



Method Statement for Works within 500 m of Wendlebury Meads and Mansmoor Closes SSSI - East West Rail Advanced Works

Buckingham Group Contracting Ltd

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1 INTRODUCTION

1.1 Purpose of Method Statement

RSK Environment Ltd has been commissioned by Buckingham Group Contracting Ltd to produce a Method Statement to discharge East West Rail (EWR) Phase 1, *Planning Condition 16 Protection of National and European Designated Sites*. Planning Condition 16 states that no development connected with EWR Phase 1 works can commence within 500m of Wendlebury Meads and Mansmoor Closes Site of Special Scientific Interest (SSSI) until a Method Statement for the works is approved by the local planning authority (LPA) and Natural England.

This Method Statement sets out working methods and materials to be used in the EWR Advanced works that will be located within 500m of Wendlebury Meads and Mansmoor Closes SSSI (see *Figure 1* in *Appendix 1*). This Method Statement only covers the Advanced works and does not include any work on the rail line. A separate Method Statement will be produced to cover the Core Works once the details of the works methods and materials have been decided.

In particular the Method Statement sets out good working practices and specific safeguard measures to ensure that impacts on ecology are either avoided or minimised, and that the qualifying interest features of the SSSI are maintained (as specified in *Environmental Statement (ES) Volume 2 (Chapters 5 -156)*, Environmental Resources Management (ERM) 2009 and *Chiltern Railways (Bicester to Oxford Improvements) Order Code of Construction Practice (CoCP) Version 6* (Environmental Resources Management 2013)).

The Method Statement will be used by contractors and will be kept on site at all times.

1.2 Development Proposals

Buckingham Group Contracting Ltd are undertaking the advanced work, which involves the upgrade works to the Bicester Chord including associated construction such as build-up areas and service roads. The details in this method statement relate specifically to the advanced works that will be located within 500m of Wendlebury Meads and Mansmoor Closes SSSI. These works will include the re-surfacing of an existing road, the construction of a temporary haul road and storage compound. A new bridge will also be constructed as part of the core works to replace an existing level crossing as detailed in *Section 2.1*, this will be subject to an additional Method Statement.

The advanced works are part of a larger scheme (The Chiltern Railways (Bicester to Oxford Improvements) Order) that includes the reinstatement of double track and the installation of new signalling and safety systems from Bicester to Oxford. Bicester Town and Islip stations will be rebuilt and additional platforms provided at Oxford. A new station will be constructed at Oxford Parkway (previously referred to as Water Eaton

Parkway) to serve Kidlington and North Oxford. Once completed the EWR scheme will provide additional capacity for services linking Oxford to Milton Keynes, Bedford and beyond.

1.3 Designated Site: Wendlebury Meads and Mansmoor Closes SSSI

1.3.1 Qualifying Interest Features

The following information has been taken from Natural England SSSI citation document¹.

The 73.2 ha Wendlebury Meads and Mansmoor Closes SSSI in Oxfordshire (SP 562 175) is notified under Section 28 of the Wildlife and Countryside Act 1981. It contains a series of traditionally-managed unimproved meadows that support a complex variety of plant communities including excellent examples of some of the few surviving calcareous clay pasture communities in southern England. The flora is exceptionally diverse with more than 160 plant species present, many of which are widely distributed and intricately mixed throughout the site.

Table 1.1: Wendlebury Meads and Mansmoor Closes SSSI special interest features

Habitats	Species present
Grassland (ridges)	<i>Agrostis capillaris</i> (Common Bent), <i>Festuca rubra</i> (Red Fescue), <i>Cynosurus cristatus</i> (Crested Dog's-tail), <i>Anthoxanthum odoratum</i> (Sweet Vernal-grass) and <i>Briza media</i> (Quaking-grass) with a number of herbs including <i>Rhinanthus minor</i> (Yellow-rattle), <i>Centaurea nigra</i> (Common Knapweed), <i>Silene silaus</i> (Pepper-saxifrage) and <i>Succisa pratensis</i> (Devil's-bit Scabious).
Hayfields	<i>Achillea ptarmica</i> (Sneezewort), <i>Dactylorhiza fuchsii</i> (Common Spotted-orchid), <i>Filipendula vulgaris</i> (Dropwort), <i>Ophioglossum vulgatum</i> (Adder's-tongue), <i>Anacamptis morio</i> (Green-winged Orchid) and <i>Serratula tinctoria</i> (Saw-wort).
Grazed fields	Plants confined to the grazed field are fewer in number and include species typical of poached ground such as <i>Achillea millefolium</i> (Yarrow), <i>Bellis perennis</i> (Daisy) and <i>Cirsium arvense</i> (Creeping Thistle).
Sedge-rich meadow	<i>Carex paniculata</i> (Greater Tussock-sedge), <i>Carex flacca</i> (Glaucous Sedge), <i>Carex disticha</i> (Brown Sedge), <i>Carex caryophylla</i> (Spring-sedge) and <i>Carex hostiana</i> (Tawny Sedge) occurring with <i>Danthonia decumbens</i> (Heath-grass) and <i>Cirsium dissectum</i> (Meadow Thistle).

