.01200
162.2	1953	0.217	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	1.73600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	1.302	-0.43400
162.3	1953	0.394	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	3.15200	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	2.364	-0.78800
163.3	1936	0.857	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	6.85600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	5.142	-1.71400
164.3	2036	1.06	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	1.69600	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	6.36	4.66400
165.3	2036	1.409	Grassland	Y	GP0.TS21.GM21	4	0	1	0.2	2		1.6	0.00000	2.25440	Bat Foraging Land	GP0.TS21.GM4	4	0	1	0.75	2		6	8.454	6.19960
166.1	2036	1.405	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	2.24800	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
166.2	2036	0.052	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.08320	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.312	0.22880
166.3	2036	0.052	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.08320	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.312	0.22880
167.3	2036	0.53	Grassland	Y	GP0.GM21	4	0	1	0.2	2		1.6	0.00000	0.84800	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	3.18	2.33200
168.3	808	0.005	Grassland	Y	GP0.GM11	4	0	1	1	3		12	0.00000	0.06000	Bat Foraging Land	GP0.GM4	4	0	1	0.75	2		6	0.03	-0.03000
169.2	1832	1.228	Grassland	Y	GP0.GM13	4	0	1	1	2		8	0.00000	9.82400	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	7.368	-2.45600
170.1	932	1.363	Grassland	Y	GP0.GM12	4	0	1	1	2		8	10.90400	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
170.2	932	1.362	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	10.89600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	8.172	-2.72400
171.1	335	1.667	Grassland	Y	GP0.GM12	4	0	1	1	2		8	13.33600	0.00000	UG Cable Swathe	CR4.GM4	0	0	1	0.75	2		0	0	0.00000
171.2	335	0.082	Grassland	Y	GP0.GM12	4	0	1	1	2		8	0.00000	0.65600	Seeded Subsoil and Topsoil Stockpiles	GP0.GM4	4	0	1	0.75	2		6	0.492	-0.16400
													0.00000	0.00000											
													0.00000	0.00000											
													Maximum HUs	237.93925											
													Spatial Risk	1											
													Delivery Risk	1											
													Temporal Risk	1											
													um HUs Required	237.93925											



Key

- Proposed Development**
- Order Limits
 - Special Areas of Conservation (SAC)
 - Greater Horseshoe 500m Buffer
 - Greater Horseshoe 3400m Buffer
 - Greater Horseshoe 5750m Buffer

Bat Foraging Habitat Scores

- 40 to -15
- 14 to -13
- 11 to -10
- 10 to -9
- 7 to -6
- 6 to -5
- 5 to -4
- 4 to -3
- 3 to -2
- 2 to -1
- 1 to 0
- 0 to 1
- 1 to 2
- 2 to 3
- 3 to 4
- 4 to 5
- 5 to 6
- 6 to 7
- 7 to 8
- 8 to 9
- 9 to 10
- 10 to 11
- 11 to 12
- 12 to 13
- 14 to 15
- 15 to 43

Notes

This map contains data from the following sources:

- Ordnance Survey
- Natural England

A	28/05/2015	INITIAL ISSUE	JS	EJS	EJS
ISSUE	DATE	COMMENTS	DRAW	CHK'D	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.26.3

SAC BAT FORAGING
CONSTRUCTION PHASE NET
DIFFERENCE IN HABITAT UNITS
GREATER HORSESHOE BATS (FIELDS)

			
National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA			
<u>NG INVESTMENT No.</u>	<u>APPLICATION No.</u>		GIS
20897	EN020001		A3
<u>FIGURE No.</u>	<u>DRAWING No.</u>	<u>SCALE</u>	
3.1	G1979.2566.1	1:10,000	
SHEET 1 of 3		<u>ISSUE</u>	A

Habitat Scores Greater Than 15

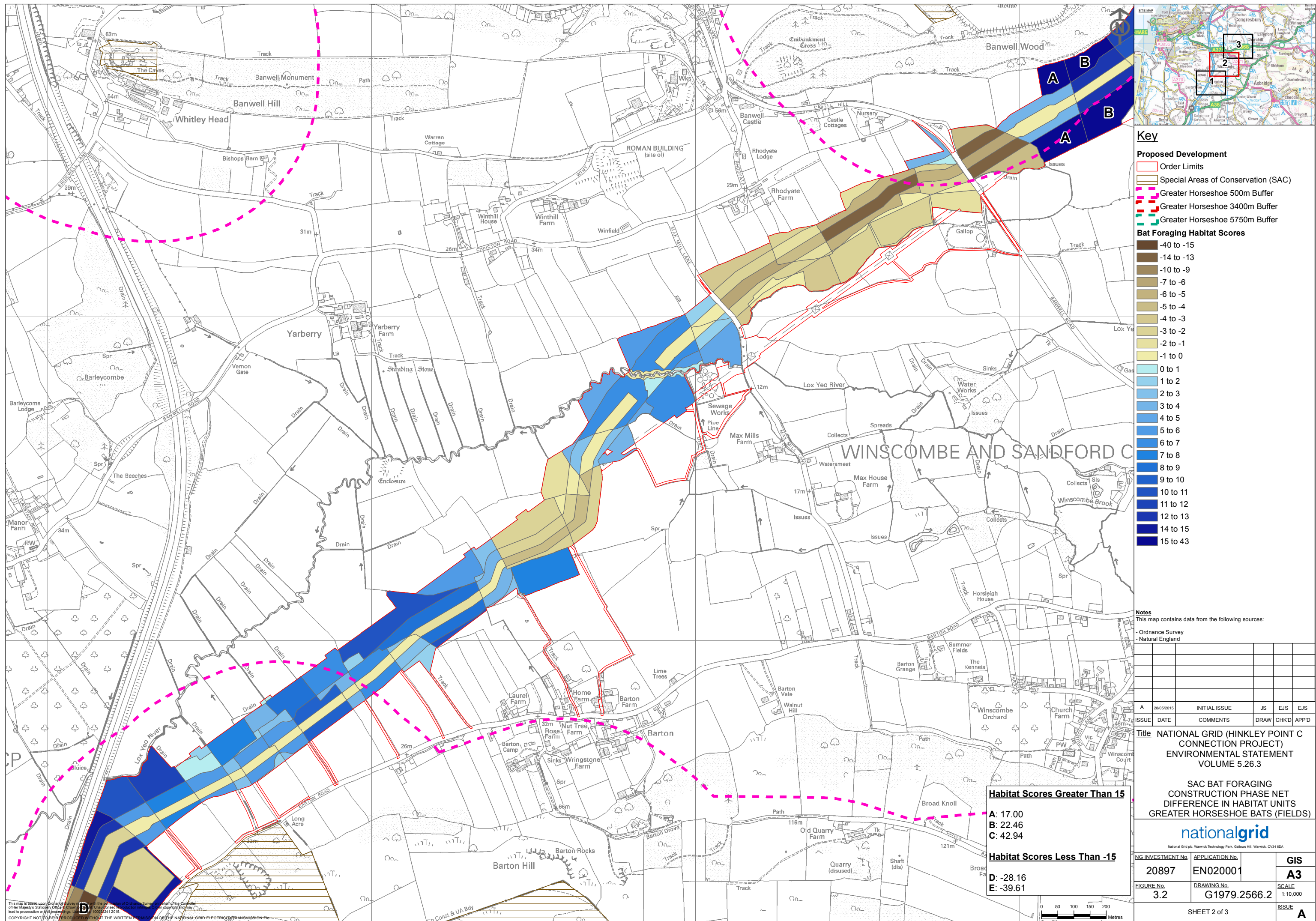
- A: 17.00
- B: 22.46
- C: 42.94

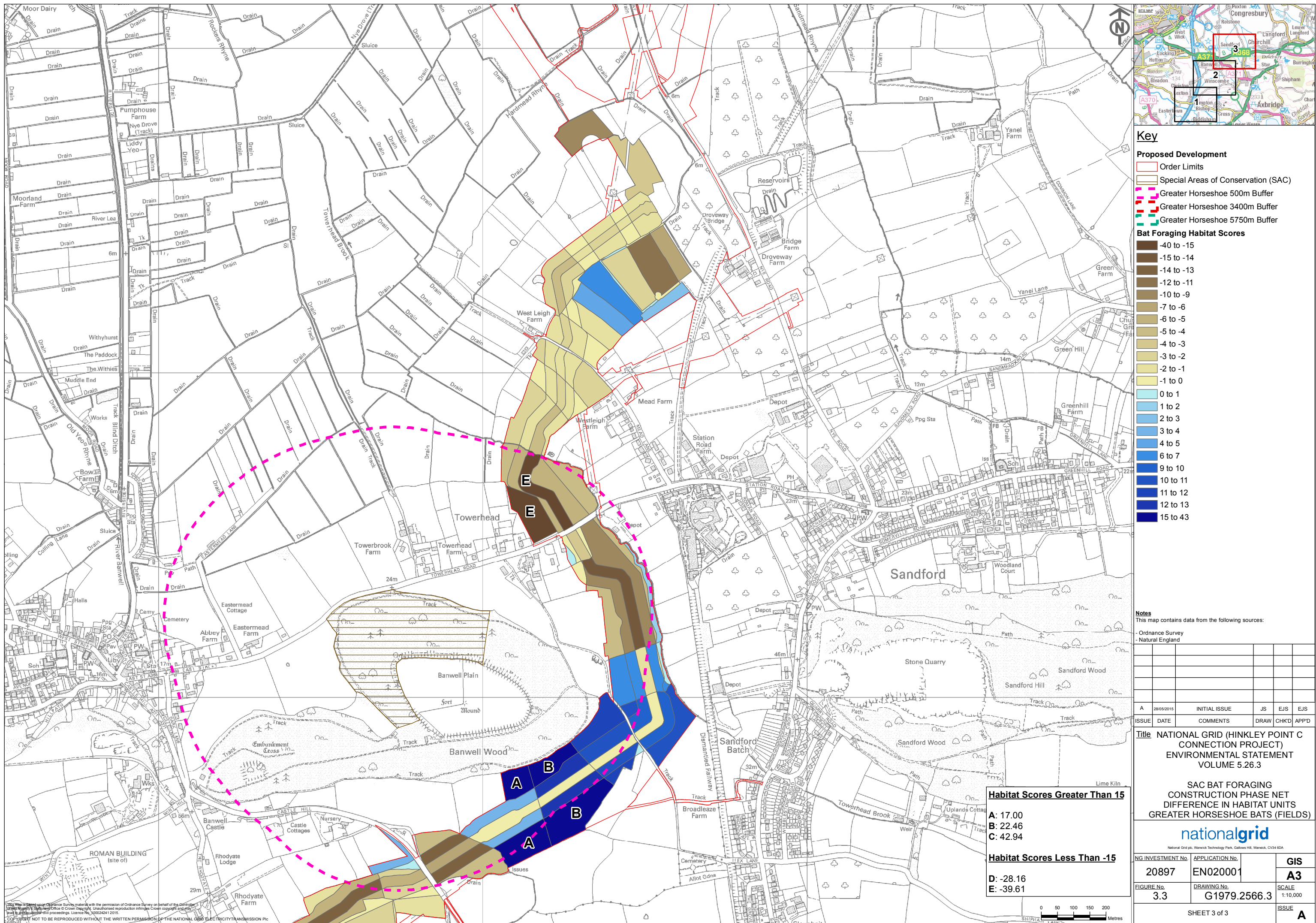
Habitat Scores Less Than -15

- D: -28.16
- E: -39.61



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ANNEX D
HEP CALCULATIONS & PLANS
GREATER HORSESHOE BAT: BOUNDARIES

District / Borough:					Site: Hinkley Point C Connection								Date: 22/10/14		Ref No: 1979.79.004b			Map Reference:									
Sheet No:4			Species: Greater Horseshoe Bats (Boundaries)																								
Hedge No.	PIL ID	Total Area (length * 3m = hectares)	Current habitat	Available for future use by species' population? Y/N	IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		Total HSI Score	Choose either Lost or Enhanced and enter 0 in the other column		Future habitat / land use	Future IHS Codes	HSI Habitat Score	HSI Matrix Score	HSI Formation Score	HSI Management / Land Use Score	Consideration Zone		HSI Score	Future Habitat Units	Net gain on site		
													Habitat Units Lost	Habitat Units Retained, Accessible and to													
B1.2	331	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.414	0.41400		
B2.1	331	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000		
B2.2	331	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.45	0.45000		
B3.2	331	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.486	0.48600		
B4.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.369	0.36900		
B5.2	331	0.065	Drain	Y	ASZ.AC11.LT12	2	0	1	1	2		4	0.00000	0.26000	Boundary of bat foraging land	ASZ.AC11.LT12	2	0	1	1	2		4	0.26	0.00000		
B6.2	331 & 298	0.128	River	Y	AR0.AC2.LT25	4	0	1	0.5	3		6	0.00000	0.76800	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	3		6	0.768	0.00000		
B7.2	331	0.103	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.927	0.92700		
B8.2	331	0.104	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.93600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.936	0.00000		
B9.2	331	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.18	0.18000		
B10.2	331	0.092	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.828	0.82800		
B11.2	331	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.333	0.33300		
B12.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.369	0.36900		
B13.2	331	0.086	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.774	0.77400		
B14.2	331	0.236	River	Y	AR0.AC2.LT25	4	0	1	0.5	2		4	0.00000	0.94400	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	2		4	0.944	0.00000		
B15.2	331	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.27	0.27000		
B16.2	331	0.041	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.369	0.36900		
B17.1	331	0.021	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000		
B17.2	331	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.657	0.65700		
B18.2	331	0.07	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.63	0.63000		
B19.2	331	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.387	0.38700		
B20.2	331	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.27	0.27000		
B21.2	331	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.171	0.17100		
B22.1	331	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000		
B22.2	331	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.513	0.51300		
B23.2	331	0.078	River and Hedgerow	Y	AR0.AC2.LT23	4	0	1	1	2		8	0.00000	0.62400	Boundary of bat foraging land	AR0.AC2.LT23	4	0	1	1	2		8	0.624	0.00000		
B24.2	331	0.079	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.711	0.71100		
B25.2	331	0.083	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.747	0.74700		
B26.2	331	0.11	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.99	0.99000		
B27.2	331	0.116	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.044	1.04400		
B27a.2	331	0.068	River and Hedgerow/s crub	Y	AR0.AC2.LT23	4	0	1	1	2		8	0.00000	0.54400	Boundary of bat foraging land	AR0.AC2.LT23	4	0	1	1	2		8	0.544	0.00000		
B28.2	298	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.558	0.55800		
B29.2	298	0.022	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.26400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.264	0.00000		
B30.2	298	0.042	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.37800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.378	0.00000		
B31.2	298	0.07	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.26000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.26	0.00000		
B32.2	298	0.009	Stream	Y	AR0.AC2.LT25	4	0	1	0.5	3		6	0.00000	0.05400	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	3		6	0.054	0.00000		
B33.2	298	0.116	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	2.08800	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	2.088	0.00000		
B34.2	298	0.112	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	1.34400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	1.344	0.00000		
B35.2	298	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.54	0.54000		
B36.2	298	0.055	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	0.99000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	0.99	0.00000		
B37.2	298	0.034	Stream	Y	AR0.AC2.LT25	4	0	1	0.5	3		6	0.00000	0.20400	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	3		6	0.204	0.00000		

B38.2	298	0.013	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.17550	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.1755	0.00000
B39.2	298	0.11	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.98000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.98	0.00000
B40.2	298	0.022	Drain	Y	ASZ.AC11.LT11	2	0	1	1	2		4	0.00000	0.08800	Boundary of bat foraging land	ASZ.AC11.LT11	2	0	1	1	2		4	0.088	0.00000
B41.2	298	0.011	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.13200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.132	0.00000
B43.2	298	0.026	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.35100	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.351	0.00000
B44.2	298	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.6345	0.63450
B45.2	298	0.043	Drain	Y	ASZ.AC11.LT12	2	0	1	1	3		6	0.00000	0.25800	Boundary of bat foraging land	ASZ.AC11.LT12	2	0	1	1	3		6	0.258	0.00000
B46.2	298	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.324	0.32400
B47.2	298	0.02	Drain	Y	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.00000	0.06000	Boundary of bat foraging land	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.06	0.00000
B48.2	298	0.041	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.73800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.738	0.00000
B49.2	298	0.008	Stream	Y	AR0.AC2.LT22	4	0	1	1	3		12	0.00000	0.09600	Boundary of bat foraging land	AR0.AC2.LT22	4	0	1	1	3		12	0.096	0.00000
B50.2	298	0.123	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	2.21400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	2.214	0.00000
B51.1	298	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B51.2	298	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.4725	0.47250
B52.2	298	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.9855	0.98550
B53.1	298 & 871	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B53.2	298 & 871	0.083	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	1.1205	1.12050
B54.2	298	0.05	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.675	0.67500
B55.1	298 & 871	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B55.2	298 & 871	0.077	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	1.0395	1.03950
B56.2	298 & 871	0.023	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.31050	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3105	0.00000
B57.2	298 & 871	0.028	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.378	0.37800
B58.2	298 & 871	0.018	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.243	0.24300
B59.2	298 & 871	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.189	0.18900
B60.2	298 & 871	0.037	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.333	0.33300
B61.2	298	0.046	Stream	Y	AR0.AC2.LT22	4	0	1	1	2		8	0.00000	0.36800	Boundary of bat foraging land	AR0.AC2.LT22	4	0	1	1	2		8	0.368	0.00000
B62.2	298	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.153	0.15300
B63.2	298	0.013	Drain	Y	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.00000	0.03900	Boundary of bat foraging land	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.039	0.00000
B64.2	298	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3645	0.36450
B65.2	298 & 171	0.022	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.297	0.29700
B66.1	298	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B66.2	298	0.135	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.8225	1.82250
B67.2	298	0.033	Stream	Y	AR0.AC2.LT22	4	0	1	1	3		12	0.00000	0.39600	Boundary of bat foraging land	AR0.AC2.LT22	4	0	1	1	3		12	0.396	0.00000
B68.2	298	0.012	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.16200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.162	0.00000
B69.2	808	0.07	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.945	0.94500
B70.1	808	0.006	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.10800	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B70.2	808	0.059	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.06200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.062	0.00000
B71.1	808	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B71.2	808	0.126	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.701	1.70100
B72.1	808	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B72.2	808	0.019	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.2565	0.25650
B74.2	808	0.141	Fence line	Y	LF26	2	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	3		0	0	0.00000
B75.2	808	0.065	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.17000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.17	0.00000
B76.1	808	0.021	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B76.2	808	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.162	0.16200
B77.2	808	0.028	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.378	0.37800
B78.2	808	0.081	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.0935	1.09350

B79.2	808	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.567	0.56700
B80.2	808	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3645	0.36450
B81.1	808	0.013	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.17550	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B81.2	808	0.036	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.48600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.486	0.00000
B82.2	808	0.018	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.243	0.24300
B83.2	808	0.042	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.56700	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.567	0.00000
B84.1	808	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B84.2	808	0.074	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.999	0.99900
B85.2	808	0.024	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.324	0.32400
B86.2	808	0.031	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.41850	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.4185	0.00000
B87.2	808	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3915	0.39150
B88.2	808	0.026	Stream	Y	AR0.AC2.LT25	4	0	1	0.5	3		6	0.00000	0.15600	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	3		6	0.156	0.00000
B89.2	808	0.044	Drain	Y	ASZ.AC11.LT13	2	0	1	1	3		6	0.00000	0.26400	Boundary of bat foraging land	ASZ.AC11.LT13	2	0	1	1	3		6	0.264	0.00000
B90.2	808	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.6345	0.63450
B91.2	808	0.037	Fence line	Y	LF26	2	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	3		0	0	0.00000
B91a.2	808	0.013	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	0.23400	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	0.234	0.00000
B91b.2	808	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.189	0.18900
B92.2	808	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.513	0.51300
B93.2	808	0.011	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.14850	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.1485	0.00000
B94.2	808	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B95.2	808	0.016	Drain	Y	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.00000	0.04800	Boundary of bat foraging land	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.048	0.00000
B96.2	808	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.405	0.40500
B97.1	808	0.03	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.40500	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B97.2	808	0.061	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.82350	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.8235	0.00000
B98.2	808	0.053	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.7155	0.71550
B99.2	808	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.729	0.72900
B100.2	808	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B101.2	808	0.074	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.999	0.99900
B102.2	808	0.127	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.7145	1.71450
B103.2	808	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.486	0.48600
B105.2	871 & 171	0.063	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.8505	0.85050
B106.2	871 & 171	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.459	0.45900
B107.1	871 & 171	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B107.2	871 & 171	0.096	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.296	1.29600
B108.2	871	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.297	0.29700
B109.2	171	0.052	Stream	Y	AR0.AC2.LT25	4	0	1	0.5	2		4	0.00000	0.20800	Boundary of bat foraging land	AR0.AC2.LT25	4	0	1	0.5	2		4	0.208	0.00000
B110.2	171	0.034	Drain	Y	ASZ.AC11.LT12	2	0	1	1	3		6	0.00000	0.20400	Boundary of bat foraging land	ASZ.AC11.LT12	2	0	1	1	3		6	0.204	0.00000
B111.1	871 & 171	0.003	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.05400	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B111.2	871 & 171	0.021	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	0.37800	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	0.378	0.00000
B112.1	871 & 171	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B112.2	871 & 171	0.052	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.702	0.70200
B114.2	171	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.4995	0.49950
B115.2	871	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3915	0.39150
B119.2	871	0.054	Stream	Y	AR0.AC2.LT22	4	0	1	1	2		8	0.00000	0.43200	Boundary of bat foraging land	AR0.AC2.LT22	4	0	1	1	2		8	0.432	0.00000
B120.2	871	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.657	0.65700
B121.1	871 & 1691	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B121.2	871 & 1691	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3915	0.39150

B122.2	871 & 1691	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.621	0.62100
B123.2	871	0.032	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.432	0.43200
B124.2	1691	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.6345	0.63450
B125.1	871 & 1691	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B125.2	871 & 1691	0.087	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.783	0.78300
B126.1	871 & 1691	0.003	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000							2		0	0	0.00000
B126.2	871 & 1691	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.117	0.11700
B127.2	871 & 1691	0.036	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.32400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.324	0.00000
B128.1	871	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B129.1	871	0.014	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.12600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B129.2	871	0.003	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.02700	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.027	0.00000
B130.1	871	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B130.2	871	0.017	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.153	0.15300
B131.2	871	0.085	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.765	0.76500
B131a.2	871	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.342	0.34200
B132.1	871	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B132.2	871	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.396	0.39600
B133.2	871	0.059	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.531	0.53100
B134.2	871 & 916	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.198	0.19800
B135.2	871	0.09	Stream	Y	AR0.AC2.LT22	4	0	1	1	2		8	0.00000	0.72000	Boundary of bat foraging land	AR0.AC2.LT22	4	0	1	1	2		8	0.72	0.00000
B136.2	871	0.084	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.756	0.75600
B137.2	871	0.154	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.386	1.38600
B138.2	916	0.132	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.188	1.18800
B139.2	916	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.378	0.37800
B140.2	916	0.015	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.135	0.13500
B143.2	871	0.061	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.549	0.54900
B144.2	916 & 871	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.117	0.11700
B150.2	916 & 871	0.047	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.423	0.42300
B150a.2	916 & 871	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.513	0.51300
B150b.1	916 & 871	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B150b.2	916 & 871	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.126	0.12600
B151.2	916	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.324	0.32400
B151a.2	916	0.025	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.225	0.22500
B152.1	916 & 3012	0.017	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B152.2	916 & 3012	0.048	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.432	0.43200
B154.2	871	0.083	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.747	0.74700
B155.2	916 & 871	0.116	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	1.04400	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.044	0.00000
B156.2	916 & 3012	0.023	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.207	0.20700
B157.2	916 & 3012	0.03	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.27	0.27000
B161.2	3012	0.021	Wall	Y	LF23	2	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF23	2	0	1	0	2		0	0	0.00000
B162.2	3012	0.007	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.08400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.084	0.00000
B168.2	3012 & 916	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.648	0.64800
B170.2	3012 & 916	0.068	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.612	0.61200
B171.2	3012	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B172.2	3012	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.288	0.28800
B173.2	3012	0.028	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.336	0.00000
B175.2	3012	0.146	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.314	1.31400

B175a.1	3012	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B175a.2	3012	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.414	0.41400
B176.1	3012	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B176.2	3012	0.022	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.198	0.19800
B177.1	3012	0.013	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.15600	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B178.1	3012	0.008	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B178.2	3012	0.002	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.018	0.01800
B179.1	3012 & 125	0.008	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B179.2	3012 & 125	0.023	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.207	0.20700
B180.2	3012	0.015	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.135	0.13500
B181.2	125	0.002	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.018	0.01800
B182.1	125	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B182.2	125	0.031	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.279	0.27900
B183.2	125	0.084	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.756	0.75600
B185.1	125	0.004	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B185.2	125	0.065	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.585	0.58500
B186.2	125	0.026	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.234	0.23400
B187.1	125 & 3012	0.015	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B187.2	125 & 3012	0.045	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.405	0.40500
B188.2	125 & 3012	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.459	0.45900
B191.2	125 & 3012	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.459	0.45900
B193.2	125	0.123	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.107	1.10700
B193a.2	125	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.108	0.10800
B194.2	3012	0.018	Tree boundary	Y	LF12.WM0	6	0	1	1	2		12	0.00000	0.21600	Boundary of bat foraging land	LF12.WM7	6	0	1	1	2		12	0.216	0.00000
B195.2	3012	0.056	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.504	0.50400
B196.2	3012	0.028	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.336	0.00000
B197.2	3012	0.08	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.96000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.96	0.00000
B198.2	3012	0.085	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.765	0.76500
B199.2	3012	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.18	0.18000
B200.2	3012	0.092	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.828	0.82800
B215.2	125	0.048	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.57600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.576	0.00000
B215a.2	125	0.032	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.288	0.28800
B216.2	125	0.067	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.80400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.804	0.00000
B216a.2	125	0.025	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.30000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.3	0.00000
B217.2	1242	0.038	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.45600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.456	0.00000
B218.2	1241	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.513	0.51300
B219.1	1241	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B219.2	1241	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.081	0.08100
B220.1	1241	0.012	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B220.2	1241	0.025	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.225	0.22500
B221.2	1241	0.014	Fence line	Y	LF26	2	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	2		0	0	0.00000
B222.2	1241	0.068	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.612	0.61200
B223.2	1241	0.033	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.297	0.29700
B235.2	1241	0.031	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.279	0.27900
B239.2	1241	0.066	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.594	0.59400
B240.1	1241	0.015	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B240.2	1241	0.071	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.639	0.63900

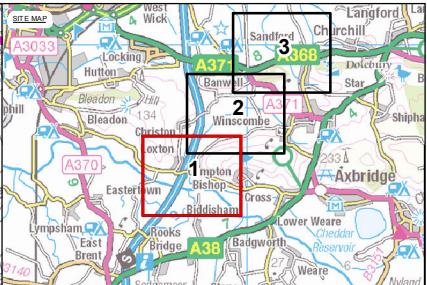
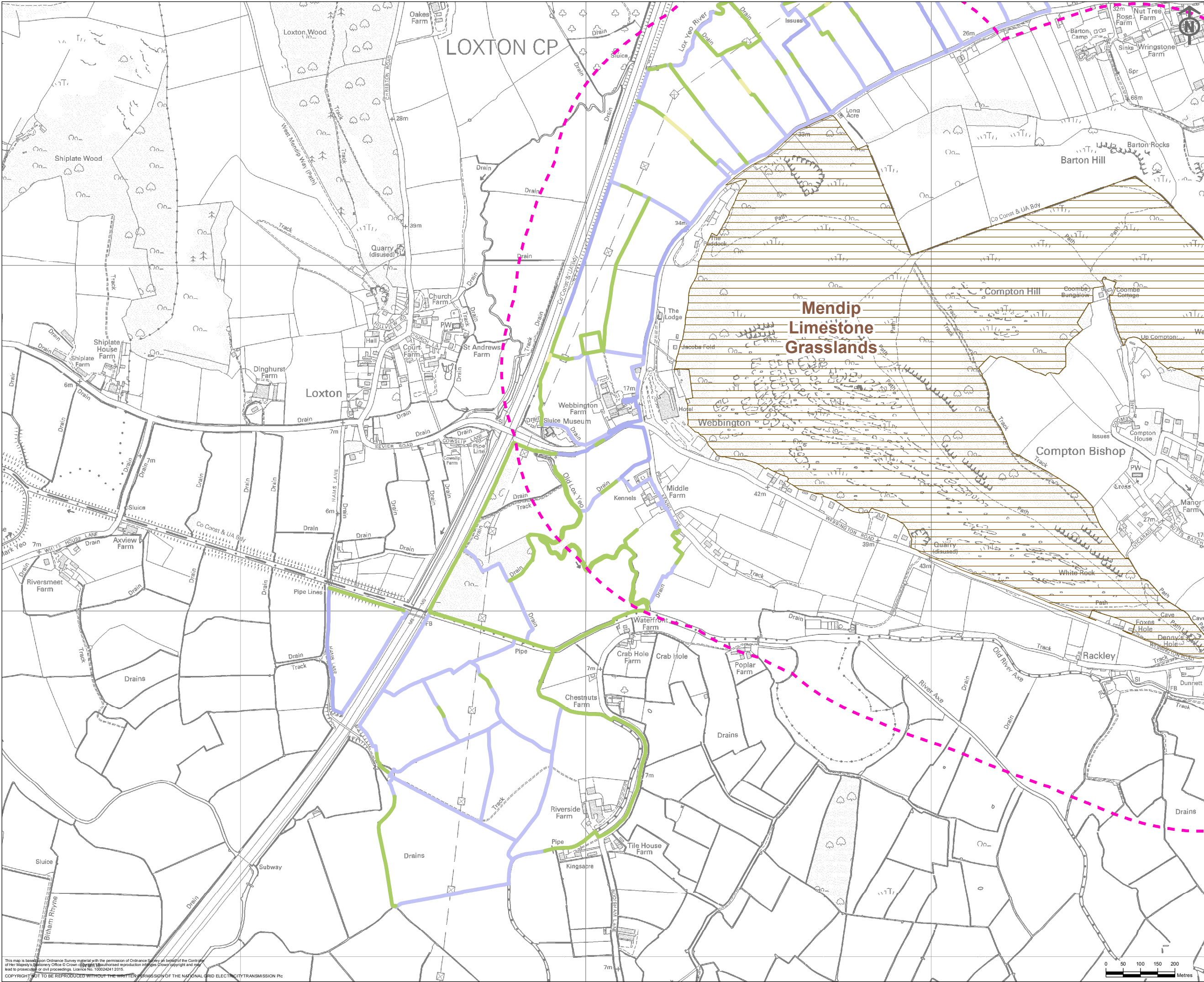
B241.2	1867	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.648	0.64800
B241a.1	1867	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B241a.2	1867	0.053	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.477	0.47700
B242.1	1867	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B242.2	1867	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.351	0.35100
B243.2	1867 & 1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.054	0.05400
B244.2	1867 & 1934	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.216	0.21600
B245.2	1867	0.028	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.33600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.336	0.00000
B246.2	1867	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.072	0.07200
B247.2	1867 & 1953	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.342	0.34200
B248.2	1867	0.044	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.52800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.528	0.00000
B249.2	1953 & 1867	0.087	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.783	0.78300
B250.2	1867	0.146	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.314	1.31400
B251.2	171	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.306	0.30600
B252.2	171	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.45	0.45000
B253.2	171	0.107	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	1.28400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	1.284	0.00000
B254.2	171	0.074	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.88800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.888	0.00000
B255.2	171	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B256.2	171	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.342	0.34200
B257.2	171	0.036	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.324	0.32400
B259.2	1867	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.351	0.35100
B261.1	1867 & 1934	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B261.2	1867 & 1934	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.306	0.30600
B262.2	1934	0.032	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.384	0.00000
B264.2	1934 & 1936	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.126	0.12600
B265.2	1934	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.081	0.08100
B266.1	1934	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B266.2	1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.054	0.05400
B267.1	1934	0.006	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B267.2	1934	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.351	0.35100
B268.2	1934	0.049	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.441	0.44100
B269.2	1934 & 478	0.068	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.91800	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.918	0.00000
B270.2	478	0.101	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	1.36350	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.3635	0.00000
B271.2	478	0.042	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.567	0.56700
B272.2	478	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B273.2	478	0.015	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.20250	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.2025	0.00000
B274.2	478	0.021	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	0.37800	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	0.378	0.00000
B275.1	478	0.005	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B275.2	478	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.837	0.83700
B276.1	1934 & 478	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B276.2	1934 & 478	0.022	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.297	0.29700
B277.2	1934	0.038	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.513	0.51300
B280.2	1936	0.062	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.74400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.744	0.00000
B282.2	1934 & 1867	0.02	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.24000	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.24	0.00000
B283.2	1934 & 1867	0.005	Fence line	Y	LF26	2	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	2		0	0	0.00000
B284.1	1934	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B284.2	1934	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.1755	0.17550

B285.1	1934	0.007	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B285.2	1934	0.02	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.18	0.18000
B286.2	191	0.079	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.0665	1.06650
B287.2	191	0.134	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	2.41200	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	2.412	0.00000
B288.2	191	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.6345	0.63450
B289.2	191	0.043	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B290.1	191	0.004	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B290.2	191	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.6885	0.68850
B291.2	191 & 410	0.069	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.9315	0.93150
B292.1	191 & 410	0.016	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B292.2	191 & 410	0.048	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.648	0.64800
B293.2	410	0.111	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	1.4985	1.49850
B294.2	410	0.053	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.477	0.47700
B295.2	410	0.082	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.738	0.73800
B296.1	410	0.018	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B296.2	410	0.066	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.891	0.89100
B297.1	410	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B297.2	410	0.067	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1		3		0	0	0.00000
B298.2	410	0.181	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	3.25800	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	3.258	0.00000
B299.1	410	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B299.2	410	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.621	0.62100
B300.1	410	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B300.2	410	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B301.1	410	0.005	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B301.2	410	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.441	0.44100
B302.2	410	0.051	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.459	0.45900
B304.2	410	0.068	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.61200	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.612	0.00000
B305.2	410	0.115	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	1.035	1.03500
B306.2	410	0.12	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.08	1.08000
B307.2	410	0.067	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.603	0.60300
B308.2	410	0.062	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.558	0.55800
B309.2	410	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.414	0.41400
B309a.2	410	0.045	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.405	0.40500
B310.2	410	0.054	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.64800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.648	0.00000
B311.2	410	0.04	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.36	0.36000
B312.2	410	0.04	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.36	0.36000
B313.1	410	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B313.2	410	0.091	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	1.2285	1.22850
B314.1	410 & 863	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B314.2	410 & 863	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.5805	0.58050
B315.2	410 & 405	0.05	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.45000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.45	0.00000
B316.2	410	0.073	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.657	0.65700
B317.2	404	0.091	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	1.09200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	1.092	0.00000
B318.2	404	0.033	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.39600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.396	0.00000
B319.2	863 & 404	0.017	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.20400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.204	0.00000

B320.2	863 & 404	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.38400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.384	0.00000
B321.2	404	0.031	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.37200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.372	0.00000
B322.2	423 & 404	0.029	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.34800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.348	0.00000
B323.2	404	0.035	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.31500	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.315	0.00000
B324.2	404	0.031	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.37200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.372	0.00000
B325.2	404	0.032	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.57600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.576	0.00000
B327.2	404	0.076	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.684	0.68400
B328.2	404	0.046	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.62100	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.621	0.00000
B329.2	404	0.098	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	1.76400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	1.764	0.00000
B330.2	865	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.621	0.62100
B331.2	865 & 404	0.072	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.972	0.97200
B332.2	865	0.017	Fence line	Y	LF26	2	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	3		0	0	0.00000
B333.2	865	0.016	Fence line	Y	LF26	2	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	3		0	0	0.00000
B334.2	865	0.07	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.945	0.94500
B335.2	865	0.19	Tree boundary (woodland edge)	Y	LF12.WM0	6	0	1	1	3		18	0.00000	3.42000	Boundary of bat foraging land	LF12.WM7	6	0	1	1	3		18	3.42	0.00000
B336.2	865	0.028	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.378	0.37800
B337.2	865 & 404	0.035	Important Hedgerow	Y	LF111.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.4725	0.47250
B338.1	865 & 404	0.013	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.17550	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B338.2	865 & 404	0.026	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.00000	0.35100	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.351	0.00000
B339.1	404	0.014	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.18900	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B339.2	404	0.045	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.00000	0.60750	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.6075	0.00000
B340.2	404 & 389	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.4725	0.47250
B341.2	404	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.1215	0.12150
B342.2	404 & 389	0.025	Drain	Y	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.00000	0.07500	Boundary of bat foraging land	ASZ.AC11.LT15	2	0	1	0.5	3		3	0.075	0.00000
B343.2	404 & 389	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.3915	0.39150
B344.1	389	0.022	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.29700	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B344.2	389	0.016	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.21600	Boundary of bat foraging land	LF11Z.	6	0	1	0.75	3		13.5	0.216	0.00000
B345.1	423 & 389	0.033	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.44550	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B345.2	423 & 389	0.001	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	3		13.5	0.00000	0.01350	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	3		13.5	0.0135	0.00000
B346.1	389	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B346.2	389	0.01	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.135	0.13500
B347.1	404	0.011	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B347.2	404	0.048	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.648	0.64800
B348.2	404	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	3		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.459	0.45900
B349.2	404	0.06	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.81000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.81	0.00000
B350.2	404	0.016	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.21600	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.216	0.00000
B351.2	404	0.041	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.73800	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.738	0.00000
B352.2	404	0.077	Tree boundary	Y	LF12.LH2	6	0	1	1	3		18	0.00000	1.38600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	3		18	1.386	0.00000
B352a.1	404	0.018	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.32400	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	3		0	0	0.00000
B352a.2	404	0.027	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.48600	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.486	0.00000
B352b.2	404	0.018	Tree boundary	Y	LF12.LH1	6	0	1	1	3		18	0.00000	0.32400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	3		18	0.324	0.00000
B355.2	404	0.035	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	3		13.5	0.00000	0.47250	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	3		13.5	0.4725	0.00000
B356.2	460	0.047	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.56400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.564	0.00000
B357.2	460	0.017	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.20400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.204	0.00000
B358.2	460	0.067	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.80400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.804	0.00000
B359.2	460	0.043	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.387	0.38700

B360.1	460	0.011	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B360.2	460	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.54	0.54000
B361.2	460	0.024	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.216	0.21600
B362.1	460	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B362.2	460	0.071	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.639	0.63900
B362a.2	460	0.039	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.351	0.35100
B363.2	460	0.05	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.45	0.45000
B372.2	863	0.012	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.108	0.10800
B373.2	863	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.396	0.39600
B374.1	460	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B374.2	460	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.441	0.44100
B374a.2	460	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.225	0.22500
B375.2	460	0.026	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.234	0.23400
B376.1	460 & 2036	0.02	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	2		9	0.18000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B376.2	460 & 2036	0.042	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	2		9	0.00000	0.37800	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.378	0.00000
B377.2	460	0.057	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.513	0.51300
B378.2	460 & 2036	0.076	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.684	0.68400
B379.2	2036	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.576	0.57600
B380.2	863	0.021	Fence line	Y	LF26	2	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF26	2	0	1	0	2		0	0	0.00000
B382.2	863 & 2036	0.046	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.414	0.41400
B383.2	2036	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.396	0.39600
B385.2	423 & 2036	0.034	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.306	0.30600
B386.2	423 & 2036	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.243	0.24300
B387.2	2036	0.027	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.243	0.24300
B388.2	2036	0.064	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.576	0.57600
B389.1	423 & 2036	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B389.2	423 & 2036	0.008	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.072	0.07200
B390.1	423	0.054	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B390.2	423	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.117	0.11700
B391.2	423	0.08	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.72	0.72000
B391a.2	423	0.019	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.171	0.17100
B392.1	423	0.077	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	2		9	0.69300	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B393.2	423	0.049	Drain	Y	ASZ.AC11.LT15	2	0	1	0.5	2		2	0.00000	0.09800	Boundary of bat foraging land	ASZ.AC11.LT15	2	0	1	0.5	2		2	0.098	0.00000
B394.1	423	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B394.2	423	0.001	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.009	0.00900
B395.1	423	0.044	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.52800	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B395.2	423	0.001	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.01200	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.012	0.00000
B397.2	423	0.021	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.18900	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.189	0.00000
B398.2	423	0.032	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.288	0.28800
B399.2	423	0.04	Drain	Y	ASZ.AC11.LT13	2	0	1	1	2		4	0.00000	0.16000	Boundary of bat foraging land	ASZ.AC11.LT13	2	0	1	1	2		4	0.16	0.00000
B400.2	423	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.117	0.11700
B401.1	423	0.014	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B401.2	423	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.225	0.22500
B402.1	423	0.024	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B402.2	423	0.014	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.126	0.12600
B403.1	423	0.004	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B403.2	423	0.049	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.441	0.44100

