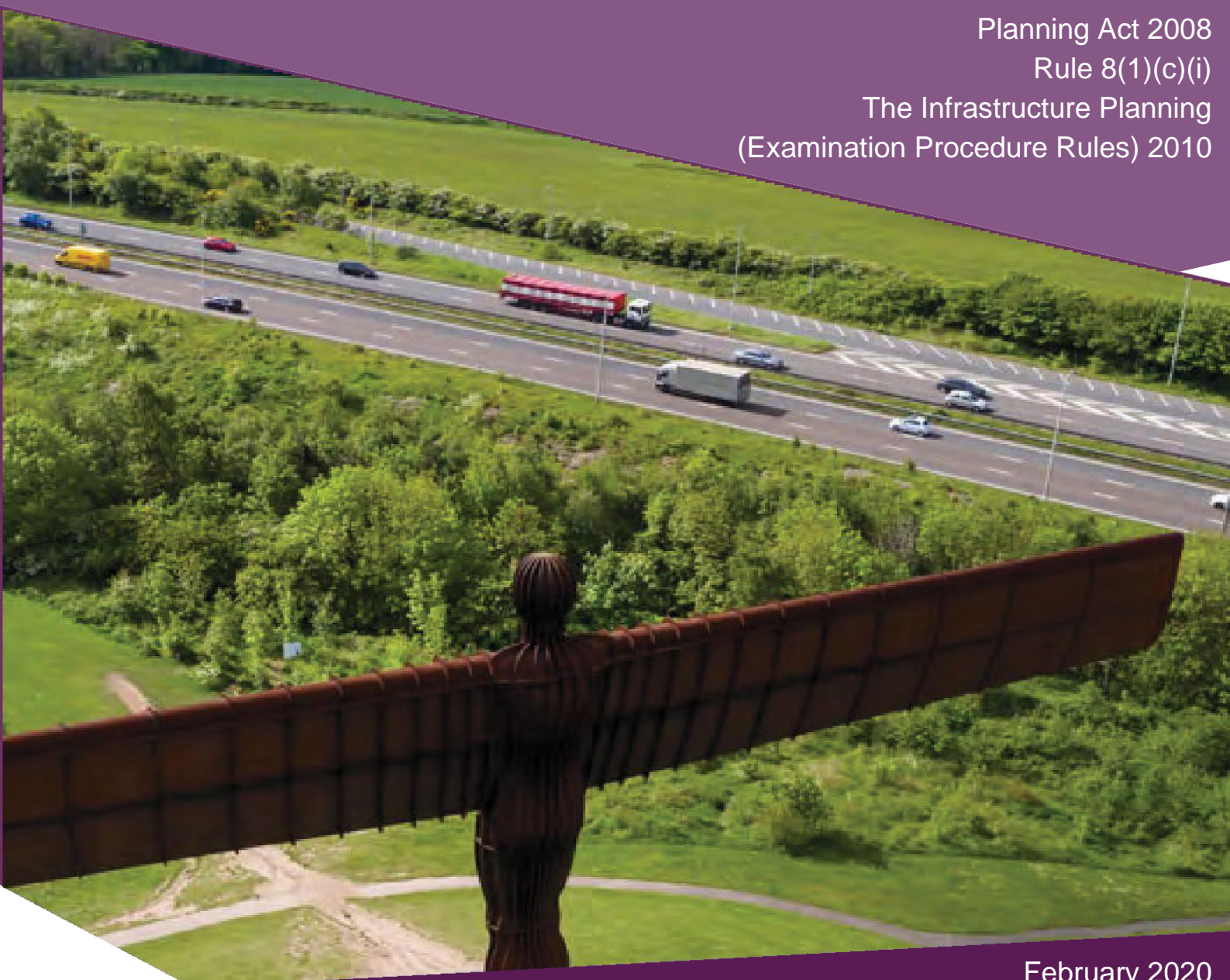


## A1 Birtley to Coal House

**Scheme Number: TR010031**

# Applicant's Responses to ExA's First Written Questions – Appendix 1.2.A - Biodiversity Mitigation Measures

Planning Act 2008  
Rule 8(1)(c)(i)  
The Infrastructure Planning  
(Examination Procedure Rules) 2010



Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Examination Procedure Rules) 2010**

**The A1 Birtley to Coal House  
Development Consent Order 20[xx]**

---

**APPLICATION'S RESPONSES TO EXA'S FIRST  
WRITTEN QUESTIONS – APPENDIX**

---

<b>Rule Number:</b>	Rule 8(1)(c)(i)
<b>Planning Inspectorate Scheme Reference</b>	TR010031
<b>Application Document Reference</b>	n/a
<b>Author:</b>	A1 Birtley to Coal House Project Team, Highways England

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 0	25 February 2020	For Issue