¹ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001141.pdf

Hedges	<i>Crataegus monogyna</i> (Hawthorn), <i>Prunus spinosa</i> (Blackthorn) and <i>Rosa sp.</i> (Rose species). A total of 14 woody species have been recorded in hedges bordering the Mansmoor Closes and alongside the parish boundary.
Fauna	Species present
Birds	The bird fauna includes breeding <i>Gallinago gallinago</i> (Snipe) and <i>Numenius arquata</i> (Curlew). Other species include <i>Pluvialis apricaria</i> (Golden Plover), <i>Sylvia communis</i> (Whitethroat), <i>Sylvia curruca</i> (Lesser whitethroat), <i>Emberiza schoeniclus</i> (Reed bunting), <i>Locustella naevia</i> (Grasshopper warbler), <i>Milvus milvus</i> (Red kite), <i>Falco columbarius</i> (Merlin), <i>Pyrrhula pyrrhula</i> (Bullfinch), <i>Emberiza calandra</i> (Corn Bunting), <i>Locustella naevia</i> (Grasshopper warbler), <i>Perix perdix</i> (Grey partridge), <i>Passer domesticus</i> (House sparrow), <i>Carduelis cannabina</i> (Linnet), <i>Emberiza schoeniclus</i> (Reed bunting), <i>Sturna vulgaris</i> (Starling), <i>Alauda arvensis</i> (Skylark), <i>Vanellus vanellus</i> (Lapwing), <i>Turdus philomelos</i> (Song thrush), <i>Cuculus canorus</i> (Cuckoo), <i>Passer montanus</i> (Tree sparrow), <i>Emberiza citronella</i> (Yellowhammer) and <i>Tyto alba</i> (Barn owl).
Invertebrates	The meadows support large numbers of common butterflies, including <i>Maniola jurtina</i> (Meadow brown), <i>Pyronia tithonus</i> (Gatekeeper), <i>Lycaena phlaeas</i> (Small copper), <i>Polyommatus icarus</i> (Common blue), <i>Pieris napi</i> (Green-veined white) and <i>Melanargia galathea</i> (Marbled white).

2 DESCRIPTION OF PROJECT

2.1 Purpose of Works

The EWR advanced works (see *Figure 2* in *Appendix 1*) will come to within 500 m of the Wendlebury Meads and Mansmoor Closes SSSI. They will include:

- The re-surfacing of Mansmoor Road (to be repaired and overlaid with asphaltic concrete) over a section 925 m long and 3.5 m wide. The resurfacing is considered to fall outside the definition of development with regards to the Transport Works Act (TWA) Order.
- The installation of traffic lights at the interface between the permanent works road and Mansmoor Road.
- The construction of a temporary 1 ha storage compound south-east of the railway line.
- The construction of a temporary area for excess spoil (which will be outside the flood zone), south-east of the railway line.
- The construction of a temporary 7.3 m wide haul road on the alignment of permanent road works over existing improved grassland, which will lead to a storage compound and spoil. Once the haul road is no longer required, the small section that diverts north towards the storage compound will be removed, and the remainder will form the permanent road.
- The temporary haul road will be removed once it is no longer required. The permanent works road will be approximately 3.65 m wide, following the removal of the temporary haul road.

The core works will include the construction of a bridge over the railway to replace Holt's Farm crossing. This Method Statement does not cover the Core Works which will be produced in a separate Method Statement and will contain details of the bridge and other rail works.

2.2 Location of Works

The location of the site and the Wendlebury Meads and Mansmoor Closes SSSI is shown in *Figure 1* in *Appendix 1*. The location of works (haul roads and storage compound) is shown in *Figure 2* in *Appendix 1*. Mansmoor Road is located immediately adjacent and to the west of the SSSI, whereas, the start of the new haul road will be located approximately 65 m west of the SSSI, but the road will run away from the SSSI. The spoil heap and storage compound will be located approximately 135 m and 270 m west of the SSSI, respectively.

2.3 Timetable of Works

The Mansmoor Road resurfacing will be undertaken from March 2014. The construction of the storage compound and additional works will commence following the resurfacing works. The duration of these works will be approximately two months.

The core works (which will include the construction of the new bridge) will continue until August 2015, after which the storage compound, spoil and temporary haul road will be removed. The works will be undertaken during daylight hours only (e.g. 0700 – 1700 hours).

The timeframe of works in relation to protected species (i.e. breeding birds etc) is set out in *Section 3*.

2.4 Notifications / Licenses

The LPA requires eight weeks for the approval of this method statement.

To the north-east of the works, a pond (referred to as pond 80, see *Great Crested Newt Mitigation Plan* (Environmental Resources Management 2011) and *Figures 3 and 4 in Appendix 1*) was recorded as having a medium population of great crested newt with evidence of breeding. Pond 80 is outside of the SSSI boundary and will be over 250 m from the advanced works area. A European Protected Species Mitigation (EPSM) licence has been granted for development works within 100m of the pond (referred to as meta-population 3, see *Great Crested Newt Mitigation Plan* (Environmental Resources Management 2011) and *Figures 3 and 4 in Appendix 1*).

Habitat within 0 – 50 m of a great crested newt waterbody is described as ‘core habitat’ considered of high importance. Habitat within 50 – 250 m of a great crested newt waterbody is described as ‘intermediate habitat’, and is considered to be of moderate importance for great crested newt. Whereas, habitat within 250 – 500 m of a great crested newt waterbody is described as ‘distant habitat’ and is considered to be of low importance. Therefore, the EWR advance works will avoid development on habitat within 250 m of the waterbody. Any works within 250 m must be carried out under an ecological watching brief.

Please refer to the ERM (2011) *Great Crested Newt Mitigation Plan* for further details.

2.5 Revisions

Should changes to the works be required, the LPA and Natural England will be consulted to determine whether the changes pose a potential threat to the nature conservation interest of the SSSI.

Any amendments to the work activity must be fed back into the Method Statement.

3 SUMMARY OF CONSTRUCTION IMPACTS

In summary the construction activities comprise:

- construction of haulage roads and associated vehicular movements;
- construction of a temporary works storage compound;
- construction of a spoil storage area for excavated material disposal, and
- all engineering and construction activities as defined in the planning applications.

There will be no direct impact on the Wendlebury Meads and Mansmoor Closes SSSI from the EWR Advanced Works. However, the above works will be located immediately adjacent to the SSSI boundary and, therefore, the SSSI is potentially susceptible to indirect impacts from these construction activities during the construction period. These impacts were identified in the *Environmental Statement Volume 2 (Chapters 5 -156)* (Environmental Resources Management 2009) as follows:

- disturbance and damage from construction works within or immediately adjacent to the boundary of the SSSI;
- ground water/ surface water pollution and change to hydrological regime;
- dust smothering; and
- the introduction of invasive species.