B404.2	423	0.025	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.225	0.22500
B404a.2	423	0.019	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.171	0.17100
B405.1	423	0.02	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B405.2	423	0.046	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.414	0.41400
B406.1	423	0.06	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B406.1	423	0.037	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B407.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B407.2	423	0.062	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.558	0.55800
B409.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B409.2	423	0.035	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.315	0.31500
B410.2	423	0.05	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.45	0.45000
B410a.1	423	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B410a.2	423	0.034	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.306	0.30600
B411.2	423	0.047	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.423	0.42300
B412.2	423 & 460	0.023	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.207	0.20700
B413.2	423	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.315	0.31500
B414.1	423 & 2036	0.013	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B414.2	423 & 2036	0.036	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.324	0.32400
B415.1	423 & 2036	0.003	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B415.2	423 & 2036	0.029	Important Hedgerow	Y	LF111.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.261	0.26100
B416.2	423	0.016	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.144	0.14400
B417.2	460 & 2036	0.017	Tree boundary	Y	LF12.LH1	6	0	1	1	2		12	0.00000	0.20400	Boundary of bat foraging land	LF12.LH1	6	0	1	1	2		12	0.204	0.00000
B418.1	460	0.013	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	2		9	0.11700	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B418.2	460	0.053	Important Hedgerow	Y	LF111.LM2	6	0	1	0.75	2		9	0.00000	0.47700	Boundary of bat foraging land	LF111.LM2	6	0	1	0.75	2		9	0.477	0.00000
B419.2	460	0.021	Hedgerow	Y	LF11Z.LM2	6	0	1	0.75	2		9	0.00000	0.18900	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.189	0.00000
B431.2	423	0.14	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.26	1.26000
B432.2	423	0.013	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.117	0.11700
B433.2	423	0.03	Tree boundary	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.36000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.36	0.00000
B434.2	423	0.051	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.459	0.45900
B437.2	423	0.031	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.279	0.27900
B438.1	423	0.005	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B438.2	423	0.009	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.081	0.08100
B439.1	423	0.021	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B439.2	423	0.044	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.396	0.39600
B440.1	423	0.011	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B440.2	423	0.035	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.315	0.31500
B442.1	460	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B442.2	460	0.124	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	1.116	1.11600
B443.1	932	0.065	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B443.2	932	0.063	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.567	0.56700
B444.2	335	0.015	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.135	0.13500
B445.1	932	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B445.2	932	0.029	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.261	0.26100
B446.2	932	0.03	Hedgerow	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.36000	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.36	0.00000
B447.1	932	0.01	Hedgerow	Y	LF12.LH2	6	0	1	1	2		12	0.12000	0.00000	UG Cable Swathe	LF27.UL2	0	0	1	0	2		0	0	0.00000
B447.2	932	0.023	Hedgerow	Y	LF12.LH2	6	0	1	1	2		12	0.00000	0.27600	Boundary of bat foraging land	LF12.LH2	6	0	1	1	2		12	0.276	0.00000
B448.2	335	0.109	Hedgerow	Y	LF11Z.LM1	6	0	1	0	2		0	0.00000	0.00000	Boundary of bat foraging land	LF11Z.LM2	6	0	1	0.75	2		9	0.981	0.98100



- Key**
- Special Areas of Conservation
 - Greater Horseshoe 500m Buffer
 - Greater Horseshoe 3400m Buffer
 - Greater Horseshoe 5750m Buffer
- Field Boundary Habitat Scores**
- 1 to 0
 - No Change
 - 0 to 1
 - 1 to 2

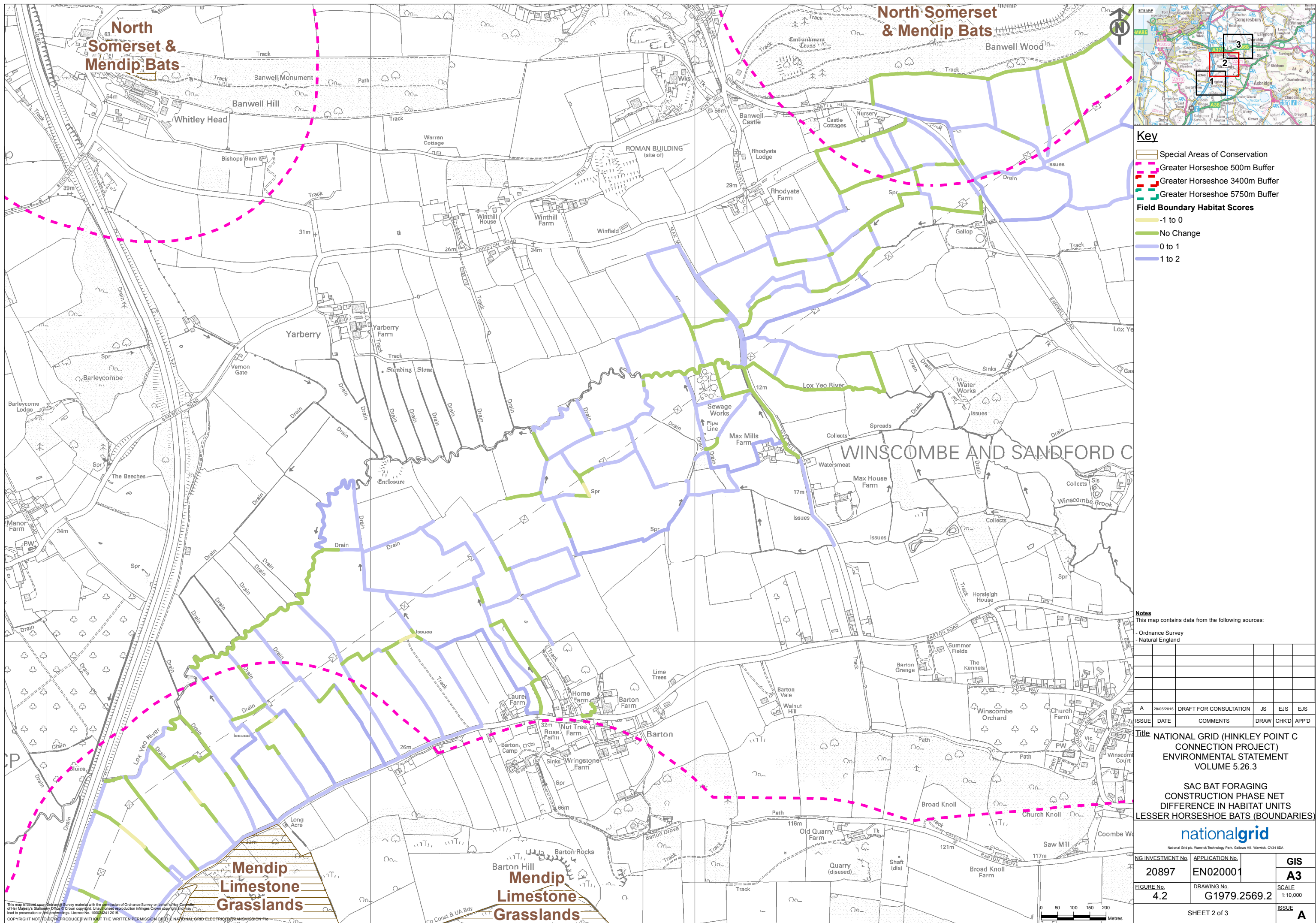
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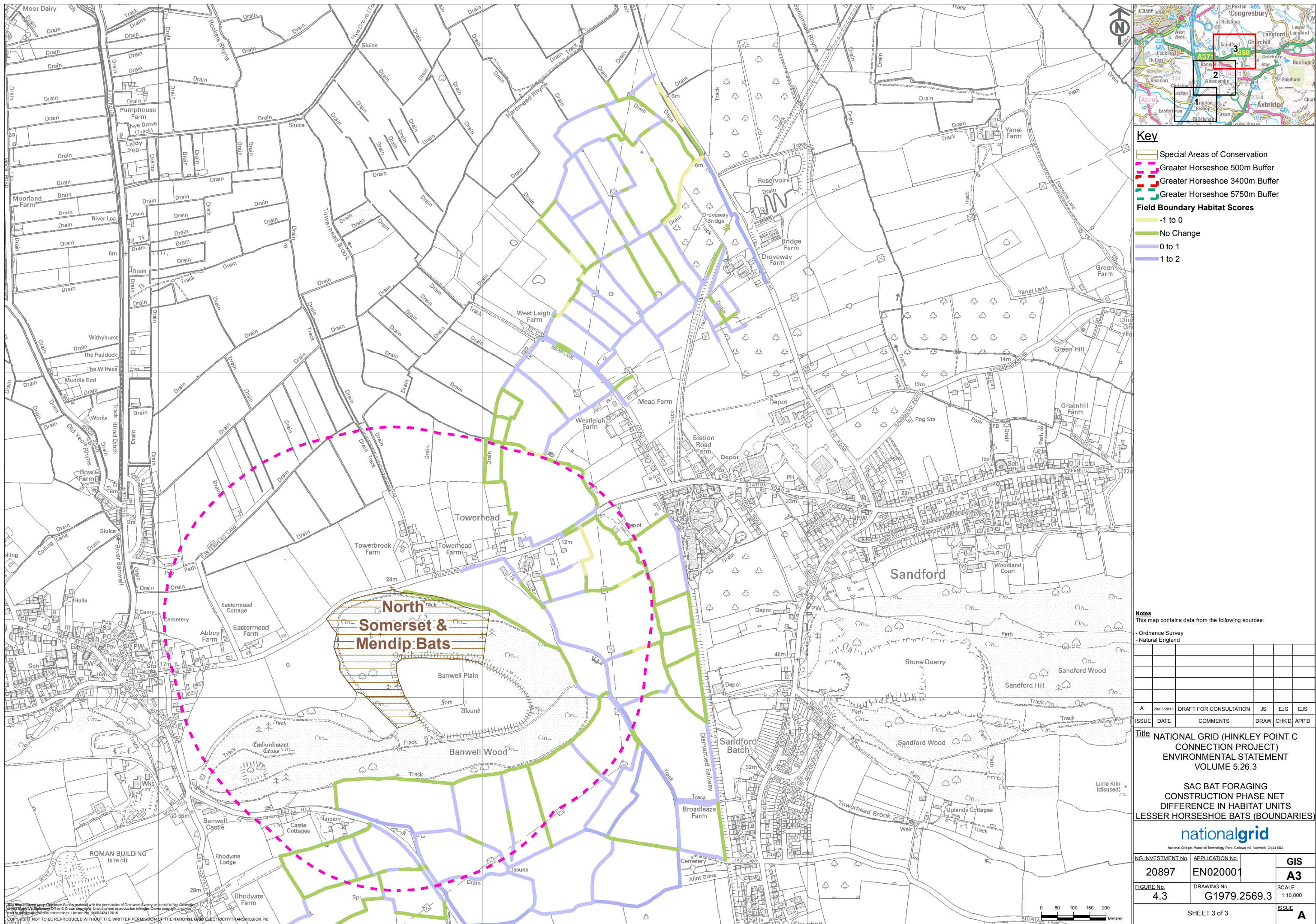
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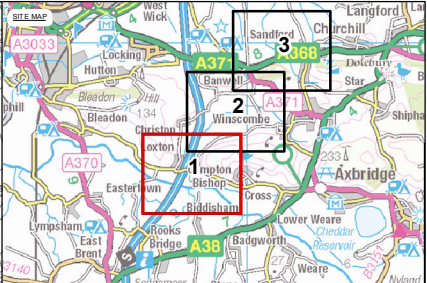
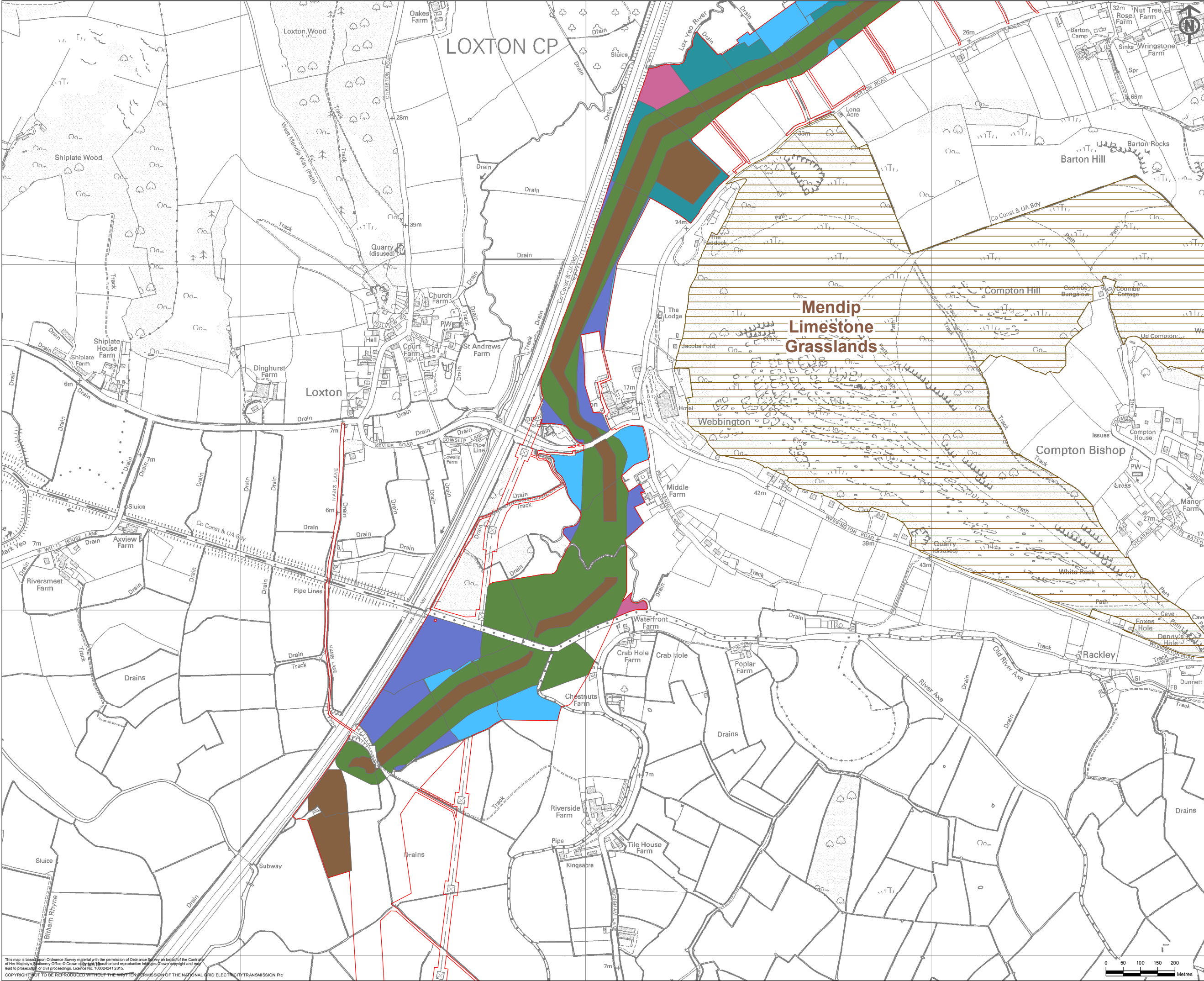
SAC BAT FORAGING
CONSTRUCTION PHASE NET
DIFFERENCE IN HABITAT UNITS
LESSER HORSESHOE BATS (BOUNDARIES)

nationalgrid				National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA	
NG INVESTMENT No.		APPLICATION No.		GIS	
20897		EN020001		A3	
FIGURE No.		DRAWING No.		SCALE	
4.1		G1979.2569.1		1:10,000	
SHEET 1 of 3				ISSUE	
				A	





ANNEX E
CONSTRUCTION PHASE HABITAT & MANAGEMENT
PROPOSALS: FIELDS



- Key**
- Proposed Development**
- Order Limits
 - Special Areas of Conservation
- Future Integrated Habitat System**
- Unmanaged Grassland (Probably Improved) with Broadleaved Trees and/or with Scattered Scrub
 - Arable converted to Unmanaged Grassland (Probably Improved) with Broadleaved Trees and/or with Tall Ruderal
 - Arable converted to Unmanaged Grassland (Probably Improved)
 - Unmanaged Grassland (Probably Improved) - Area of Seeded Subsoil and Topsoil Stockpiles
 - Unmanaged Grassland (Probably Improved)
 - Soil stripped

Notes

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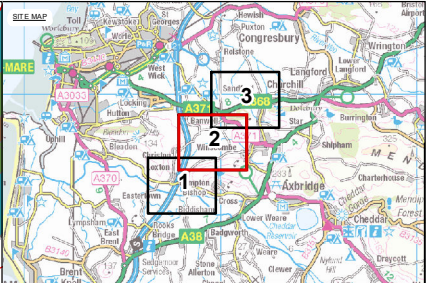
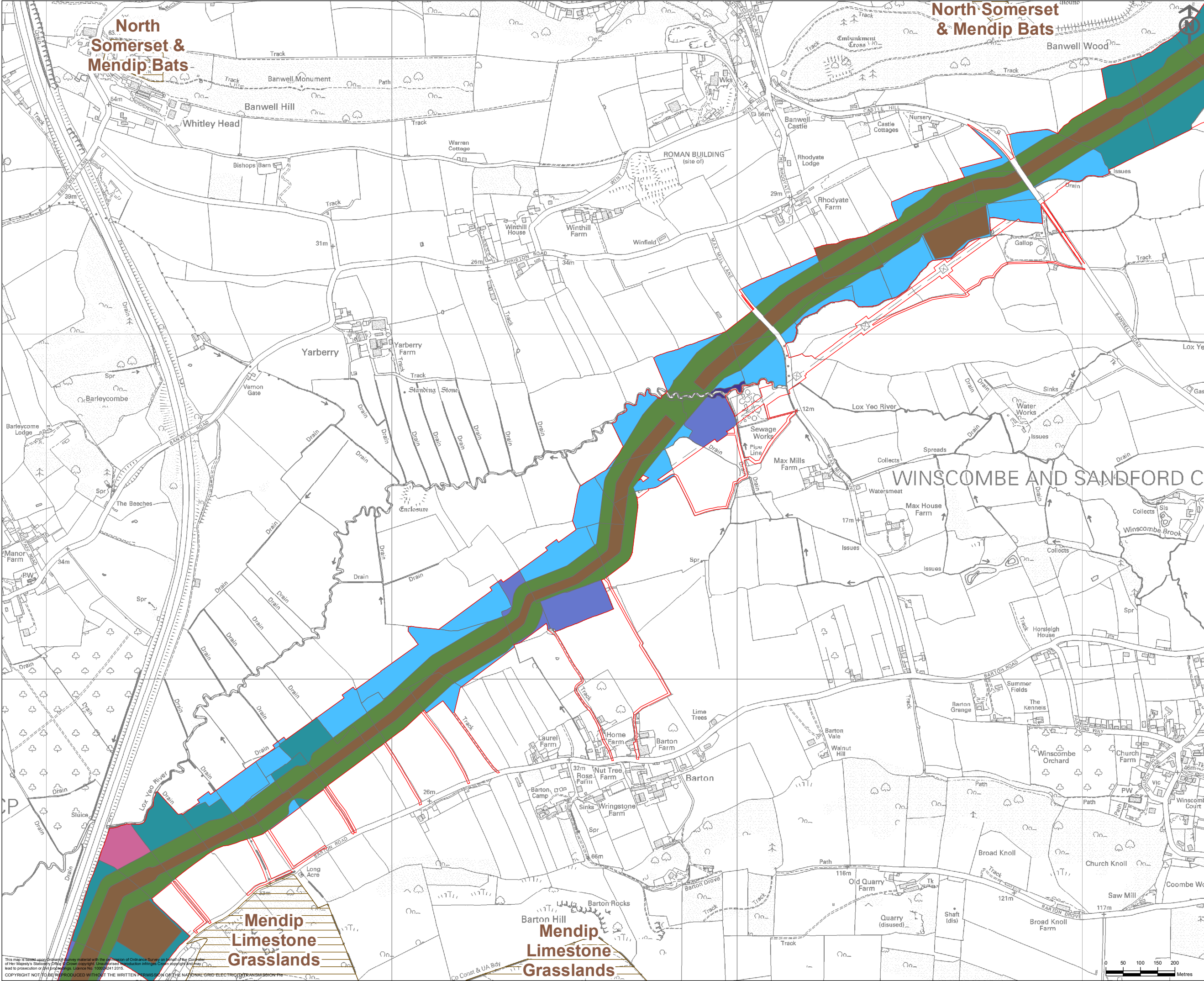
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SAC BAT FORAGING
CONSTRUCTION PHASE
HABITAT MANAGEMENT (FIELDS)

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20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
5.1	G1979.2570.1	1:10,000
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Key

Proposed Development

- Order Limits
- Special Areas of Conservation

Future Integrated Habitat System

- Unmanaged Broad-leaved Woodland (Canopy Cover 20-50%)
- Unmanaged Grassland (Probably Improved) with Broadleaved Trees and/or with Scattered Scrub
- Arable converted to Unmanaged Grassland (Probably Improved) with Broadleaved Trees and/or with Tall Ruderal
- Arable converted to Unmanaged Grassland (Probably Improved)
- Unmanaged Grassland (Probably Improved) - Area of Seeded Subsoil and Topsoil Stockpiles
- Unmanaged Grassland (Probably Improved)
- Soil stripped

Notes
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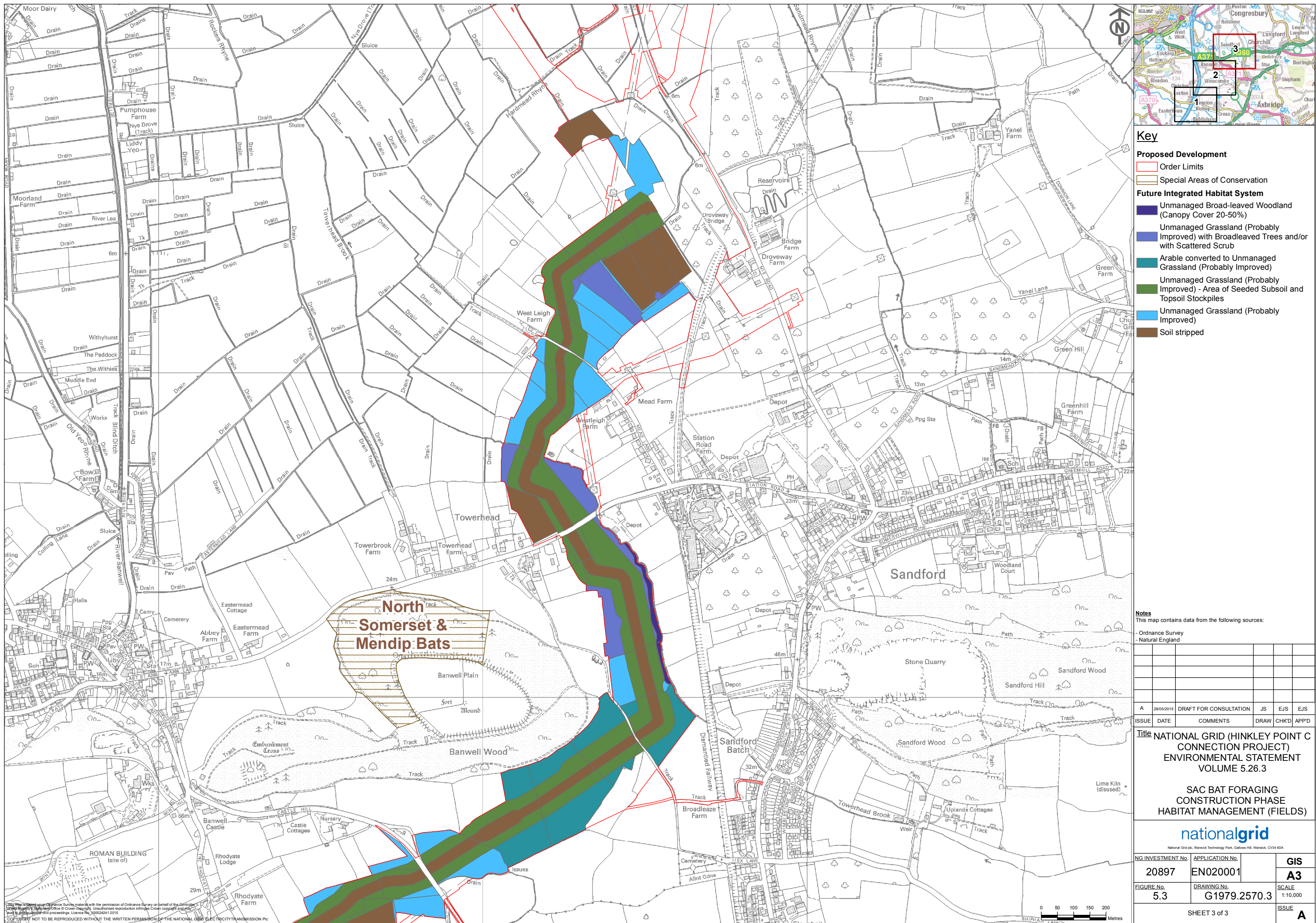
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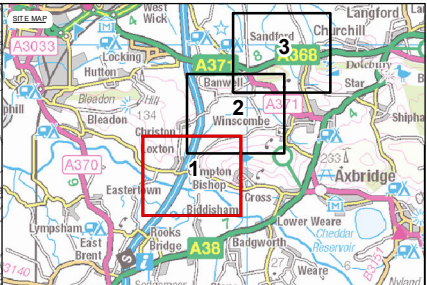
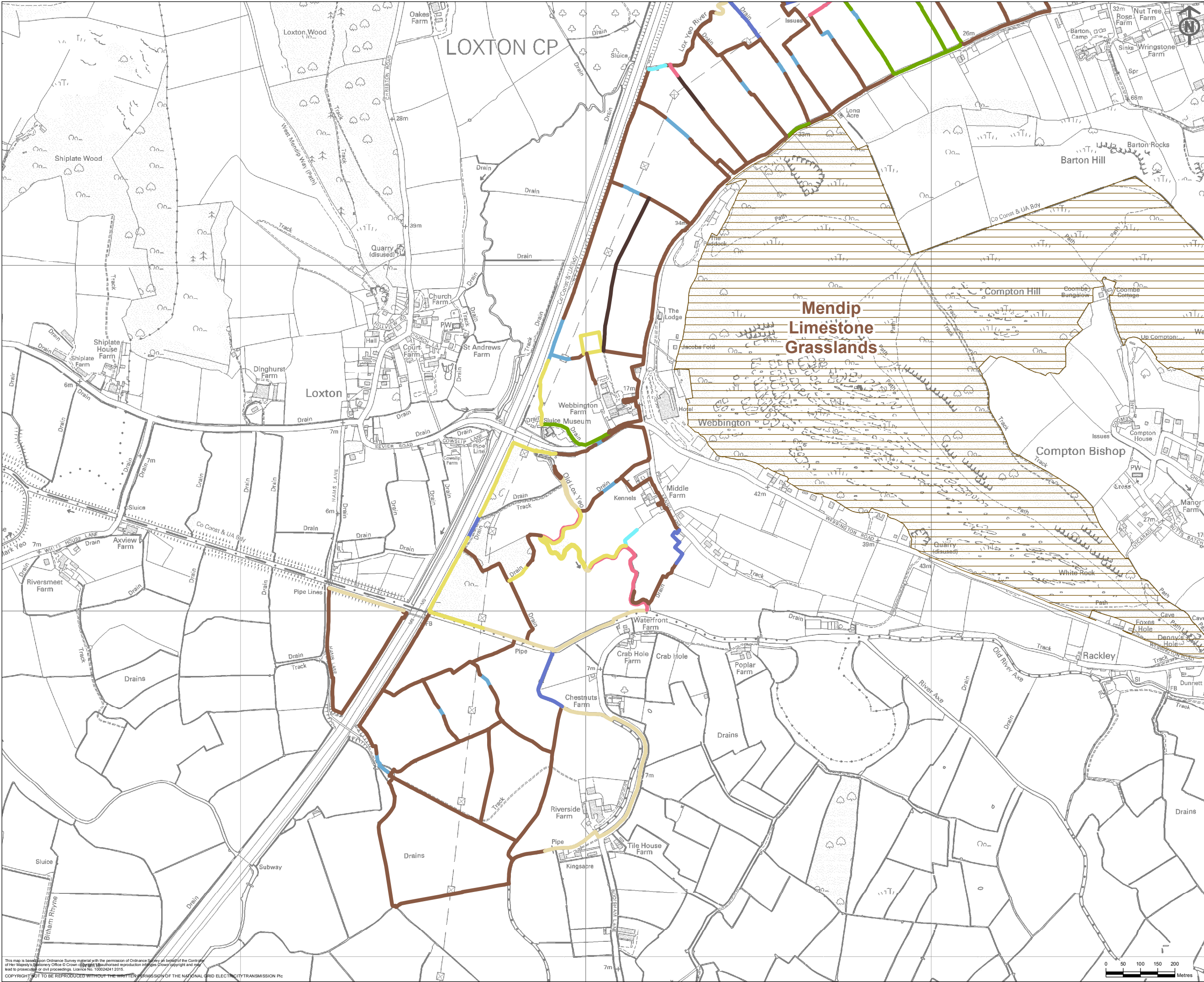
SAC BAT FORAGING CONSTRUCTION PHASE HABITAT MANAGEMENT (FIELDS)

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FIGURE No. 5.2	DRAWING No. G1979.2570.2	SCALE 1:10,000
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ANNEX F
CONSTRUCTION PHASE HABITAT & MANAGEMENT
PROPOSALS: BOUNDARIES



- Key**
- Special Areas of Conservation
 - Future Integrated Habitat System**
 - River and Streams with scrub and/or hedgerow and/or standard trees (AR0.AC2)
 - Drains rhynes and ditches with scrub and/or hedgerow and/or standard trees (ASZ.AC11)
 - Drains, rhynes and ditches with grassland (ASZ.AC11.LT15)
 - Important Hedgerows, Uncut (LF111.LM2)
 - Non-Important Hedgerows, Uncut (LF112.LM2)
 - Line of trees, Intact (LF12.LH1)
 - Line of Trees, Defunct (LF12.LH2)
 - Fence
 - Cables & Haul Road (LF27.UL2)

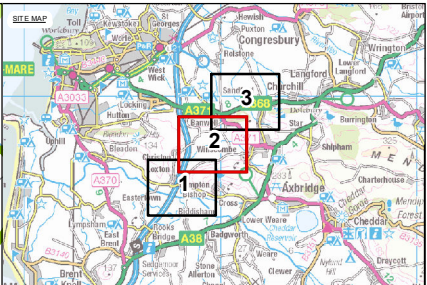
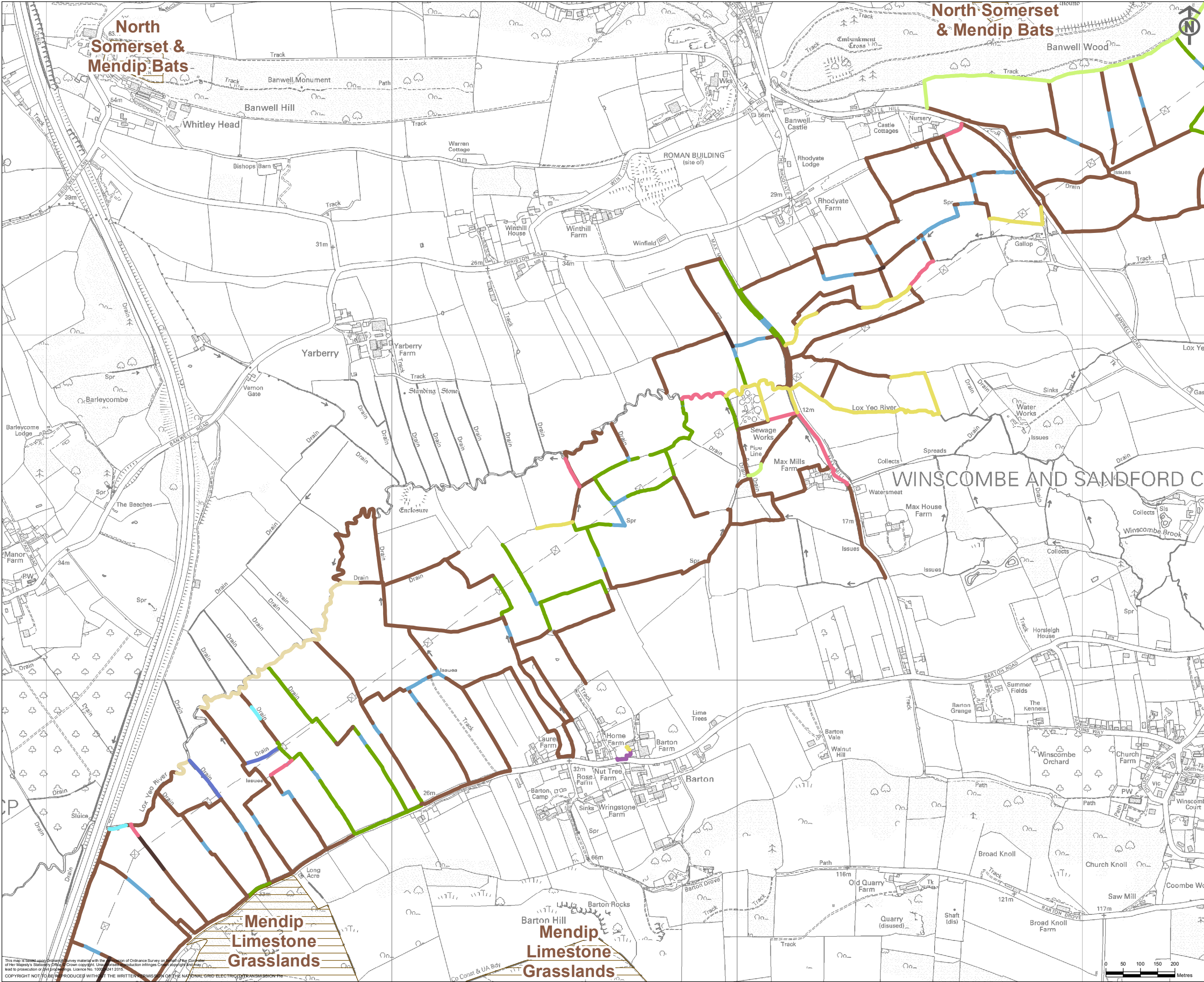
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VOLUME 5.26.3

SAC BAT FORAGING
CONSTRUCTION PHASE
HABITAT MANAGEMENT (BOUNDARIES)

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20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
6.1	G1979.2571.1	1:10,000
SHEET 1 of 3		ISSUE
		A



- Key**
- Special Areas of Conservation
 - Future Integrated Habitat System**
 - River and Streams with scrub and/or hedgerow and/or standard trees (AR0.AC2)
 - Drains rhynes and ditches with scrub and/or hedgerow and/or standard trees (ASZ.AC11)
 - Drains, rhynes and ditches with grassland (ASZ.AC11.LT15)
 - Important Hedgerows, Uncut (LF111.LM2)
 - Non-Important Hedgerows, Uncut (LF112.LM2)
 - Line of trees, Intact (LF12.LH1)
 - Line of Trees, Defunct (LF12.LH2)
 - Linear Unmanaged Woodland (LF12.WM7)
 - Wall
 - Fence
 - Cables & Haul Road (LF27.UL2)

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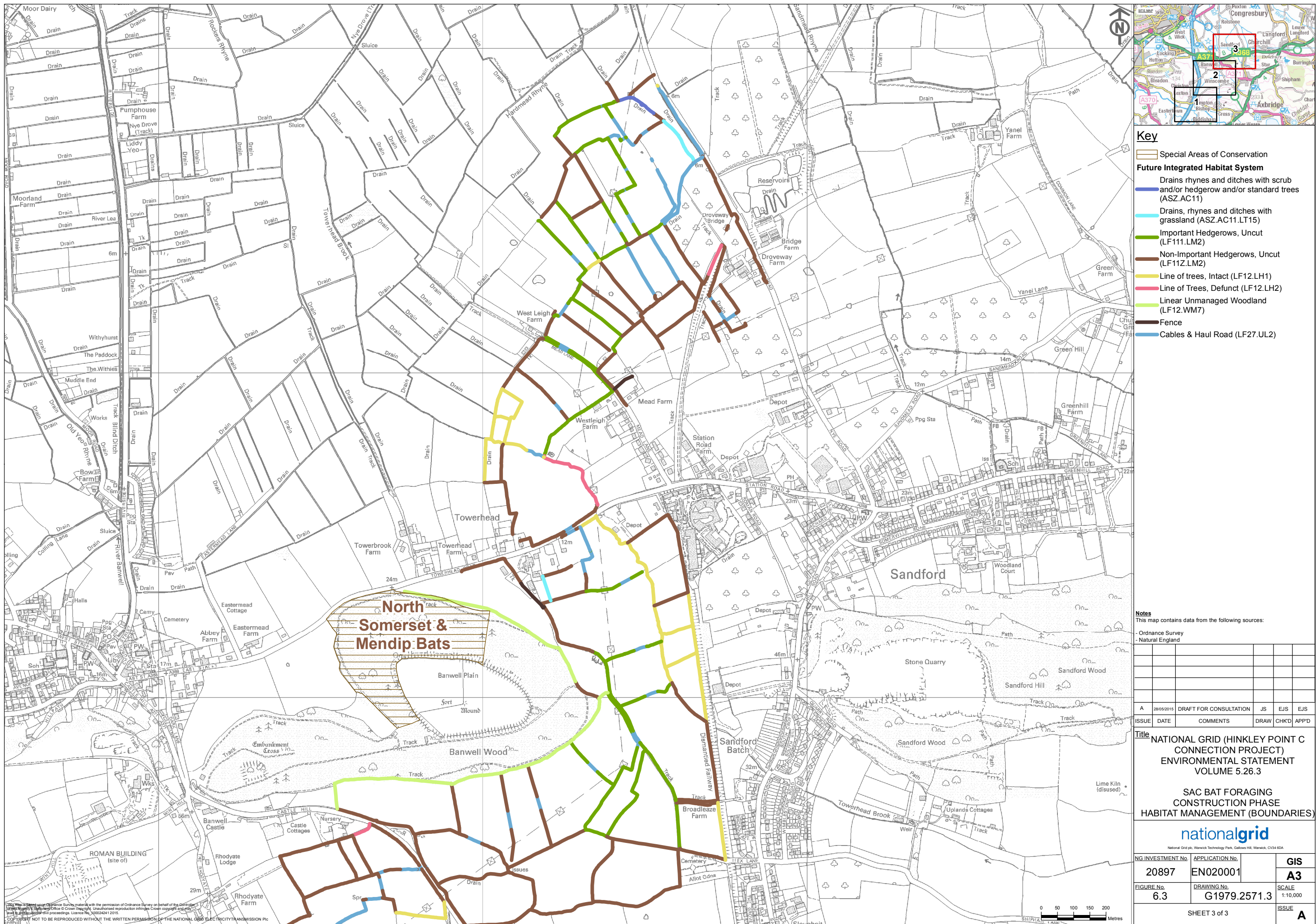
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ENVIRONMENTAL STATEMENT
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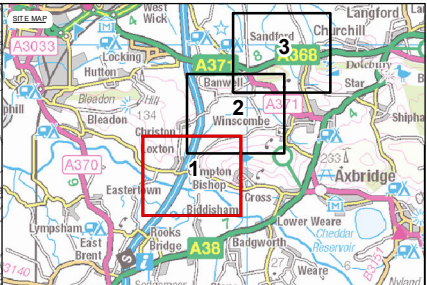
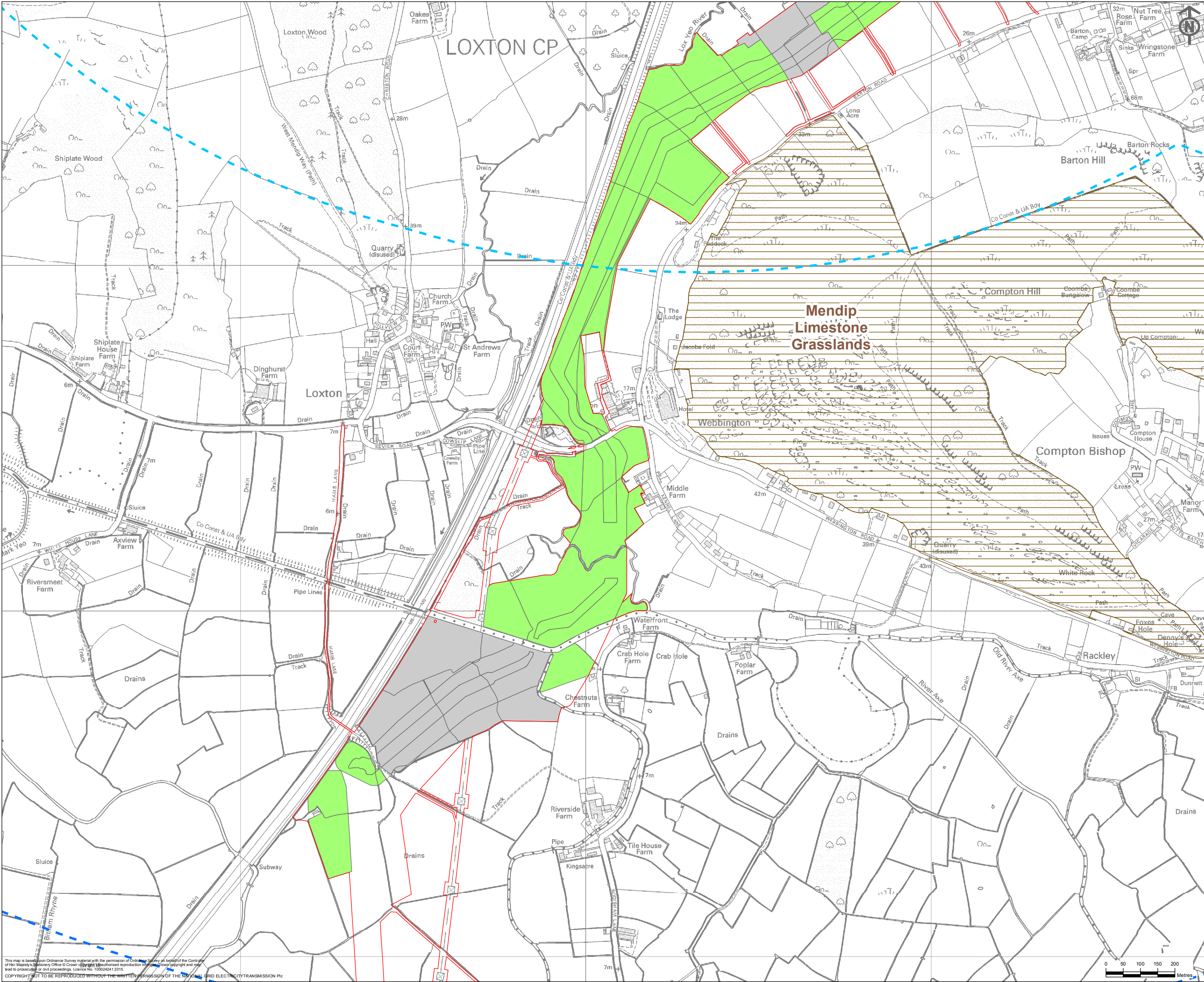
SAC BAT FORAGING
CONSTRUCTION PHASE
HABITAT MANAGEMENT (BOUNDARIES)