Table 1.2.A - Biodiversity Mitigation Measures

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
Avoidance of permanent loss of priority habitat areas where possible and the reduction in construction footprint to reduce temporary loss of priority habitat areas and suitable GCN terrestrial habitat.	B1	N/A	N/A
The approach to the Landscape Mitigation Design (Figure 7.6 of this ES (Application Document Reference: TR010031/APP/6.2)) has sought to where possible result in ecological enhancement in the longer term. As set out in Figure 7.6 of this ES (Application Document Reference: TR010031/APP/6.2), the design includes: <ul style="list-style-type: none"> <li>a. Reinstatement of habitat features within the same geographical area, where possible, maintaining connectivity to existing retained habitat features.</li> <li>b. Creating a diversity of habitat creation across the Scheme, including grasslands, scrub and woodland.</li> <li>c. Creation of woodland corridors and tree lines to link existing woodland at Robin's Wood to the River Team and enhance the wildlife corridors between Longacre Wood LWS and the existing wildlife corridor to the west.</li> <li>d. Creation of linear features (hedgerows and tree lines) using native species along much of the length of the Scheme, on both east and west sides of the carriageway (design permitting).</li> <li>e. The use of native species within the planting plan. However, this will include the omission of ash <i>Fraxinus excelsior</i> from all planting mixes due to the biosecurity risk of ash dieback.</li> <li>f. Planting of native trees and hedgerows to enhance the Bowes Railway LWS wildlife corridors and strengthen the wildlife corridor to encourage use.</li> <li>g. Use of native species and plant stock of local provenance within the mitigation planting design.</li> </ul>	B2	N/A	N/A
Culverts will be designed, where possible, to include natural beds (between 100mm and 250mm) to maintain and assist fish passage. To mitigate for potential downstream impacts and maintain passage along watercourses, baffles or similar structures will be installed within existing culverts.	B3	N/A	N/A
Woodland strips south of Allerdene Bridge of the Scheme will be created to screen the suitable wintering bird habitat to the south.	B4	N/A	N/A
The requirement of a pre-construction badger survey of the entire Study Area to be undertaken at least three months prior to the commencement of works. This approach can be staggered in line with the construction areas and timeframes. Should badger activity be confirmed within the area of works, a Natural England license can then be applied for if required, in advance of Scheme commencement.	B5	N/A	N/A
To protect breeding bird species from impacts, throughout the Scheme: <ul style="list-style-type: none"> <li>i. The requirement for pre-construction clearance of vegetation undertaken</li> </ul>	B6	N/A	N/A

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
<p>outside of during the main bird nesting season (March to August inclusive) to avoid damage or destruction of nests.</p> <p>ii. Or if unavoidable in this period, a suitably experienced ecologist would be employed to inspect the area within 24 hours prior to clearance.</p> <p>iii. Should any nests be identified it would be necessary for a suitable sized buffer zone in which no works occur to be put in place around the nest until the young have fledged.</p>			
<p>To protect red squirrel from impacts, Woodland east of Allerdene Bridge:</p> <p>i. The requirement of a pre-construction check of the woodland east of Allerdene Bridge prior to any tree clearance.</p> <p>ii. Should, at any time prior to the works commencing, a red squirrel be identified or considered potentially present within the Scheme Footprint, then works would cease and a suitably experienced ecologist be contacted for advice prior to works re-commencing within this immediate area.</p> <p>Tree felling in areas with potential red squirrel dreys would be timed outside of the red squirrel breeding season (February to September). Where these timescales cannot be achieved the ECoW would determine an appropriate.</p>	B7	N/A	N/A
<p>If, during the construction phase, vegetation clearance reveals reptile presence anywhere within the Scheme, then clearance operations must cease in that area until advice has been sought from a suitably experienced ecologist (SEE).</p>	B8	N/A	N/A
<p>Monitoring of the freshwater environment would be undertaken immediately prior to, during and post construction activities. Monitoring requirements would be further detailed within the CEMP.</p> <p>Chapter 13 Road Drainage and the Water Environment, paragraph 13.9.6 of the ES:          The CEMP will include a requirement to obtain the following consents prior to the commencement of construction works to prevent an increase in flood risk or deterioration on water quality:</p> <p>a. Flood Risk Activities Environmental Permit (formerly known as a Flood Defence Consent), this is required from the Environment Agency for any works within 8m of the top of the River Team bank.</p>	B9	N/A	N/A
<p>Pre-construction placement of the temporary underground culvert within the River Team within Coal House roundabout would be undertaken outside the period of September to April to avoid the salmon and brown trout (migratory and non-migratory) spawning periods.</p> <p>Soft-start and intermittent working techniques would be applied to the piling works to reduce the associated disturbance impacts on fish.</p> <p>Additionally, the modifications of any culverts on outfalls 2, 5 and 9, would also be timed to be undertaken outside the period of September to April to avoid the salmon</p>	B10	N/A	This will be agreed with the Environment Agency.