4 POTENTIAL IMPACTS AND MITIGATION MEASURES

The following headings cover the potential impacts and the mitigation measures that will be implemented. Providing that mitigation measures are adhered to, no significant impact on the SSSI is predicted (Environmental Resources Management 2009). This Method Statement must be kept on site at all times and the contractors must be given ecological awareness training prior to the onset of construction. This will inform them of the location and sensitivity of the adjacent SSSI and the importance of implementing the mitigation measures described here.

Should any re-siting be required, the ecologist should be contacted immediately to ensure that the working corridor or associated infrastructure will be moved only to areas of habitat with equal or lower nature conservation value, and will not be moved to any areas that may increase the impact of the scheme.

4.1 Dust

4.1.1 Potential Impact

Dust from the spoil heap and construction works may impact on plant and animal species in the SSSI. Dust may have physical effects on plants (e.g. smothering, blockage and damage to stomata, shading, abrasion of leaf surface or cuticle) and cumulative effects (e.g. drought stress on already stressed plants). Long-term damage can result from chemical changes in the soil, e.g. changes in the species composition or community structure. Dust inhaled by animal species may have adverse physiological effects on the respiratory system.

4.1.2 Mitigation Measures

The construction works will take place under the working procedures and best practices set out in *Chapter 7 Dust and Air Pollution* of the *CoCP* (Environmental Resources Management 2013) and *Chapter 13 Air Quality and Dust* of the *Environmental Statement Volume 2* (Environmental Resources Management 2009). These procedures include standard and targeted control measures to avoid the creation and spread of dust particles during works, including:

- The provision of a physical barrier between the works areas and sensitive habitats in designated sites.
- Watering and damping down of potential sources of dust including aggregate materials.
- Maintaining maximum possible separation of the work areas from designated sites.
- Timing of works, avoiding periods of heavy rainfall to avoid leachate and very dry periods when dust may blow about.

- Limit on-site vehicle speeds to 20 mph.
- The use of construction machinery designed to minimise dust generation.

4.2 Vehicle Movements

4.2.1 Potential Impact

Plant species in the SSSI may be impacted by vehicle pollution and potential vehicle incursion into the SSSI. Air pollution, can have adverse effects on plant or animal health. For example, by way of nitrogen enrichment that can alter plant communities by changing species composition.

4.2.2 Mitigation Measures

- Temporary work areas (including site access) will wherever possible be situated on existing areas of hard standing, bare ground or areas of low nature conservation value (e.g. arable fields or improved grassland).
- The working width will be fenced to control the incursion of personnel and vehicles into adjacent habitats.
- Vehicle movements on site will be restricted to allocated routes only, so that adjacent vegetation is not directly affected, and so that soil compaction is restricted to these tracks.
- Construction vehicles will be checked regularly for oil, fuel or other fluid leaks, and will be equipped with spillage contingency kits.
- No construction vehicles will enter the SSSI.
- Construction vehicle movements will be restricted to daylight hours (i.e. 0700 to 1700 hours).
- Atmospheric pollution will be reduced by the following advice to drivers: shutting off engines when the vehicle is idle for more than one minute; turning off air conditioning five minutes before entering the compound; and not accelerating or braking sharply.

4.3 Habitat Loss

4.3.1 Potential Impact

It is understood that the haul road, spoil heap and storage compound will be sited on improved grassland and arable fields. Following the completion of construction, it is proposed that the turf and soil removed and stored on site (as the spoil) will be re-laid. The SSSI habitat will not be directly impacted.

4.3.2 Mitigation Measures

- Habitat loss will be limited to the minimum needed for the safe implementation of the works.

- Where land is to be restored, the turf, then topsoil and subsoil will be stripped and stored separately in low mounds (of less than 2m), and reinstated.
- Temporary work areas (including site access) will wherever possible be situated on existing areas of hard standing, bare ground, or other areas of low nature conservation value (e.g. arable fields or improved grassland).
- The hedge that will be left to the north of the spoil area and to the south of the storage compound will be protected via fencing.
- Upon completion of the works, all temporary working areas (e.g. the haul road, storage compound and spoil heap) will be fully restored, including the re-seeding of grassland (as detailed in *Section 8.5 of the Environmental Statement Volume 2* (Environmental Resources Management 2009)).

4.4 Ground Water and Surface Water Pollution and Drainage

4.4.1 Potential Impact

Runoff from construction works, roads and the storage area can alter the natural drainage conditions and potentially cause ground or surface water pollution. As specified in *Chapter 9 Water Resources and Flood Risk* in the *Environmental Statement Volume 2* (Environmental Resources Management 2009) Wendlebury Meads and Mansmoor Closes SSSI is highly sensitive to changes in drainage conditions. Therefore, should impacts occur they would be considered moderate to major significance.

The new haulage road will not be immediately adjacent to the SSSI and drainage for Mansmoor Road currently exists, but temporary drains for the new haulage road will be installed where necessary. These are expected to alter natural drainage through the interception of natural and historic drainage channels.

Construction management measures to prevent adverse impacts on the SSSI from water pollution including spill leakages and piling works are specified in *Chapter 9 Protection of the Water Environment* of the *CoCP* (Environmental Resources Management 2013) and in *Chapter 9 (Water Resources and Flood Risk)* of the *Environmental Statement Volume 2* (Environmental Resources Management 2009).

4.4.2 Mitigation Measures

- Temporary drains will be no larger than is needed to ensure free drainage of tracks and work areas.
- Ditches and drains will be regularly maintained and checked for blockages.
- Diesel storage tanks and any other chemical stores will be located away from watercourses. Tanks will be double skinned or surrounded by a bund capable of retaining 110% of the maximum stored volume.
- Watercourses will be protected from sedimentation and run off from pollution incidents. Systems such as wheel washing areas, pollution valves and temporary water storage areas will be used.