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			A

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ANNEX G
DEFAULT CONSTRUCTION PHASE HSI SCORES:
LESSER HORSESHOE BAT (FIELDS)



Key

Proposed Development

- Order Limits
- Special Areas of Conservation

Buffers

- Lesser Horseshoe 500m Buffer
- Lesser Horseshoe 5000m Buffer
- Lesser Horseshoe 2750m Buffer

Bat Foraging Habitat Quality

Baseline HSI Scores

- 0
- 1-5
- 6-10
- 11-15

Notes

This map contains data from the following sources:

- Ordnance Survey
- Natural England

ISSUE	DATE	COMMENTS	DRAW	CHK'D	APP'D
A	28/05/2015	DRAFT FOR CONSULTATION	JS	EJS	EJS

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.26.3

SAC BAT FORAGING LESSER HORSESHOE (FIELDS) BASELINE HSI SCORES

nationalgrid

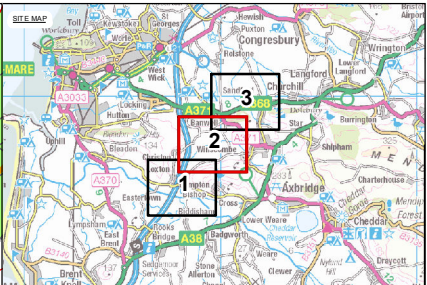
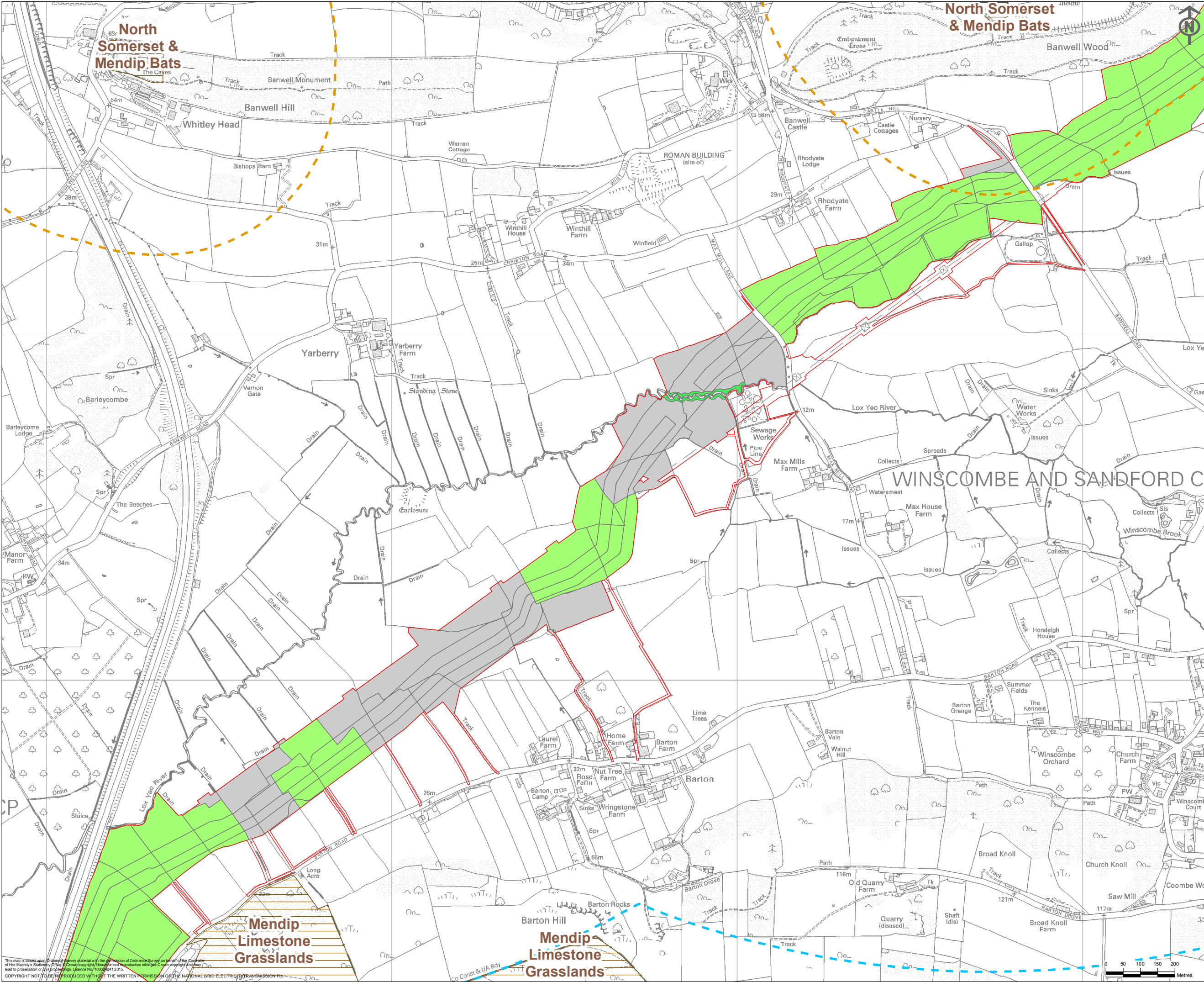
National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3

FIGURE No.	DRAWING No.	SCALE
7.1	G1979.2576.1	1:10,000

SHEET 1 of 3

ISSUE A



Key

Proposed Development

- Order Limits
- Special Areas of Conservation

Buffers

- Lesser Horseshoe 500m Buffer
- Lesser Horseshoe 5000m Buffer
- Lesser Horseshoe 2750m Buffer

Bat Foraging Habitat Quality

Baseline HSI Scores

- 0
- 1-5
- 6-10
- 11-15

Notes

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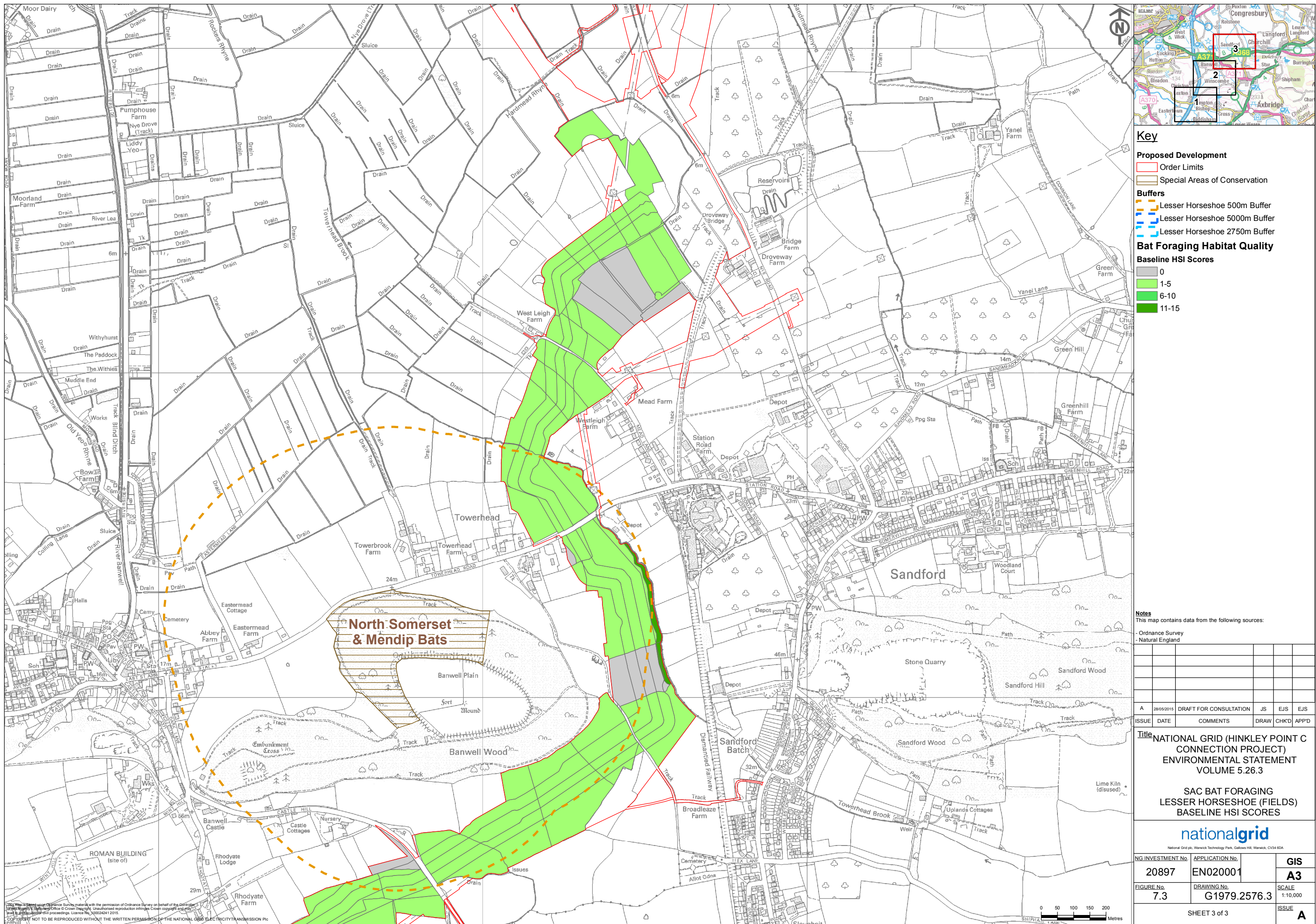
ISSUE	DATE	COMMENTS	DRAW	CHK'D	APPD
A	28/05/2015	DRAFT FOR CONSULTATION	JS	EJS	EJS

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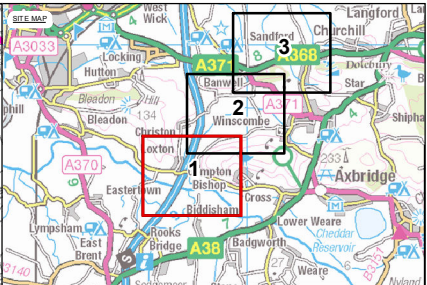
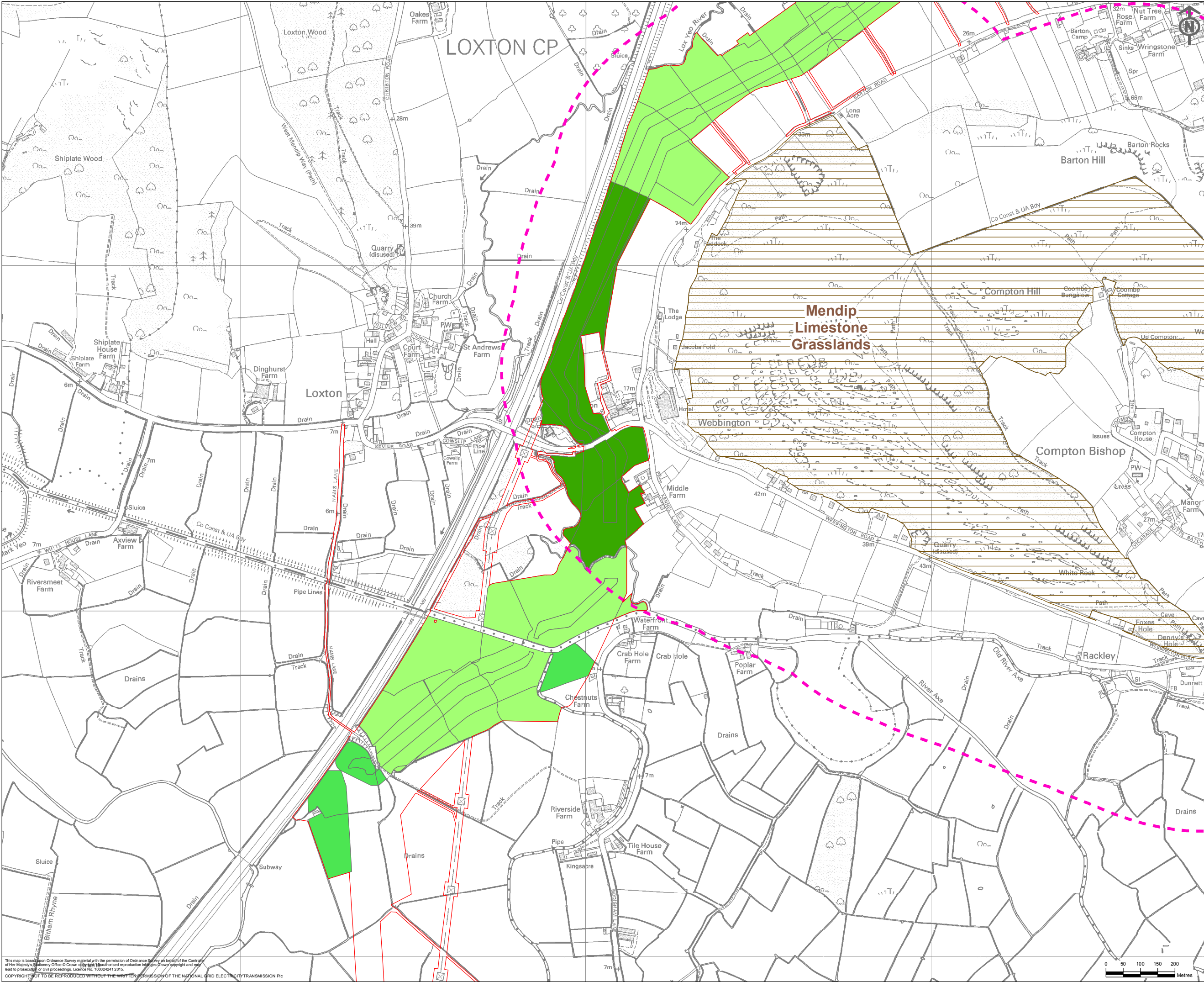
SAC BAT FORAGING LESSER HORSESHOE (FIELDS) BASELINE HSI SCORES

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ANNEX H
DEFAULT CONSTRUCTION PHASE HSI SCORES:
GREATER HORSESHOE BAT (FIELDS)



Key

Proposed Development

- Order Limits
- Special Areas of Conservation
- Greater Horseshoe 500m Buffer
- Greater Horseshoe 3400m Buffer
- Greater Horseshoe 5750m Buffer

Bat Foraging Habitat Quality

Baseline HSI Scores

- 1-5
- 6-10
- 11-15

Notes

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SAC BAT FORAGING GREATER HORSESHOE CONSTRUCTION PHASE HSI SCORES (FIELDS)

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3

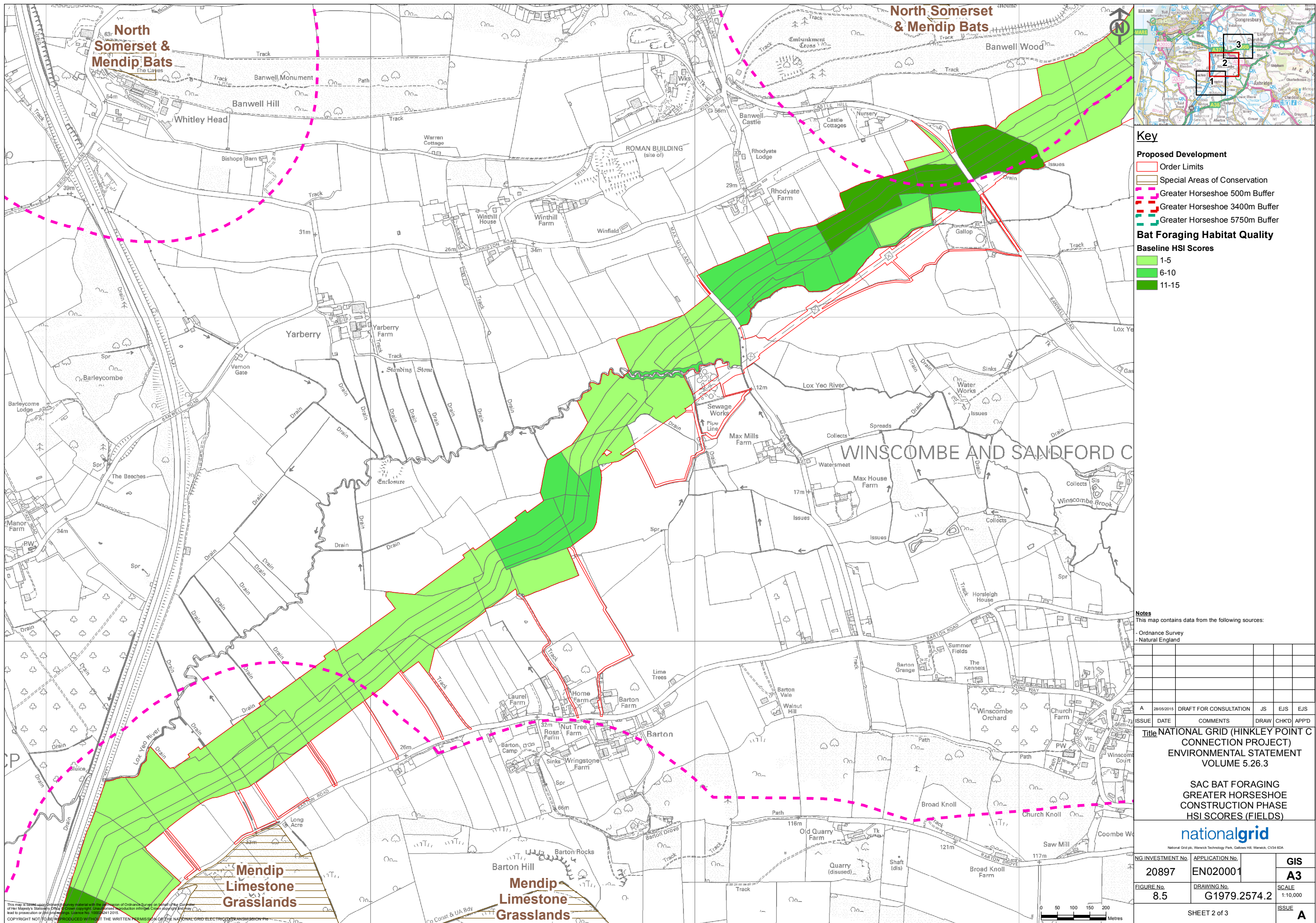
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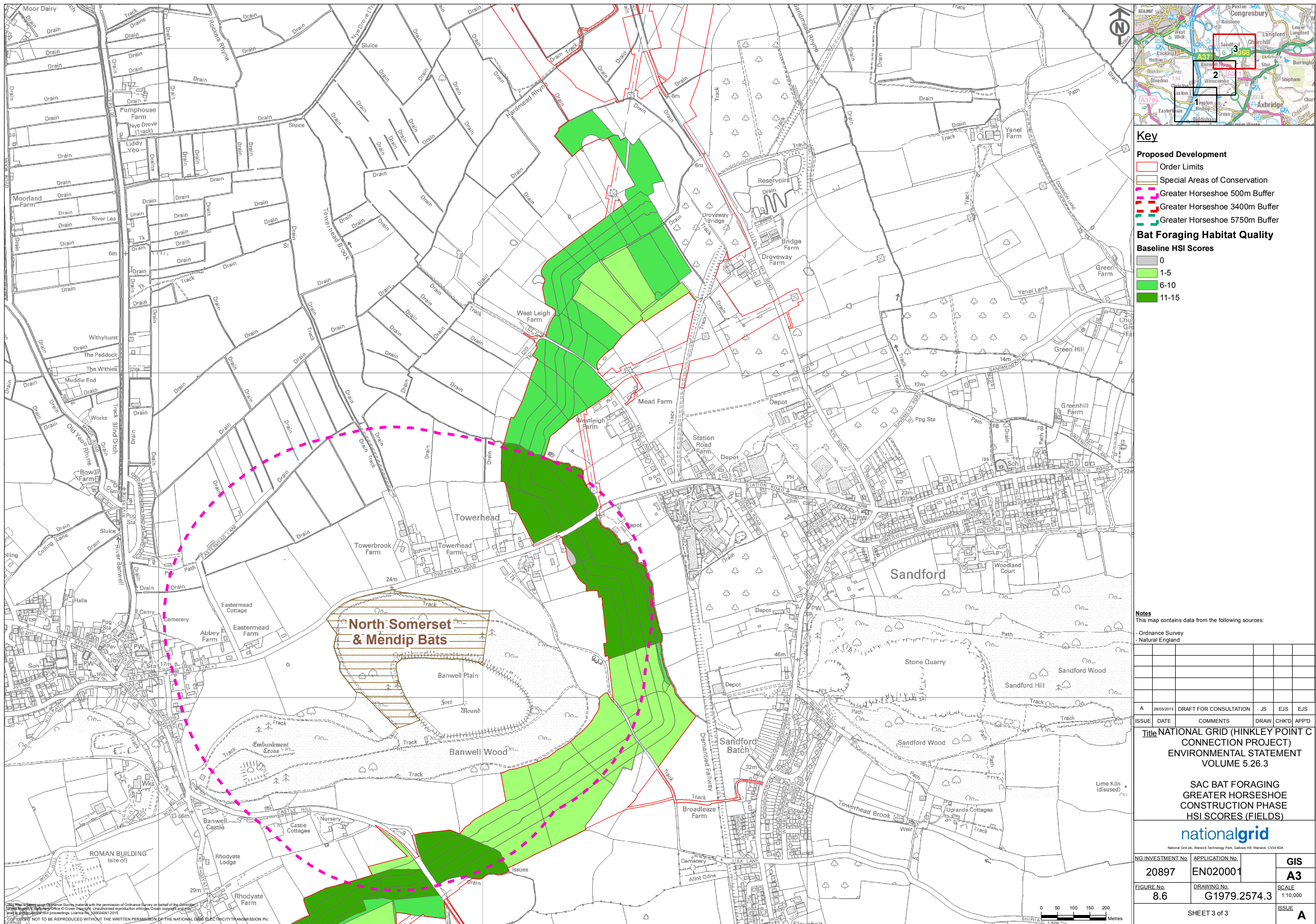
SHEET 1 of 3

ISSUE A

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Appendix E – Watercourse Crossing Schedule

National Grid Crossing Reference	TEP ID	IDB ⁱⁱⁱ Control	EA Control	Running Water?	Water Vole Present?	Construction Activity	Culvert/Bridge Total Width	Short Term ^{iv} Loss (m)	Medium Term ^v Loss (m)	EA River Catchment Waterbody ^{vi}	Crossing within SSSI	SSSI Name
VQ3C-CR01	TEP2927	NO	NO	Yes	No	400kV OHL haul road	10m	4	6	Stogursey Brook	Yes	Bridgwater Bay SSSI
VQ3C-CR02	TEP2926	NO	NO	Yes	No	400kV OHL haul road	10m	4	6	Stogursey Brook	No	N/A
Total losses for the Stogursey Brook watercourse catchment								8m	12m	Total for UG swathe = None		
VQ043R-CR01	TEP148	NO	NO	No	NS	400kV OHL haul road	10m	4	6	King's Sedgemoor Drain	No	N/A
VQ043R-CR02	TEP162	NO	NO	No	NS	400kV OHL haul road	10m	4	6	King's Sedgemoor Drain	No	N/A
VQ043R-CR03	TEP169	NO	NO	No	NS	400kV OHL haul road	10m	4	6	King's Sedgemoor Drain	No	N/A
VQ043R-CR04	TEP174	NO	NO	No	NS	400kV OHL haul road	10m	4	6	King's Sedgemoor Drain	No	N/A
Total losses for the King's Sedgemoor Drain watercourse catchment								16m	24m	Total for UG swathe = None		
C-ZGA4-CR01	TEP237	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-ZGA4-CR02	TEP238	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-ZGA4-CR03	TEP211	NO	NO	No	No	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-ZGA4-CR04	TEP210	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-ZGA4-CR05	TEP209	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-ZGA12-CR01	TEP256	NO	NO	No	No	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-ZGA13-CR01	TEP285	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A

C-LD3-CR01	TEP281	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD3-CR02	TEP303	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD3-CR03	TEP313	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD3-CR04	TEP314	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD3-CR05	TEP319	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-LD3-CR06	TEP301	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-LD3-CR07	TEP327	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-LD3-CR08	TEP341	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-LD3-CR09	TEP346	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
C-LD9-CR01	TEP373	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR02	TEP372	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR03	TEP359	NO	NO	No	No	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR04	TEP364	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR05	TEP364	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR06	TEP375	NO	NO	No	No	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR07	TEP381	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Huntspill River	No	N/A
C-LD9-CR08	TEP388	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Huntspill River	No	N/A
Total losses for the Huntspill River watercourse catchment								96m	172m	Total for UG swathe = None		
C-LD10-CR01	TEP1074	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR02	TEP1062	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-	TEP1065	NO	NO	No	No	400kV OHL	10m	4	6	Mark Yeo	No	N/A

CR03						haul road						
C-LD10-CR04	TEP1058	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR05	TEP1054	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR06	TEP1048	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR07	TEP1048	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR08	TEP1046	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR09	TEP1030	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR10	TEP1024	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR11	TEP1023	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR12	TEP1019	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR13	TEP1015	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR14	TEP1018	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR15	TEP1012	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR16	TEP1001	NO	YES	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR17	TEP991	NO	YES	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR18	TEP992	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR19	TEP978	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR20	TEP976	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR21	TEP971	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR22	TEP952	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A

C-LD10-CR23	TEP945	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR24	TEP934	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Mark Yeo	No	N/A
C-LD10-CR25	TEP924	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR26	TEP910	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR27	TEP911	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR28	TEP905	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR29	TEP903	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR30	TEP891	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR31	TEP885	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR32	TEP862	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR33	TEP874	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR34	TEP863	YES	NO	No	No	400kV OHL haul road	14m	4	10	Mark Yeo	No	N/A
C-LD10-CR35	TEP861	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Mark Yeo	No	N/A
C-LD10-CR40	TEP780	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR41	TEP772	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR42	TEP760	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR43	TEP756	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR44	TEP734	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR45	TEP727	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR46	TEP723	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A

C-LD10-CR47	TEP708	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR48	TEP2930	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR49	TEP2931	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD10-CR50	TEP2932	NO	NO	No	No	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD38-CR01 (was 400-UG-CR04) ^{vii}	TEP1122	NO	NO	No	NS	No construction element assigned (assume standard haul road) ^{viii}	10m	4	6	Mark Yeo	No	N/A
C-LD38-CR02 (was C-LD38-CR01)	TEP1121	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD38-CR03 (was C-LD38-CR02)	TEP1112	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
C-LD38-CR04 (was C-LD38-CR03)	TEP1110 TEP1099	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Mark Yeo	No	N/A
400-UG-CR01	TEP3048	NO	NO	No	No	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR02	TEP1137	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR03	TEP1128	YES	NO	No	Yes	400kV UG haul road	17m	4	13	Mark Yeo	No	N/A
400-UG-CR04 (was 400-UG-CR05)	TEP1127	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR05 (was CR06)	TEP1136	YES	NO	No	Yes	400kV UG haul road	17m	4	13	Mark Yeo	No	N/A

400-UG-CR06 (was CR07)	TEP1141	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR07 (was CR08)	TEP1147	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR08 (was CR09)	TEP1148	YES	NO	Yes	Yes	400kV UG haul road	17m	4	13	Mark Yeo	No	N/A
400-UG-CR09 (was CR10)	TEP1156	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR10 (was CR11)	TEP1171	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR11 (was CR12)	TEP1178	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR12 (was CR13)	TEP1200	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR13 (Was CR14)	TEP1200	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR14 (was CR15)	TEP1206	NO	NO	No	Yes	400kV UG haul road & 400kV UG Ducts	45m	36	9	Mark Yeo	No	N/A
400-UG-CR15 (was CR16)	TEP1209	NO	NO	No	Yes	400kV UG haul road & 400kV UG Ducts	45m	36	9	Mark Yeo	No	N/A
400-UG-CR16 (was CR17)	TEP1206	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR17 (Was CR18)	TEP1196	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
400-UG-CR18 (was CR19)	TEP1209	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A

400-UG-CR19 (was CR20)	TEP1213	NO	NO	No	Yes	400kV UG haul road & 400kV UG Ducts	45m	36	9	Mark Yeo	No	N/A
400-UG-CR20 (was CR21)	TEP1212	NO	NO	No	Yes	400kV UG haul road & 400kV UG Ducts	45m	36	9	Mark Yeo	No	N/A
400-UG-CR22 (was CR23)	TEP1215	NO	NO	No	Yes	400kV UG haul road	13m	4	9	Mark Yeo	No	N/A
Total Losses for Mark Yeo river catchment								412m	513m	Total for UG swathe = 144m ST; 36m MT		
C-LD9-CR09	TEP402	NO	NO		Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD9-CR10	TEP416	YES	NO		Yes	400kV OHL haul road	14m	4	10	River Brue	No	N/A
C-LD9-CR11	TEP420	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD9-CR12	TEP441	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR36	TEP832	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR37	TEP826	NO	NO	No	NS	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR38	TEP816	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR39	TEP815	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR51	TEP2933	NO	NO	No	No	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR52	TEP2935	NO	NO	No	No	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR53	TEP2943	NO	NO	No	NS	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR54	TEP2937	NO	NO	No	No	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR55	TEP2938	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR56	TEP573	NO	NO	No	No	400kV OHL haul road	10m	4	6	River Brue	No	N/A

C-LD10-CR57	TEP547	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
C-LD10-CR58	TEP556	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Brue	No	N/A
Total Losses for River Brue river catchment								64m	90m	Total for UG swathe = None		
400-UG-CR21 (was CR22)	TEP2991	NO	YES	Yes	Yes	River Axe cable bridge (HDD option 400-HDD-CR01)		N/A	N/A	River Axe	No	N/A
400-UG-CR23 (was CR24)	TEP2991	NO	NO	Yes	Yes	400kV UG haul road	13m	4	9	River Axe	No	N/A
400-UG-CR24 (was CR25)	TEP1233	NO	NO	Yes	NS	400kV UG haul road	13m	4	9	River Axe	No	N/A
400-UG-CR25 (was CR26)	TEP1241	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	River Axe	No	N/A
400-UG-CR26 (was CR27)	TEP1248	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	River Axe	No	N/A
Total Losses for River Axe river catchment								80m	36m	Total for UG swathe = 72m ST; 18m MT		
400-UG-CR27 (was CR28)	TEP2999	NO	NO	No	Yes	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR28 (was CR29)	TEP1263	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR29 (was CR30)	TEP1263	NO	NO	No	No	No construction element assigned (assume standard haul road)	10m	4	6	Lox Yeo	No	N/A
400-UG-CR30 (was CR31)	TEP2919	NO	NO	No	No	No construction element	10m	4	6	Lox Yeo	No	N/A

						assigned (assume standard haul road)						
400-UG- CR31 (was CR32)	TEP2919	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG- CR32 (was CR33)	TEP3002	NO	NO	No	No	No construction element assigned (assume standard haul road)	10m	4	6	Lox Yeo	No	N/A
400-UG- CR33 (was CR34)	TEP3002	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG- CR34 (was CR35)	TEP3049	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG- CR35 (was CR36)	TEP3004	NO	NO	No	No	No construction element assigned (assume standard haul road)	10m	4	6	Lox Yeo	No	N/A
400-UG- CR36 (was CR37)	TEP3004	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG- CR37 (was CR38)	TEP1282	NO	NO	Yes	No	No construction element assigned (assume standard haul road)	10m	4	6	Lox Yeo	No	N/A
400-UG- CR38 (was CR39)	TEP3006	NO	NO	Yes	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A

400-UG-CR39 (was CR40)	TEP3006	NO	NO	Yes	No	No construction element assigned (assume standard haul road)	10m	4	6	Lox Yeo	No	N/A
400-UG-CR40 (was CR41)	TEP3008	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR41 (was CR42)	TEP3011	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR42 (was CR43)	TEP3012	NO	NO	Yes	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR43 (was CR44)	TEP3015	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR44 (was CR45)	TEP1294	NO	NO	No	No	400kV UG haul road	13m	4	9	Lox Yeo	No	N/A
400-UG-CR45 (was CR46)	TEP1298	NO	NO	Yes	Yes	400kV UG haul road	13m	4	9	Lox Yeo	No	N/A
400-UG-CR46 (was CR47)	TEP2921	NO	YES	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR47 (was CR48)	TEP2920	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR48 (was CR49)	TEP3024	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR49 (was CR50)	TEP2922	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
400-UG-CR50 (was CR51)	TEP1303	NO	NO	Yes	Yes	400kV UG haul road	13m	4	9	Lox Yeo	No	N/A

400-UG-CR51 (was CR52)	TEP3216	NO	NO	No	NS	400kV UG haul road	13m	4	9	Lox Yeo	No	N/A
400-UG-CR52 (was CR53)	TEP1307	NO	NO	No	No	400kV UG haul road	13m	4	9	Lox Yeo	No	N/A
400-UG-CR53 (was CR54)	TEP2923	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Lox Yeo	No	N/A
Total Losses for Lox Yeo river catchment								620m	225m	Total for UG swathe = 576m ST; 144m MT		
400-UG-CR54 (was CR55)	TEP2924	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Oldbridge River	No	N/A
400-UG-CR55 (was CR56)	TEP3050	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Oldbridge River	No	N/A
400-UG-CR56 (was CR57)	TEP1312	NO	NO	Yes	No	Towerhead Brook cable bridge		N/A	N/A	Oldbridge River	No	N/A
400-UG-CR57 (was CR58)	TEP1312	NO	NO	Yes	No	400kV UG haul road (bailey bridge)	13m	4	9	Oldbridge River	No	N/A
400-UG-CR58 (was CR59)	TEP3051	NO	NO	No	No	400kV UG haul road & 400kV UG Ducts	45m	36	9	Oldbridge River	No	N/A
400-UG-CR59	TEP1317	NO	NO	No	NS	400kV UG haul road	13m	4	9	Oldbridge River	No	N/A
400-UG-CR60	No TEP ID	NO	NO	No	NS	Culvert for realigned Sandford ditch		N/A	N/A	Oldbridge River	No	N/A
C-LD39-CR02	TEP1718	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR03	TEP1705	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR04	TEP1694	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR05	TEP1674	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A

C-LD39-CR06	TEP1667	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR07	TEP1642	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR08	TEP1641	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR09	TEP1606	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
C-LD39-CR10	TEP1596	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR11	TEP1586	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR12	TEP1565	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR13	TEP1554	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR14	TEP1525	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR15	TEP1491	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
C-LD39-CR16	TEP1471	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
C-LD39-CR17	TEP1450	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR18	TEP1410	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
C-LD39-CR19	TEP1388	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR20	TEP1379	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
C-LD39-CR21	TEP1364	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR22	TEP1350	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR23	TEP1344	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR24	TEP1346	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD39-CR25	TEP1331	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A

AT Route-CR01	No TEP ID	NO	NO	No	No	Culvert for realigned Sandford ditch	-	N/A	N/A	Oldbridge River	No	N/A
AT Route-CR02	TEP3043	NO	NO	No	No	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT30-CR01	TEP1330	NO	NO	No	No	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT30-CR02	TEP1338	YES	NO	No	NS	132kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
AT30-CR03	TEP1348	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR01	TEP1559	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR02	TEP1502	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR03	TEP1474	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR04	TEP1447	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR05	TEP1441	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
AT29-CR06	TEP1392	YES	NO	No	NS	132kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
AT29-CR07	TEP1382	NO	NO	No	NS	132kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD53-CR01	TEP1759	NO	NO	No	No	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD53-CR02	TEP1765	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Oldbridge River	No	N/A
C-LD53-CR03	TEP1807	YES	NO	Yes	Yes	400kV OHL haul road	14m	4	10	Oldbridge River	No	N/A
								268m	305m	Total for UG swathe = 108m ST; 27m MT		
Y1R-CR01	TEP3047	NO	NO	No	NS	132kV removal haul road	10m	4	6	River Yeo	No	N/A
C-LD53-CR04	TEP2912	NO	YES	Yes	Yes	400kV OHL haul road	10m	4	6	River Yeo	Yes	Biddle Street, Yatton SSSI

C-LD53-CR05	TEP1815	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Yeo	Yes	Biddle Street, Yatton SSSI
C-LD53-CR06	TEP1827	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Yeo	Yes	Biddle Street, Yatton SSSI
C-LD53-CR07	TEP1833	NO	NO	No	NS	400kV OHL haul road	10m	4	6	River Yeo	Yes	Biddle Street, Yatton SSSI
C-LD54-CR14	TEP1921	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Yeo	No	N/A
C-LD54-CR15	TEP1909	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Yeo	No	N/A
C-LD54-CR16	TEP1883	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	River Yeo	No	N/A
C-LD54-CR17	TEP1880	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	River Yeo	No	N/A
C-LD54-CR18	TEP1857	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	River Yeo	No	N/A
Total losses for River Yeo river catchment								40m	68m	Total for UG swathe = None		
C-LD54-CR01	TEP2913	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR02	TEP2033	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR03	TEP2025	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR04	TEP2031	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	No	N/A
C-LD54-CR05	TEP2000 TEP2015	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	No	N/A
C-LD54-CR06	TEP1993	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR07	TEP3217	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	No	N/A
C-LD54-CR08	TEP1992	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	No	N/A
C-LD54-	TEP1966	NO	NO	No	Yes	400kV OHL	10m	4	6	Kenn Moor	No	N/A