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
and brown trout (migratory and non-migratory) spawning periods.			
During construction any river dewatering and/or in-channel working, an ecological watching brief and fish rescue plan would be instigated. Where areas are required to be temporarily dewatered to permit construction activities, fish would be removed by means of electrofishing and relocated upstream prior to dewatering.	B11	N/A	N/A
Pre-construction and during construction, any tree felling would be carried out by experienced contractors to reduce direct mortality of protected species according to agreed felling methods between contractors and the ecological clerk of works (ECoW).	B12	Pre-construction and during construction	N/A
<p>Pre-Construction, during construction and post-construction, plant and personnel would be constrained to a prescribed working corridor through the use of, where practicable, temporary barriers to minimise the damage to retained habitats and potential direct mortality and disturbance to animals located within and adjacent to the Scheme working corridor.</p> <p>Restricted working areas would be required while working in or adjacent to areas including but not restricted to, the LWSs, green wildlife corridors, retained woodlands, retained hedgerows. Further protection and protected areas would be detailed within the CEMP.</p> <p>Temporary mammal-resistant fencing would be provided around construction compounds.</p> <p>Trenches, holes and pits created during construction, would be kept covered at night or provide a means of escape for mammals, reptiles and amphibians that may become entrapped. Gates to compound areas would be designed sensitively to prevent mammals from gaining access and will be closed at night.</p>	B13	<p>For the first paragraph: Pre-Construction, during construction and post-construction</p> <p>For the second paragraph: During construction</p>	N/A
<p>Given the presence of a confirmed bat roost within bridge at Eighton Lodge South underbridge, a EPS licence application and associated mitigation and compensation requirements would be required in advance of the Scheme (Pre-construction) Appendix 8.14 of this ES (Application Document Reference: TR010031/APP/6.3).</p> <p>Subject to agreement with Natural England as part of the licence application, the capture and exclusion of bats and the removal of the roosts prior to proposed works on the bridge at Eighton Lodge South underbridge would be undertaken between mid-March and mid-November (inclusive).</p> <p>A toolbox talk would be provided to the site contractor to outline the proposed works, actions to take if a bat is encountered and their legal responsibility regarding bats and their roosts.</p> <p>Upon receipt of the EPS licence, any licensable works would be directly supervised by the named ecologist (or their accredited agent), if safe to do so. All capture and exclusion methods would be detailed within the EPS licence application documents. These would include hand removal of suitable roosting features (if possible) and</p>	B14	<p>Wrong application reference code for Appendix 8.14</p> <p>“Subject to agreement with Natural England as part of the license application” in paragraph 8.9.7, n (ii).</p>	N/A

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
<p>exclusion using one-way exclusion device and all features which cannot be removed by hand. These methods could be supplemented by the use of dusk and/or dawn surveys (if considered safe to undertake). Prior to construction and start of works, the following permanent compensation features are considered necessary.</p> <ul style="list-style-type: none"> <li>Provision of four tree mounted (two per tree) or pole mounted 'woodcrete' bat boxes (Schwegler 1FF or similar), to provide roosting opportunities during the demolition and renovation of the bridge at Eighton Lodge South underbridge. These features would be installed prior to any works commencing and remain in place for a minimum of five years and can only be removed after this time should there be no evidence of use during this period. However, it is recommended that the features are permanent to provide ecological enhancement and opportunities for roosting bats over an extended period.</li> </ul> <p>Inclusion of suitable bat features within the retained bridge, such as installation of a 'bat tube' or mounted bat box.</p>			
<p>Pre and during construction all trees assessed with bat roost potential that require to be pruned or felled to accommodate the Scheme would be subject to a pre-felling inspection no more than 24 hours prior in search of roosting bats. Where features cannot be wholly assessed and ambiguity exists over the possible presence of bats, trees would be 'soft-felled' (i.e. felled in small sections) with care taken not to compromise the integrity of any potential roost feature in order to safeguard any potential bats present</p>	B15	N/A	N/A
<p>Following completion of underpass construction works and prior to operation, planting of native trees and hedgerows at Longbank Bridleway Underpass (Bowes Railway LWS) to attempt to funnel bats down under the A1 so that they continue to use the underpass, to reduce the effects of fragmentation of the extant bat population.</p>	B16		
<p>As the impact to great crested newts as a result of habitat loss is considered minimal, all pre-construction and construction works within 500m of waterbodies WB14, WB15, WB16, WB17 and WBB would be conducted under a precautionary working method statement (PWMS).            Habitat clearance within 500m of Ponds B and 14 would be undertaken during the optimal period of mid-April to mid-June, when the majority of newts will have returned to their breeding ponds. If these timings cannot be achieved, hand searching of areas of suitable habitat would be undertaken by a SEE. all site operatives would receive a briefing from a SEE. The briefing would include details of the legal protection of great crested newts, the PWMS, tips on identification of great crested newts and the procedures to follow should the species be discovered during works.            iv. Immediately prior to the works commencing, the proposed works area would be</p>	B17	Paragraph 8.7.7, o (i): All pre-construction and construction work.	Works will not recommence until the ECoW has confirmed that it is appropriate to do so.