- Works will be undertaken according to Environment Agency Pollution Prevention Guidelines (PPGs) to prevent any pollution incidents affecting ecologically sensitive habitats.

4.5 Invasive Species

4.5.1 Potential Impact

There has been no invasive species recorded in the vicinity of the SSSI (e.g. along the railway adjacent to the SSSI, where invasive species are relatively likely as they often spread on railways). Therefore, care should be taken to prevent the introduction of invasive species through dirty lorries or imported hardcore or soil. Should invasive species be identified within the construction zone, the following measures will be implemented should invasive species be recorded.

4.5.2 Mitigation Measures

- The guidance provided within the Department of Environment, Food and Rural Affairs (DEFRA) (2011) *Helping to Prevent the Spread of Invasive Non-Native Species, Horticultural Code of Practice* will be followed.
- If any invasive species listed on *Schedule 9, Part II of the Wildlife and Countryside Act 1981*, as amended is identified within the works area or in close proximity to the boundary, a strategy will be devised by qualified specialists following the Environment Agency's guidelines. The strategy will ensure the control of the species and prevent their spread in and beyond the site.

4.6 Protected Species

4.6.1 Potential Impact

Protected and notable species known or likely to be present in adjacent habitats include breeding birds and Great Crested Newt. Hedges, scrub, grassland and trees provide nest sites for birds and sheltering habitat for Great Crested Newt during their terrestrial phase. These species will not be impacted by the advanced works because the development will be sited on short grassland (unsuitable for nesting birds) and will not impact the hedge, which is immediately adjacent to the spoil and storage compound. However, the following measures will be implemented to ensure that any protected species that do use the site are protected from the impacts of construction.

In the unlikely event that a protected species or notable species is found during the works, the works will immediately be suspended and ecological advice will be taken immediately.

4.6.2 Mitigation Measures

- The works (i.e. siting of the storage compound and spoil heap) will be located outside the 250 m buffer of pond 80 (see *Figure 3 in Appendix 1*).

- Any works within 250 m of pond 80 will be carried out under an ecological watching brief (i.e. a careful and systematic hand search for great crested newt within habitat and dismantling of potential refuge by hand).
- The hedge line north of the spoil heap will be protected by fencing to prevent encroachment.
- Toolbox talks will be provided on site prior to any construction works to explain any potential ecological issues that may arise and what to do in the circumstance.
- Vegetation removal (e.g. trees and scrub) will take place outside of the breeding bird season (which runs from March to August, inclusive). Where this is not possible, a search for any nesting birds prior to vegetation clearance will be undertaken by an ecologist. If any nests are found, they will be protected by an exclusion zone. Works may then proceed up to, but not within, this exclusion zone. Works may be completed once an ecologist has confirmed that the young have fledged the nest. If nesting birds are found at any time during clearance works, the work will stop immediately and an ecologist will be consulted.
- All excavations or earthworks must be covered overnight to prevent any animal from becoming trapped (or ramps should be provided to enable escape).
- Rubble, spoil and any other materials should be stored off the ground e.g. on pallets, or placed in skips to ensure that suitable temporary refuges for great crested newt are not created.
- The duration of ground works will be kept as short as possible.
- Where possible, the surrounding grassland around the haul road, storage area, bridge and spoil will be kept short (i.e. regularly mown or grazed) to discourage any protected or notable species from seeking cover or dispersal in this area.
- The works will be undertaken during the day only.

4.7 Lighting and Noise

4.7.1 Potential Impact

The works will be undertaken during daylight hours only. Lighting and noise is not listed as an operation likely to damage the special interest of the SSSI on Natural England's information page². This is because the SSSI is designated for its plant communities rather than fauna. However, noise from construction works may affect animal species within and adjacent to the SSSI. Traffic noise can reduce the distance over which acoustic signals can be heard ("acoustic masking") and produce non-auditory physiological effects such as increased heart rate and general stress reaction. Behavioural effects vary between animal species, but can include abandonment of territory and lost reproduction.

The construction works (e.g. the construction of the new haul road and storage compound) will be undertaken in two months from March 2014, and the core works, which will include the bridge construction, will take approximately 15 weeks (starting from May / June 2014). The noise from the temporary compound and from lorries,

² <http://www.sssi.naturalengland.org.uk/Special/sssi/old/OLD1001141.pdf>

forklifts etc will be intermittent, therefore, only minor to low noise impacts are expected (Environmental Resources Management 2013). However, the storage compound will be located adjacent to a hedge that could support breeding birds, and noise could disturb those that use the hedge. Such birds are likely to maintain a stand-off distance from the works and be displaced into other suitable areas.

The following measures (taken from *Chapter 6 Noise and Vibration* within the *CoCP* (Environmental Resources Management 2013) and *Environmental Statement* (Environmental Resources Management 2009) will so far as possible be implemented to reduce impacts relating to noise.

4.7.2 Mitigation Measures

- The works will be limited to daylight hours.
- Traffic will be limited to 20 mph.
- Plant will be operated in an appropriate manner to minimise noise emissions (including regular maintenance of the plant).
- Modern, silenced and well-maintained plant fitted where appropriate with efficient attenuators or acoustic covers, will be used at all times. All relevant plant and equipment will be expected to meet the noise limit and noise marking requirements prescribed by the Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001, implementing EU Directive 2000/14/EC.
- Equipment, including vehicles, will be shut down when not in use or throttled down to a minimum.
- The Contractor will adhere to the codes of practice for construction working and piling set out in BS 5228 'Noise Control on Construction and Open Sites' insofar as these are reasonably practicable and applicable to the construction works.
- Raised voices will be kept to a minimum.