CR09						haul road				SSSI		
C-LD54-CR10	TEP1954	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR11	TEP1942	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR12	TEP1932	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD54-CR13	TEP1927	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD62-CR01	TEP2097	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD62-CR02	TEP2093	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD62-CR03	TEP2086	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD62-CR04	TEP2059	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	No	N/A
C-LD70-CR01	TEP2099	YES	NO	No	No	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	No	N/A
C-LD70-CR02	TEP2117	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR03	TEP2116	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR04	TEP2119	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR05	TEP2118	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham,

												Nailsea & Kenn Moors SSSI
C-LD70-CR06	TEP2128	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR07	TEP2153	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR08	TEP2137	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR09	TEP2142	NO	NO	No	No	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR10	TEP2145	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-CR11	TEP2139	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD70-	TEP2160	NO	NO	No	Yes	400kV OHL	10m	4	6	Kenn Moor	Yes	Tickenha

CR12						haul road				SSSI		m, Nailsea & Kenn Moors SSSI
C-LD70-CR13	TEP2167	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR01	TEP2182	YES	NO	Yes	Yes	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR02	TEP2188	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR03	TEP2195	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR04	TEP2192	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR05	TEP2208	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors

												SSSI
C-LD74-CR06	TEP2209	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR07	TEP2216	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR08	TEP2218	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR09	TEP2233	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR10	TEP2239	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD74-CR11	TEP2223	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD78-CR01	TEP2309	YES	NO	No	No	400kV OHL haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn

												Moors SSSI
W-ROUTE-CR01	TEP3052	NO	NO	No	No	132kV UG haul road	10m	4	6	Kenn Moor SSSI	No	N/A
W-ROUTE-CR02	TEP2294	YES	NO	Yes	Yes	132kV UG haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
W-ROUTE-CR03	TEP3053	NO	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	29	6	Kenn Moor SSSI	No	N/A
W-ROUTE-CR04	TEP2294	YES	NO	No	Yes	132kV UG haul road	14m	4	10	Kenn Moor SSSI	Yes	Tickenham, Nailsea & Kenn Moors SSSI
Total losses for Kenn Moor SSSI river catchment								209m	324m	Total for UG swathe = 29m ST; 6m MT		
C-LD76-CR01	TEP2282	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD76-CR02	TEP2291	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD76-CR03	TEP2286	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI

C-LD76-CR04	TEP2279	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
C-LD78-CR02	TEP2314	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
W-ROUTE-CR05	TEP2314	YES	NO	No	Yes	132kV UG haul road (132kV cable HDD)	14m	4	10	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
W-ROUTE-CR06	TEP2914	NO	NO	No	Yes	132kV UG haul road (132kV cable HDD)	10m	4	6	Blind Yeo	Yes	Tickenham, Nailsea & Kenn Moors SSSI
Total losses for Blind Yeo river catchment								28m	54m	Total for UG swathe = None		
W-ROUTE-CR07	TEP2333	NO	YES	Yes	Yes	132kV UG haul road (132kV cable HDD)	10m	4	6	Land Yeo	No	N/A
Total losses for Land Yeo river catchment								4m	6m	Total for UG swathe = None		
W-ROUTE-CR08	TEP2339	NO	NO	No	No	132kV UG haul road & 132kV UG Ducts	35m	29	6	Portbury Ditch	No	N/A
W-ROUTE-CR09	TEP2915	YES	NO	No	Yes	132kV UG haul road & 132kV UG Ducts	35m	25	10	Portbury Ditch	No	N/A
W-ROUTE-CR10	TEP2413	NO	NO	No	NS	132kV UG haul road	10m	4	6	Portbury Ditch	No	N/A
W-ROUTE-CR11	TEP2444	NO	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	29	6	Portbury Ditch	No	N/A

W-ROUTE-CR12	TEP2446	NO	NO	No	Yes	132kV UG haul road & 132kV UG Ducts	35m	29	6	Portbury Ditch	No	N/A
W-ROUTE-CR13	TEP2452	NO	NO	No	No	132kV UG haul road & 132kV UG Ducts	35m	29	6	Portbury Ditch	No	N/A
W-ROUTE-CR14	TEP2461	NO	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	29	6	Portbury Ditch	No	N/A
C-LD95-CR01	TEP2916	NO	YES	No	No	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
C-LD96-CR01	TEP2925	NO	NO	No	No	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD99-CR01^{ix}	TEP2464	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD99-CR02	TEP2484	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD99-CR03	TEP2486	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD99-CR04	TEP2490	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD99-CR05	TEP2484	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*BW-P-CR01	TEP2484	NO	NO	No	Yes	132kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
*P-LD101-CR01	TEP2465	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Portbury Ditch	No	N/A
Total losses for Portbury Ditch river catchment								210m	100m	Total for UG swathe = 170m ST; 40m MT		
C-LD114-CR01	TEP2510	NO	NO	No	No	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
C-LD114-CR02	TEP2514	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
G-ROUTE-CR01	TEP2511	NO	NO	No	No	132kV UG haul road & 132kV UG Ducts	35m	29	6	Chestle Pill	No	N/A
G-ROUTE-CR02	TEP3218	NO	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	29	6	Chestle Pill	No	N/A

G-ROUTE-CR03	TEP2523	NO	NO	No	Yes	132kV UG haul road & 132kV UG Ducts	35m	29	6	Chestle Pill	No	N/A
G-ROUTE-CR04	TEP2541	NO	NO	No	Yes	132kV UG haul road	10m	4	6	Chestle Pill	No	N/A
G-ROUTE-CR05	TEP2536	YES	NO	No	Yes	132kV UG haul road	14m	4	10	Chestle Pill	No	N/A
G-ROUTE-CR06	TEP2537	YES	NO	No	No	132kV UG haul road	14m	4	10	Chestle Pill	No	N/A
G-ROUTE-CR07	TEP2543	YES	NO	No	Yes	132kV UG haul road	14m	4	10	Chestle Pill	No	N/A
G-ROUTE-CR08	TEP2549	NO	NO	No	NS	132kV UG haul road	10m	4	6	Chestle Pill	No	N/A
G-ROUTE-CR09	TEP2570	NO	NO	No	No	132kV UG haul road	10m	4	6	Chestle Pill	No	N/A
G-ROUTE-CR10	TEP2569	YES	NO	No	NS	132kV UG haul road	14m	4	10	Chestle Pill	No	N/A
G-ROUTE-CR11	TEP2577	YES	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	25	10	Chestle Pill	No	N/A
G-ROUTE-CR12	TEP2584	YES	NO	No	Yes	132kV UG haul road & 132kV UG Ducts	35m	25	10	Chestle Pill	No	N/A
G-ROUTE-CR13	TEP2594	NO	NO	No	NS	132kV UG haul road & 132kV UG Ducts	35m	29	6	Chestle Pill	No	N/A
G-ROUTE-CR14	TEP2601	NO	NO	No	No	132kV UG haul road & 132kV UG Ducts	35m	29	6	Chestle Pill	No	N/A
C-LD118-CR01	TEP2543	YES	NO	No	Yes	132kV UG haul road	14m	4	10	Chestle Pill	No	N/A
C-LD119-CR01	TEP2622	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Chestle Pill	No	N/A
C-LD120-CR01	TEP2623	YES	NO	No	Yes	400kV OHL haul road	14m	4	10	Chestle Pill	No	N/A
C-LD120-CR02	TEP2609	YES	NO	No	NS	400kV OHL haul road	14m	4	10	Chestle Pill	No	N/A
C-LD121-CR01	TEP2666	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
C-LD121-CR02	TEP2651	NO	NO	No	No	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A

C-LD121-CR03	TEP2649	NO	NO	No	No	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
C-LD121-CR04	TEP2643	NO	NO	No	No	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
C-LD125-CR01	TEP2699	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
C-LD127-CR01	TEP2715	NO	NO	No	No	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
Seabank-CR01	TEP2714	NO	NO	No	NS	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
Seabank-CR02	TEP2720	NO	NO	No	Yes	400kV OHL haul road	10m	4	6	Chestle Pill	No	N/A
Total losses for Chestle Pill river catchment								279m	208m	Total for UG swathe = 195m ST; 50m MT		
GRAND TOTAL water crossings alone								1,040m	1,816m			
GRAND TOTAL additional 400kV UG swathe (25x watercourses crossed)								900m	225m			
GRAND TOTAL additional 132kV UG swathe (14x watercourses crossed)								394m	96m			

Appendix F – Water Vole Method Statement



Hinkley Point C Connection Project

Water Vole Method Statement

July 2015
1979.36.002C

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**Hinkley Point C Connection Project
Water Vole Method Statement
July 2015
1979.36.002C**

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Document Control			
Document Properties			
Organisation		National Grid	
Author		TEP	
Approved By		Elizabeth Seal	
Title		Water Vole Mitigation Method Statement	
Document Reference		1979.36.002	
Version History			
Date	Version	Status	Description/Changes
15.09.14	A	Superseded	Draft for NG review
17.02.15	B	Superseded	Amendments following NE review
03.07.15	C	Live	Updated version for submission to PINS

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ANNEX 5. PROPOSED LANDSCAPE DESIGN FOR SANDFORD SUBSTATION

1.0 INTRODUCTION

Project Background

- 1.1 National Grid Electricity Transmission plc (National Grid) has submitted an application under the Planning Act 2008 to seek powers to construct, operate and maintain a new 400,000 volt (400kV) connection between Bridgwater, Somerset and Seabank Substation, north of Avonmouth, together with various associated development and other works ('the Proposed Development'). The application has been made in response to a connection of a proposed new nuclear power station at Hinkley Point, Somerset (Hinkley Point C Power Station) by EDF to the high voltage electricity transmission system.
- 1.2 Under Section 31 of the Planning Act 2008, development consent is required for development to the extent that it is or forms part of a Nationally Significant Infrastructure Project (NSIP). An Environmental Statement (ES) was submitted as part of the DCO application (the submitted ES). The submitted ES was prepared in accordance with the Planning Act 2008, The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2009/2263) ('the 2009 Regulations') and The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.
- 1.3 The application for the Hinkley Point C Connection Project (HPCCP) was submitted to the Planning Inspectorate (PINS) on the 28 May 2014. PINS confirmed that the application had been accepted for examination on 17 June 2014 (reference number. EN020001).

Purpose of document

- 1.4 Water voles enjoy protection under the Wildlife and Countryside Act (1981, as amended) and are recognised as species of principal importance under the Natural Environments and Rural Communities Act (2006). This legal protection brings them into the scope of national policy protection afforded by National Policy Statements for Energy (EN-1) and EN-5, and the National Planning Policy Framework. The species is also prioritised in local Biodiversity Action Plans in the Project Area.
- 1.5 This legislative and policy protection means that the DCO will include a "requirement" for implementation of a method statement for water vole protection.
- 1.6 A draft water vole licence application covering works proposed for the HPCCP was previously submitted to Natural England protected species licensing team for pre-application advice, as per the guidance for NSIPs. A draft licence application was made due to the requirement for trapping and translocating water voles.
- 1.7 Since submitting the draft water vole licence, a review and refinement of the HPCCP working areas and working methods has concluded that trapping and translocation will no longer be required. Current advice indicates trapping and translocation is necessary where water vole need displacing from lengths of watercourses >50-100m, and that licences are only necessary where trapping is proposed. Proposals are now to only use passive displacement techniques to move water voles away from temporary working areas.
- 1.8 It is understood that guidance on water vole mitigation and licensing requirements are currently under review and changes to advice may occur during the examination

period for the HPCCP. It is understood that the likely changes will include a requirement for two survey visits rather than one, a reduction in the threshold (length) of affected water vole habitat that would necessitate trapping (rather than passive displacement) and potentially although currently not certain, the need to licence displacement activities (rather than just trapping). It is not currently possible to produce a draft licence application as the works being proposed do not at this time require a licence. However, National Grid commits to adhering to any consenting requirements that might apply prior to or during the construction of the Proposed Development. This method statement has been designed to take account of the potential changes to water vole mitigation guidance as follows:

- The pre-commencement surveys allow for a two visit strategy
- The proposed displacement works are all below the proposed 50m threshold

1.9 It is therefore considered that should licensing for displacement be introduced, then the approach to mitigation would be appropriate for any licence application be it under an individual consultant Class licence or a site specific licence. Therefore, this document can be resubmitted when and if the licensing guidance is updated.

1.10 This method statement:

- a. summarises the water vole survey results and incorporates the 2014 survey results;
- b. assesses the potential impacts of the Proposed Development on water voles;
- c. describes the type of works that may affect water vole habitats; and
- d. provides proposals for avoidance and mitigation measures.

1.11 The Proposed Development will involve the construction and operation of an electrical connection between Hinkley Point C Power Station and Seabank, full details of the proposals are provided at later in this document.

1.12 The development “site” is a linear corridor, approximately 50km long and is defined in the DCO by “Order Limits”. The Order Limits include all land necessary to construct and operate the connection. National Grid will obtain powers to enter the land, and these powers will include for ecological mitigation works where these are necessary to comply with statutory obligations such as water vole mitigation.

1.13 The main corridor has a variety of land uses and covers an area from Bridgwater in Somerset, north to Seabank (north of Avonmouth), but there are some ancillary works near Hinkley Point. Approximately 3,000 landowners own land within the order limits. The majority of the land within the order limits is farmland (pasture grassland and arable fields) but the connection also crosses some industrial areas.

Works Covered Affecting Water Voles

1.14 In order to select the most appropriate route for the installation of the 400kV overhead line National Grid has undergone a lengthy and substantial consultation process. Responses provided by the consultees have informed the scope of baseline surveys, the scheme alignment and construction methods proposed.

- 1.15 As part of the works to be undertaken, there is a need for temporary access roads to gain access to areas where construction works are proposed. Given the nature of the Somerset Levels and its network of ditches, there is a need for some of these access roads to cross ditches/rhynes as access to working areas will otherwise be impossible. This brings a requirement to construct culverts and bridges across various watercourses. As the construction access roads will be temporary, so will the culverts and the majority of bridges, all of which will be removed following completion of the works.
- 1.16 Works involving the underground cable routes will also impact ditches across the development. The width of the cable construction swathes will vary depending on whether it is a 132kV or 400kV cable that is being undergrounded. National Grid have confirmed that individual stretches of watercourses affected by the cable swathes will be less than 50m. Impact to ditches in these areas will also be temporary however there will be sections of ditch which will become isolated for a period of up to 6 weeks during installation of cable ducts.
- 1.17 Surveys confirmed water voles are present in 309 of 496 ditches surveyed for the Proposed Development. As is evident from these findings, water vole are considered to be widespread across the route with potential to use additional watercourses (to those locations identified during survey) due to the interconnected nature of the ditch habitat and the fluid nature of water vole populations.

Details of Proposed Works

- 1.18 The proposed Hinkley Point C Connection Project includes the following principal elements, consent for all of which is sought by means of a Development Consent Order under the Planning Act, 2008:
- Construction of a 56 kilometre 400kV electricity transmission connection between Bridgwater in Somerset and Seabank, near Avonmouth, comprising:
 - Installation of a 400kV overhead line; and
 - Installation of 400kV underground cables.
 - Modifications to existing overhead lines at Hinkley Point, Somerset;
 - Construction of three 400kV Cable Sealing End (CSE) compounds along the route of the connection;
 - Construction of a 400/132kV substation at Sandford, North Somerset;
 - Extension of the existing 400kV substation at Seabank;
 - The removal of existing 132kV overhead lines and the construction of replacement 132kV overhead lines and 132kV underground cables;
 - Extensions/Modifications to existing 132kV substations at Churchill, Portishead, Avonmouth and Seabank;
 - Associated works, for example, temporary access roads, highway works, temporary construction compounds, work sites and ancillary works.
- 1.19 A project-wide masterplan map is provided in the Environmental Statement **Volume 5.3.3.1, Figure 3.1**, this includes the Order Limits of the Proposed Development, all works that fall within these Order Limits.

400kV Transmission Connection

- 1.20 The main component of the Hinkley Point C Connection project is the construction of a new 400kV electricity connection between Bridgwater, Somerset and Seabank

Substation, near Avonmouth. The connection will comprise new overhead lines and new underground cables as described in the paragraphs below.

400kV Overhead Line

- 1.21 The new 400kV overhead line between Bridgwater, Somerset and Seabank Substation, near Avonmouth, will comprise three parts:

- 1) Construction of a new 400kV overhead line of approximately 4.5km from the existing Hinkley to Bridgwater 275kV overhead line on Horsey Level (which would be uprated to 400kV operation) to the existing Hinkley to Melksham 400kV overhead line north of Woolavington.
- 2) Construction of a new 400kV overhead line of approximately 12.5km from the existing Hinkley to Melksham 400kV overhead line north of Woolavington to a proposed CSE compound south of the Mendip Hills.
- 3) Construction of a 400kV overhead line from the proposed Sandford Substation to Seabank Substation. In the Portishead/Portbury area there are two options for the route: the preferred route (Option A); and the alternative route (Option B). The total length of the route is approximately 29.6km (Option A) or 30.5km (Option B).

Installation of 400kV Underground Cables

- 1.22 As part of the connection between Bridgwater and Seabank, National Grid is proposing to install 400kV underground cables in two locations. These comprise approximately 300m of underground cables between two CSE compounds on Horsey Level and approximately 8.5km of underground cables between a CSE compound south of the Mendip Hills and the proposed Sandford Substation.

Construction of a 400/132kV Substation at Sandford

- 1.23 To maintain supplies on the 132kV network following the removal of the existing 132kV overhead line a new 400/132kV substation is proposed adjacent to Nye Road in Sandford, North Somerset. The substation will include 400kV and 132kV electrical plant and equipment, electrical switchgear, perimeter fencing, access roads and landscaping.

The removal of existing 132kV overhead lines

- 1.24 As part of the proposed development, over 65km of existing 132kV overhead lines would be removed. In some cases these overhead lines would be removed completely and in others they would be replaced by 132kV underground cables. The overhead lines proposed for removal are as follows:
- Approximately 53.2km of the existing overhead line between Bridgwater and Avonmouth substations.
 - Approximately 8.7km of the existing overhead line between Nailsea and Portishead Substation (to be replaced with underground cables).
 - Approximately 1.1km of the existing overhead line to the south of Puxton.
 - Approximately 400m of the existing overhead line near Mead Lane, Sandford.
 - A short section of the existing overhead line between Portishead and Avonmouth to achieve a crossing of electrical circuits (to be replaced with underground cables).
 - Approximately 1.7km of existing overhead line from the existing Avonmouth substation northwards (to be replaced with underground cables).

- A short section of three existing 132kV overhead lines in the vicinity of Seabank Substation to achieve a crossing of electrical circuits (to be replaced with underground cables).

Construction of 132kV overhead lines

- 1.25 To maintain connections with the existing 132kV distribution network in North Somerset 132kV overhead line connections are required between the proposed Sandford Substation and the existing overhead lines feeding Weston-super-Mare and Churchill and between Churchill Substation and an existing overhead line that currently passes by the substation.

Construction of 132kV underground cables

- 1.26 To facilitate construction of the proposed 400kV overhead line and to maintain connections with the existing 132kV distribution network a number of sections of 132kV underground cables are required. The underground cables proposed are as follows:

- A short section of underground cable to connect Churchill Substation with an existing overhead line that currently passes by the substation.
- Approximately 600m of underground cables in the vicinity of the proposed Sandford substation.
- Approximately 10km of underground cables between Nailsea and Portishead Substation.
- Approximately 2km of underground cables between the existing Avonmouth substation and just south of the Bristol to Avonmouth railway line.
- A short section of underground cable to allow the 400kV overhead line to cross an existing 132kV overhead line to the north east of Portishead.
- A short section of underground cable to allow the 400kV overhead line to cross three existing 132kV overhead lines in the vicinity of Seabank Substation.

Associated works

- 1.27 A number of other works will be required during construction and operation of the proposed development. These include temporary masts and supports for overhead line construction, temporary and permanent access roads, modifications to the highway network and construction storage and working areas.

Commencement Date and Programme

- 1.28 Since the original draft water vole licence was submitted to Natural England, the construction program has altered (Table 1). National Grid anticipates that construction activity will commence no sooner than December 2015 and be concluded by March 2022.

Table 1: Revised Proposed Development Components

Proposed Development Component	Revised Start Date	Revised Finish Date
400kV Overhead Line 400kV Route (South)	Q2 2018	Q2 2020
400kV Overhead Line 400kV Route (North)	Q3 2018	Q3 2021

Proposed Development Component	Revised Start Date	Revised Finish Date
400kV Cable Mendip Hills Route- works between A38 Bristol Road to Tower head Road (including South of Mendip Hills CSE Compound, A38 Bristol Road (UGC) Compound and haul Road	Q1 2016	Q2 2020
400kV Cable – works between Towerhead Road and Sandford Substation	Q1 2018	Q2 2020
400kV Cable – works between Towerhead Road and Sandford Substation (haul road and compound only)	Q1 2017	Q3 2021
Bridgwater Tee 400kV Cable Route	Q3 2019	Q3 2020
AT Route Underground and Overhead Line	Q4 2019	Q3 2020
W Route	Q2 2017	Q2 2019
BW Route Avonmouth Option A	Q4 2018	Q2 2019
BW Route Portishead Option B	Q4 2018	Q4 2019
G Route	Q3 2019	Q3 2020
Seabank Line Entries BW	December 2015	Q2 2016
Seabank Line Entries G	Q1 2016	Q3 2016
Seabank Line Entries DA	Q1 2018	Q3 2018
N Route Overhead Line (including disconnection and removal)	Q3 2019	Q2 2020
Hinkley Line Entries	Q3 2018	March 2022
Y Route Churchill	Q1 2018	Q4 2018
W Route Churchill	Q3 2018	Q3 2018
Sandford 400/132kV Substation	Q1 2018	Q3 2020
Seabank 400/132kV Substation	Q4 2019	Q4 2021
Churchill 132/33kV WPD Substation	December 2015	Q4 2018
Portishead 132/33kV WPD Substation	Q3 2018	Q2 2019
Avonmouth132/33kV WPD Substation	Q3 2019	Q2 2020
Removal of Southern Half F Route	Q3 2019	Q4 2019
Removal of Northern Half F Route	Q2 2020	Q2 2021
Removal of 132kV G Route	Q3 2019	Q3 2020

Legal Capacity to implement the Method Statement

- 1.29 The DCO will grant National Grid the rights to enter land within the Order Limits to implement submitted ecological mitigation measures necessary for the Proposed Development.
- 1.30 A Construction Environmental Management Plan (CEMP) has been produced as part of the DCO application and a Biodiversity Mitigation Strategy (BMS) forms an appendix of the CEMP. Implementation of the BMS will be a Requirement of the DCO consent. As a licence is no longer required to implement water vole mitigation,

this Water Vole Mitigation Strategy will form part of the BMS and therefore delivery can be guaranteed.

- 1.31 The BMS sets out procedures for managing the delivery of the mitigation, including responsibilities, monitoring and reporting.

2.0 SURVEY AND SITE ASSESSMENT

Pre-Existing Information on Water Vole in the Project Area

- 2.1 Information regarding historic water vole records was requested/gathered from the sources listed in Table 2 below. Data was initially obtained in 2010 and updated in both 2011 and 2013 across the whole length of the route with a 1km buffer applied.

Table 2: Ecological information and consultations

CONSULTEE / SOURCE OF INFORMATION	NATURE OF INFORMATION SUPPLIED BY CONSULTEE
Magic Map: Multi-Agency Geographic Information for the Countryside	On line mapping system identifying statutory and rural designations, citations, natural area boundaries etc.
Section41 NERC Act 2006	Identification of national priority species and habitats known to occur in the region.
Somerset Biodiversity Action Plan/ Bristol Biodiversity Action Plan	Identification of local priority species and habitats known to occur in the local area
Bristol Regional Environmental Record Centre	Species records and identification of locally designated sites.
Somerset Environmental Record Centre	Species records and identification of locally designated sites.
Avon Wildlife Trust	Species records and identification of locally designated sites.
Somerset Mammal Group	Species records within the area.
National Biodiversity Network Gateway	On line national records database.
Nature on the Map	On line mapping system for England for BAP habitats and protected sites.

- 2.2 Data searches have identified numerous records of water vole along the proposed development. Water vole records identified in the desk based assessment are shown in the Environmental Statement **Volume 5.8.3.11, Figure 8.46**. There is an apparent lack of water vole evidence recorded from the north of Puriton to Puxton Moor with no records identified. Due to the similarity of the landscape within this area to other sections of the route it is likely that this absence of data is due to lack of surveys rather than water vole absence.
- 2.3 There are a number of scattered water vole records around Hinkley Point however none fall within the Order Limits. These records are historic, dating to 1995.
- 2.4 Scattered records were identified from Bridgwater north to Puriton and from Puxton Moor north to Tickenham and Nailsea, although the grid references provided with the data are not sufficiently specific to show whether these records fall within the Order Limits.
- 2.5 Numerous water vole records exist for the area from Portbury to Crook's Marsh and are clustered around specific watercourses. A number of these records fall within the Order Limits. Clusters of records are apparent along Drove Rhyne close to the Royal Portbury Docks and Kings Weston Rhyne and adjacent rhynes and ditches surrounding the industrial area at Avonmouth.

Status of Species

- 2.6 Full legal protection for the water vole was granted in 2008 in England and Wales by the provisions under Section 9 of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Prior to this time water voles had only received limited legal protection under Section 9. The increase in protection in England and Wales to include the animal itself in addition to its places of shelter or protection reflects the significant decline water voles have undergone in recent decades, while recognising that habitat loss and destruction have played a much greater part in decline than direct persecution.
- 2.7 The increased level of protection therefore now makes it an offence to:
- Intentionally kill, injure or take wild water voles.
 - Possess or control live or dead wild water voles or any derivative part of a water vole.
 - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection.
 - Intentionally or recklessly disturb wild water voles whilst occupying a structure or place used for that purpose.
 - Intentionally or recklessly obstruct access to any structure or place which any wild water vole uses for shelter or protection
 - Sell wild water voles or offer or expose for sale or transport for sale.
 - Publish or cause to be published any advertisement which conveys the buying or selling of wild water voles.
- 2.8 The water vole population across the proposed development is widespread, particularly through the network of rhynes in the Somerset Levels. However the UK population trend continues to suffer catastrophic decline. It is therefore essential that water voles and their habitats are protected.

Objectives of the Survey

- 2.9 The primary objective of the field surveys in 2012, 2013 and 2014 was to identify the presence of water vole within the watercourses impacted by the proposed development.

Scaled Plan/Map of the Survey Area

- 2.10 The site location and landscape context is shown in the Environmental Statement **Volume 5.1.2, Figure 1.1.**

Site/Habitat Description

- 2.11 The main corridor has a variety of land uses and covers an area from Bridgwater in Somerset, north to Seabank (north of Avonmouth), but there are some ancillary works near Hinkley Point. The majority of the land within the order limits is farmland (pasture grassland and arable fields) but the connection also crosses some industrial areas. There will be very little permanent change of land use or habitat along the route, other than the construction or extension of new substations and sealing-end compounds.
- 2.12 An extended Phase 1 habitat survey was undertaken along the entire Route Corridor and substation sites in 2012 during the optimum survey season. The survey was undertaken by a number of experienced botanists in line with JNCC guidelines and included initial habitat assessments for protected and S41 priority species. The

surveyors who carried out this work were Val Gateley, Mike Walker, Lee Greenhough and Chris Swindells. New survey locations were added in 2013 to cover additional proposed working areas.

- 2.13 The route corridor comprises large areas of semi-improved neutral grassland and arable land, with smaller areas of modified neutral grassland, from Bridgwater northwards. Around Puriton, areas of improved grassland and poor semi-improved grassland were also recorded along with semi-natural broad-leaved woodland. The varying types of grassland exist along the remaining route corridor up to Portbury at which point the route corridor passes across existing areas of industrial buildings and hardstanding with some areas of bare ground.
- 2.14 At Hinkley Point the recorded habitat types are mostly semi-improved neutral grassland, arable land, poor semi-improved grassland and improved grassland.
- 2.15 To summarise, the following habitats are present at various locations along the route corridor:
- Semi-improved neutral grassland
 - Arable land
 - Species-rich modified neutral grassland
 - Species-poor modified neutral grassland
 - Poor semi-improved grassland
 - Improved grassland
 - Unimproved neutral grassland
 - Semi-improved calcareous grassland
 - Amenity grassland
 - Marsh/marshy grassland
 - Swamp
 - Semi-natural broad-leaved woodland
 - Plantation broad-leaved woodland
 - Plantation coniferous woodland
 - Broad-leaved parkland/scattered trees
 - Orchard
 - Dense/continuous scrub
 - Scattered scrub
 - Introduced shrub
 - Tall ruderal herbs
 - Continuous bracken
 - Private house/garden/farmyard
 - Buildings
 - Bare ground
 - Bare ground/ephemeral mix
 - Ephemeral/short perennial
 - Industrial building/hardstanding
 - Hardstanding
 - Spoil
 - Refuse tip
 - Standing water
 - Running water
 - Mud
 - Dense continuous saltmarsh
 - Species-poor hedge

- Species-poor intact hedge
 - Species-poor defunct hedge
 - Native species-rich intact hedge
 - Native species-rich defunct hedge
 - Native species-rich hedge
 - Conifer hedge
 - Scattered broad-leaved tree
 - Scattered coniferous tree
- 2.16 The aquatic habitat across the route offers good potential for water voles. The network of field drainage ditches, known locally as 'rhynes' (Somerset) or 'rhines' (Gloucestershire), extends across the majority of the route, with the exception of heavily built-up areas at Royal Portbury Docks. The rhynes play an important part in reducing flood risk and as a consequence are subject to dredging and vegetation clearance on a cycle of, variously, one to five years. They allow irrigation of the extensive low-lying areas in dry periods and drain excess water during the wet.
- 2.17 The banks of the ditches are generally well vegetated and water flows very slowly providing good water vole habitat. Dredging and clearance of the ditch network is undertaken in many areas by the Internal Drainage Board (IDB). Although such maintenance works can have a negative effect on water vole, the water vole population across the Somerset Levels appears to tolerate these works, with the interconnected nature of the ditches allowing the water vole to move out of the areas where maintenance is being undertaken and returning once complete.
- 2.18 Overall, water voles were found to be present within suitable ditches and watercourses in most sections of the route except at Hinkley Line Entries. However large areas were also identified where no water vole evidence was found.
- 2.19 The high level of connectivity of ditches throughout the survey area allows the potential for water voles, prior to the start of works, to move into areas that were unoccupied during the 2012, 2013 and 2014 surveys. There is therefore potential that water voles may occupy habitats where the species was found to be absent during the surveys prior to the commencement of works. The potential for water voles to occupy previously unoccupied habitats will also be taken into account within this document.
- Survey Methods**
- 2.20 Water vole surveys were undertaken in pairs and led by personnel with skills and experience in line with those described in relevant sections of CIEEM's Technical Guidance Series (Competencies for Survey Series: Water Vole).
- 2.21 Surveys followed guidance set out in the water vole conservation handbook¹ and were undertaken between March and October inclusive. To avoid the validity of the survey being compromised water vole surveys were not undertaken following heavy rain when water levels may be raised washing away or obscuring field signs.
- 2.22 Watercourses were selected for survey based on the likelihood of impact arising from the Proposed Development. Surveys for presence of water vole were undertaken in autumn 2012 concentrating on waterbodies potentially impacted by the proposed

¹ Strachan, R et al (2011) *Water Vole Conservation Handbook*. 3rd Edition.

400kV underground route through the Mendip Hills AONB and in summer 2013 to include watercourses crossed by the proposed 132kV underground routes, CSE compounds, substation sites and access routes. Further surveys were undertaken in Autumn 2013 to accommodate design changes. Waterbodies surveyed included rivers, streams and field ditches. Surveyed waterbodies are shown in the Environmental Statement **Volume 5.28.3.1.3, Figure 8.46.3, Issue B**. Following the design freeze and the confirmation of the locations of water crossings (culverts, bridges, etc) an additional 62 ditches were identified for survey in 2014, this was 3 more than had originally been identified for survey in the first draft water vole method statement.

- 2.23 Surveyors examined the targeted aquatic habitats by walking along the bank and along the water's edge using binoculars and or hand searching as appropriate for evidence of water vole activity including burrows, grazed lawns, latrines and droppings, feeding remains, runs and footprints.
- 2.24 Given the scale of the aquatic habitats requiring survey, the interconnected nature of many of the aquatic habitats and the long time frame between survey for consultation and determination of the DCO, a precautionary approach to survey was taken to minimise risk to animal welfare. Water vole presence was assumed, and surveys ceased, for the entire length of ditch or section of watercourse as soon as a minimum of three of the field signs described above were observed. Sightings of water vole were also considered adequate validation of presence.
- 2.25 Surveys continued along the entire length of ditch or section of watercourse until or unless a water vole was seen or three types of field signs were recorded. Any ditches or watercourses where only one or two types of water vole field sign were identified are still recorded in the survey results as likely water vole habitat with a positive survey result displayed within the plans and tables.

Survey Results and Limitations

- 2.26 The locations of the water vole surveys were determined by construction impacts on the ditches. Following a period of design refinements to reduce environmental impacts and meet concerns of stakeholders and landowners expressed during 2013, National Grid finalised the detailed scheme design in December 2013.

Watercourses Surveyed but not impacted

- 2.27 Due to design changes in 2013, various ditches were surveyed but are no longer impacted. **Annex 1** provides the survey results for all ditches that were surveyed over 2012 and 2013 to give an overall impression of water vole coverage in area, although not all ditches in the table are necessarily impacted.

Interpretation/Evaluation of Results

- 2.28 The survey locations and findings are illustrated on the Environmental Statement **Volume 5.28.3.1.3, Figure 8.46.3, Issue B**.
- 2.29 During the course of surveys in 2012, 2013 and 2014 a total of 496 watercourses were subject to a full water vole survey. Of these 496 ditches, 62% (309) contained evidence of water vole presence.
- 2.30 The southernmost records were found at Horsey Levels. Clusters of water vole activity were found across the Woolavington Levels and along the Huntspill River.

North of Huntspill River there are numerous records across Huntspill Moor, north to Mark, then north of Mark and past Rook's Bridge. To the north of Rook's Bridge, water vole activity was recorded in every ditch surveyed up to Loxton. Records also exist between Loxton and Sandford, across Puxton Moor and north to North End. Kenn Moor and Nailsea Moor also have a high number of water vole records as far north as Tickenham. Scattered records were found at Portbury and Avonmouth although desktop records are numerous at these locations.

- 2.31 For the majority of ditches, presence was confirmed through discovery of field signs (burrows, latrines, feeding remains and runs) only. Presence was confirmed at 4 watercourses through a water vole sighting by the surveyors. The water vole sightings were at TEP1001 (south of Rook's Bridge), TEP556 (Mark Moor), TEP2349 (south of Portishead) and TEP2522 (east of Avonmouth Docks).
- 2.32 Water vole presence was recorded in single ditches, some distance from the larger clusters of activity described above. These are not considered isolated or remnant sub-populations; the water vole population is evidently mobile within the ditch network and occupancy may shift, particularly in light of on-going ditch management. Furthermore, the ditches between those where occupancy was found may not have been subject to survey if they were considered to be outside the areas where construction impacts may occur.
- 2.33 The ditch network is managed by the EA, IDB and private landowners, which entails dredging and vegetation clearance on an approximately five year cycle. Vegetation is typically cleared from select stretches (alternate banks, short sections or retaining a strip of vegetation at half bank height), in part, to minimise the impact on the resident water vole population. Whilst such management will influence the distribution and abundance of water voles, it is likely to offer some benefit by controlling scrub encroachment which would otherwise overshadow the ditches and reduce habitat suitability for the species.
- 2.34 Of the 496 ditches surveyed in 2012, 2013 and 2014, 187 found no evidence of water voles. 54% of these watercourses were dry at the time of survey. This also suggests that the water vole population across the Somerset Levels is mobile and when water levels drop in one area they move to areas where more suitable water levels can be found.

Construction impacts

287 watercourses will be impacted by construction works with 303 culverts proposed for access across the route (1 ditch with 3x culverts and 15 ditches with 2x culverts). This is an increase of 1 culvert on the first draft water vole licence application.

- 2.35 The re-routing of a ditch at the proposed Sandford substation (in Section D) is the only permanent impact to ditch habitat. Although this is a single ditch it has been categorised for survey reference as 3 connected ditches (Ditches TEP1318, TEP1320 and TEP1323) which are located within the footprint of the proposed compound. No water vole field signs were found during the surveys of 2012/13 along this ditch.
- 2.36 **Table 3** lists the ditches which will be impacted by construction works, whether these have been surveyed for water vole and whether they were surveyed in 2014. Each culvert has a discrete identifier. It is important to note that since the first draft water vole licence application the culvert identifiers have been altered and the table has been updated to reflect this.