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
<p>thoroughly hand searched by a licenced ecologist (or accredited agent). The hand search must take place no earlier than 24 hours prior to works commencing and will concentrate on all suitable terrestrial vegetation within the works area ((including access route(s)).</p> <p>v. All vehicles, plant and equipment on site must stick to predetermined access routes and must not encroach onto any habitats or areas which have not been hand searched prior to works taking place.</p> <p>vi. If a great crested newt is encountered during the proposed works, all activities in the area would cease immediately. If not present on site at the time, the SEE would be contacted to make an assessment of the situation and to determine whether a EPS licence would be required before work in that area proceeds. If considered necessary, guidance would be sought from Natural England.</p>			
<p>Pre -construction, the contractor would describe within the CEMP the strategy to be implemented for the appropriate treatment of invasive, non-native species.</p> <p>ii. The strategy would set out appropriate construction, handling, treatment and disposal procedures to prevent the spread of invasive, non-native species in line with recognised good practice.</p>	B18	Paragraph 8.9.7, q (i): Pre -construction	
<p>Remediate area south of the Allerdene Bridge to grassland.</p> <p>iii. Inclusion of fruiting species that provide winter berries for thrushes and finches, such as crab apple <i>Malus sylvestris</i>, wild cherry <i>Prunus avium</i>, rowan <i>Sorbus aucuparia</i>, elder <i>Sambucus nigra</i> and hawthorn <i>Crataegus monogyna</i>. Management of berry bearing shrubs and fruit trees would occur in the latter part of the winter (January/February) to maximise the availability of these as a foraging resource.</p>	B19	N/A	N/A
<p>To comply with guidelines provided in 'BS 5837 Trees in relation to Construction' (British Standards Institute, 2012), throughout the Scheme:</p> <p>i. During construction, trees would be protected in line with guidelines provided in BS 5837 Trees in relation to Construction. This includes the following:</p> <ul style="list-style-type: none"> <li>• Establishment of Root Protection Areas (RPA)</li> <li>• Protective fencing would be erected around the RPA to reduce risks associated with vehicles trafficking over roots system or beneath canopies</li> <li>• Selective removal of lower branches of trees to reduce risk of damage by construction plant and vehicles</li> <li>• Prevent soil compaction measures</li> </ul> <p>Maintain vegetation buffer strips (where practicable)</p>	B20	N/A	N/A
<p>Post-construction and prior to operation, planting would be undertaken to replace any trees that were intended to be retained which are felled or die as a result of construction works. The size, species and location of replacement trees will be approved by Highways England and other relevant stakeholders.</p>	B21		<p>The size, species and location of replacement trees will be <b>included in the Landscape Design and approved</b> by the SoS in consultation with the local</p>

Mitigation Measures in the ES	Reference in the Outline CEMP	Mitigation not Included in the Outline CEMP	Mitigation not Included in the ES
			authority.
<p>During construction, where retained, deadwood will be placed in a variety of locations and conditions to benefit a number of species.</p> <p>ii. Deadwood would be stored in a location away from the working area to prevent risk of damage and then placed within areas of retained woodland or woodland planting at an appropriate time.</p> <p>iii. Tree stumps would be retained in situ where felled on the edge of working areas where this does not pose a constraint to the works.</p>	B22	N/A	N/A
<p>Creation of species rich grassland habitat, consisting of a native species mix, within the vicinity of the waterbodies. The location of which is detailed within the Landscape Mitigation Design (Figure 7.6 of this ES (Application Document Reference: TR010031/APP/6.2)).</p>	B23	N/A	N/A
		<p>Paragraph 8.9.7 f (i) and (ii): To protect otter within the River Team and at Coal House roundabout:</p> <p>i. The requirement of a pre-construction check of the habitat within and immediately adjacent to the Coal House roundabout prior to any habitat clearance and installation of the temporary culvert.</p> <p>ii. Should, at any time prior to the works commencing, signs of otter are recorded or considered potentially present within the Scheme Footprint, then works would cease and a suitably experienced ecologist be contacted for advice prior to works re-commencing within this immediate area.</p>	
<p>Paragraph 8.9.8, b (i): To protect the habitats created throughout the Scheme:</p> <p>i. Adherence to the landscape mitigation monitoring and maintenance as detailed in Chapter 7 Landscape and Visual of this ES (Application Document Reference: TR010031/APP/6.1).</p>			