5 DESCRIPTION OF ACTIVITIES, RISKS AND MITIGATION

Table 4.1: General Activities

General Activity	Environmental Risk	Mitigation/ Environmental Control Measures (this list is not exhaustive and detailed mitigation and control measures should be followed as detailed in the CoCP and ES)	Timing	Roles and Responsibilities	Plan Ref.	Cross Reference with CoCP and ES	Action Completed (Y/N)
General Site Management	Land Contamination – Dust	<p>Damp down potential dust sources</p> <p>Provide a physical barrier between works areas and sensitive habitats</p> <p>Time works to avoid very dry periods</p> <p>Limit vehicle speed (e.g. 20 mph)</p>	March 2014 – August 2015	Construction Site Manager	Figure 2, Appendix 1	CoCP – Chapter 7 ES – Chapter 13	
	Land Contamination – Ground water / surface water pollution	<p>Locate all oil storage tanks away from waterbodies</p> <p>Use tanks that are double skinned or surrounded by a bund, capable of retaining 110% of tank volume</p> <p>Maintain all plant equipment</p> <p>Keep temporary drains to a minimum</p> <p>Avoid transportation of fuel across the site</p> <p>Provide spillage kits</p>	March 2014 – August 2015	Construction Site Manager	Figure 2, Appendix 1	CoCP – Chapter 9 ES – Chapter 9	

General Activity	Environmental Risk	Mitigation/ Environmental Control Measures (this list is not exhaustive and detailed mitigation and control measures should be followed as detailed in the CoCP and ES)	Timing	Roles and Responsibilities	Plan Ref.	Cross Reference with CoCP and ES	Action Completed (Y/N)
	Land Contamination – Invasive species	Follow the EA guidelines for invasive species control and eradication Follow good practice in order to avoid unintentional introduction of invasive species (e.g. through newly imported hardcore or soil and vehicles).	March 2014 – August 2015	Construction Site Manager	N/A	CoCP – Chapter 10 ES – Chapter 8	
	Noise levels	Limit traffic to 20 mph. Operate plant to minimise noise emissions Use modern silenced plant Shut down equipment when not in use Keep shouting and raised voices to a minimum	March 2014 – August 2015	Construction Site Manager	N/A	CoCP – Chapter 6 ES – Chapter 6	
Construction - Site Clearance (soil stripping and vegetation removal)	Damage to habitats and species outside the SSSI site boundary (e.g. habitat loss, encroachment)	Contractors made aware of the location of the SSSI Site fence kept intact to control incursion of personnel or works vehicles into adjacent habitats Works areas to be sited on habitats of low ecological value (e.g. arable field and or improved grassland)	March – April 2014	Construction Site Manager	Figure 1 and 2, Appendix 1	CoCP – Chapter 10 ES – Chapter 8	

General Activity	Environmental Risk	Mitigation/ Environmental Control Measures (this list is not exhaustive and detailed mitigation and control measures should be followed as detailed in the CoCP and ES)	Timing	Roles and Responsibilities	Plan Ref.	Cross Reference with CoCP and ES	Action Completed (Y/N)
		Protect the hedge from the spoil heap via fencing Report any incidents that may cause damage to the SSSI to an ecologist					
	Protected or notable species (disturbance) (e.g. habitat loss, noise)	Avoid works during the breeding bird period or undertake a nesting bird check prior to vegetation clearance Undertake the works during daytime hours only Provide tool box talks, where necessary Excavations covered overnight or ramps provided to allow species to escape Rubble, spoil and other materials stored off the ground Immediately suspend works if protected species or notable species are found and take advice from ecologist immediately	March – April 2014 (haul road and storage compound) 15 weeks for the construction of the new road bridge	Construction Site Manager Ecologist	N/A	CoCP – Chapter 6 and 10 ES – Chapter 6 and 8	

6 REFERENCES

Environmental Resources Management (2009) *The Chiltern Railways (Bicester to Oxford Improvements) Order Environmental Statement: Volume 2, Assessment of Impacts*. Environmental Resources Management, London.

Environmental Resources Management (2013) *Project 0172205 Chiltern Railways (Bicester to Oxford Improvements) Order, Code of Construction Practice – Version 6*. Environmental Resources Management, London.

Department of Environment, Food and Rural Affairs (2011) *Helping to Prevent the Spread of Invasive Non-Native Species, Horticultural Code of Practice*. Department of Environment, Food and Rural Affairs, London.

RSK (2014) *Site Clearance Method Statement – East West Rail Advance Works*. RSK, Helsby.