Table 3: Ditches impacted by construction works

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
SECTION A – PURITON RIDGE			
TEP148	VQ043R-CR01	Yes	Survey completed 2014
TEP162	VQ043R-CR02	No	Survey completed 2014
TEP169	VQ043R-CR03	No	Survey completed 2014
TEP174	VQ043R-CR04	No	Survey completed 2014
TEP209	C-ZGA4-CR05	No	Survey completed 2014
TEP210	C-ZGA4-CR04	No	Survey completed 2014
TEP211	C-ZGA4-CR03	No	
SECTION B – SOMERSET LEVELS & MOORS SOUTH			
TEP237	C-ZGA4-CR01	Yes	
TEP238	C-ZGA4-CR02	Yes	
TEP256	C-ZGA12-CR01	No	
TEP281	C-LD3-CR01	Yes	
TEP285	C-ZGA13-CR01	Yes	Survey completed 2014
TEP301	C-LD3-CR06	Yes	
TEP303	C-LD3-CR02	Yes	Survey completed 2014
TEP313	C-LD3-CR03	Yes	Survey completed 2014
TEP314	C-LD3-CR04	Yes	Survey completed 2014
TEP319	C-LD3-CR05	Yes	Survey completed 2014
TEP327	C-LD3-CR07	Yes	
TEP341	C-LD3-CR08	Yes	
TEP346	C-LD3-CR09	Yes	
TEP359	C-LD9-CR03	No	
TEP364	C-LD9-CR04 C-LD9-CR05	Yes	
TEP372	C-LD9-CR02	Yes	
TEP373	C-LD9-CR01	Yes	
TEP375	C-LD9-CR06	No	
TEP381	C-LD9-CR07	Yes	
TEP388	C-LD9-CR08	Yes	
TEP402	C-LD9-CR09	Yes	
TEP416	C-LD9-CR10	Yes	
TEP420	C-LD9-CR11	Yes	
TEP441	C-LD9-CR12	Yes	
TEP547	C-LD10-CR57	Yes	
TEP556	C-LD10-CR58	Yes	
TEP573	C-LD10-CR56	No	
TEP708	C-LD10-CR47	Yes	
TEP723	C-LD10-CR46	No	
TEP727	C-LD10-CR45	Yes	
TEP734	C-LD10-CR44	Yes	
TEP756	C-LD10-CR43	Yes	
TEP760	C-LD10-CR42	Yes	
TEP772	C-LD10-CR41	No	Survey completed 2014
TEP780	C-LD10-CR40	Yes	Survey completed 2014
TEP815	C-LD10-CR39	Yes	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
TEP816	C-LD10-CR38	Yes	
TEP826	C-LD10-CR37	Yes	Survey completed 2014
TEP832	C-LD10-CR36	Yes	
TEP861	C-LD10-CR35	Yes	
TEP862	C-LD10-CR32	Yes	Survey completed 2014
TEP863	C-LD10-CR34	No	
TEP874	C-LD10-CR33	No	
TEP885	C-LD10-CR31	Yes	
TEP891	C-LD10-CR30	Yes	
TEP903	C-LD10-CR29	Yes	
TEP905	C-LD10-CR28	Yes	
TEP907	C-LD10-CR26	Yes	
TEP910	C-LD10-CR26	Yes	
TEP911	C-LD10-CR27	Yes	Survey completed 2014
TEP924	C-LD10-CR25	Yes	
TEP934	C-LD10-CR24	Yes	
TEP945	C-LD10-CR23	Yes	
TEP952	C-LD10-CR22	Yes	Survey completed 2014
TEP971	C-LD10-CR21	Yes	
TEP976	C-LD10-CR20	Yes	
TEP978	C-LD10-CR19	Yes	
TEP991	C-LD10-CR17	Yes	
TEP992	C-LD10-CR18	Yes	Survey completed 2014
TEP1001	C-LD10-CR16	Yes	
TEP1012	C-LD10-CR15	No	
TEP1015	C-LD10-CR13	Yes	
TEP1018	C-LD10-CR14	Yes	Survey completed 2014
TEP1019	C-LD10-CR12	Yes	Survey completed 2014
TEP1023	C-LD10-CR11	Yes	
TEP1024	C-LD10-CR10	Yes	
TEP1030	C-LD10-CR09	No	
TEP1046	C-LD10-CR08	No	
TEP1048	C-LD10-CR07 C-LD10-CR06	No	
TEP1054	C-LD10-CR05	No	
TEP1058	C-LD10-CR04	No	
TEP1062	C-LD10-CR02	No	
TEP1065	C-LD10-CR03	No	
TEP1074	C-LD10-CR01	No	
TEP1099	C-LD38-CR04	Yes	
TEP1110	C-LD38-CR04 C-LD38-CR03	Yes	
TEP1112	C-LD38-CR03	Yes	
TEP1121	C-LD38-CR02	Yes	
TEP1122	C-LD38-CR01	Yes	Survey completed 2014
TEP1127	400-UG-CR04	Yes	
TEP1128	400-UG-CR03	Yes	
TEP1136	400-UG-CR05	Yes	
TEP1137	400-UG-CR02	Yes	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
TEP1141	400-UG-CR06	Yes	
TEP1147	400-UG-CR07	Yes	
TEP1148	400-UG-CR08	Yes	
TEP1156	400-UG-CR09	Yes	
TEP1171	400-UG-CR10	Yes	
TEP1178	400-UG-CR11	Yes	
TEP1196	400-UG-CR17	Yes	
TEP1200	400-UG-CR12 400-UG-CR13	Yes	
TEP1206	400-UG-CR16 400-UG-CR14	Yes	
TEP1209	400-UG-CR18 400-UG-CR15	Yes	
TEP1212	400-UG-CR20	Yes	
TEP1213	400-UG-CR19	Yes	
TEP1215	400-UG-CR22	Yes	
TEP1233	400-UG-CR24	Yes	Survey completed 2014
TEP1241	400-UG-CR25	No	
TEP2930	C-LD10-CR48	No	
TEP2931	C-LD10-CR49	No	
TEP2932	C-LD10-CR50	No	
TEP2933	C-LD10-CR51	No	
TEP2935	C-LD10-CR52	No	
TEP2937	C-LD10-CR54	No	
TEP2938	C-LD10-CR55	Yes	
TEP2943	C-LD10-CR53	Yes	Survey completed 2014
TEP2991	400-UG-CR21 400-UG-CR23	Yes	
TEP3048	400-UG-CR01	No	
SECTION C – MENDIP HILLS AONB			
TEP1248	400-UG-CR26	No	
TEP1263	400-UG-CR28 400-UG-CR29	No	
TEP1269 (TEP2999)	400-UG-CR27	Yes	
TEP1282	400-UG-CR37	No	
TEP1294	400-UG-CR44	No	
TEP1298	400-UG-CR45	Yes	
TEP1303	400-UG-CR50	Yes	
TEP3216	400-UG-CR51	No	
TEP1307	400-UG-CR52	No	
TEP2919	400-UG-CR30 400-UG-CR31	No	
TEP2920	400-UG-CR47	No	
TEP2921	400-UG-CR46	No	
TEP2922	400-UG-CR49	No	
TEP2923	400-UG-CR53	No	
TEP2924	400-UG-CR54	No	
TEP3002	400-UG-CR32	No	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
	400-UG-CR33		
TEP3004	400-UG-CR35 400-UG-CR36	No	
TEP3006	400-UG-CR38 400-UG-CR39	No	
TEP3008	400-UG-CR40	No	
TEP3011	400-UG-CR41	No	
TEP3012	400-UG-CR42	No	
TEP3015	400-UG-CR43	No	
TEP3024	400-UG-CR48	No	
TEP3049	400-UG-CR34	No	
TEP3050	400-UG-CR55	No	
SECTION D – SOMERSET LEVELS & MOORS NORTH			
TEP1312	400-UG-CR56 400-UG-CR57	No	
TEP1317	400-UG-CR59	No	
TEP1318	SANDFORD	No	
TEP1320	SANDFORD	No	
TEP1323	SANDFORD	No	
TEP1330	AT30-CR01	No	
TEP1331	C-LD39-CR25	No	
TEP1338	AT30-CR02	Yes	Survey completed 2014
TEP1344	C-LD39-CR23	No	
TEP1346	C-LD39-CR24	No	
TEP1348	AT30-CR03	Yes	Survey completed 2014
TEP1350	C-LD39-CR22	No	
TEP1364	C-LD39-CR21	No	
TEP1379	C-LD39-CR20	Yes	
TEP1382	AT29-CR07	Yes	Survey completed 2014
TEP1388	C-LD39-CR19	Yes	
TEP1392	AT29-CR06	Yes	Survey completed 2014
TEP1410	C-LD39-CR18	Yes	
TEP1441	AT29-CR05	Yes	Survey completed 2014
TEP1447	AT29-CR04	Yes	Survey completed 2014
TEP1450	C-LD39-CR17	Yes	
TEP1471	C-LD39-CR16	Yes	
TEP1474	AT29-CR03	Yes	Survey completed 2014
TEP1491	C-LD39-CR15	Yes	
TEP1502	AT29-CR02	Yes	Survey completed 2014
TEP1525	C-LD39-CR14	Yes	
TEP1554	C-LD39-CR13	Yes	
TEP1559	AT29-CR01	No	Survey completed 2014
TEP1565	C-LD39-CR12	Yes	
TEP1586	C-LD39-CR11	Yes	
TEP1596	C-LD39-CR10	Yes	Survey completed 2014
TEP1606	C-LD39-CR09	Yes	
TEP1641	C-LD39-CR08	No	
TEP1642	C-LD39-CR07	Yes	
TEP1667	C-LD39-CR06	No	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
TEP1674	C-LD39-CR05	No	
TEP1694	C-LD39-CR04	No	
TEP1705	C-LD39-CR03	No	
TEP1718	C-LD39-CR02	Yes	
TEP1759	C-LD53-CR01	No	
TEP1765	C-LD53-CR02	Yes	
TEP1807	C-LD53-CR03	Yes	
TEP1815	C-LD53-CR05	Yes	
TEP1827	C-LD53-CR06	Yes	
TEP1833	C-LD53-CR07	No	
TEP1857	C-LD54-CR18	Yes	
TEP1880	C-LD54-CR17	Yes	
TEP1883	C-LD54-CR16	Yes	
TEP1909	C-LD54-CR15	Yes	
TEP1921	C-LD54-CR14	Yes	
TEP1927	C-LD54-CR13	Yes	
TEP1932	C-LD54-CR12	No	
TEP1942	C-LD54-CR11	Yes	
TEP1954	C-LD54-CR10	No	
TEP1966	C-LD54-CR09	Yes	
TEP1992	C-LD54-CR08	Yes	
TEP1993	C-LD54-CR06	Yes	
TEP2000	C-LD54-CR05	No	Survey completed 2014
TEP2015	C-LD54-CR05	No	Survey completed 2014
TEP2025	C-LD54-CR03	No	Survey completed 2014
TEP2031	C-LD54-CR04	Yes	Survey completed 2014
TEP2033	C-LD54-CR02	No	
TEP2059	C-LD62-CR04	No	Survey completed 2014
TEP2076	C-LD62-CR04	No	
TEP2086	C-LD62-CR03	No	
TEP2093	C-LD62-CR02	No	
TEP2097	C-LD62-CR01	Yes	
TEP2099	C-LD70-CR01	No	
TEP2116	C-LD70-CR03	No	
TEP2117	C-LD70-CR02	Yes	
TEP2118	C-LD70-CR05	Yes	
TEP2119	C-LD70-CR04	Yes	
TEP2128	C-LD70-CR06	Yes	
TEP2137	C-LD70-CR08	Yes	
TEP2139	C-LD70-CR11	Yes	
TEP2142	C-LD70-CR09	No	
TEP2145	C-LD70-CR10	Yes	
TEP2153	C-LD70-CR07	Yes	
TEP2160	C-LD70-CR12	Yes	
TEP2167	C-LD70-CR13	Yes	
TEP2182	C-LD74-CR01	Yes	
TEP2188	C-LD74-CR02	Yes	
TEP2192	C-LD74-CR04	Yes	
TEP2195	C-LD74-CR03	Yes	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
TEP2208	C-LD74-CR05	Yes	
TEP2209	C-LD74-CR06	Yes	
TEP2216	C-LD74-CR07	Yes	Survey completed 2014
TEP2218	C-LD74-CR08	Yes	
TEP2223	C-LD74-CR11	Yes	
TEP2233	C-LD74-CR09	Yes	Survey completed 2014
TEP2239	C-LD74-CR10	Yes	
TEP2279	C-LD76-CR04	Yes	
TEP2282	C-LD76-CR01	Yes	Survey completed 2014
TEP2286	C-LD76-CR03	Yes	Survey completed 2014
TEP2291	C-LD76-CR02	Yes	
TEP2294	W-ROUTE-CR02 W-ROUTE-CR04	Yes	
TEP2314	W-ROUTE-CR05 C-LD78-CR01	Yes	
TEP2333	W-ROUTE-CR07	Yes	
TEP2912	C-LD53-CR04	Yes	
TEP2913	C-LD54-CR01	No	
TEP2914	W-ROUTE-CR06	Yes	
TEP3043	AT-ROUTE-CR02	No	
TEP3048	400-UG-CR01	No	
TEP3047	Y1R-CR01	No	Survey completed 2014
TEP3051	400-UG-CR58	No	
TEP3052	W-ROUTE-CR01	No	
TEP3053	W-ROUTE-CR03	No	Survey completed 2014
SECTION E – TICKENHAM RIDGE			
TEP2339	W-ROUTE-CR08	No	
SECTION F - PORTISHEAD			
TEP2413	W-ROUTE-CR10	Yes	Survey completed 2014
TEP2444	W-ROUTE-CR11	Yes	Survey completed 2014
TEP2446	W-ROUTE-CR12	Yes	
TEP2452	W-ROUTE-CR13	No	
TEP2461	W-ROUTE-CR14	No	Survey completed 2014
TEP2464	P-LD99-CR01	No	Survey completed 2014
TEP2484	P-LD99-CR02 P-LD99-CR05 BW-P-CR01	Yes	
TEP2486	P-LD99-CR03	No	Survey completed 2014
TEP2490	P-LD99-CR04	No	Survey completed 2014
TEP2915	W-ROUTE-CR09	Yes	
TEP2916	C-LD95-CR01	No	
TEP2925	C-LD96-CR01	No	
SECTION G – AVONMOUTH			
TEP2465	P-LD101-CR01	Yes	Survey completed 2014
TEP2510	C-LD114-CR01	No	
TEP2511	G-ROUTE-CR01	No	
TEP2514	C-LD114-CR02	Yes	
TEP2523	G-ROUTE-CR03	Yes	
TEP2536	G-ROUTE-CR05	Yes	

Ditch No.	Culvert ID	Water Vole Present?	Additional Information
TEP2537	G-ROUTE-CR06	No	
TEP2541	G-ROUTE-CR04	Yes	
TEP2543	G-ROUTE-CR07 C-LD118-CR01	Yes	
TEP2549	G-ROUTE-CR08	Yes	Survey completed 2014
TEP2569	G-ROUTE-CR10	Yes	Survey completed 2014
TEP2570	G-ROUTE-CR09	No	
TEP2577	G-ROUTE-CR11	Yes	Survey completed 2014
TEP2584	G-ROUTE-CR12	Yes	
TEP2594	G-ROUTE-CR13	No	Survey completed 2014
TEP2601	G-ROUTE-CR14	No	
TEP2622	C-LD119-CR01	Yes	
TEP2623	C-LD120-CR01	Yes	
TEP2609	C-LD120-CR02	Yes	
TEP2643	C-LD121-CR04	No	
TEP2649	C-LD121-CR03	No	
TEP2651	C-LD121-CR02	No	
TEP2666	C-LD121-CR01	Yes	Survey completed 2014
TEP2699	C-LD125-CR01	Yes	Survey completed 2014
TEP2714	SEABANK-CR01	No	Survey completed 2014
TEP2715	C-LD127-CR01	No	
TEP2720	SEABANK-CR02	Yes	
SECTION H – HINKLEY LINE ENTRIES			
TEP2926	VQ3C-CR02	No	
TEP2927	VQ3C-CR01	No	

3.0 POTENTIAL IMPACTS

Impacts on water vole habitat

- 3.1 Where the proposed development directly affects habitat suitable to support water voles there is potential for the following impacts to occur:
- Direct loss of water vole habitat.
 - Death and/or injury of water voles.
 - Fragmentation of water vole populations.
- 3.2 Impacts will occur where works fall within 5m of the top of the bank of ditches and watercourses, including any works within the watercourse itself.
- 3.3 Although the scheme covers a large area, the potential for impacts on water vole to result from the proposed development are primarily associated with locations where watercourses are affected by:
- crossing of proposed underground cable routes (400kV)
 - crossing of proposed underground cable routes (132kV)
 - construction of lattice frame towers and T-pylons for overhead lines (400kV and 132kV)
 - removal of existing 132kV overhead lines;
 - construction of substation sites and sealing end compounds;
 - temporary crossings for construction access tracks (if these require a temporary bridge or culvert).
- 3.4 As agreed with the relevant parties there will be generic 9m stand-off zones from IDB managed ditches and main rivers, 8m from EA managed ditches and a 5m from all other privately managed ditches to avoid flood risk. This applies to all Development Components, with the exception of construction accesses and underground cable crossings. The 9m stand-off distance will also apply to all SSSI designated ditches, irrespective of ownership. Where temporary works within the stand-off distance cannot be avoided, these will be carried out with agreement from the EA or IDB (and Natural England in relation to SSSIs) as appropriate. The SSSI ditches affected by the Proposed Development and with evidence of water vole activity are detailed in Table 4. In addition to these ditches, culverts are required on three further SSSI ditches (TEP1833 in Biddle Street Yatton SSSI and TEP2116 and TEP2142 both in Tickenham, Nailsea and Kenn Moors SSSI) where no water vole activity was recorded. Maps showing the locations of works in relation to SSSI ditches and the results of the water vole surveys are provided at **Annex 2**.

Table 4: SSSI ditches with evidence of water vole activity

DITCH ID	SSSI NAME
TEP1815	Biddle Street, Yatton
TEP1827	Biddle Street, Yatton
TEP2117	Tickenham, Nailsea and Kenn Moors
TEP2118	Tickenham, Nailsea and Kenn Moors
TEP2119	Tickenham, Nailsea and Kenn Moors
TEP2128	Tickenham, Nailsea and Kenn Moors

DITCH ID	SSSI NAME
TEP2137	Tickenham, Nailsea and Kenn Moors
TEP2139	Tickenham, Nailsea and Kenn Moors
TEP2145	Tickenham, Nailsea and Kenn Moors
TEP2153	Tickenham, Nailsea and Kenn Moors
TEP2160	Tickenham, Nailsea and Kenn Moors
TEP2167	Tickenham, Nailsea and Kenn Moors
TEP2182	Tickenham, Nailsea and Kenn Moors
TEP2188	Tickenham, Nailsea and Kenn Moors
TEP2192	Tickenham, Nailsea and Kenn Moors
TEP2195	Tickenham, Nailsea and Kenn Moors
TEP2208	Tickenham, Nailsea and Kenn Moors
TEP2209	Tickenham, Nailsea and Kenn Moors
TEP2216	Tickenham, Nailsea and Kenn Moors
TEP2218	Tickenham, Nailsea and Kenn Moors
TEP2223	Tickenham, Nailsea and Kenn Moors
TEP2239	Tickenham, Nailsea and Kenn Moors
TEP2233	Tickenham, Nailsea and Kenn Moors
TEP2279	Tickenham, Nailsea and Kenn Moors
TEP2282	Tickenham, Nailsea and Kenn Moors
TEP2286	Tickenham, Nailsea and Kenn Moors
TEP2291	Tickenham, Nailsea and Kenn Moors
TEP2294	Tickenham, Nailsea and Kenn Moors
TEP2314	Tickenham, Nailsea and Kenn Moors
TEP2912	Biddle Street, Yatton

- 3.5 The following paragraphs give a description of the construction activity and a brief summary of the impacts associated with each activity anticipated to affect water vole habitats.

Proposed underground cable routes (400kV)

- 3.6 Parts of the proposed connection require installation of underground cables. Within the underground cable corridor, there is potential for impacts to the water vole population to occur, as set out below;

On-line haul road and temporary access routes

- 3.7 Underground cable construction activities begin with the establishment and preparation of the working area and the installation of a temporary on-line haul road; along with temporary access tracks to connect to the local road network. The underground haul road will be 7m wide to enable two-way traffic. The temporary access tracks will be constructed at 4m width, where existing tracks are unavailable.
- 3.8 The temporary haul road will run along the length of the underground cable route so that construction traffic can run on dedicated routes and avoid public highways.

At an early date, a contractor will move along the length of the cable route and install all culverts required to facilitate the on-line haul route and temporary accesses.

Culverts

- 3.9 Culverts for the temporary haul route along the 400kV underground cable will be 9m length (7m roadway plus 1m culvert protruding at each end). Culverts for other temporary access routes will be 6m (4m roadway plus 1m culvert protruding at each end). In addition, all IDB watercourse culverts will be installed with a 2m stepped stone headwall at each end. **Annex 3** indicates which watercourses are under IDB control.
- 3.10 Thus for culvert crossings, the medium-term impacts will be as follows:
- On-line haul route culvert under IDB control: 13m length;
 - On line haul route culvert not under IDB control: 9m length;
 - Temporary access route culvert under IDB control: 10m length;
 - Temporary access route culvert not under IDB control: 6m length;
 - Where ditches are crossed at a skew, the culvert lengths will be slightly longer.
- 3.11 In addition, a 2m length dry working area at each end of the culvert will be required on a short-term basis to enable installation. When applied to the figures above, this means a total impact of 17m for haul route IDB culverts, of which 4m is short-term and 13m is medium term (defined as during the whole construction and reinstatement period between early 2016 and early 2022).
- 3.12 In order to install the culvert a section of the specific ditch in question will be de-watered to allow construction activities to take place. The ditch will be bunded at either end of the working area and the water pumped out. It is considered that the working area required to install the culvert is a short term impact, used only during the construction phase taking somewhere between 1-2 weeks to install. Once installed the culvert will be in place for the length of the project and is therefore considered a medium term impact. The quantitative assessment of the impact is categorised in **Annex 3**.
- 3.13 Culverts for access roads will be the first element to be installed and the last to be removed so will be in place for approximately 6¼ years. As the culverts will be installed one at a time with flow being reinstated once installed, fragmentation effects are not anticipated.
- 3.14 The culvert designs are not yet finalised, but it is not anticipated that wildlife shelves will be provided for any culverts needed for access routes, due to the relatively short length of watercourse affected. Indicative plans have been generated and more detailed designs per ditch will be created at a later date.

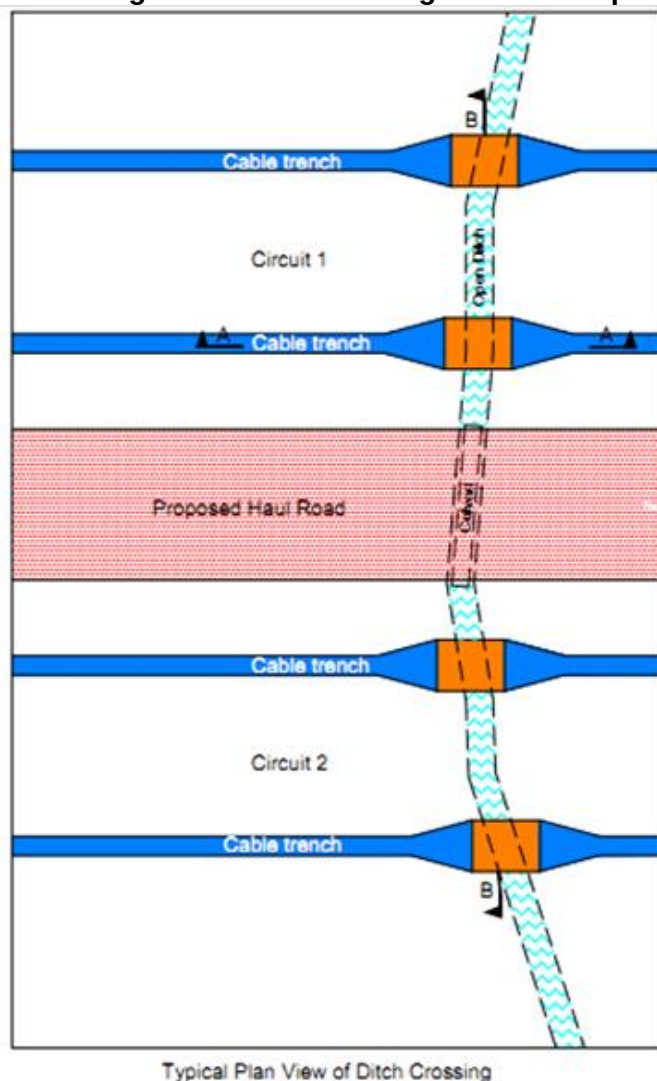
Installation of 400kV cable ducts

- 3.15 A working area approximately 45m wide would be created along the length of the 400kV underground cable route, protected by post and wire fencing. The underground cables will be laid in trenches that will be excavated up to approximately

1.8m deep and 2m wide. There will be up to 12 cables for the connection laid in four groups (four trenches) with three cables per group. There will be a gap of approximately 350mm between each of the three cables within the group, and a separation distance of approximately 3m between each of the groups.

- 3.16 Where the 400kV underground cable route crosses a ditch or minor watercourse the ducts as described above will need to be installed beneath the existing level of the ditch (minimum of 400mm below existing ditch base level). These ducts will be installed following the construction of the on-line haul road and associated culverts. For the 400kV underground section four ducts will be installed beneath the original level of the ditch. Once installed the ducts will be used to thread the cables through and therefore causing no further impact to the ditch bank. Each duct will take one to two weeks to be installed (ducts will be installed in pairs to reduce the overall duration of works in any given watercourse) giving the overall time for duct installation between two to four weeks. The diagram at **Inset 1** displays the typical ditch crossing.
- 3.17 The channel will be dewatered for the duct installation using the same method as detailed for access road culvert installation.

Inset 1: Diagram of 400kV underground cable plan at ditch crossing.



- 3.18 Following installation of ducts the excavated sections of banks will be backfilled and banks reinstated. Temporary culverts will also be removed following completion of the project (likely 5 year time period) and banks reinstated. During these works there is further potential for water voles to be impacted through use of machinery in the short term.

Permanent 400kV Cable Bridges

- 3.19 Currently the proposed development includes the construction of two permanent cable bridges at Towerhead Brook and the River Axe. The bridges will be clear-span, leaving the watercourses and bank habitats intact. Possible bridge designs are shown at Drawings MMD-322069-C-DR-400UG-XX-0932 (Towerhead Brook) and MMD-322069-C-DR-400UG-XX-0900 (River Axe). Although this may not be the final design used, it indicates that a watercourse length of approximately 13m will be bridged. The banks under the centre of the bridge will be shaded, but this is not likely to pose an adverse effect on the water vole mobility or overall population levels.
- 3.20 Bridge construction will also incur short-term disturbance, and disturbance associated with the movement of construction vehicles in the medium-term until completion of the project although this is considered to be low impact.
- 3.21 There is currently no detailed bridge design for these locations, and the plans noted above are provided for indicative purposes only.

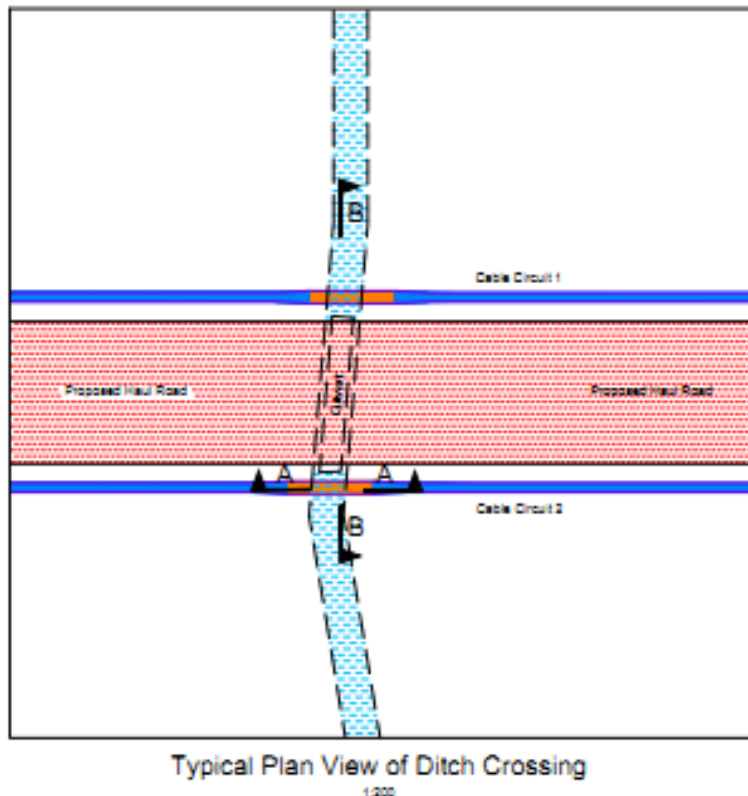
Horizontal directional drilling (HDD)

- 3.22 At certain locations it is appropriate to HDD below watercourses to carry the cable. The location of HDD crossings is dependent on the depth of drilling which in turn is dependent on the site-specific ground conditions. Drilling sites will be set back, from the watercourses at a set distance so as to cause the least possible disturbance to wildlife and therefore there will be no impact on bank side water vole habitat at these locations. The distance has not yet been ascertained and will be determined by conditions on the ground in conjunction with noise and vibration calculations.
- 3.23 It is not feasible to HDD at every watercourse crossing due to cost implications involved but it is proposed at large rivers and watercourse crossings.

Proposed underground cable routes 132kV

- 3.24 The design principles described above for the 400kV underground cable route can be applied to the 132kV underground cable sections. The main difference however is that there are only 2 cable trenches required for the 132kV connection (one either side of the central haul road) and therefore the installation of only two ducts. The overall width of the impact will therefore be significantly less with a maximum overall 35m swathe, comprised of a haul route and flanking cable trenches, as shown at **Inset 2**.
- 3.25 As with the 400kV the on-line haul road (which in this case is 4m wide) will be installed first followed by the installation of the two ducts and then finally the threading through of the cable. Due to the reduced level of construction required the time frame to complete the works will be between 2 and 4 weeks.

Inset 2: Diagram of 132kV underground cable plan at ditch crossing.



Construction of T-pylon and lattice frame towers for overhead lines (400kV and 132kV)

- 3.26 Construction of towers will be undertaken along the length of the route. Topsoil will be stripped from the working area and a stone base laid. This defines the area within which all works will be undertaken. Construction of towers will take place within the tower working area and will be lifted into place using a crane. Following completion of the works, the stone base will be removed, topsoil re-laid and habitats reinstated. Towers and pylons will be permanent. A typical tower/pylon working area is illustrated at **Annex 4**.
- 3.27 Impact on water voles through construction of the towers will only result where works are within 5m of the top of the ditch banks. With current proposals no construction works will come within 5m of the top of the bank and therefore there will be no direct impact on water vole habitat. However where tower working areas fall within 10m of water vole habitat there is also potential for disturbance impacts as a result of works.
- 3.28 Following completion of works, stone working areas will be removed however any foundations within 10m of a ditch or watercourse will be permanent. As grassland habitat will be re-seeded over the top of the foundations it is not considered that these are long term impacts to water vole.

Removal of existing 132kV overhead lines

- 3.29 Where 132kV lines are being removed as part of the Proposed Development there will be some short term disturbance impact when the line is removed. Boards, scaffold supports or other form of cover (dependent on the location) will be laid across each ditch when the existing cable is removed (drop and drag) to prevent damage

during short term works. Although this will prevent any impact to the water vole habitat there may still be some limited short-term disturbance impact during the works.

Construction of substation sites and sealing end compounds

Substations

- 3.30 The Proposed Development requires works to existing substations and construction of a new substation.
- 3.31 Works to existing substations will be within the confines of the existing boundaries, and there are unlikely to be any impacts on water voles or their supporting habitats. This will include the following sites:
- Portishead substation
 - Seabank substation
 - Churchill substation
 - Bridgwater substation
- 3.32 Portishead and Seabank substation are bordered by ditches which have been found to support water voles. It is not anticipated that these ditches will be affected by substation works; however some works may be required within 5m of the ditch or water course.
- 3.33 A new substation is required at Sandford. The proposed Sandford substation is located within an area with ditches, one of which runs through the proposed substation site. As part of the proposal a section of existing ditch will be rerouted from the footprint of the substation around the edge of the substation. The rerouting of the ditch at the substation site has the greatest impact to potential water vole habitat across the route. However the ditches at Sandford were subject to a water vole surveys in 2012 and no water vole signs were recorded.

Sealing end compounds

- 3.34 Sealing end compounds are required wherever the connection changes from overhead line to underground technology. Sealing end compounds are required at three locations as part of the project:
- 2 sealing end compounds at Bridgwater Tee.
 - 1 sealing end compound south of the Mendip Hills AONB at the start of 400kV underground section.
- 3.35 The sealing end compounds themselves are unlikely to impact ditches or watercourses as they are located away from these features. Working areas will not encroach within 5m of the top of the bank. Sealing end compounds will therefore have no direct impact on water vole bankside habitat. There may however be some level of disturbance impact encountered during the period of construction works.

Temporary crossings for construction access tracks

- 3.36 In order to access the various working areas temporary access roads will be used, where existing roads or suitable tracks are absent. The access tracks will be approximately 4m wide and will generally be constructed by topsoil stripping and formed of stone fill, laid on geotextile matting where ground conditions require.

However the exact type of material used at each access road cannot be listed at this time and will depend on ground conditions at the time of construction. Including the storage of topsoil, the haul road easements will be approximately 6m in width, although wider sections may be required where traffic is greater or where passing places are required.

- 3.37 Where possible existing culverts will be used. National Grid has surveyed the construction route and has identified where there is a requirement for installation of new temporary culverts to cross ditches. The locations of these crossing points are shown in the Environmental Statement **Volume 5.3.3.2, Figure 3.3**. Where temporary haul roads require crossing points temporary culverts, bridges or porous fill will be used, the proposed option for each ditch is listed within the table at **Annex 3**. The design of these will depend on the depth and width of the ditch or watercourse. The standard design options for the culverts are shown in **Annex 4**.
- 3.38 There are three methods which are being proposed at ditch crossings. These are culverts, bridges or porous fill. Each crossing type is discussed below.

Culverts

- 3.39 Installation of the culvert will require de-watering of a short section of ditch in the same manner as the culvert installation for the 400kV haul route (paragraph 3.9 on). The contractor will move along the route installing all the culverts (this will be undertaken before any other construction works). The culvert width for the majority of ditches crossed by temporary access tracks will be 6m wide which includes 4m roadway plus 1m either side where the culvert protrudes. An additional 2m each side will be required in the short-term for dry working area. Therefore the overall width of impact for temporary crossing will be 10m. For ditches that are under control of the IDB there will also be a requirement for a 2m stepped headwall either side of the culvert to be included within the overall width, giving a width of 14m.

Temporary bridges

- 3.40 The final design of temporary bridges is yet to be confirmed. Thus it is not possible to advise whether these bridges will be clear-span or if there will be footings installed at bankside. For the purposes of the water vole method statement, it has been assumed that footings will need to be installed as this would have greater potential impact on water voles than clear-span bridges and is probably more likely in most locations due to the additional bridge length that would be necessary for clear-span.
- 3.41 The required width of bankside habitat for temporary bridges will be similar to that required for culverts, as the bridge design is not yet finalised the distance is not yet certain. As with the temporary culverts, the bridges for access roads will be in place for approximately 6¼ years. Also, fragmentation effects are not anticipated due to the same installation procedure as the culverts.

Porous fill

- 3.42 There are only 11 locations across the route corridor where there are proposals to use porous fill. Water vole presence has not been found at any of these locations. The ditches where this use is proposed cannot, in the majority of cases, be considered as functioning ditches and are better described as shallow depressions in fields which are recorded as either being dry or near-dry. The nature of these locations means that they are unsuitable habitat for water vole habitat.

Flood attenuation areas

- 3.43 At certain points, it is necessary to create flood attenuation areas due to the potential impact that some of the proposed development, particularly compound areas to be surfaced with hardstanding, will have on the floodplain in the surrounding area.
- 3.44 Where these areas are necessary they will be unlikely to impact ditches or watercourses as these will be left intact and the flood attenuation measures designed around them. The design is not yet finalised and it is anticipated that the only impact would be from temporary road culverts needed to access the flood attenuation areas.
- 3.45 The flood attenuation areas themselves would also be temporary for the duration of construction and would be returned to their former use on completion of the project.

Permanent habitat losses

- 3.46 Across the whole of the scheme there is only one ditch which be permanently affected by the Proposed Development. This is the ditch which will be realigned to allow construction of Sandford Substation.
- 3.47 During the construction phase, it will be necessary for sections of the realigned ditch to be culverted to allow installation (including temporary access roads) of the substation and to allow connection of the 132kV and 400kV connections into and out of Sandford substation. Areas of the realigned ditch not requiring culverting will be landscaped following creation of the ditch. The remainder will be landscaped once temporary works are complete and the culverts removed. One permanent access across the realigned ditch will remain, this provides a maintenance access route into the substation.
- 3.48 The ditch identified for realignment has been surveyed for water voles and no signs were recorded. Unless water vole signs are found during the resurvey there will be no mitigation required for the loss of this ditch.
- 3.49 The only other permanent habitat losses will be small areas of bankside habitat at the permanent bridge locations. There will however be no fragmentation of the water vole populations in these areas as the water voles will be able to move freely around the bridge foundations.

4.0 MITIGATION AND COMPENSATION

4.1 The potential for impacts on water vole arises where watercourses are affected by:

- crossing of proposed underground cable routes (400kV and 132kV), or other ducts e.g. for fibre optics;
- construction of lattice frame towers for overhead lines (400kV, 275kV and 132kV);
- Removal of existing 132kV overhead lines;
- construction of sealing end compounds;
- construction of substation sites;
- temporary crossings for construction access tracks (if these require a temporary bridge or culvert).

Summary of Mitigation Strategy

4.2 The mitigation strategy comprises the following steps:

- Avoidance and protection;
- Pre-commencement water vole survey; and
- Displacement methods.

4.3 Wherever possible National Grid has sought to use existing watercourse crossing points when establishing temporary access routes. Where works areas are close to retained watercourses, perimeter fencing will be installed along the construction boundary to minimise the risk of encroachment or pollution to watercourses.

4.4 However, it is not possible to completely avoid water vole habitats or watercourse crossings, so further mitigation is therefore required.

4.5 A pre-commencement water vole survey will be carried out between late April and October in the year prior to commencement of works. The survey will include all ditches which will be directly impacted by works, or where a minimum 5m stand-off cannot be maintained. The survey will extend upstream and downstream of the affected areas.

4.6 Where short sections (50m or less) of watercourses will be affected water voles can be effectively moved out of the area using displacement methods. This is undertaken by degrading the habitats within and adjacent to the affected sections of watercourse.

4.7 It has previously been considered that trapping and exclusion methods may have been required for the 400kV underground cable ducts as the proposed working area may have exceeded 50m width. Subsequently, National Grid have confirmed that there will be no stretches affected exceeding 50m and as such trapping and exclusion methods and a licence to trap water voles from Natural England will not be required.

4.8 All works therefore affect individual sections of water vole habitat less than 50m in length, and in these locations displacement methods are suitable. Works that can now be undertaken using displacement include:

- Temporary and permanent ditch/watercourse crossing points (culverts/bridges).

- Installation of 132kV underground cable ducts through ditches/watercourses.
- Installation of 400kV underground cable ducts through ditches/watercourses.

Details of Water Vole Mitigation Strategy

Avoidance and Protection

- 4.9 In all cases, retained ditches will be protected from construction activity, vehicle movements and storage of materials through the installation of Heras fencing situated a minimum of 5m from the top of each ditch and watercourse bank to prevent encroachment into potential water vole habitats.
- 4.10 Where feasible, haul roads, working areas, laydown areas and general construction activities will maintain the 5m buffer from each ditch and watercourse.
- 4.11 Within all SSSI's 9m stand-offs will be maintained due to the greater sensitivity of ditch habitats within these areas. A 9m stand-off will apply to watercourses managed by the IDB.
- 4.12 Where maintenance of at least a 5m buffer cannot be achieved due to the nature of the works, such as underground sections and creation of access road crossings, further measures will be implemented. These measures will vary on a ditch by ditch basis and also will depend on the nature of the construction works required at the particular ditch.
- 4.13 In addition to direct damage to water vole habitats there is potential for damage to occur through reduction on habitat and water quality. This could be caused through direct pollution from fuel or chemical spills, or surface runoff carrying pollution and sediments into ditches and watercourses. The following measures will be undertaken to minimise habitat damage through pollution:
- Silt traps will be installed in ditches and watercourses which are affected by works to prevent materials being transported into adjacent habitats.
 - Spill trays will be used to ensure that any spillages are unable to enter ditches or watercourses.
 - Bunds will be created where working areas are adjacent to retained ditches and watercourses to prevent sediments and pollution being washed into the ditches through surface run off.
 - If any ditches require pumping down prior to works (e.g. prior to loss of ditch or during works within the ditch) settlement tanks and controlled outflows will be used.
- 4.14 The above precautions will also apply to decommissioning of the works, including removal of temporary access culverts and land reinstatement.
- 4.15 Wherever possible National Grid has sought to use existing crossing points of ditches and watercourses for use with temporary haul routes. Change requests for the route were submitted for ecological reasons where appropriate and these were considered by National Grid. It is however not possible to avoid water vole habitats in every instance and some mitigation is therefore required.
- #### Pre-commencement survey
- 4.16 A pre-commencement water vole survey will be carried out between late April and October in the year prior to commencement of works. Updated water vole survey

guidance which is pending may require two survey visits are undertaken during this period. For reasons explained later, the preferred survey period is August/September. A survey timetable in relation to construction start dates is indicated later in the section dealing with displacement. The survey will include all ditches which will be directly impacted by works, or where a minimum 5m buffer cannot be maintained.

- 4.17 The purpose of the survey will be to update the 2012/2013 and 2014 survey information and confirm presence or absence of water voles. Given the extent of the water vole population across the Somerset Levels and the interconnected nature of the ditch network it is possible that water voles may have colonised previously unused ditches prior to the start of works.
- 4.18 Where no water vole burrows are identified during the pre-commencement survey, vegetation control will be undertaken to dissuade water voles from colonising the working area prior to commencement. Vegetation within the ditch and on both banks will be strimmed to bare ground, to at least to the top of the bank, and where tall vegetation extends beyond this point, up to 5m from the top of the bank. Within the ditch, strimming will extend 5m both up and downstream from the working area.
- 4.19 Arising's will be removed from the cleared area and temporarily stored greater than 5m from the top of the ditch banks. The Waste Management Plan (an appendix of the project's Construction Environmental Management Plan ES Volume 5.26) sets out at paragraph 3.2.13 *'Stripped vegetation and removed trees (with landowner agreement except where this is identified for re-use or recycling) and general food waste will be taken to a composting, anaerobic digestion or biomass plant'*. Paragraph 3.3.24 of the same document states that *'Waste may be stored at construction compounds for a limited amount of time to help to limit the number of vehicle movements to and from site'*. But that *'designated areas will be sited at least 10m away from drains and watercourses to limit risk of escape and contamination of water courses'*. Delivery of the approaches set out in the Waste Management Plan will be secured by DCO Requirement.
- 4.20 Vegetation within the working area will be regularly strimmed to ensure that water voles are dissuaded from colonising the working area. Where water voles are identified within the ditch or watercourse measures should be taken to ensure water voles are moved out of the area using standard displacement methods.

Displacement of water voles

- 4.21 Where short sections (50m or less) of ditches or watercourses will be affected water voles can be effectively moved out of the area using displacement methods. This is undertaken by degrading the habitats within and adjacent to the affected sections of ditch or watercourse.
- 4.22 IDB undertake regular maintenance of ditches in the Somerset Levels and there is the potential for IDB ditch clearance to coincide with National Grid's vegetation control. To reduce the potential for negative effects to arise if these works coincide the ECoW will contact IDB's ecologist ahead of any vegetation clearance works. The proposed timing and locations of displacement works will be shared with the aim of determining whether (if needed) IDB's or NG's works can be amended to reduce effects.
- 4.23 Water voles show high fidelity to their territories and therefore only small areas of habitat are suitable for displacement of water voles. The Water Vole Conservation Handbook 3rd Edition 2011, (Strachan et. al) considers that displacement and

vegetation management is appropriate for distances of up to 50m. Beyond this distance, passive displacement techniques are less successful, and sometimes there is a requirement to trap and translocate water voles to a place of refuge, under a licence from Natural England.

4.24 It is anticipated that the all of works undertaken as part of the development will affect individual sections of water vole habitat of less than 50m in length, and therefore displacement methods are suitable. Works that can be undertaken using displacement include:

- Temporary and permanent ditch/watercourse crossing points (culverts and bridges) – maximum working area width (14m).
- Installation of 132kV underground cable ducts through ditches/watercourses – approximate maximum working area width (35m).
- Installation of 400kV underground cable ducts through ditches/watercourses – approximate maximum working area width (45m).

Timing

4.25 Displacement methods are by far most effective, when implemented between late February and early April to ensure that animals are moved prior to young being born, after which moving animals using this method is unlikely to be effective. Given that construction is likely to be in phases, this results in the following survey/displacement timetable. It is expected that guidance will updated to recommend two survey visits (rather than one) are undertaken to accurately map water vole habitat use and provision for this change in approach has been incorporated into the following timetable:

- i. Construction Starting between March 1st 2016 (end of Q1 2016) and March 1st 2017 (end of Q1 2017)
 - a. Survey August/September 2015 and March/April 2016
 - b. Strim and displace February to April 2016
 - c. Commence construction as soon as vole displacement has been confirmed (or maintain low vegetation until start of construction)
- ii. Construction Starting between March 1st 2017 (end of Q1 2017) and March 1st 2018 (end of Q1 2018)
 - a. Survey March/April 2016 and August/September 2016
 - b. Strim and displace February to April 2017
 - c. Commence construction as soon as vole displacement has been confirmed (or maintain low vegetation until start of construction)
- iii. Construction Starting between March 1st 2018 (end of Q1 2018) and March 1st 2019 (end of Q1 2019)
 - a. Survey March/April 2017 and August/September 2017
 - b. Strim and displace February to April 2018
 - c. Commence construction as soon as vole displacement has been confirmed (or maintain low vegetation until start of construction)
- iv. Construction Starting between March 1st 2019 (end of Q1 2019) and March 1st 2020 (end of Q1 2020)
 - a. Survey March/April 2018 and August/September 2018
 - b. Strim and displace February to April 2019

- c. Commence construction as soon as vole displacement has been confirmed (or maintain low vegetation until start of construction)
- v. Construction Starting between March 1st 2020 (end of Q1 2020) and March 1st 2021 (end of Q1 2021)
 - a. Survey March/April 2019 and August/September 2019
 - b. Strim and displace February to April 2020
 - c. Commence construction as soon as vole displacement has been confirmed (or maintain low vegetation until start of construction)

Displacement Methods

- 4.26 An ecologist will mark the presence of all water vole burrows within the working area and 5m in each direction along the ditch or watercourse.
- 4.27 The working area and a buffer 5m upstream and downstream of the working area will be strimmed to bare ground. This applies whether or not water voles have been found. Vegetation will be cut to the top of the bank, or where longer vegetation is present, 5m from the top of the bank. Arisings will be raked away from the strimmed area.
- 4.28 Immediately following vegetation strimming the marked burrows will be inspected by an ecologist to ensure that burrows have not been blocked during vegetation cutting.
- 4.29 Daily monitoring of the burrows will be undertaken for a minimum of three days, until such a time that no evidence of water vole presence has been identified.
- 4.30 There is a small risk that water voles will remain within the affected burrows, notwithstanding the displacement proposals. Should this occur, a trapping licence will be obtained from Natural England and trapping will be undertaken utilizing best practice, in accordance with the Water Vole Conservation Handbook.
- 4.31 Upon completion of successful displacement, burrows will then be removed using destructive searching methods. Burrows will be excavated using hand tools, either by an ecologist or under the supervision of an ecologist. Any animals captured will be transferred to adjacent suitable habitats or allowed to disperse.
- 4.32 Following burrow destruction, remaining vegetation will be stripped using a machine, under the supervision of an ecologist. Any water voles disturbed during this process will be captured and moved to adjacent habitats.
- 4.33 The cleared area will be monitored for 2-4 hours for any further animal movements. Any water voles identified during this period will be captured and transferred to suitable adjacent habitats.
- 4.34 Following completion of the destructive search works should be undertaken as soon as possible, or where this is not possible, water voles will continue to be excluded from the area through regular repeat vegetation control, or through installation of water vole proof fencing, where conditions allow.
- 4.35 There is potential for water voles to be impacted during removal of culverts and bridges and therefore a repeat of the displacement methods will be undertaken for 5m each side of the crossing prior to removal.

- 4.36 On completion of works banks will be reinstated with locally derived topsoil, they will be profiled and allowed to re-vegetate, returning the habitat to water vole habitat. The banks will not be reseeded as advised by Natural England and will instead be allowed to re-vegetate naturally.

Sandford substation

- 4.37 A 560m section of ditch at the Sandford substation will be re-routed. According to the Water Vole Conservation Handbook works affecting stretches of ditch greater than 50m in length are unlikely to be suitable for relocation using displacement. The removed ditch will however be rerouted providing replacement habitat. The proposed landscape design of the Sandford substation is presented in **Annex 5** and this shows the route of the replacement ditch.
- 4.38 No evidence of water voles was identified within the ditch affected by works at Sandford substation during the 2012/2013 presence/absence surveys nor were any records revealed in this area during the desktop searches. It is therefore anticipated that no water vole mitigation will be required prior to infilling and realignment of this ditch. However, if water voles were identified within the affected ditch prior to commencement of works, new ditch habitats will be created and planted with specimens from the original ditch in advance of ditch infilling. A trapping and exclusion process would then be proposed and a licence application submitted to Natural England. Irrespective of the presence of water vole, provisions for draining down of watercourses including fish rescue are provided within the project's Biodiversity Mitigation Strategy which is an appendix to the Construction Environmental Management Plan and its delivery will be secured by DCO Requirement.
- 4.39 While draining down the ditch at the beginning of the construction period would eliminate the risk of colonisation of water voles, the drain down is linked to the realignment of the watercourse, which itself is restricted by the substation construction works. However, as the ditch is considered to be of low value for water voles, it has shallow banks and regularly dries out, as the photographs below show, the risk of colonisation is also considered to be low.

Photograph 1: View northeast along ditch at Sandford showing unsuitable banks and shallow water.



Photograph 2: View northeast towards Nye Road showing ditch drying out.



- 4.40 Construction of Sandford Substation is proposed between Q1 2018 and Q3 2020. Pre-commencement surveys at these ditches will be undertaken 18 months ahead of the ditch infilling so that if water voles are found replacement habitat will have time to be created and established.

5.0 MONITORING

- 5.1 Monitoring survey results will be provided to Natural England, Environment Agency, local planning authorities and Internal Drainage Boards (latter if requested).
- 5.2 During the pre-commencement surveys each ditch will be assessed and consideration will be given to the use of polystyrene rafts to aid monitoring for water vole activity. For example, where opportunities for latrines to be established or access for surveyors is limited, the use of rafts could increase detectability.
- 5.3 During the period of construction, monitoring and reporting will include the results of pre-commencement surveys and a summary of any displacement activity undertaken.
- 5.4 On completion of works and removal of temporary crossings, surveys will be undertaken according to the following protocol:
- 5.5 The CEMP and BMS sets out National Grid's approach to implementation of replacement habitats and monitoring of successful establishment including corrective actions which may include scrub management, additional seeding and planting.

6.0 LAND OWNERSHIP

Mitigation site ownership

- 6.1 National Grid has current ownership details for all ditches across the route and has been in contact with the landowners during the survey season. However landownership documentation is not provided at this time. Individual agreements for mitigation measures will be agreed with landowners. The DCO will confer rights on National Grid to enter land to undertake all water vole mitigation measures.

7.0 TIMETABLE OF WORKS

- 7.1 Chapter 4 sets out the timetabling of pre-commencement water vole surveys for all watercourses affected by the route. Table 1 outlines the anticipated start dates for the various construction elements of the Proposed Development.
- 7.2 Since construction will occur in phases, the pre-commencement surveys will also be carried out in phases.
- 7.3 Pre-commencement surveys will be carried out in August or September, which is the optimum time for finding voles. This also allows sufficient time for preparatory displacement or exclusion works, as detailed in Chapter 4 (paragraph 4.24). The survey will include all ditches which will be directly impacted by works, or where a minimum 5m buffer cannot be maintained.
- 7.4 In order to be effective displacement methods must be implemented between late February and early April to ensure that animals are moved prior to young being born, after which moving animals using this method is unlikely to be effective.

ANNEX 1

Water Vole Survey Results

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP14	No	No	No	No	No	No
TEP17	No	No	No	No	No	No
TEP68	Yes	Yes	Yes	Yes	No	Yes
TEP74	Yes	No	Yes	Yes	No	Yes
TEP92	No	No	No	No	No	No
TEP148	Yes	Yes	Yes	Yes	No	Yes
TEP162	No	No	No	No	No	No
TEP165	No	No	No	No	No	No
TEP166	Yes	No	Yes	Yes	No	Yes
TEP169	No	No	No	No	No	No
TEP172	No	Yes	Yes	Yes	No	Yes
TEP174	No	No	No	No	No	No
TEP176	Yes	No	Yes	Yes	No	Yes
TEP182	No	No	No	No	No	No
TEP185	No	No	No	No	No	No
TEP188	No	No	No	No	No	No
TEP200	No	No	No	No	No	No
TEP209	No	No	No	No	No	No
TEP210	No	No	No	No	No	No
TEP211	No	No	No	No	No	No
TEP216	No	No	No	No	No	No
TEP217	No	No	No	No	No	No
TEP232	No	No	No	No	No	No
TEP233	No	No	No	No	No	No
TEP237	Yes	Yes	Yes	Yes	No	Yes
TEP238	Yes	Yes	Yes	Yes	No	Yes
TEP246	Yes	Yes	Yes	Yes	No	Yes
TEP254	No	No	Yes	Yes	No	Yes
TEP256	No	No	No	No	No	No
TEP257	Yes	No	Yes	Yes	No	Yes
TEP258	Yes	Yes	Yes	Yes	No	Yes
TEP281	No	No	Yes	Yes	No	Yes
TEP285	Yes	No	Yes	Yes	No	Yes
TEP301	Yes	Yes	Yes	Yes	No	Yes
TEP303	Yes	No	Yes	Yes	No	Yes
TEP308	No	No	No	No	No	No
TEP313	Yes	No	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP314	No	No	Yes	Yes	No	Yes
TEP319	Yes	No	Yes	Yes	No	Yes
TEP321	No	No	No	No	No	No
TEP327	Yes	Yes	Yes	Yes	No	Yes
TEP334	Yes	No	No	Yes	No	No
TEP336	Yes	No	Yes	Yes	No	Yes
TEP337	No	No	No	No	No	No
TEP341	Yes	Yes	Yes	Yes	No	Yes
TEP343	Yes	Yes	Yes	Yes	No	Yes
TEP346	Yes	Yes	Yes	Yes	No	Yes
TEP348	Yes	No	Yes	Yes	No	Yes
TEP359	No	No	No	No	No	No
TEP364	Yes	Yes	Yes	Yes	No	Yes
TEP366	No	No	No	No	No	No
TEP372	Yes	Yes	Yes	Yes	No	Yes
TEP373	Yes	Yes	Yes	Yes	No	Yes
TEP375	No	No	No	No	No	No
TEP381	Yes	No	No	Yes	No	No
TEP386	No	No	No	No	No	No
TEP388	Yes	Yes	Yes	Yes	No	Yes
TEP389	No	No	No	No	No	No
TEP402	Yes	No	Yes	Yes	No	Yes
TEP407	Yes	Yes	Yes	Yes	No	Yes
TEP415	No	No	No	No	No	No
TEP416	Yes	Yes	Yes	Yes	No	Yes
TEP420	Yes	Yes	Yes	Yes	No	Yes
TEP425	No	No	No	No	No	No
TEP434	No	No	No	No	No	No
TEP441	Yes	Yes	Yes	Yes	No	Yes
TEP452	No	No	No	No	No	No
TEP470	Yes	Yes	Yes	Yes	No	Yes
TEP501	No	No	No	No	No	No
TEP515	No	No	No	No	No	No
TEP517	Yes	No	Yes	Yes	No	Yes
TEP521	No	No	No	No	No	No
TEP522	No	No	No	No	No	No
TEP524	No	No	No	No	No	No

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP528	Yes	Yes	Yes	Yes	No	Yes
TEP539	Yes	Yes	Yes	Yes	No	Yes
TEP547	Yes	No	Yes	Yes	No	Yes
TEP554	No	No	No	No	No	No
TEP556	Yes	Yes	Yes	Yes	Yes	Yes
TEP570	Yes	No	Yes	Yes	No	Yes
TEP573	No	No	No	No	No	No
TEP583	No	No	No	No	No	No
TEP587	Yes	Yes	Yes	Yes	No	Yes
TEP588	No	No	No	No	No	No
TEP594	No	No	No	No	No	No
TEP597	Yes	No	Yes	Yes	No	Yes
TEP603	No	No	No	No	No	No
TEP616	No	No	No	No	No	No
TEP618	Yes	No	Yes	Yes	No	Yes
TEP627	No	No	No	No	No	No
TEP635	Yes	No	Yes	Yes	No	Yes
TEP642	Yes	No	Yes	Yes	No	Yes
TEP643	No	No	No	No	No	No
TEP644	No	No	Yes	Yes	No	Yes
TEP648	Yes	Yes	Yes	Yes	No	Yes
TEP650	Yes	Yes	Yes	Yes	No	Yes
TEP653	No	No	Yes	Yes	No	Yes
TEP656	Yes	Yes	Yes	Yes	No	Yes
TEP659	No	No	No	Yes	No	Yes
TEP663	Yes	Yes	Yes	Yes	No	Yes
TEP665	No	No	No	No	No	No
TEP673	Yes	Yes	Yes	Yes	No	Yes
TEP677	Yes	Yes	Yes	Yes	No	Yes
TEP680	No	No	No	No	No	No
TEP708	Yes	No	No	Yes	No	Yes
TEP715	Yes	Yes	Yes	Yes	No	Yes
TEP721	Yes	Yes	Yes	Yes	No	Yes
TEP723	No	No	No	No	No	No
TEP727	Yes	Yes	Yes	Yes	No	Yes
TEP733	Yes	Yes	Yes	Yes	No	Yes
TEP734	Yes	Yes	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP736	Yes	Yes	Yes	Yes	No	Yes
TEP740	Yes	Yes	Yes	Yes	No	Yes
TEP751	No	No	No	No	No	No
TEP756	Yes	Yes	Yes	Yes	No	Yes
TEP758	Yes	No	Yes	Yes	No	Yes
TEP760	Yes	Yes	Yes	Yes	No	Yes
TEP772	No	No	No	No	No	No
TEP780	Yes	No	Yes	Yes	No	Yes
TEP782	No	No	No	No	No	No
TEP792	No	No	No	No	No	No
TEP797	No	No	No	No	No	No
TEP803	Yes	Yes	Yes	No	No	Yes
TEP806	N/S	N/S	N/S	N/S	N/S	N/S
TEP815	Yes	Yes	Yes	Yes	No	Yes
TEP816	Yes	Yes	Yes	Yes	No	Yes
TEP819	Yes	Yes	Yes	Yes	No	Yes
TEP822	Yes	Yes	Yes	Yes	No	Yes
TEP826	Yes	No	Yes	No	No	Yes
TEP829	Yes	Yes	Yes	Yes	No	Yes
TEP832	Yes	Yes	Yes	Yes	No	Yes
TEP837	No	No	No	No	No	No
TEP848	Yes	No	Yes	Yes	No	Yes
TEP852	Yes	Yes	Yes	Yes	No	Yes
TEP861	Yes	Yes	Yes	Yes	No	Yes
TEP862	Yes	No	Yes	Yes	No	Yes
TEP863	No	No	No	No	No	No
TEP865	Yes	Yes	Yes	Yes	No	Yes
TEP874	No	No	No	No	No	No
TEP885	Yes	No	Yes	Yes	No	Yes
TEP891	Yes	No	Yes	Yes	No	Yes
TEP901	Yes	Yes	Yes	Yes	No	Yes
TEP903	Yes	No	Yes	Yes	No	Yes
TEP905	Yes	Yes	Yes	Yes	No	Yes
TEP906	Yes	No	Yes	Yes	No	Yes
TEP907	Yes	Yes	Yes	Yes	No	Yes
TEP909	Yes	Yes	Yes	Yes	No	Yes
TEP910	Yes	Yes	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP911	Yes	Yes	Yes	Yes	No	Yes
TEP914	Yes	Yes	Yes	Yes	No	Yes
TEP916	Yes	No	Yes	Yes	No	Yes
TEP924	Yes	Yes	Yes	Yes	No	Yes
TEP934	Yes	No	Yes	Yes	No	Yes
TEP945	Yes	Yes	Yes	Yes	No	Yes
TEP952	Yes	No	Yes	Yes	No	Yes
TEP955	No	No	No	No	No	No
TEP960	Yes	Yes	Yes	Yes	No	Yes
TEP969	No	No	No	No	No	No
TEP970	No	No	No	No	No	No
TEP971	Yes	No	Yes	Yes	No	Yes
TEP976	Yes	No	Yes	Yes	No	Yes
TEP978	Yes	No	Yes	Yes	No	Yes
TEP984	Yes	Yes	Yes	Yes	No	Yes
TEP991	Yes	No	Yes	Yes	No	Yes
TEP992	Yes	Yes	Yes	Yes	No	Yes
TEP998	Yes	Yes	Yes	Yes	No	Yes
TEP1001	Yes	Yes	Yes	Yes	Yes	Yes
TEP1005	Yes	Yes	No	Yes	No	Yes
TEP1006	Yes	Yes	Yes	Yes	No	Yes
TEP1010	No	No	No	No	No	No
TEP1012	No	No	No	No	No	No
TEP1013	Yes	No	Yes	Yes	No	Yes
TEP1015	Yes	Yes	Yes	Yes	No	Yes
TEP1017	Yes	Yes	Yes	Yes	No	Yes
TEP1018	Yes	No	Yes	Yes	No	Yes
TEP1019	Yes	No	Yes	Yes	No	Yes
TEP1023	Yes	Yes	Yes	Yes	No	Yes
TEP1024	Yes	Yes	Yes	Yes	No	Yes
TEP1029	Yes	Yes	Yes	Yes	No	Yes
TEP1030	No	No	No	No	No	No
TEP1033	Yes	No	Yes	Yes	No	Yes
TEP1043	Yes	No	Yes	Yes	No	Yes
TEP1046	No	No	No	No	No	No
TEP1048	No	No	No	No	No	No
TEP1054	No	No	No	No	No	No

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP1058	No	No	No	No	No	No
TEP1062	No	No	No	No	No	No
TEP1065	No	No	No	No	No	No
TEP1069	Yes	Yes	No	Yes	No	Yes
TEP1070	Yes	Yes	Yes	Yes	No	Yes
TEP1074	No	No	No	No	No	No
TEP1095	No	No	No	No	No	No
TEP1099	Yes	Yes	Yes	Yes	No	Yes
TEP1110	Yes	Yes	Yes	Yes	No	Yes
TEP1112	Yes	No	No	No	No	Yes
TEP1121	Yes	No	No	No	No	Yes
TEP1122	Yes	No	Yes	No	No	Yes
TEP1124	Yes	No	No	No	No	Yes
TEP1127	Yes	Yes	Yes	Yes	No	Yes
TEP1128	Yes	Yes	Yes	Yes	No	Yes
TEP1132	Yes	No	Yes	Yes	No	Yes
TEP1136	Yes	Yes	Yes	Yes	No	Yes
TEP1137	Yes	Yes	No	Yes	No	Yes
TEP1138	Yes	Yes	Yes	Yes	No	Yes
TEP1141	Yes	Yes	Yes	Yes	No	Yes
TEP1142	Yes	Yes	Yes	Yes	No	Yes
TEP1143	Yes	Yes	Yes	Yes	No	Yes
TEP1146	Yes	No	Yes	No	No	Yes
TEP1147	Yes	Yes	Yes	Yes	No	Yes
TEP1148	Yes	Yes	Yes	Yes	No	Yes
TEP1156	Yes	Yes	No	Yes	No	Yes
TEP1166	Yes	Yes	No	Yes	No	Yes
TEP1168	Yes	Yes	Yes	Yes	No	Yes
TEP1171	Yes	Yes	Yes	Yes	No	Yes
TEP1174	Yes	Yes	No	Yes	No	Yes
TEP1178	Yes	No	Yes	Yes	No	Yes
TEP1187	Yes	Yes	Yes	Yes	No	Yes
TEP1189	Yes	Yes	Yes	Yes	No	Yes
TEP1196	Yes	Yes	Yes	Yes	No	Yes
TEP1200	Yes	Yes	Yes	Yes	No	Yes
TEP1202	Yes	Yes	Yes	Yes	No	Yes
TEP1206	Yes	Yes	No	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP1207	Yes	Yes	Yes	Yes	No	Yes
TEP1209	Yes	Yes	Yes	Yes	No	Yes
TEP1210	Yes	Yes	Yes	Yes	No	Yes
TEP1212	Yes	Yes	Yes	Yes	No	Yes
TEP1213	Yes	No	Yes	Yes	No	Yes
TEP1215	Yes	Yes	Yes	Yes	No	Yes
TEP1223	Yes	Yes	No	Yes	No	Yes
TEP1230	Yes	Yes	Yes	Yes	No	Yes
TEP1232	Yes	Yes	Yes	Yes	No	Yes
TEP1233	Yes	Yes	Yes	Yes	No	Yes
TEP1236	Yes	Yes	Yes	Yes	No	Yes
TEP1240	Yes	Yes	Yes	Yes	No	Yes
TEP1241	No	No	No	No	No	No
TEP1243	Yes	No	Yes	Yes	No	Yes
TEP1248	No	No	No	No	No	No
TEP1250	Yes	No	Yes	Yes	No	Yes
TEP1252	Yes	No	Yes	Yes	No	Yes
TEP1260	Yes	Yes	Yes	Yes	No	Yes
TEP1263	No	No	No	No	No	No
TEP1265	Yes	Yes	Yes	Yes	No	Yes
TEP1269	Yes	No	Yes	Yes	No	Yes
TEP1274	Yes	Yes	Yes	Yes	No	Yes
TEP1276	Yes	Yes	No	Yes	No	Yes
TEP1277	Yes	Yes	Yes	Yes	No	Yes
TEP1278	Yes	Yes	No	Yes	No	Yes
TEP1282	No	No	No	No	No	No
TEP1286	Yes	Yes	No	Yes	No	Yes
TEP1293	N/S	N/S	N/S	N/S	N/S	N/S
TEP1294	No	No	No	No	No	No
TEP1296	Yes	Yes	Yes	Yes	No	Yes
TEP1297	Yes	Yes	Yes	Yes	No	Yes
TEP1298	Yes	Yes	Yes	Yes	No	Yes
TEP1299	Yes	Yes	Yes	Yes	No	Yes
TEP1301	Yes	Yes	Yes	Yes	No	Yes
TEP1303	Yes	No	Yes	Yes	No	Yes
TEP1304	Yes	Yes	No	Yes	No	Yes
TEP1307	No	No	No	No	No	No

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP1308	Yes	No	Yes	Yes	No	Yes
TEP1311	No	No	No	No	No	No
TEP1312	No	No	No	No	No	No
TEP1317	No	No	No	No	No	No
TEP1318	No	No	No	No	No	No
TEP1320	No	No	No	No	No	No
TEP1323	No	No	No	No	No	No
TEP1330	No	No	No	No	No	No
TEP1331	No	No	No	No	No	No
TEP1338	Yes	No	Yes	Yes	No	Yes
TEP1344	No	No	No	No	No	No
TEP1346	No	No	No	No	No	No
TEP1348	Yes	No	Yes	Yes	No	Yes
TEP1350	No	No	No	No	No	No
TEP1364	No	No	No	No	No	No
TEP1379	Yes	Yes	Yes	Yes	No	Yes
TEP1382	Yes	No	Yes	Yes	No	Yes
TEP1385	No	No	Yes	Yes	No	Yes
TEP1388	Yes	No	No	Yes	No	Yes
TEP1389	No	No	No	No	No	No
TEP1392	Yes	No	Yes	Yes	No	Yes
TEP1395	Yes	Yes	Yes	Yes	No	Yes
TEP1410	Yes	Yes	Yes	Yes	No	Yes
TEP1413	Yes	Yes	Yes	Yes	No	Yes
TEP1441	Yes	No	Yes	Yes	No	Yes
TEP1447	Yes	No	Yes	Yes	No	Yes
TEP1450	Yes	No	Yes	No	No	Yes
TEP1471	Yes	No	No	Yes	No	Yes
TEP1474	Yes	No	Yes	Yes	No	Yes
TEP1491	Yes	No	Yes	Yes	No	Yes
TEP1502	Yes	No	Yes	Yes	No	Yes
TEP1525	Yes	No	Yes	Yes	No	Yes
TEP1554	Yes	Yes	Yes	Yes	No	Yes
TEP1559	No	No	No	No	No	No
TEP1565	Yes	Yes	Yes	Yes	No	Yes
TEP1586	Yes	No	No	Yes	No	Yes
TEP1596	Yes	No	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP1606	Yes	Yes	Yes	Yes	No	Yes
TEP1641	No	No	No	No	No	No
TEP1642	No	No	No	Yes	No	Yes
TEP1667	No	No	No	No	No	No
TEP1674	No	No	No	No	No	No
TEP1694	No	No	No	No	No	No
TEP1705	No	No	No	No	No	No
TEP1718	Yes	No	Yes	Yes	No	Yes
TEP1721	Yes	No	Yes	Yes	No	Yes
TEP1726	Yes	No	Yes	Yes	No	Yes
TEP1759	No	No	No	No	No	No
TEP1765	Yes	No	Yes	Yes	No	Yes
TEP1807	Yes	Yes	Yes	Yes	No	Yes
TEP1815	Yes	No	Yes	Yes	No	Yes
TEP1827	Yes	Yes	Yes	Yes	No	Yes
TEP1832	No	No	No	Yes	No	Yes
TEP1833	No	No	No	No	No	No
TEP1854	No	No	No	No	No	No
TEP1857	Yes	No	Yes	Yes	No	Yes
TEP1880	Yes	Yes	Yes	Yes	No	Yes
TEP1883	Yes	Yes	Yes	Yes	No	Yes
TEP1909	Yes	Yes	Yes	Yes	No	Yes
TEP1921	Yes	Yes	Yes	Yes	No	Yes
TEP1927	Yes	Yes	Yes	Yes	No	Yes
TEP1932	No	No	No	No	No	No
TEP1942	Yes	Yes	Yes	Yes	No	Yes
TEP1954	No	No	No	No	No	No
TEP1963	Yes	Yes	Yes	Yes	No	Yes
TEP1966	No	No	No	Yes	No	Yes
TEP1983	Yes	Yes	Yes	Yes	No	Yes
TEP1992	Yes	Yes	Yes	Yes	No	Yes
TEP1993	Yes	Yes	Yes	Yes	No	Yes
TEP1997	No	No	No	No	No	No
TEP2000	No	No	No	No	No	No
TEP2015	No	No	No	No	No	No
TEP2025	No	No	No	No	No	No
TEP2031	Yes	No	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP2033	No	No	No	No	No	No
TEP2045	No	No	No	No	No	No
TEP2059	No	No	No	No	No	No
TEP2069	No	No	No	No	No	No
TEP2076	No	No	No	No	No	No
TEP2086	No	No	No	No	No	No
TEP2093	No	No	No	No	No	No
TEP2097	Yes	Yes	Yes	Yes	No	Yes
TEP2099	No	No	No	No	No	No
TEP2102	Yes	Yes	Yes	Yes	No	Yes
TEP2106	No	No	No	Yes	No	No
TEP2116	No	No	No	No	No	No
TEP2117	Yes	Yes	Yes	Yes	No	Yes
TEP2118	Yes	Yes	Yes	Yes	No	Yes
TEP2119	Yes	Yes	Yes	Yes	No	Yes
TEP2128	Yes	Yes	Yes	Yes	No	Yes
TEP2137	Yes	Yes	Yes	Yes	No	Yes
TEP2139	Yes	Yes	Yes	Yes	No	Yes
TEP2142	No	No	No	No	No	No
TEP2145	Yes	Yes	Yes	Yes	No	Yes
TEP2153	Yes	Yes	Yes	Yes	No	Yes
TEP2160	Yes	Yes	Yes	Yes	No	Yes
TEP2165	Yes	No	Yes	Yes	No	Yes
TEP2167	Yes	Yes	Yes	Yes	No	Yes
TEP2169	Yes	Yes	Yes	Yes	No	Yes
TEP2182	Yes	Yes	No	Yes	No	Yes
TEP2188	Yes	Yes	No	Yes	No	Yes
TEP2192	Yes	Yes	Yes	Yes	No	Yes
TEP2195	Yes	Yes	Yes	Yes	No	Yes
TEP2208	Yes	Yes	Yes	Yes	No	Yes
TEP2209	No	No	Yes	Yes	No	Yes
TEP2210	Yes	Yes	Yes	Yes	No	Yes
TEP2216	Yes	No	Yes	Yes	No	Yes
TEP2218	Yes	Yes	Yes	Yes	No	Yes
TEP2223	Yes	Yes	Yes	Yes	No	Yes
TEP2230	Yes	Yes	Yes	Yes	No	Yes
TEP2232	Yes	Yes	Yes	Yes	No	Yes

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP2233	Yes	Yes	Yes	Yes	No	Yes
TEP2239	Yes	No	Yes	Yes	No	Yes
TEP2241	Yes	Yes	Yes	Yes	No	Yes
TEP2254	Yes	Yes	Yes	Yes	No	Yes
TEP2258	Yes	Yes	Yes	Yes	No	Yes
TEP2264	Yes	Yes	Yes	Yes	No	Yes
TEP2279	Yes	Yes	Yes	Yes	No	Yes
TEP2282	Yes	No	Yes	Yes	No	Yes
TEP2283	Yes	Yes	Yes	Yes	No	Yes
TEP2286	Yes	No	Yes	Yes	No	Yes
TEP2291	Yes	Yes	Yes	Yes	No	Yes
TEP2294	Yes	Yes	Yes	Yes	No	Yes
TEP2297	Yes	Yes	Yes	Yes	No	Yes
TEP2305	Yes	Yes	Yes	Yes	No	Yes
TEP2309	No	No	No	No	No	No
TEP2313	Yes	Yes	Yes	Yes	No	Yes
TEP2314	Yes	Yes	Yes	Yes	No	Yes
TEP2333	Yes	Yes	Yes	Yes	No	Yes
TEP2339	No	No	No	No	No	No
TEP2347	No	No	No	No	No	No
TEP2349	Yes	Yes	Yes	Yes	Yes	Yes
TEP2352	Yes	Yes	Yes	Yes	No	Yes
TEP2413	No	No	No	No	No	No
TEP2427	No	No	No	No	No	No
TEP2438	No	No	No	No	No	No
TEP2444	Yes	No	Yes	Yes	No	Yes
TEP2446	No	No	Yes	Yes	No	Yes
TEP2452	No	No	No	No	No	No
TEP2453	No	No	No	No	No	No
TEP2461	No	No	No	No	No	No
TEP2462	Yes	Yes	Yes	Yes	No	Yes
TEP2464	No	No	No	No	No	No
TEP2465	Yes	No	Yes	Yes	No	Yes
TEP2476	Yes	Yes	Yes	Yes	No	Yes
TEP2484	Yes	Yes	Yes	Yes	No	Yes
TEP2486	No	No	No	No	No	No
TEP2489	Yes	Yes	Yes	Yes	No	Yes

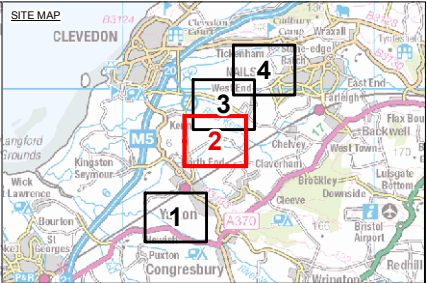
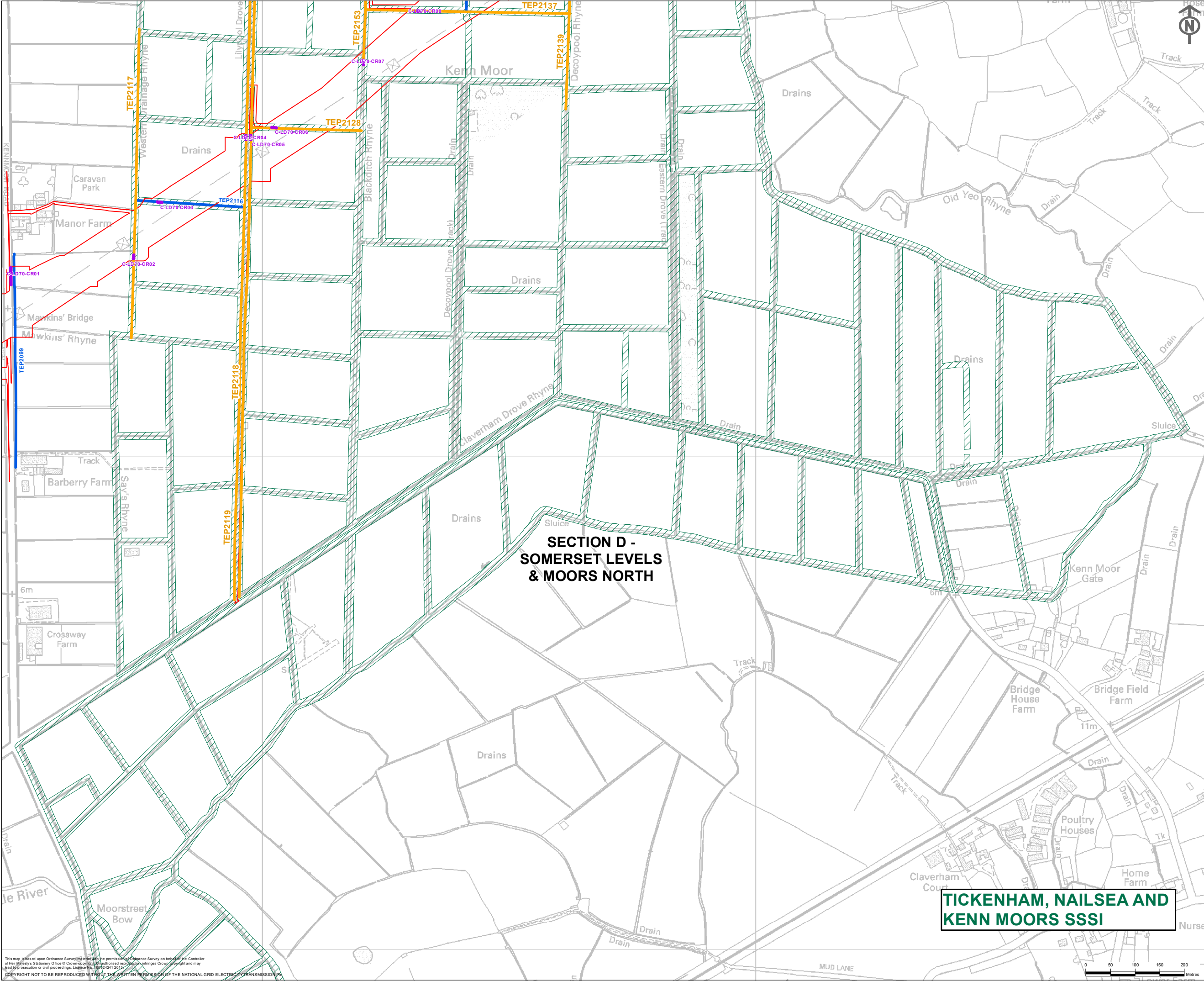
Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP2490	No	No	No	No	No	No
TEP2491	No	No	No	No	No	No
TEP2492	Yes	Yes	Yes	Yes	No	Yes
TEP2510	No	No	No	No	No	No
TEP2511	No	No	No	No	No	No
TEP2514	Yes	Yes	Yes	Yes	No	Yes
TEP2515	Yes	Yes	Yes	Yes	No	Yes
TEP2517	Yes	Yes	Yes	Yes	No	Yes
TEP2519	Yes	Yes	Yes	Yes	No	Yes
TEP2522	No	No	No	No	Yes	Yes
TEP2523	Yes	Yes	Yes	Yes	No	Yes
TEP2529	No	No	No	No	No	No
TEP2536	Yes	Yes	Yes	Yes	No	Yes
TEP2537	No	No	No	No	No	No
TEP2538	Yes	Yes	Yes	Yes	No	Yes
TEP2540	No	No	No	No	No	No
TEP2541	Yes	Yes	Yes	Yes	No	Yes
TEP2543	Yes	Yes	Yes	Yes	No	Yes
TEP2549	No	No	Yes	Yes	No	Yes
TEP2551	No	No	No	No	No	No
TEP2562	No	No	No	No	No	No
TEP2564	No	No	No	No	No	No
TEP2569	Yes	Yes	Yes	Yes	No	Yes
TEP2570	No	No	No	No	No	No
TEP2574	Yes	Yes	Yes	Yes	No	Yes
TEP2577	Yes	Yes	Yes	Yes	No	Yes
TEP2581	No	No	No	No	No	No
TEP2584	Yes	Yes	Yes	Yes	No	Yes
TEP2586	No	No	No	No	No	No
TEP2589	Yes	Yes	Yes	Yes	No	Yes
TEP2594	No	No	No	No	No	No
TEP2595	No	No	No	No	No	No
TEP2601	No	No	No	No	No	No
TEP2609	Yes	No	Yes	Yes	No	Yes
TEP2622	Yes	Yes	Yes	Yes	No	Yes
TEP2623	Yes	Yes	Yes	Yes	No	Yes
TEP2624	No	No	No	No	No	No

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP2643	No	No	No	No	No	No
TEP2649	No	No	No	No	No	No
TEP2651	No	No	No	No	No	No
TEP2658	No	No	No	No	No	No
TEP2666	Yes	No	Yes	Yes	No	Yes
TEP2687	N/S	N/S	N/S	N/S	N/S	N/S
TEP2691	N/S	N/S	N/S	N/S	N/S	N/S
TEP2694	N/S	N/S	N/S	N/S	N/S	N/S
TEP2699	Yes	Yes	Yes	Yes	No	Yes
TEP2714	No	No	No	No	No	No
TEP2715	No	No	No	No	No	No
TEP2720	Yes	No	Yes	Yes	No	Yes
TEP2912	Yes	Yes	Yes	Yes	No	Yes
TEP2913	No	No	No	No	No	No
TEP2914	Yes	Yes	Yes	Yes	No	Yes
TEP2915	Yes	Yes	Yes	Yes	No	Yes
TEP2916	No	No	No	No	No	No
TEP2917	Yes	Yes	Yes	Yes	No	Yes
TEP2918	No	No	No	No	No	No
TEP2919	No	No	No	No	No	No
TEP2920	No	No	No	No	No	No
TEP2921	No	No	No	No	No	No
TEP2922	No	No	No	No	No	No
TEP2923	No	No	No	No	No	No
TEP2924	No	No	No	No	No	No
TEP2925	No	No	No	No	No	No
TEP2926	No	No	No	No	No	No
TEP2927	No	No	No	No	No	No
TEP2929	No	No	No	No	No	No
TEP2930	No	No	No	No	No	No
TEP2931	No	No	No	No	No	No
TEP2932	No	No	No	No	No	No
TEP2933	No	No	No	No	No	No
TEP2934	Yes	Yes	Yes	Yes	No	Yes
TEP2935	No	No	No	No	No	No
TEP2936	Yes	No	No	Yes	No	Yes
TEP2937	No	No	No	No	No	No