APPENDIX 1

FIGURES

Figure 1 – Site and SSSI location

Figure 2 – Haul roads and storage compound design, Holts Farm

Figure 3 – Meta-population 3 Holts Farm Crossing: Impacts

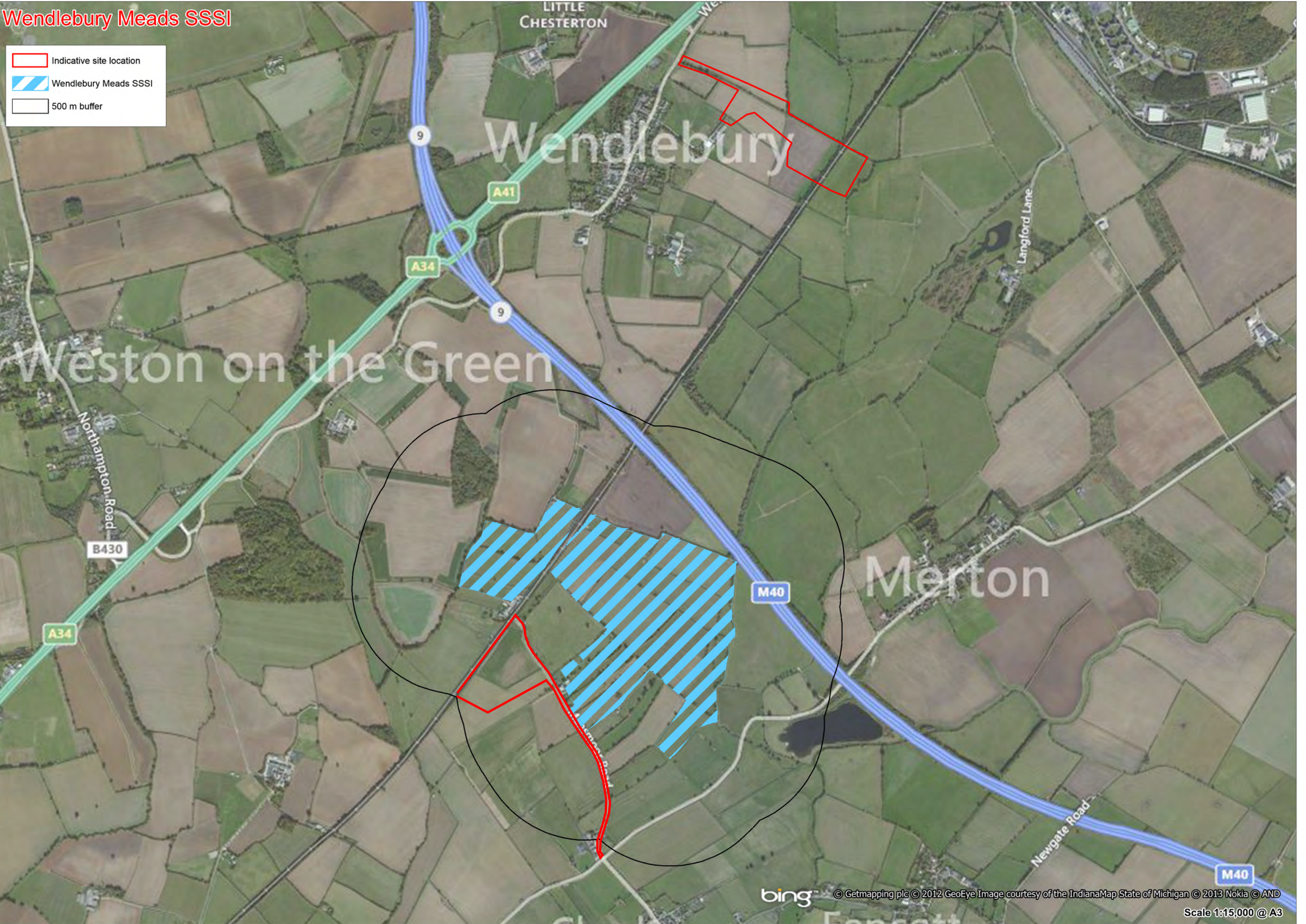
Figure 4 – Meta-population 3 Holts Farm Crossing: Capture and Exclusion Measures