Ditch No.	Water Vole Signs Observed					Water Vole Present
	Burrows	Latrine	Feeding Remains	Runs	Sighting	
TEP2938	Yes	No	Yes	Yes	No	Yes
TEP2939	No	No	No	No	No	No
TEP2943	Yes	No	Yes	Yes	No	Yes
TEP2987	Yes	No	Yes	Yes	No	Yes
TEP2988	Yes	NO	No	Yes	No	Yes
TEP2989	No	No	No	No	No	No
TEP2990	No	No	No	No	No	No
TEP2991	Yes	Yes	Yes	Yes	No	Yes
TEP3005	No	No	No	No	No	No
TEP3012	No	No	No	No	No	No
TEP3013	No	No	No	No	No	No
TEP3014	No	No	No	No	No	No
TEP3020	No	No	No	No	No	No
TEP3022	Yes	Yes	Yes	Yes	No	Yes
TEP3023	Yes	Yes	Yes	Yes	No	Yes
TEP3025	Yes	Yes	Yes	Yes	No	Yes
TEP3029	Yes	No	Yes	Yes	No	Yes
TEP3033	Yes	No	Yes	Yes	No	Yes
TEP3036	Yes	Yes	Yes	Yes	No	Yes
TEP3044	No	No	No	No	No	No
TEP3045	No	No	No	No	No	No
TEP3046	No	No	No	No	No	No
TEP3047	No	No	No	No	No	No
TEP3048	No	No	No	No	No	No
TEP3049	No	No	No	No	No	No
TEP3050	No	No	No	No	No	No
TEP3051	No	No	No	No	No	No
TEP3052	No	No	No	No	No	No
TEP3053	No	No	No	No	No	No

ANNEX 2

Plans showing works within SSSIs and related water vole survey results



Key

- Water Vole Evidence Found
- No Water Vole Evidence Found
- Sites of Special Scientific Interest (SSSI)

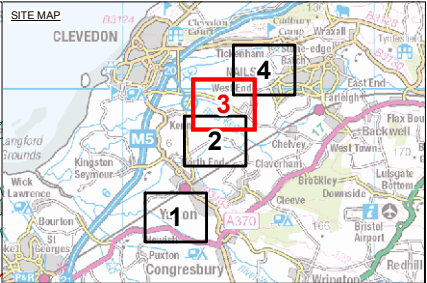
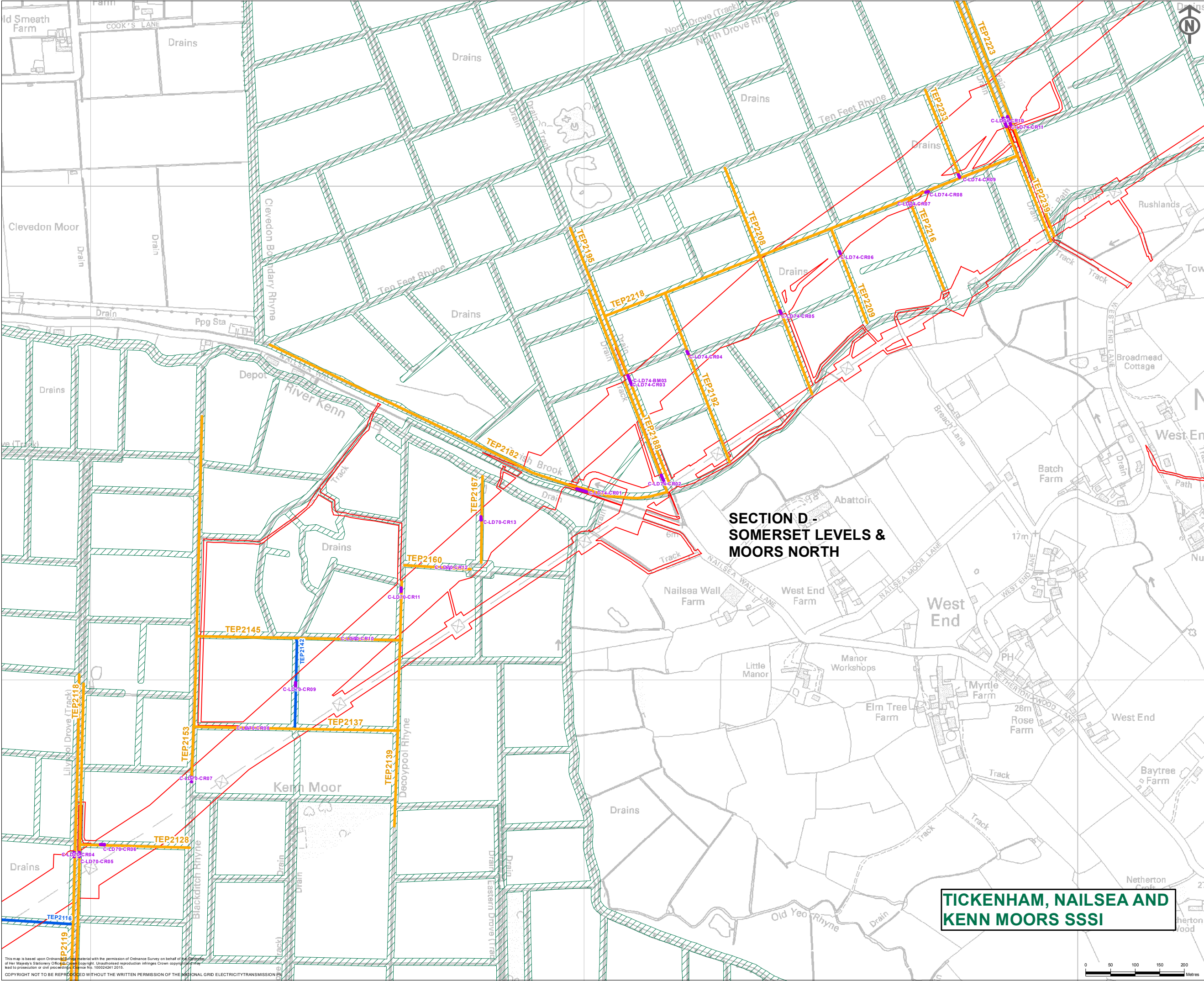
Proposed Infrastructure

- Order Limits
- Culverts

**SECTION D -
SOMERSET LEVELS
& MOORS NORTH**

**TICKENHAM, NAILSEA AND
KENN MOORS SSSI**

B	06/07/2015	UPDATED CULVERT LOCATIONS	JS	EP/KS	EJS
A	29/01/2015	FIRST ISSUE	JS	EP/KS	EJS
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
<u>Title</u> NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)					
DITCHES WITH WATER VOLE EVIDENCE AND PROPOSED CULVERTS INTERSECTING TICKENHAM, NAILSEA AND KENN MOORS SSSI					
 National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	FIGURE No.			GIS	
20897	-			A3	
DRAWING No.	G1979.2516.2B			SCALE 1:7,000	
				ISSUE B	
SHEET 2 of 4					



- Key**
- Water Vole Evidence Found
 - No Water Vole Evidence Found
 - Sites of Special Scientific Interest (SSSI)
- Proposed Infrastructure**
- Order Limits
 - Culverts

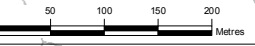
**SECTION D -
SOMERSET LEVELS &
MOORS NORTH**

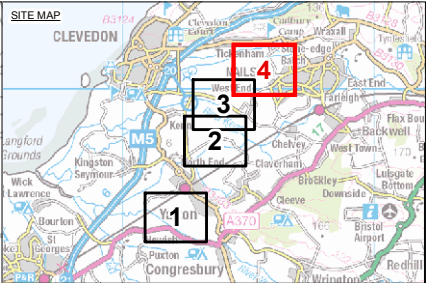
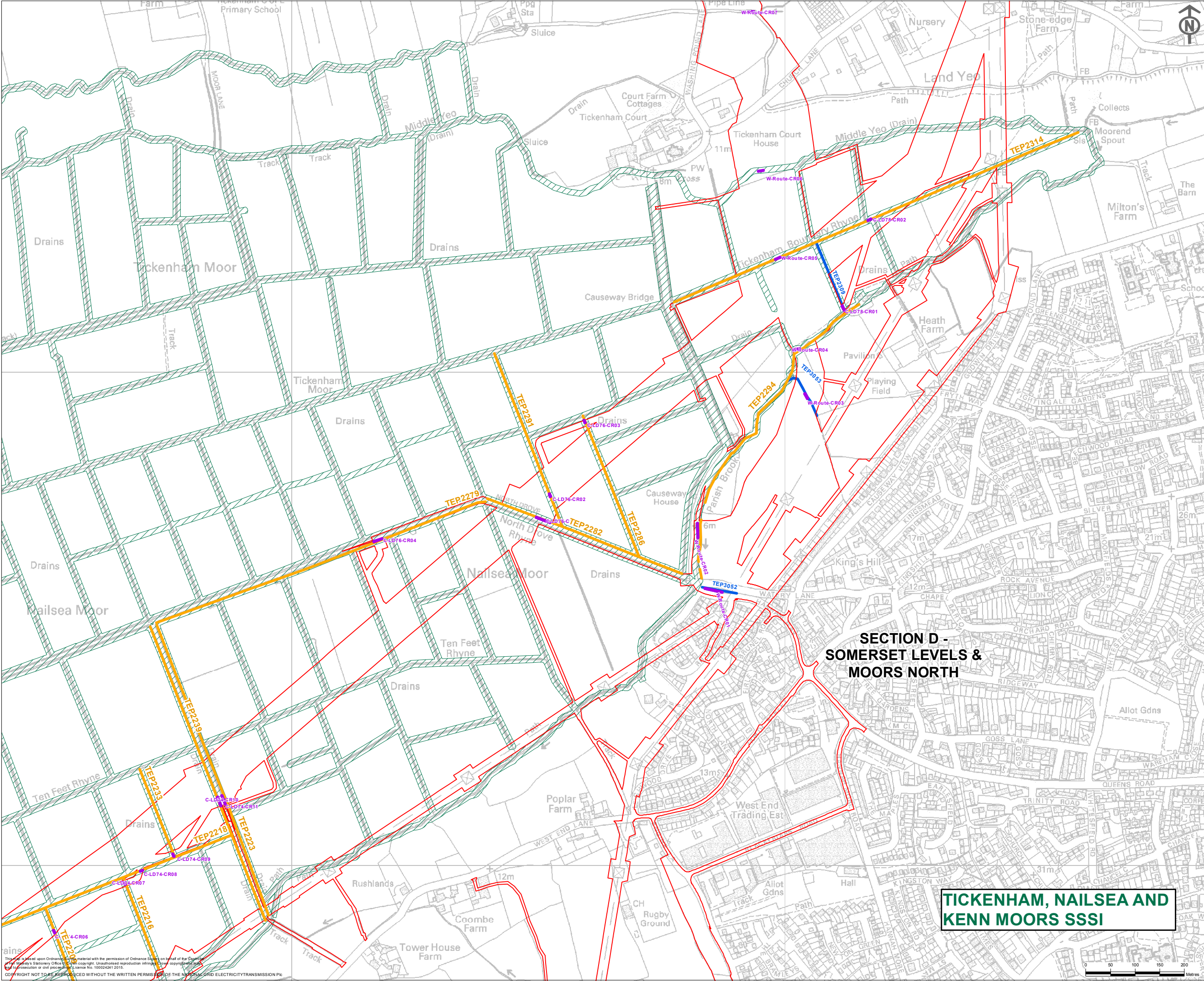
**TICKENDAM, NAILSEA AND
KENN MOORS SSSI**

B	06/07/2015	UPDATED CULVERT LOCATIONS		JS	EP/KS	EJS
A	29/01/2015	FIRST ISSUE		JS	EP/KS	EJS
ISSUE	DATE	COMMENTS		DRAW	CHKD	APP'D
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) DITCHES WITH WATER VOLE EVIDENCE AND PROPOSED CULVERTS INTERSECTING TICKENHAM, NAILSEA AND KENN MOORS SSSI						
nationalgrid National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA						
NG INVESTMENT No.		FIGURE No.		GIS		
20897		-		A3		
DRAWING No.				SCALE		
G1979.2516.3B				1:7,000		
				ISSUE		
SHEET 3 of 4				B		

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- Key**
- Water Vole Evidence Found
 - No Water Vole Evidence Found
 - Sites of Special Scientific Interest (SSSI)
- Proposed Infrastructure**
- Order Limits
 - Culverts

**SECTION D -
SOMERSET LEVELS &
MOORS NORTH**

**TICKENHAM, NAILSEA AND
KENN MOORS SSSI**

B	06/07/2015	UPDATED CULVERT LOCATIONS	JS	EP/KS	EJS
A	29/01/2015	FIRST ISSUE	JS	EP/KS	EJS
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
Title					
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)					
DITCHES WITH WATER VOLE EVIDENCE AND PROPOSED CULVERTS INTERSECTING TICKENHAM, NAILSEA AND KENN MOORS SSSI					
nationalgrid					
National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	FIGURE No.		GIS		
20897	-		A3		
DRAWING No.	G1979.2516.4B			SCALE	
				1:7,000	
SHEET 4 of 4			ISSUE		B

ANNEX 3

Qualitative impact on water vole ditches

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
SECTION A – PURITON RIDGE							
TEP148	VQ043R-CR01	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
SECTION B – SOMERSET LEVELS & MOORS SOUTH							
TEP237	C-ZGA4-CR01	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP238	C-ZGA4-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP281	C-LD3-CR01	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP285	C-ZGA13-CR01	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP301	C-LD3-CR06	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP303	C-LD3-CR02	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP313	C-LD3-CR03	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP314	C-LD3-CR04	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP319	C-LD3-CR05	Yes	Y	Unassigned crossing type for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP327	C-LD3-CR07	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP341	C-LD3-CR08	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP346	C-LD3-CR09	Yes	Y	Unassigned crossing type for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP364	C-LD9-CR04 C-LD9-CR05	Yes	N	2 x culverts for haul road associated with 400kV OHL	2 x 6m 2x 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP372	C-LD9-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP373	C-LD9-CR01	Yes	N	Culvert for haul road associated with	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
				400kV OHL			
TEP381	C-LD9-CR07	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP388	C-LD9-CR08	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP402	C-LD9-CR09	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP416	C-LD9-CR10	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP420	C-LD9-CR11	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP441	C-LD9-CR12	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP547	C-LD10-CR57	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP556	C-LD10-CR58	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP708	C-LD10-CR47	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP727	C-LD10-CR45	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP734	C-LD10-CR44	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP756	C-LD10-CR43	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP760	C-LD10-CR42	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP780	C-LD10-CR40	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP815	C-LD10-CR39	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP816	C-LD10-CR38	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP826	C-LD10-CR37	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP832	C-LD10-CR36	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP861	C-LD10-CR35	Yes	Y	Unassigned crossing type for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP862	C-LD10-CR32	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP885	C-LD10-CR31	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP891	C-LD10-CR30	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP903	C-LD10-CR29	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP905	C-LD10-CR28	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP907	C-LD10-CR26	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP910	C-LD10-CR26	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP911	C-LD10-CR27	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP924	C-LD10-CR25	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP934	C-LD10-CR24	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP945	C-LD10-CR23	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP952	C-LD10-CR22	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP971	C-LD10-CR21	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP976	C-LD10-CR20	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP978	C-LD10-CR19	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP991	C-LD10-CR17	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP992	C-LD10-CR18	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1001	C-LD10-CR16	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1015	C-LD10-CR13	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1018	C-LD10-CR14	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1019	C-LD10-CR12	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1023	C-LD10-CR11	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1024	C-LD10-CR10	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1099	C-LD38-CR04	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1110	C-LD38-CR04 C-LD38-CR03	Yes	N	2 x culverts for haul road associated with 400kV OHL	2 x 6m 2 x 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1112	C-LD38-CR03	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1121	C-LD38-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1122	C-LD38-CR01	Yes	N	Unassigned crossing type for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1127	400-UG-CR04	Yes	N	Unassigned crossing type for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1128	400-UG-CR03	Yes	Y	Culvert for haul road associated with 400kV Underground	13m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1136	400-UG-CR05	Yes	Y	Bridge for haul road associated with 400kV Underground	13m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1137	400-UG-CR02	Yes	N	Bridge for haul road	9m	Medium term	6 1/4 years

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
				associated with 400kV Underground	4m	Short term	1-2 weeks
TEP1141	400-UG-CR06	Yes	N	Culvert for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1147	400-UG-CR07	Yes	N	Culvert for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1148	400-UG-CR08	Yes	Y	Bridge for haul road associated with 400kV Underground	13m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1156	400-UG-CR09	Yes	N	Culvert for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1171	400-UG-CR10	Yes	N	Culvert for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1178	400-UG-CR11	Yes	N	Bridge for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1196	400-UG-CR17	Yes	N	Unassigned crossing type for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1200	400-UG-CR12 400-UG-CR13	Yes	N	2 x bridges for haul road associated with 400kV Underground	2 x 9m 2 x 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1206	400-UG-CR16 400-UG-CR14	Yes	N	Bridge for haul road associated with 400kV Underground	9m 4m	Medium term Short term	6 1/4 years 1-2 weeks
	400-UG-CR18 400-UG-CR15			Bridge and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1209	400-UG-CR20	Yes	N	Bridge for haul road associated with 400kV Underground	9m 4m	Medium term Short term	1-2 weeks 6 1/4 years
	400-UG-CR19			Culvert and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1212	400-UG-CR22	Yes	N	Culvert and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1213	400-UG-CR24	Yes	N	Culvert and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1215	400-UG-CR06	Yes	N	Unassigned crossing type for haul road and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1233	400-UG-CR07	Yes	N	Bridge for haul road and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP2938	C-LD10-CR55	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP2943	C-LD10-CR53	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2991	400-UG-CR21 400-UG-CR23	Yes	N	2 x bridges for haul road associated with 400kV Underground (2 options, only 1 to be completed)	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
SECTION C – MENDIP HILLS AONB							
TEP1269 (TEP2999)	400-UG-CR27	Yes	N	Unassigned crossing type for haul road and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1298	400-UG-CR45	Yes	N	Bridge for haul road and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
TEP1303	400-UG-CR50	Yes	N	Culvert and 4 ducts for 400kV Underground	45m 9m	Short term Medium term	3-6 weeks 6 1/4 years
SECTION D – SOMERSET LEVELS & MOORS NORTH							
TEP1338	AT30-CR02	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1348	AT30-CR03	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1379	C-LD39-CR20	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1382	AT29-CR07	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1388	C-LD39-CR19	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1392	AT29-CR06	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1410	C-LD39-CR18	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1441	AT29-CR05	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1447	AT29-CR04	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1450	C-LD39-CR17	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1471	C-LD39-CR16	Yes	Y	Unassigned crossing type for haul road associated with	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
				400kV OHL			
TEP1474	AT29-CR03	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1491	C-LD39-CR15	Yes	Y	Unassigned crossing type for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1502	AT29-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1525	C-LD39-CR14	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1554	C-LD39-CR13	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1565	C-LD39-CR12	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1586	C-LD39-CR11	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1596	C-LD39-CR10	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1606	C-LD39-CR09	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1642	C-LD39-CR07	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1718	C-LD39-CR02	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1765	C-LD53-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1807	C-LD53-CR03	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1815	C-LD53-CR05	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1827	C-LD53-CR06	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1857	C-LD54-CR18	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1880	C-LD54-CR17	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP1883	C-LD54-CR16	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1909	C-LD54-CR15	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1921	C-LD54-CR14	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1927	C-LD54-CR13	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1942	C-LD54-CR11	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1966	C-LD54-CR09	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1992	C-LD54-CR08	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP1993	C-LD54-CR06	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2031	C-LD54-CR04	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2097	C-LD62-CR01	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2117	C-LD70-CR02	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2118	C-LD70-CR05	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2119	C-LD70-CR04	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2128	C-LD70-CR06	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2137	C-LD70-CR08	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2139	C-LD70-CR11	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2145	C-LD70-CR10	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2153	C-LD70-CR07	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP2160	C-LD70-CR12	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2167	C-LD70-CR13	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2182	C-LD74-CR01	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2188	C-LD74-CR02	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2192	C-LD74-CR04	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2195	C-LD74-CR03	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2208	C-LD74-CR05	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2209	C-LD74-CR06	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2216	C-LD74-CR07	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2218	C-LD74-CR08	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2223	C-LD74-CR11	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2233	C-LD74-CR09	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2239	C-LD74-CR10	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2279	C-LD76-CR04	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2282	C-LD76-CR01	Yes	Y	Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2286	C-LD76-CR03	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2291	C-LD76-CR02	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2294	W-ROUTE-CR02 W-ROUTE-CR04	Yes	Y	2 x culverts and 2 ducts for 132kV Underground	2 x 35m 2 x 10m	Short term Medium term	2-4 weeks 6 1/4 years

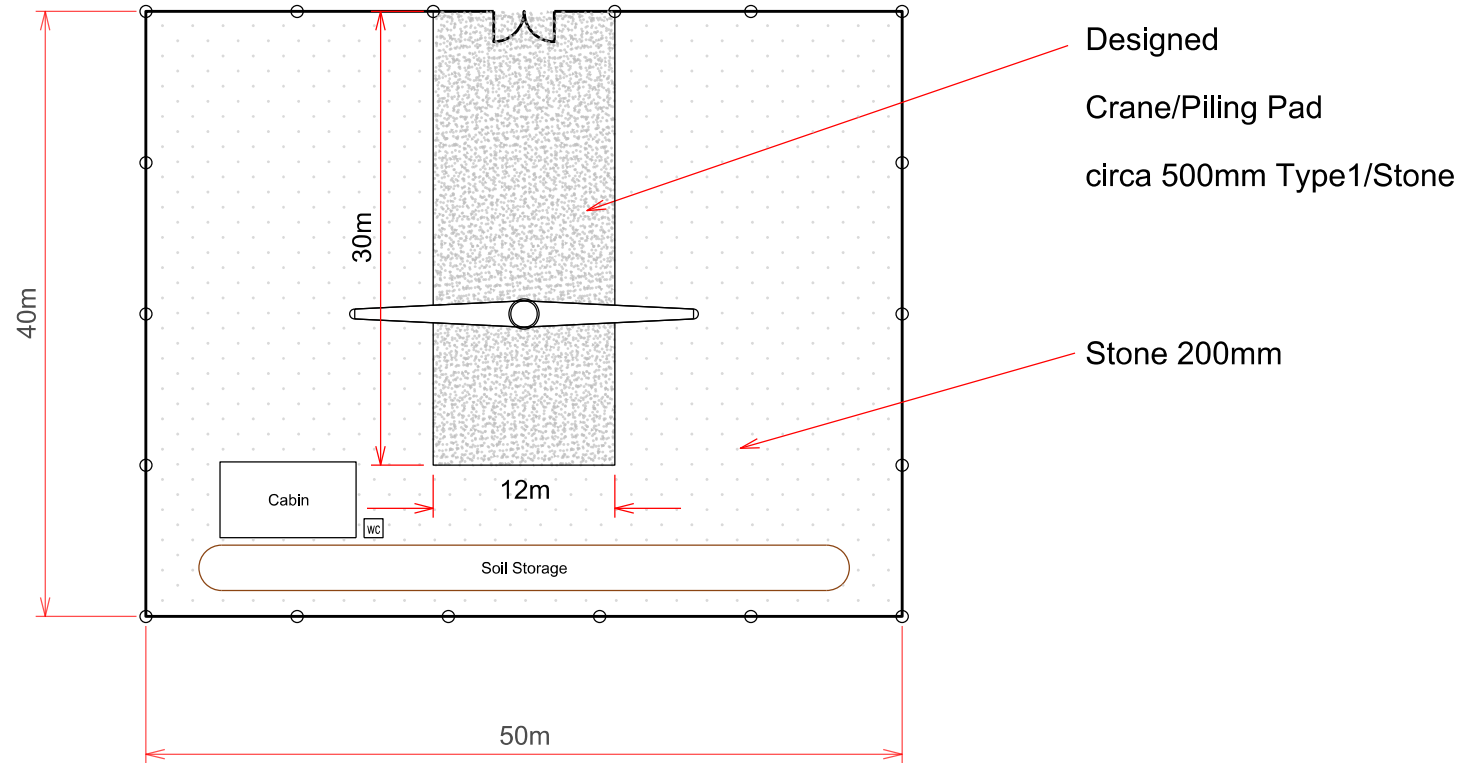
Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
TEP2314	W-ROUTE-CR05	Yes	Y	Culvert and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
	C-LD78-CR01			Culvert for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2333	W-ROUTE-CR07	Yes	N	Bridge and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2912	C-LD53-CR04	Yes	N	Bridge for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2914	W-ROUTE-CR06	Yes	N	Bridge and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
SECTION E – TICKENHAM RIDGE							
No water voles recorded in Section E							
SECTION F - PORTISHEAD							
TEP2413	W-ROUTE-CR10	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2444	W-ROUTE-CR11	Yes	N	Culvert and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2446	W-ROUTE-CR12	Yes	N	Bridge and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2484	P-LD99-CR02 P-LD99-CR05	Yes	N	2 x culverts for haul road associated with 400kV OHL	2 x 6m 2 x 4m	Medium term Short term	6 1/4 years 1-2 weeks
	BW-P-CR01			Unassigned crossing type and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2915	W-ROUTE-CR09	Yes	Y	Culvert and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
SECTION G – AVONMOUTH							
TEP2465	P-LD101-CR01	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2514	C-LD114-CR02	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2523	G-ROUTE-CR03	Yes	N	Unassigned crossing type and 2 ducts for 132kV Underground	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2536	G-ROUTE-CR05	Yes	Y	Bridge and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2541	G-ROUTE-CR04	Yes	N	Unassigned crossing type and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2543	G-ROUTE-CR07	Yes	Y	Unassigned crossing type and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
	C-LD118-CR01			Unassigned crossing type for haul road	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks

Ditch No.	Culvert ID	Water Vole Present	IDB Ditch	Construction Activity	Total Length of Bankside Habitat	Impact term	Total Timeframe of Impact
				associated with 400kV OHL			
TEP2549	G-ROUTE-CR08	Yes	N	Unassigned crossing type and 2 ducts for 132kV Underground	35m 6m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2569	G-ROUTE-CR10	Yes	Y	Bridge and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2577	G-ROUTE-CR11	Yes	Y	Culvert and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2584	G-ROUTE-CR12	Yes	Y	Culvert and 2 ducts for 132kV Underground	35m 10m	Short term Medium term	2-4 weeks 6 1/4 years
TEP2609	C-LD120-CR02	Yes	Y	Unassigned crossing type for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2622	C-LD119-CR01	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2623	C-LD120-CR01	Yes	Y	Bridge for haul road associated with 400kV OHL	10m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2666	C-LD121-CR01	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2699	C-LD125-CR01	Yes	N	Unassigned crossing type for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
TEP2720	SEABANK-CR02	Yes	N	Culvert for haul road associated with 400kV OHL	6m 4m	Medium term Short term	6 1/4 years 1-2 weeks
SECTION H – HINKLEY LINE ENTRIES							
No water voles recorded in Section H							

ANNEX 4

Typical Pylon Working Area and Standard Culvert Designs

DESCRIPTION		FIRST ISSUE			
REV	DATE	BY	CHKD	APPD	
A	-	-	-	--	



GENERAL NOTES:

CLIENT

National Grid

PROJECT

HINGLEY POINT C CONNECTION

TITLE

TYPICAL WORKING
AREA FOR
T-PYLON/LATTICE TOWER

SCALE 1:500
(UNLESS OTHERWISE STATED)

DATE 17/12/2013

DRAWN CFK

ORIGINAL DRAWING NUMBER
SIZE A4 --

DESIGNED A4

CHECKED --

APPROVED --

REV A

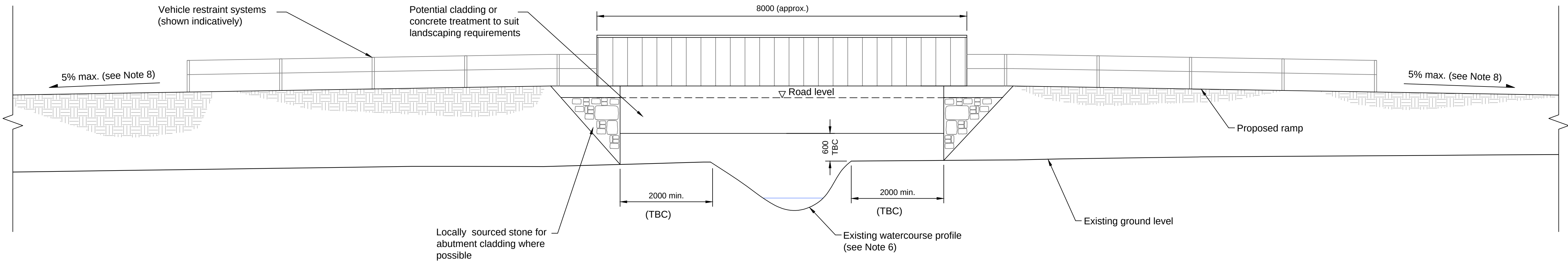


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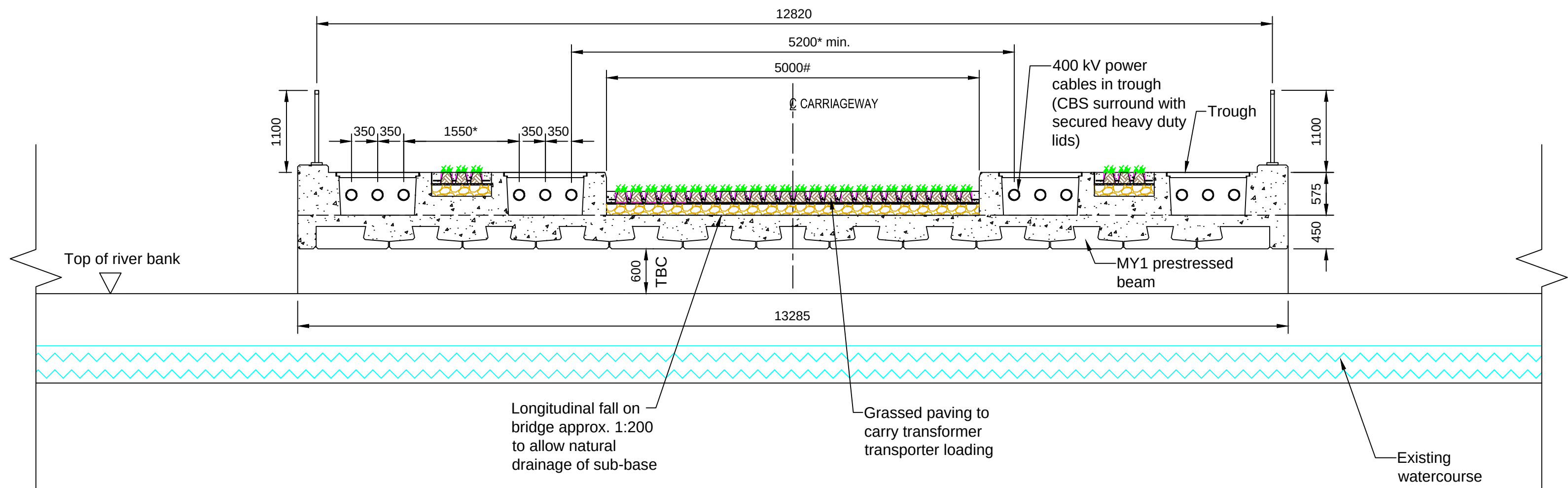
LSTC North:
Yorkshire House
York Road
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East Yorkshire
YO25 5XA
Tel 01377 253617
Fax 01377 259555

LSTC South:
Bourne House
Office 21
475 Godstone Road
Whyteleafe
Surrey
CR3 0BL
Tel 01883 621114

LS Transmission Consultancy Limited makes no warranties, express or implied, that compliance with this drawing, or any other document issued by LSTC, would in itself be sufficient to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.



Elevation ☐ Looking ☐ East
1 : 50



Typical Section

(Combined Transformer Access and Cable Bridge)
1 : 50

* Minimum cable separation based on initial discussions subject to design development
Minimum construction/transformer access width based on initial discussions subject to design development

Site Map

Key

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. This drawing to be read in conjunction with Drawings MMD-322069-C-DR-400UG-XX-0933.
3. Do not scale any items of information from this drawing.
4. All structural arrangements of crossing shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
5. For proposed Haul Road details refer to drawing MMD-322069-C-DR-GEN-XX-0024.
6. Towerhead Brook profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.
7. Minimum requirement for slope transition to be confirmed by transformer transporter.
8. Ramp: maximum gradient 5%, minimum transition of 20m from 0 - 5%.

MMD DRAWING No.
MMD-322069-C-DR-400UG-XX-0932

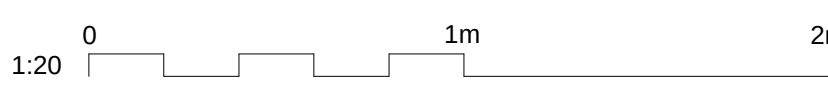
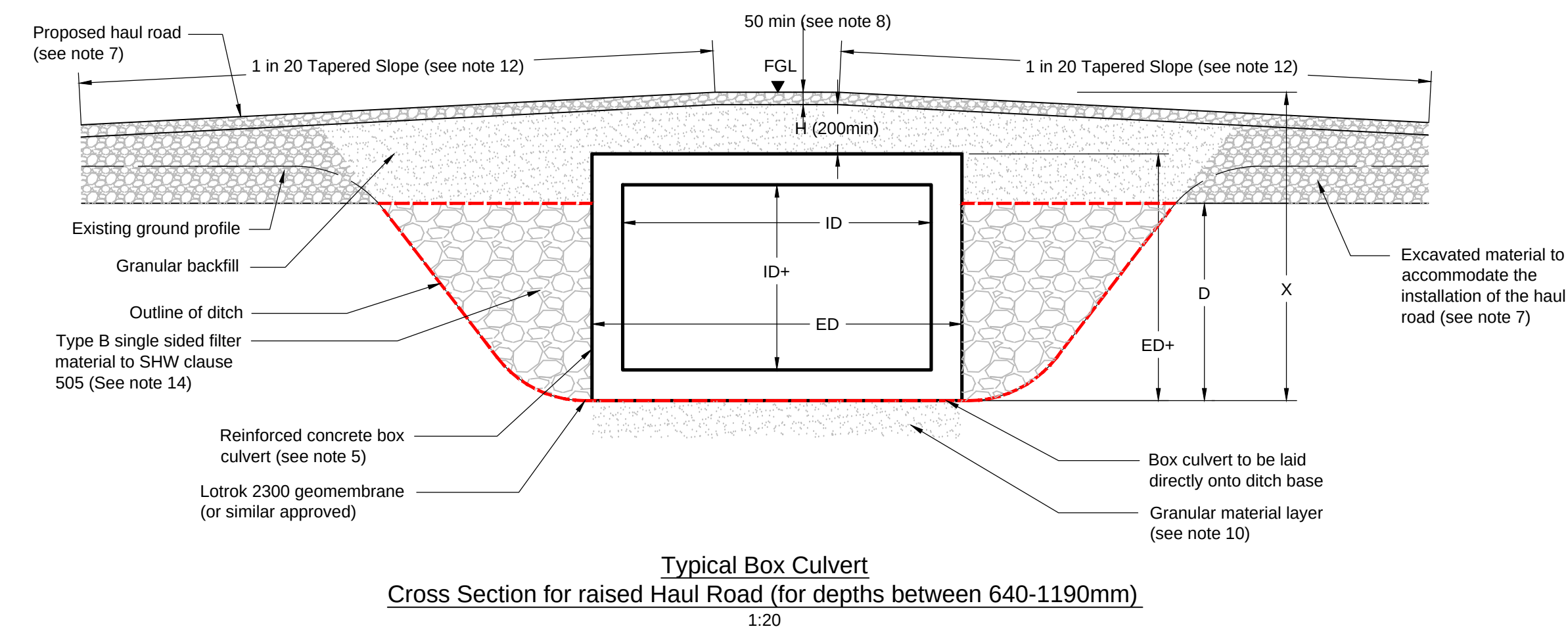
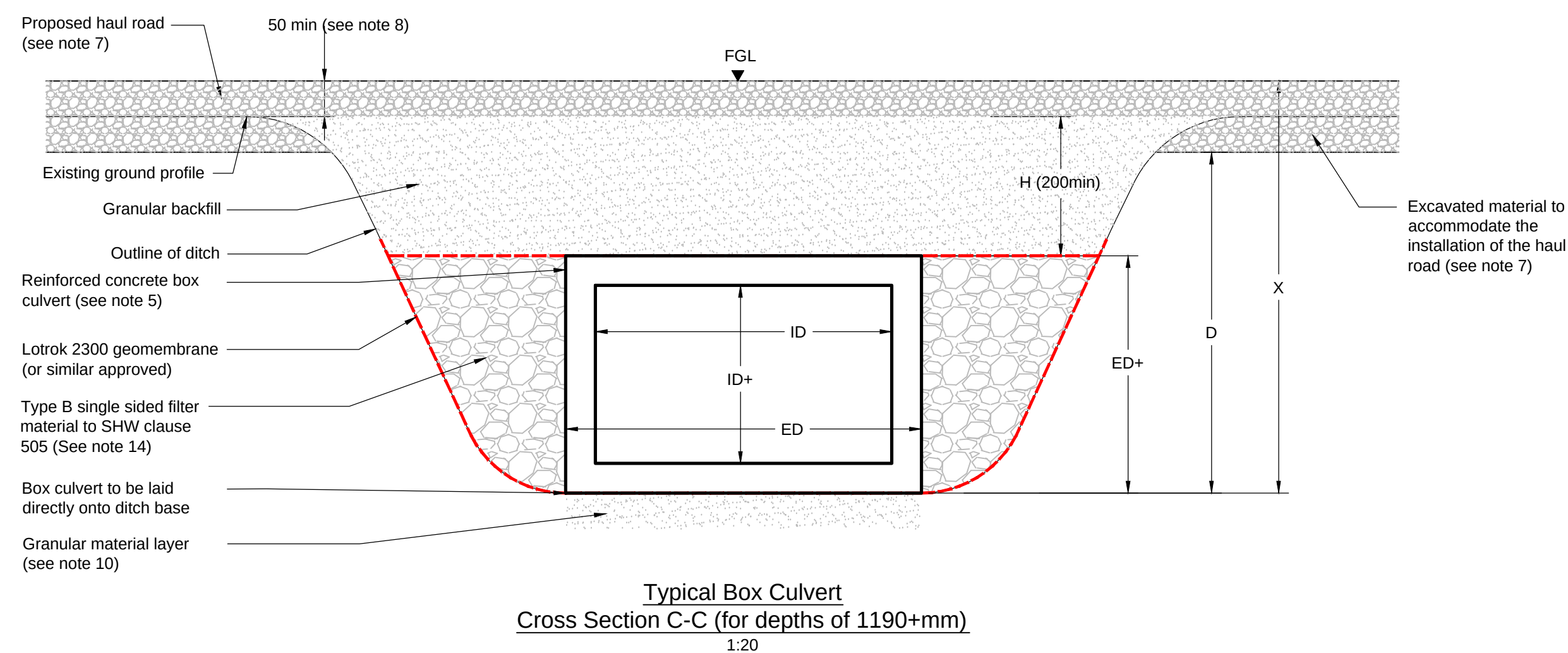
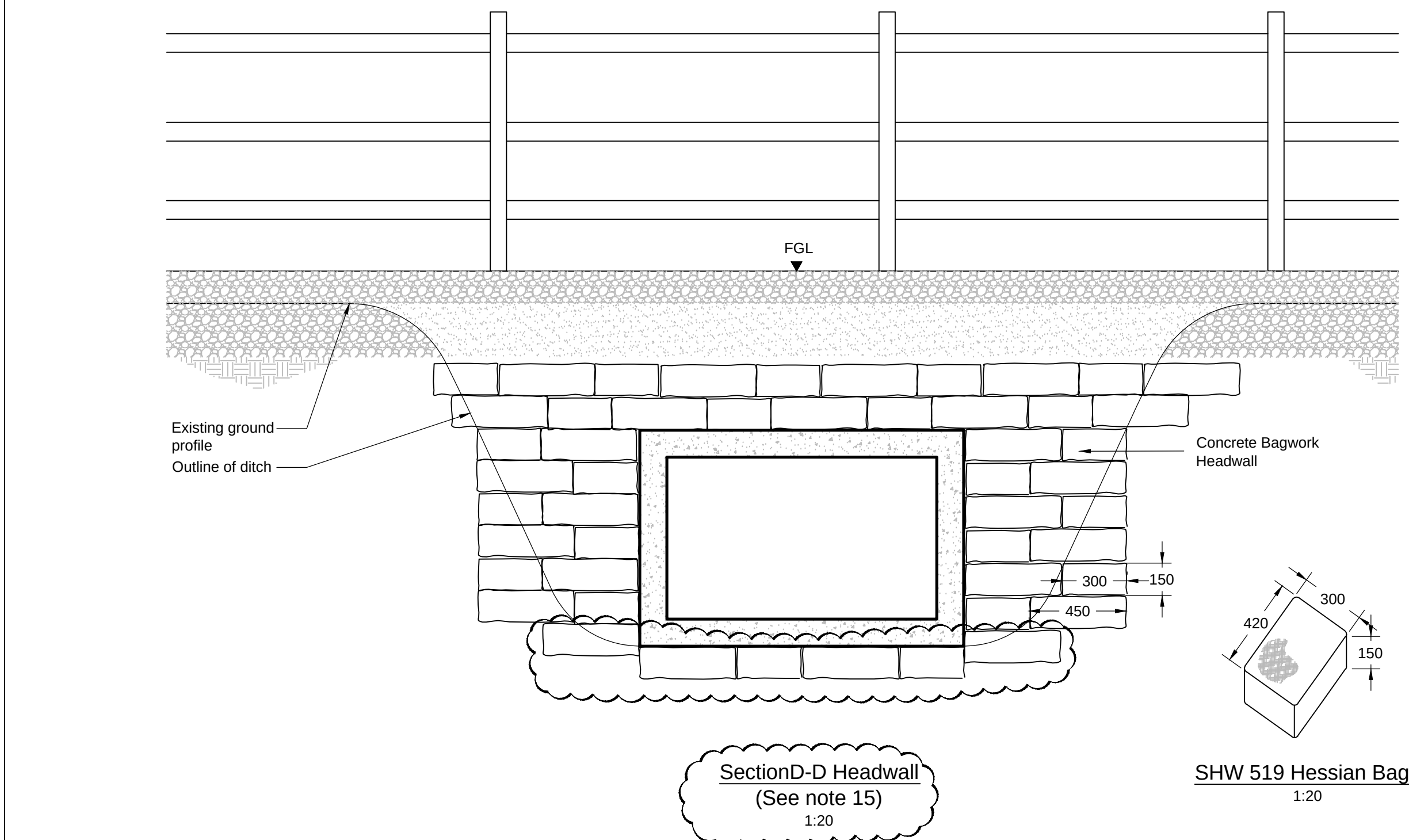
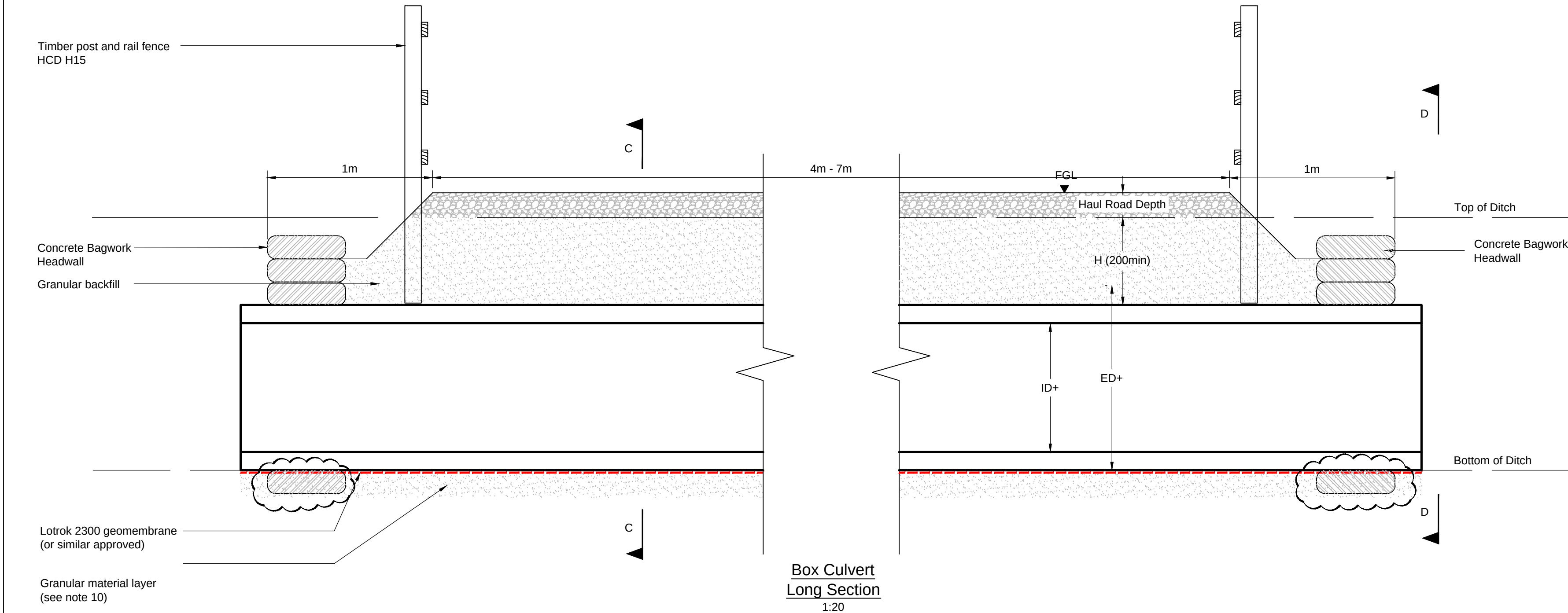
P1	18/12/13	First Issue	JZ	WB	JW
ISSUE	DATE	COMMENTS	DRAWN	CHKD	APPD