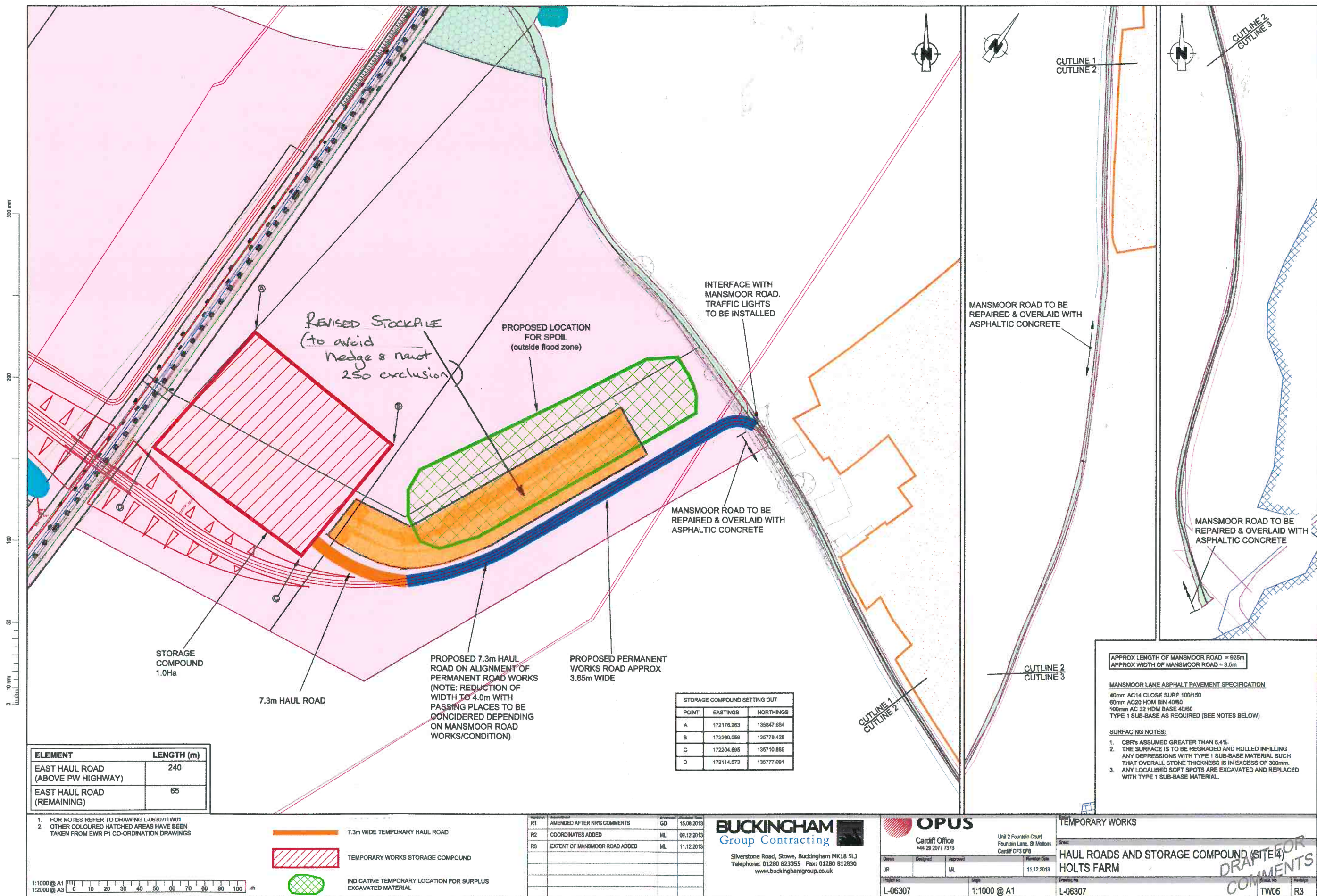
Wendlebury Meads SSSI

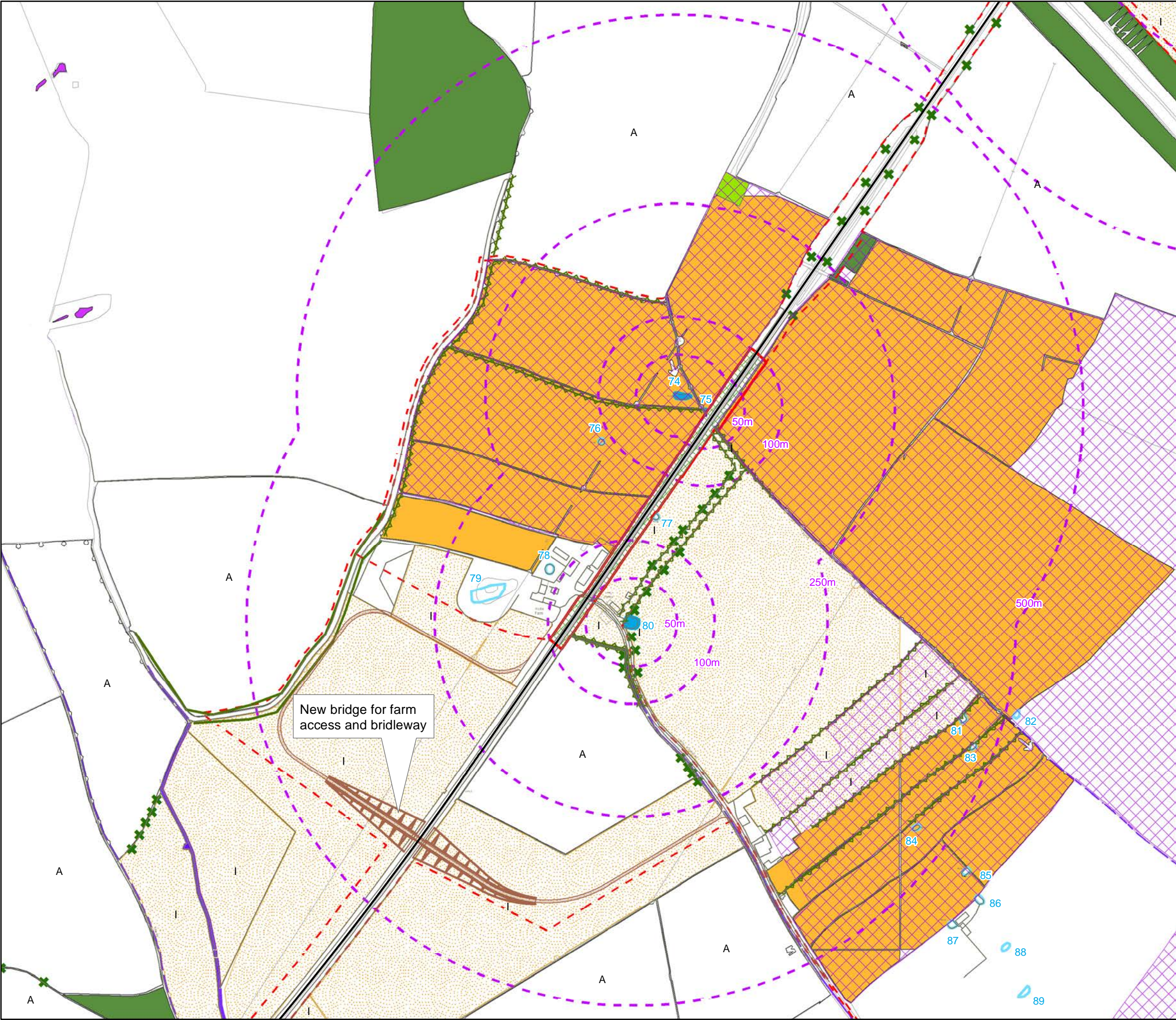
Indicative site location

Wendlebury Meads SSSI

500 m buffer





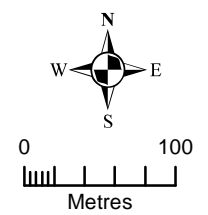


KEY:

- Licensed Works Area/Development Site
- Chiltern Railways
- Scheme Boundary
- 50/100/250/500m from Meta-population 3
- Ponds surveyed for Great Crested Newts
- Ponds not surveyed for Great Crested Newts
- Wendlebury Meadows and Mansmoor Closes SSSI
- Replacement permanent pasture within Wendlebury Meadows and Mansmoor Closes SSSI when barn removed and replaced
- Railway Line

Habitats

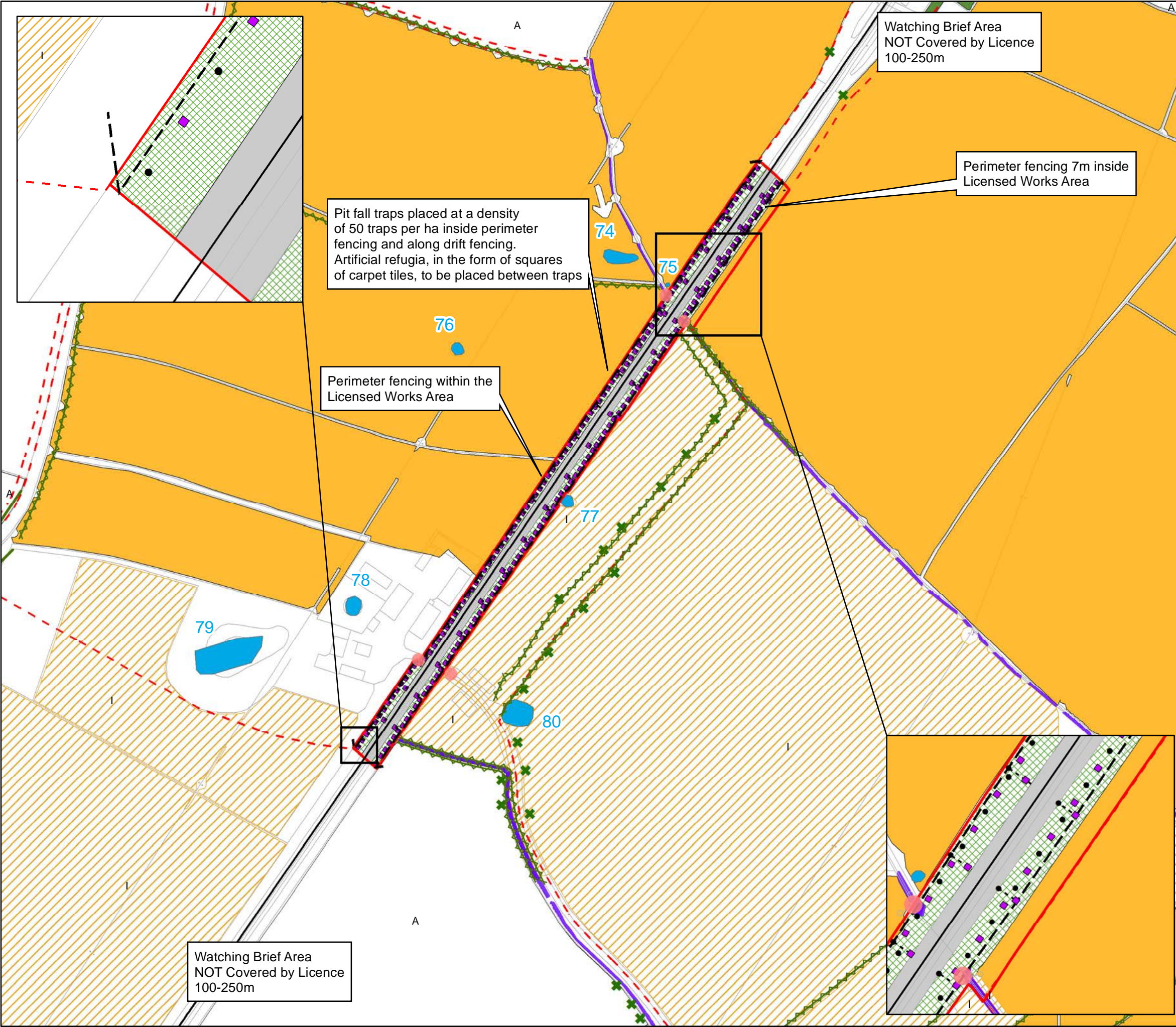
- Railway habitat (colonising vegetation, grassland and hardstanding)
- Arable
- Semi-natural Broadleaved Woodland
- Dense Scrub
- Improved Grassland
- Semi-improved Neutral Grassland
- Running Water
- Standing Water
- Species-rich Hedge
- Species-poor Hedge
- Scattered Scrub



Note: Ponds 74, 75 and 80 are the subject of the Licence Application

TITLE:
**Figure D
Meta-population 3
Holts Farm Crossing:
Impacts**

CLIENT: Chiltern Railways		SIZE: A3
DATE: 05/12/2012	CHECKED: SG	PROJECT: 0110147
DRAWN: AK	APPROVED:	SCALE: As Scale Bar
DRAWING: Licence3_Impacts.mxd		REV: 0
ERM Eaton House Wallbrook Court North Hinksey Lane Oxford, OX2 0QS Tel: 01865 384800 Fax: 01865 384848		
SOURCE: Reproduced from Ordnance Survey digital map data. © Crown copyright, All rights reserved. 2011 License number 010001998. Records from TVERC, 2009 PROJECTION: British National Grid		

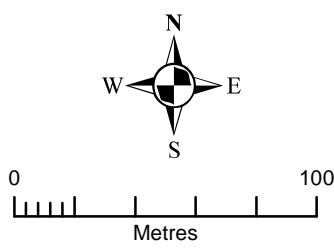


KEY:

- Licensed Works Area/Development Site
- Chiltern Railways Scheme Boundary
- Ponds
- Perimeter Fencing
- Drift Fencing
- Pit fall traps
- Artificial Refugia
- Newt gate/access point

Habitats

- Railway habitat (colonising vegetation, grassland and hardstanding)
- A Arable
- Dense Scrub
- Improved Grassland
- Unimproved Neutral Grassland
- Running Water
- Species-rich Hedge
- Species-poor Hedge
- Scattered Scrub



Note: Ponds 74, 75 and 80 are the subject of the Licence Application

TITLE:
Figure E4(a)
Meta-population 3
Holts Farm Crossing: Capture and Exclusion Measures

CLIENT: Chiltern Railways		SIZE: A3
DATE: 05/12/2012	CHECKED: SG	PROJECT: 0110147
DRAWN: AK	APPROVED:	SCALE: As Scale Bar
DRAWING: Licence3_CaptureExclusion.mxd		REV: 0

ERM
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Fax: 01865 384848

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PROJECTION: British National Grid