TITLE:
NATIONAL GRID
HINKLEY C CONNECTION PROJECT
TOWERHEAD BROOK CABLE CROSSING
ELEVATION AND CROSS SECTION
(BRIDGE)

nationalgrid

NG INVESTMENT No. 20897	APPLICATION No.	ACAD A1
NG DRAWING No.	DRAWING No.	SCALE
		ISSUE P1

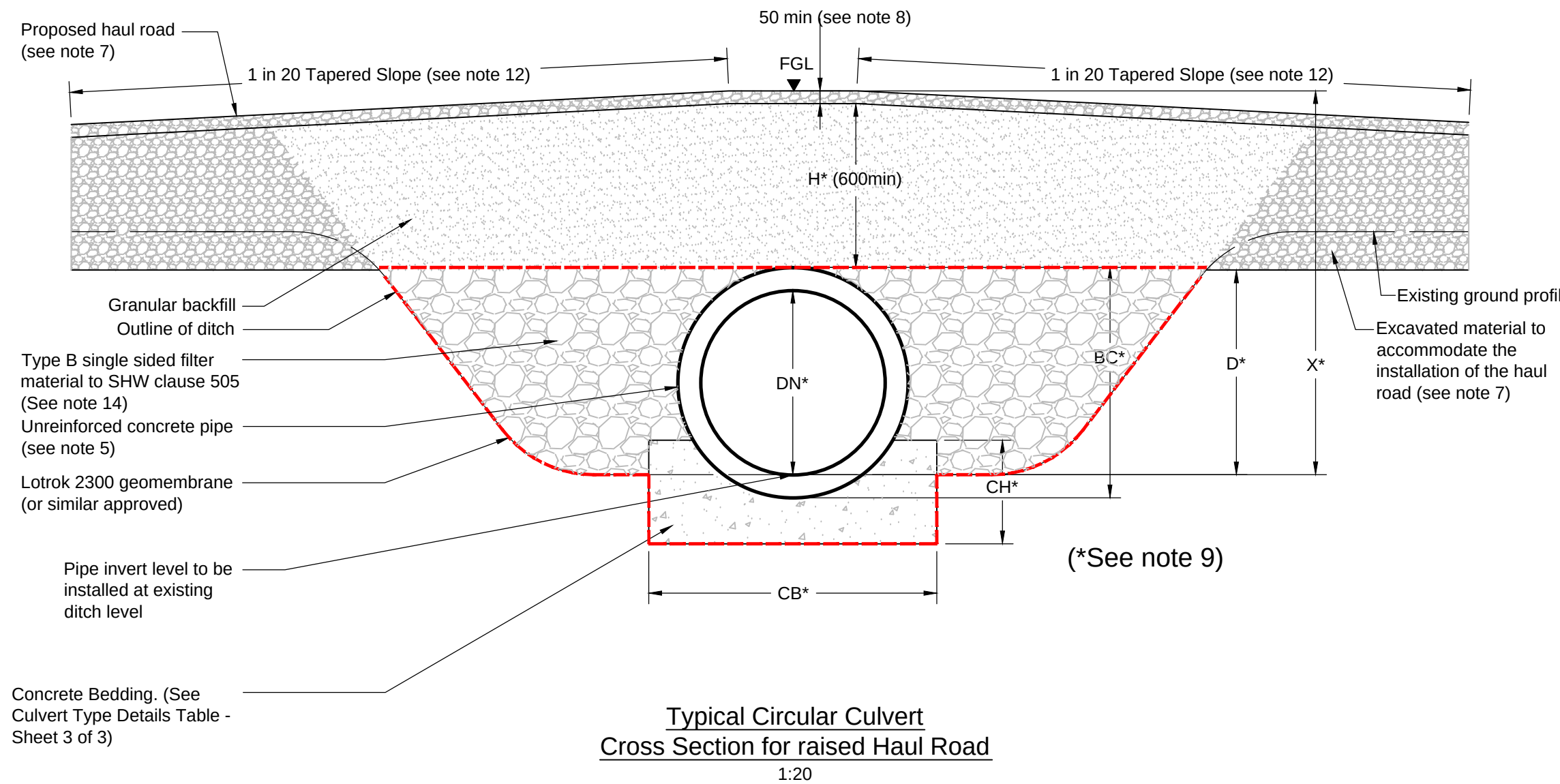
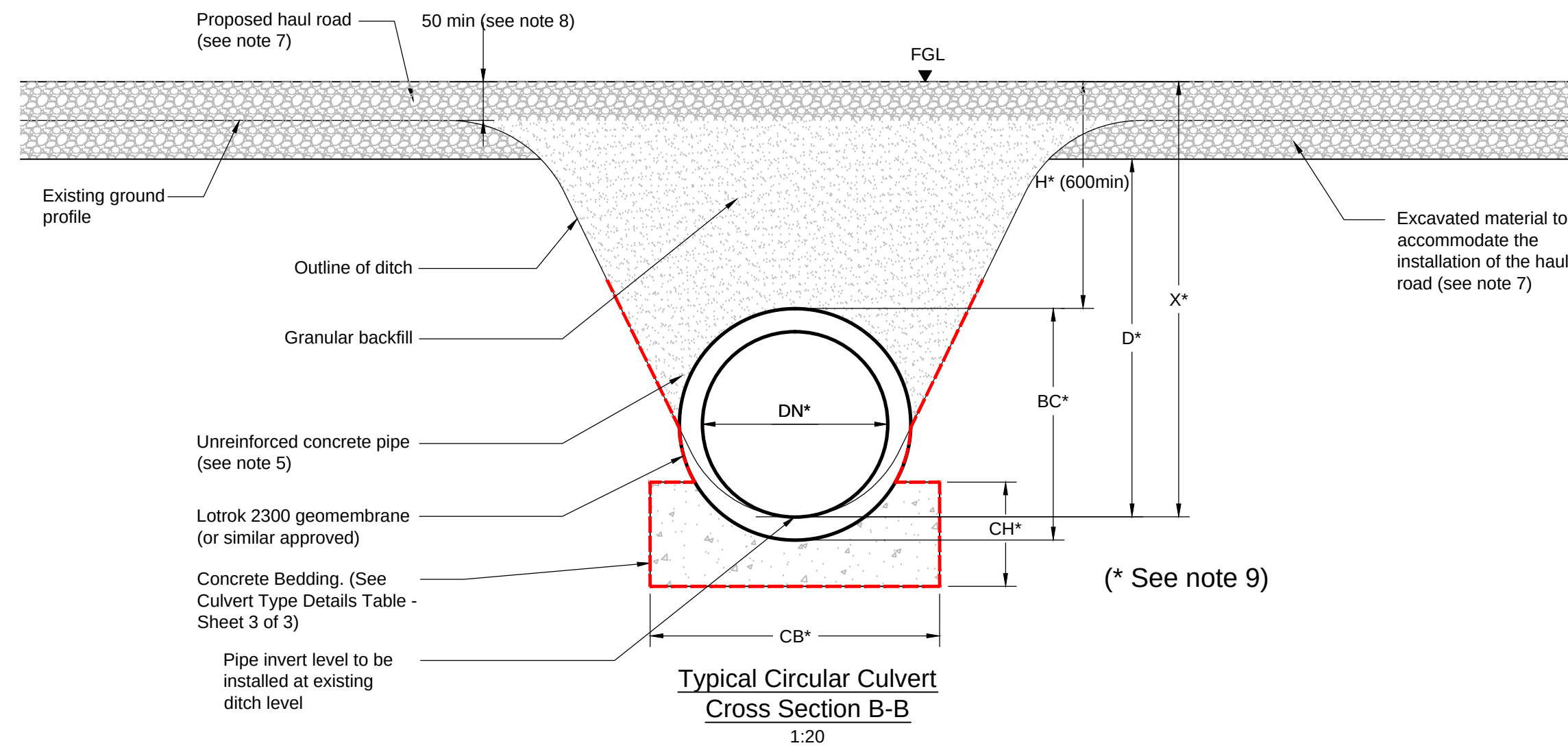
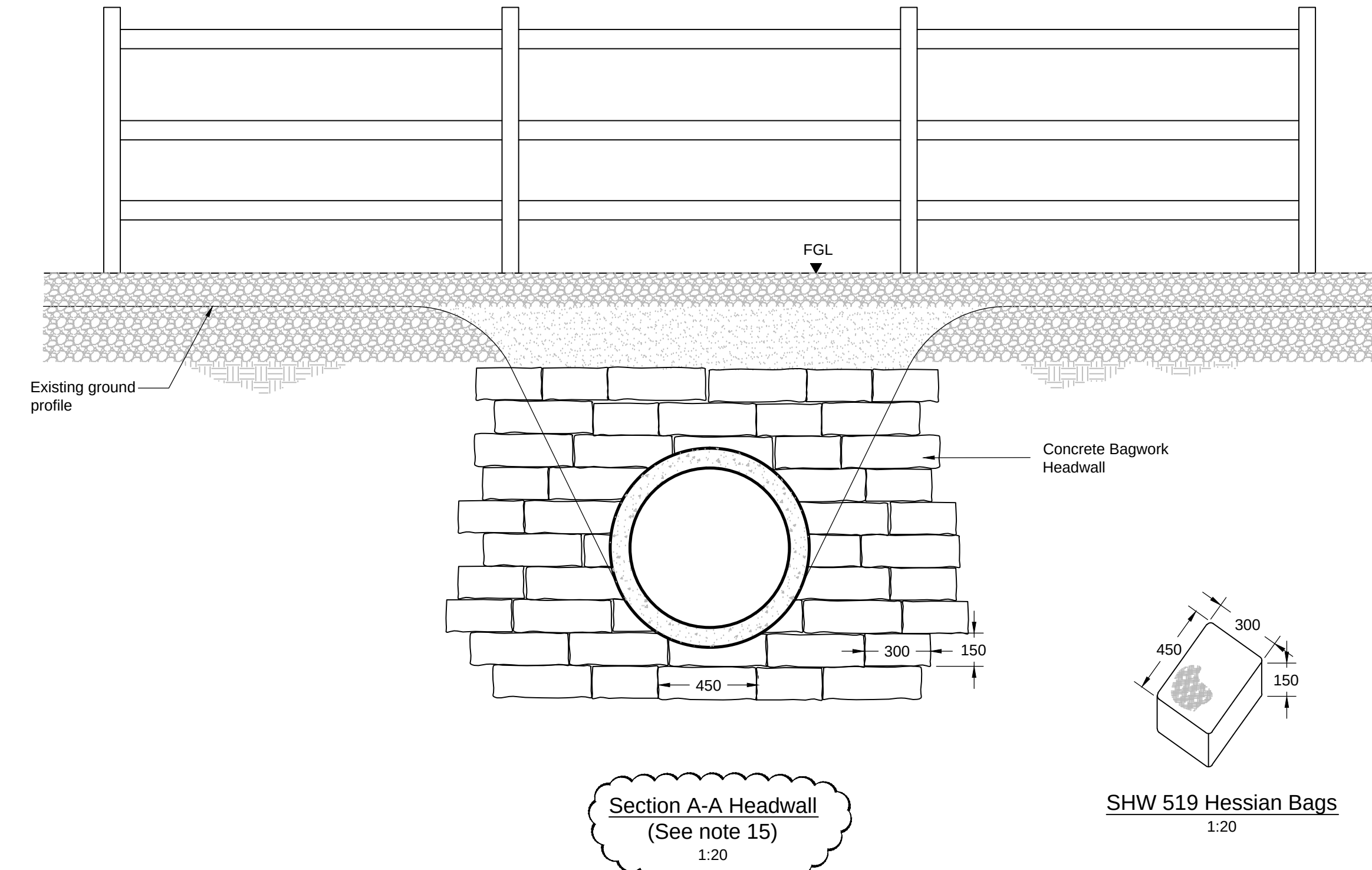
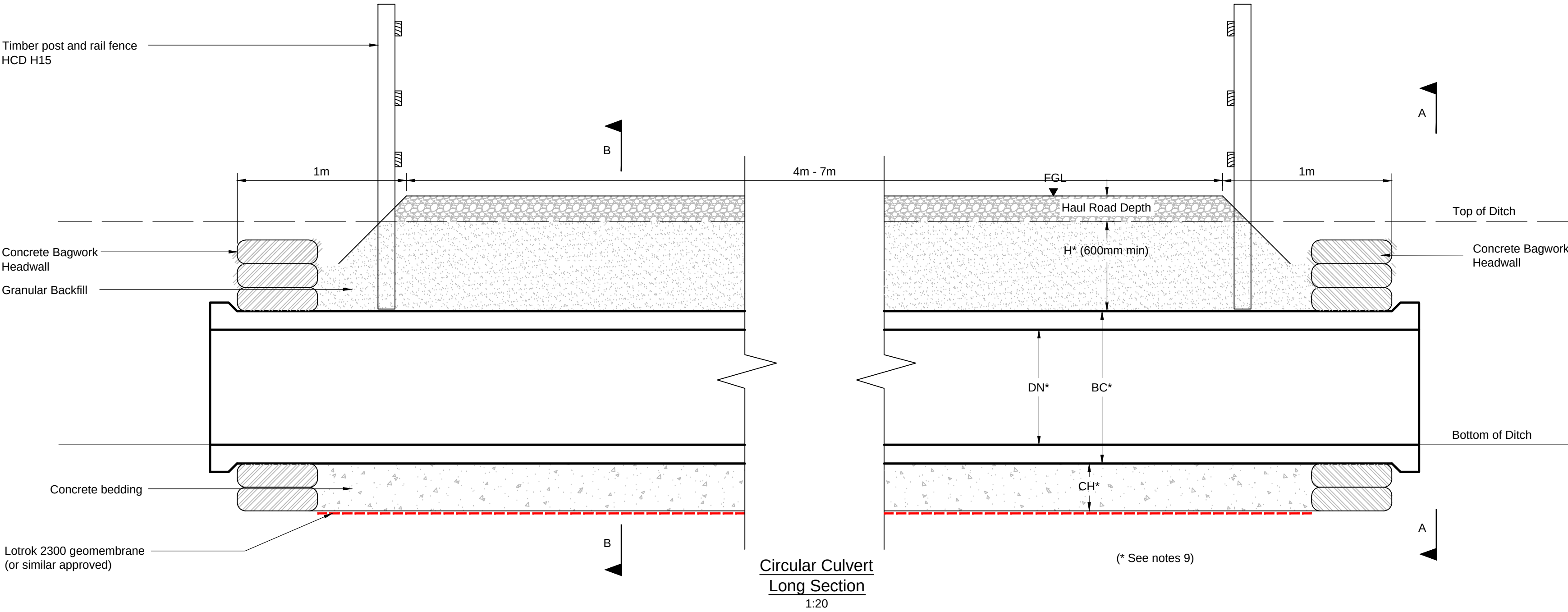
NATIONAL GRID (HINKLEY POINT C CONNECTION) ORDER
DESIGN DRAWINGS
(REGULATIONS 5(2)(o))
SHEET X OF X



- Notes**
1. All dimensions in millimetres unless otherwise stated.
 2. Do not scale any items of information from this drawing.
 3. SHW - Specification for Highways
 4. All concrete in accordance with BS 8500
 5. Circular concrete culverts to comply with and tested to BS 5911:2010. Box concrete culvert to comply with XD3 exposure class and BS5400
 6. Culvert crossing has been designed in accordance with BS 1295-1:1997 *Structural design of buried pipelines under various conditions of loading - Part 1: General & BS 9295:2010 Guide to the structural design of pipeline*. Maximum loading have been assume to be the maximum loading permitted on the Highways network as described in the aforementioned standards.
 7. For Haul Road construction details refer to drawing 13/NG/0222.
 8. Temporary Haul road shall be installed a minimum 50mm proud of existing ground level.
 9. For culvert type dimensions refer to drawing no. 13/NG/0221 Sheet 4 of 4.
 10. Where necessary a layer of granular material to be laid to create a flat base.
 11. Circular and Box culverts have been designed to accommodate regular traffic/HB loading conditions.
 12. Haul road gradient shall not exceed a 1:20 slope
 13. Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary, whilst also ensuring culvert are not blocked.
 14. Where ditch widths are significantly wider than the proposed culvert, ditch will be filled with **Type B filter material**.
 15. For crossings which are owned by an IDB, refer to drawing 13/NG/0221 (sheet 3 of 4) for culvert headwall design.

MMD DRAWING No.					
MMD-322069-C-DR-GEN-XX-0008					
P2	15/10/13	DCO Submission	AB		
P1	23/08/13	FOR INFORMATION	AB		
ISSUE	DATE	COMMENTS	DRAWN	CHK'D	APP'D
TITLE:					
TEMPORARY CONSTRUCTION ACCESS CULVERT CONSTRUCTION DETAILS (SHEET 2 OF 4)					
nationalgrid					
NG INVESTMENT No.		APPLICATION No.		ACAD	
20897				A1	
NG DRAWING No.		DRAWING No.		SCALE	
13/NG/0221				As Shown	
				ISSUE	
				P2	

NATIONAL GRID (HINKLEY POINT C CONNECTION) ORDER
DESIGN DRAWINGS
(REGULATIONS 5(2)(o))
SHEET X OF X



- Notes**
- All dimensions in millimetres unless otherwise stated.
 - Do not scale any items of information from this drawing.
 - SHW - Specification for Highways
 - All concrete in accordance with BS 8500
 - Circular concrete culverts to comply with and tested to BS 5911:2010. Box concrete culvert to comply with XD3 exposure class and BS5400
 - Culvert crossing has been designed in accordance with BS 1295-1:1997 *Structural design of buried pipelines under various conditions of loading - Part 1: General & BS 9295:2010 Guide to the structural design of pipeline*. Maximum loading have been assume to be the maximum loading permitted on the Highways network as described in the aforementioned standards.
 - For Haul Road construction details refer to drawing 13/NG/0222
 - Temporary Haul road shall be installed a minimum 50mm proud of existing ground level.
 - For culvert type dimensions refer to drawing no. 13/NG/0221 Sheet 4 of 4.
 - Where necessary a layer of granular material to be laid to create a flat base
 - Circular and Box culverts have been designed to accommodate regular traffic/HB loading conditions.
 - Haul road gradient will not exceed 1:20 slope
 - Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary, whilst also ensuring culvert are not blocked
 - Where ditch widths are significantly wider than the proposed culvert, ditch will be filled with **Type B filter material**
 - For crossings which are owned by an IDB, refer to drawing 13/NG/0221 (sheet 3 of 4) for culvert headwall design.

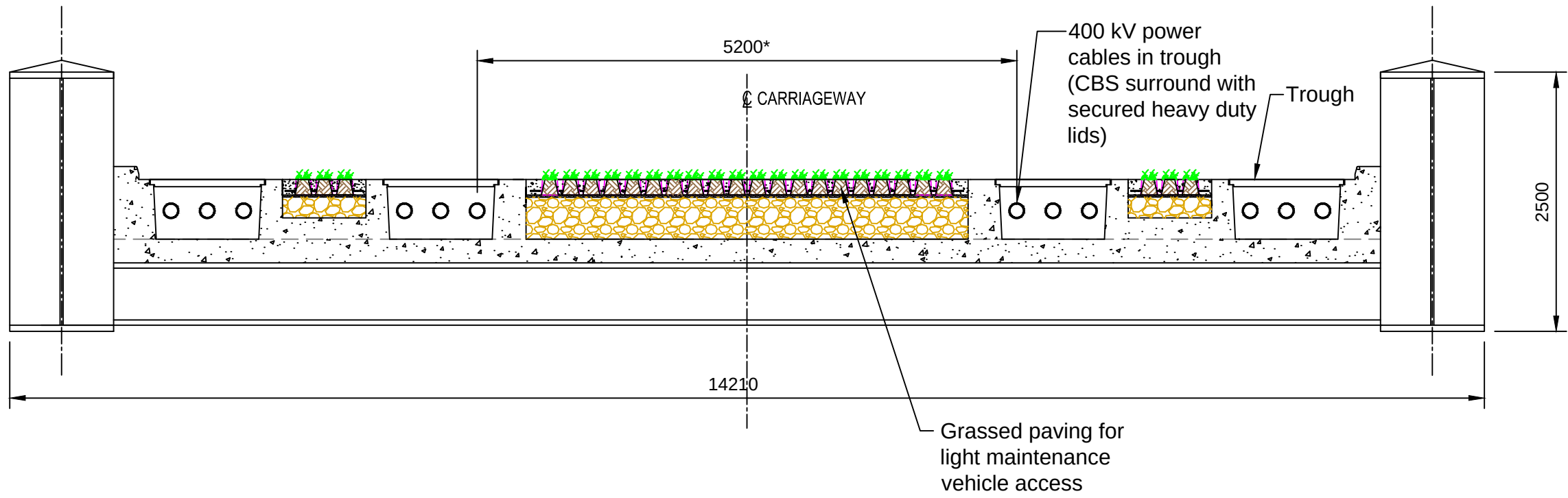
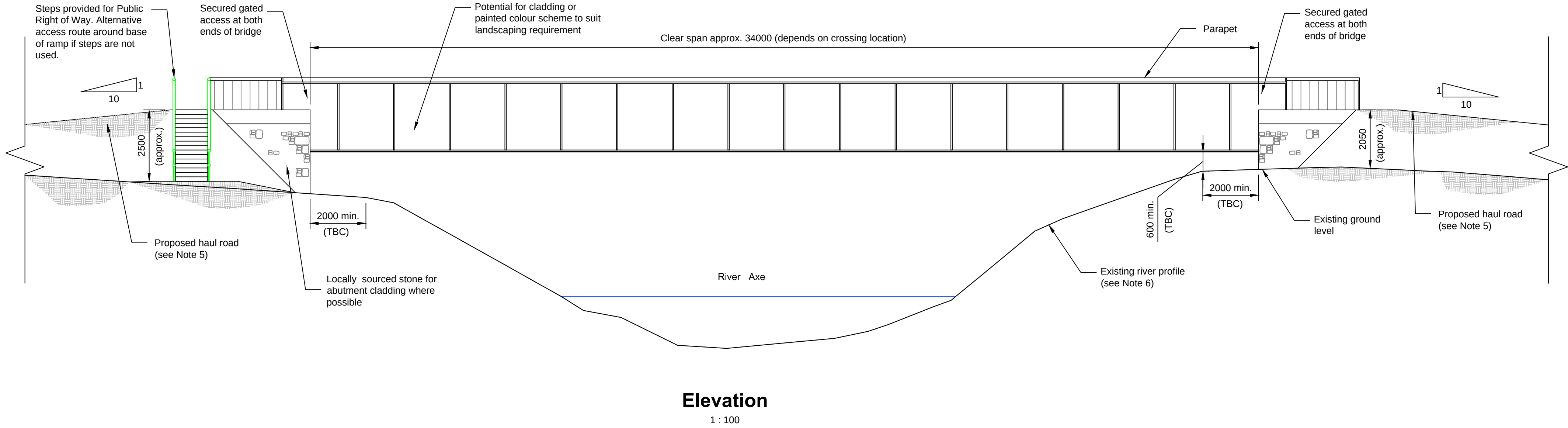
MMD DRAWING No.
MMD-322069-C-DR-GEN-XX-0002

P3	18/10/13	DCO Submission	AB		
P2	23/08/13	Drawing Amended	AB		
P1	05/07/13	FOR INFORMATION	ACM		
ISSUE	DATE	COMMENTS	DRAWN	CHK'D	APP'D

TITLE:
TEMPORARY CONSTRUCTION ACCESS
CULVERT CONSTRUCTION DETAILS
(SHEET 1 OF 4)

nationalgrid		
NG INVESTMENT No. 20897	APPLICATION No.	ACAD A1
NG DRAWING No. 13/NG/0221	DRAWING No.	SCALE As Shown ISSUE P3

NATIONAL GRID (HINKLEY POINT C CONNECTION) ORDER
DESIGN DRAWINGS
(REGULATION 5(2)(o))
SHEET X OF X



* Minimum cable separation based on initial discussions subject to design development

Site Map

Key

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. This drawing to be read in conjunction with Drawings MMD-322069-C-DR-400UG-XX-0901 & MMD-322069-C-DR-400UG-XX-0902.
3. Do not scale any items of information from this drawing.
4. All structural arrangements of bridge shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
5. For proposed Haul Road details refer to drawing MMD-322069-C-DR-GEN-XX-0004.
6. River Axe profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.

MMD DRAWING No.

MMD-322069-C-DR-400UG-XX-0900

P1	18/12/13	First Issue	JZ		
ISSUE	DATE	COMMENTS	DRAWN	CHKD	APPD

TITLE:

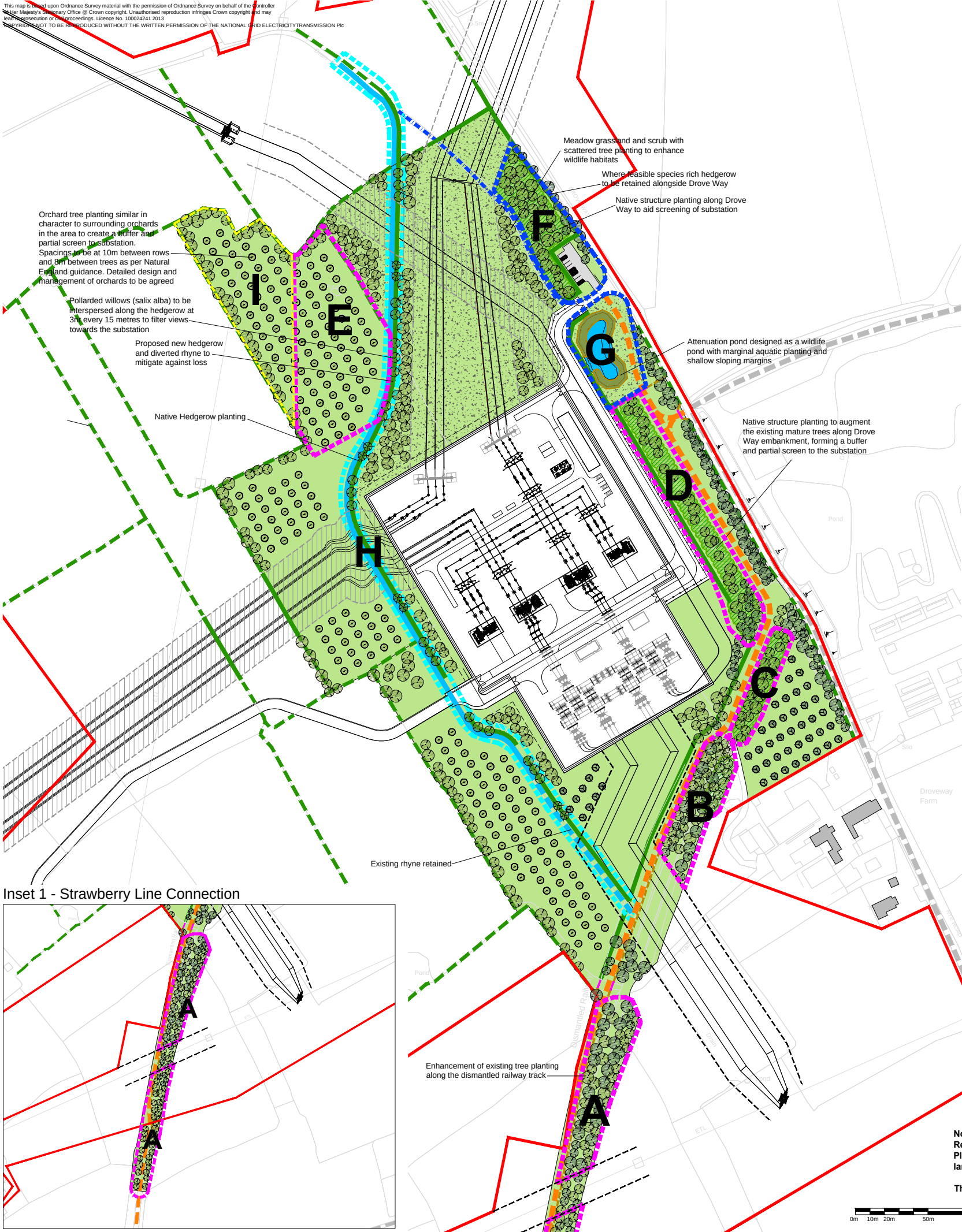
NATIONAL GRID
HINKLEY C CONNECTION PROJECT
RIVER AXE CABLE BRIDGE
ELEVATION AND CROSS SECTION

nationalgrid

NG INVESTMENT No.	APPLICATION No.	ACAD
20897		A1
NG DRAWING No.	DRAWING No.	SCALE
13/NG/0244		ISSUE
SHEET 1 OF 3		P1

ANNEX 5
**Proposed Landscape Design for Sandford Substation showing realignment of
the ditch at Sandford**

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Phasing ID	Description	Timescale	Notes
A	Gap tree planting along the Strawberry Line	Nov/Dec 2017	Given the peripheral location of these areas to the Sandford Substation works this planting will be implemented following the start of works on the 400kV underground cable route (between Towerhead Rd and the substation) but prior to works commencing on the substation.
B	Gap tree planting along the Strawberry Line	(trees will be planting during the winter months)	
C	Native structure planting and tree planting between retained orchard and substation		
D	Native structure planting and native hedgerow between existing trees along Drove Way and proposed 132kV undergrounding		
E	Orchard tree planting, wind break tree planting and gap planting of retained boundary hedgerows	Nov/Dec 2018	This area is close to the substation works and planting in this location will be implemented once works in the substation area have commenced on site.
F	Native structure planting and tree planting around proposed car park (only area away from 400kV OHL construction swathe as shown and excluding new hedge bordering car park)	Nov/Dec 2018	
G	Attenuation pond (pond construction only)	Nov/Dec 2018	Due to use of the attenuation pond during construction works planting of marginal aquatics, meadow grassland and hedgerow will be undertaken during a later stage of the works.
H	Ditch creation (outside any temporary culverted areas)	Jan/Feb 2018	National Grid to confirm timescale for ditch creation.
	Ditch planting	May/June or Sept/Oct 2019 (whichever comes first following ditch creation)	Planting will be undertaken during the first Spring or Autumn season immediately following installation of the 400kV underground cables at the crossing point with the ditch
I	Orchard tree planting, wind break tree planting and gap planting of retained boundary hedgerows	Nov/Dec 2020	Planting will be undertaken once the F route Removal and AT Route access is no longer needed.

Note: All remaining landscape works to be undertaken Nov/Dec 2021

Phasing Key

- A

Phasing ID
- Implementation Nov/Dec 2017
- Implementation Nov/Dec 2018
- Implementation of ditch and hedge Nov/Dec 2018 and rhyme planting May/June 2019 or Sept/Oct 2019
- Implementation Nov/Dec 2020

Order Limits

Properties

Strawberry Line Long Distance Route and Cycle Route

Existing Rhyme to be Retained

Existing Rhyme to be Retained and Diverted

Existing Hedgerow to be Retained and if Required Gapped up with Additional Planting

Existing Trees

Existing Orchard Tree Planting

Proposed

Diverted Rhyme with Aquatic Planting

Attenuation Pond with Marginal Aquatic Planting

Meadow Grassland (of Regional Provenance)

Orchard Tree Planting

Native Tree Planting

Pollarded Willows (Salix Alba)

Native Structure Planting

Native Hedgerow

Potential Future Reinstatement of the Strawberry Line Long Distance Route (3m wide surfaced footpath cycleway)

Potential Future Access Road and Public Car Park with 10 Parking Spaces

Timber Post and 4 Rail Fencing

3.6m Wide Lockable Single Metal 5 Bar Field Gate and Pedestrian A Frame Gate

B	01/07/2015	EXAMINATION DEADLINE 7	NH	CH	CH
A	11/07/2014	ES SENSITIVITY TEST	SW	NH	NH
ISSUE	DATE	COMMENTS	DRAW	CHK'D	APPD

Title

NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
SENSITIVITY TEST
VOLUME 5.29.1.3
SANDFORD 400kV/132kV SUBSTATION
LANDSCAPE MITIGATION PHASING

nationalgrid

National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	CAD
20897	EN020001	
FIGURE No.	DRAWING No.	SCALE
7.35.6	D1979.25.019C	see scale bar

SHEET 1 of 1

B

-
- ⁱ National Grid's commitments when undertaking works in the UK – Our stakeholder, community and amenity policy. February 2010.
- ⁱⁱ Mitchell, J., 1997, 'Mitigation in Environmental Assessment – Furthering Best Practice' in *Environmental Assessment* 5(4), 29-9
- ⁱⁱⁱ Watercourses that are under the control of the IDB will have a 2m stepped stone headwall at each end giving a total additional medium term loss for each affected crossing of 4m.
- ^{iv} Installation of each crossing or cable duct takes 1-2 weeks. Total loss per affected watercourse is therefore 1-2 weeks for overground works and 3-6 weeks for underground works.
- ^v Medium term losses are where the crossings will be removed at the end of the construction phase. All crossings except Towerhead Brook and River Axe are temporary; these two crossings are clear-span bridges (or HDD for the River Axe crossing) and therefore avoid any direct loss of in-channel habitat.
- ^{vi} Publically available Environment Agency WFD River Waterbody Catchment data downloaded from <http://www.geostore.com/environment-agency/WebStore?xml=environment-agency/xml/ogcDataDownload.xml> [March 2014]. Contains public sector information licensed under the Open Government Licence v2.0.
- ^{vii} Crossing references listed with **blue text** are for TEP reference only; the text shows whether this is a new crossing since the previous schedule or whether the crossing reference has been changed.
- ^{viii} Information entered in **red text** shows any crossings which are not standard, for example the cable bridges at Towerhead Brook and River Axe, new culverts required when the Sandford ditch is realigned and ditches where no construction element is assigned.
- ^{ix} All culvert IDs prefixed with a * will only be installed under Option B. 28m short term loss and 42m medium term loss will occur within the Portbury Ditch river catchment under Option B (figures for Option B are included within the totals above).