

**Update Extended Phase 1 Habitat Survey Report**

<b>Site Name</b>	Llanthony Road, Gloucester	<b>Survey Date</b>	9th February 2015
<b>Prepared by</b>	Mr R Randall,	<b>Reviewed by</b>	Mr Michael Peile MICFor CEnv
<b>Client</b>	Gloucester County Council	<b>Approved by</b>	
<b>Introduction</b>	<p>Amey was commissioned by Gloucester Country Council to undertake an Ecological survey of the improvement scheme for the Gloucester South West Bypass (Llanthony Road). The study was commissioned in relation to the proposed carriageway and footpath widening, including land take from adjacent businesses, addition of a footway and improved cycleway.</p> <p>The objectives of the study were to:</p> <ul style="list-style-type: none"> <li>• Provide baseline information on the current habits and ecological features within and immediately surrounding the scheme area;</li> <li>• Identify the presence or potential presence of any protected species or habitats and provide an appraisal of any potential effects the works may have on these; and</li> <li>• Provide recommendations for further survey work and / or mitigation measures, if required.</li> </ul> <p>The update field survey was undertaken on 9th February 2015 by Amey Senior Ecologist Mr. Robert Randall, an experienced ecologist.</p> <p>The following description of scheme works was provided within a set of drawings (design options are unconfirmed but Option 1 is preferred)</p> <ul style="list-style-type: none"> <li>• Option 1: Three Lane Widening : (3 new lanes with 2 lanes northbound: 2 lanes southbound): This option provides 3 new lanes and subject to the completion of detailed traffic modelling looks likely to deliver the greatest benefits in terms of improvement to traffic flow, of improved side road access and of improved pedestrian facilities.</li> <li>• Option 2: Northbound Widening: (2 lanes northbound: 1 lane southbound): This option could also provide substantial benefits for road users at reduced cost subject to the completion of detailed traffic modelling and signal assessment work.</li> <li>• Option 3: Southbound Widening: (1 lanes northbound: 2 lane southbound): This option could also provide substantial benefits for road users at reduced cost subject to the completion of detailed traffic modelling and signal assessment work.</li> <li>• Option 4: Junction layout improvements: A number of different lane and pedestrian access improvements were identified at the Spinnaker</li> </ul>		

	<p>Road, Sudmeadow Road and Hemmingsdale Road junctions' dependant on the outcome of detailed traffic modelling and signal assessment works</p>
<p><b>Legislation</b></p>	<p><b>European</b></p> <ul style="list-style-type: none"> <li>• Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (hereafter referred to as the 'Habitats Directive'); and</li> <li>• Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (hereafter referred to as the 'Birds Directive').</li> </ul> <p><b>National</b></p> <ul style="list-style-type: none"> <li>• The Conservation of Habitats and Species Regulations 2010, as amended (hereafter referred to as the 'Habitat Regulations');</li> <li>• The Wildlife and Countryside Act 1981 (as amended);</li> <li>• Natural Environment and Rural Communities Act (2006);</li> <li>• Countryside and Rights of Way Act 2000;</li> <li>• The Wild Mammals (Protection) Act 1996;</li> <li>• Protection of Badgers Act 1992;</li> <li>• Hedgerows Regulations 1997; and</li> <li>• The United Kingdom Biodiversity Action Plan (UK BAP);</li> </ul> <p><b>Local</b></p> <ul style="list-style-type: none"> <li>• Gloucestershire Biodiversity Action Plan</li> </ul>
<p><b>Survey Methodology</b></p>	<p><b>Ecological Scoping Survey</b></p> <p>The survey was undertaken following the UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010) and with reference to the IEEM Guidelines for Ecological Impact Assessment in the United Kingdom (IEEM, 2016).</p> <p>This habitat survey was extended through the additional recording of features indicating the presence, or likely presence, of protected species such as bats, birds, great crested newt <i>Triturus cristatus</i>, badger <i>Meles meles</i>, and other species of conservation significance.</p> <p>This survey does not constitute a full protected species survey but provides sufficient information to enable an experienced ecologists to either:</p> <ul style="list-style-type: none"> <li>• Confirm the conservation significance of the scheme area and assess the potential for impacts on habitats/species likely to represent; or</li> <li>• Determine the scope and extent of any additional ecological surveys that may be required before such confirmation can be made.</li> </ul>
<p><b>Update Survey Findings</b></p>	<p><i>Habitats</i></p> <p>The scheme is located directly adjacent to the grounds of Llanthony Secunda Priory. The grounds support a variety of habitats including amenity grassland,</p>

	<p>a pond and areas of scrub and brash alongside the precinct boundary wall and the south-eastern corner of the grounds. Scattered mature trees including horse chestnut and sycamore are also present. The Priory building is located towards the centre of the grounds outside of the works. The pond is located approximately 10m to the east of the boundary wall and the gatehouse and measures roughly 300m<sup>2</sup> in size. The gently sloping margins are vegetated with immature willows with further emergence and marginal aquatic species present. A single mallard was seen on the pond.</p> <p><i>Protected Species</i></p> <p><i>Great Crested Newts</i></p> <p>The pond and the surrounding terrestrial habitat provides suitable habitat for Great Crested Newts which may use the pond for breeding. The pond and surrounding grounds are relatively isolated being located in a predominantly urban setting. The scattered stones, scrub, brash and logpiles along the boundary wall offer hibernation opportunities for GCNs.</p> <p><i>Nesting birds</i></p> <p>The scrub and brash piles offer nesting opportunities for birds.</p> <p><i>Bats</i></p> <p>The gatehouse appeared to be in a state of good repair with no obvious racks or crevices that could be used by roosting bats. The Priory building may be used by roosting bats, although this is not anticipated to be affected by the planned highway works.</p> <p>UPDATE: due to the anticipated demolition of the retail buildings opposite Llanthony Priory, it is recommended that a preliminary bat roost inspection takes place.</p> <p><i>Reptiles</i></p> <p>The logpiles, scrub and brash piles alongside the precinct wall provide opportunities for reptiles in terms of shelter, foraging and hibernation. The fenced area adjacent to Hemmingsdale Road is isolated and considered to offer limited potential for reptiles.</p> <p>Habitat Suitability Assessment (HSI)</p> <p>A HSI was undertaken on 9<sup>th</sup> February 2015 of the pond. A score of 0.62 was obtained indicating that the pond was of average suitability for GCNs, partly due to its urban setting and lack of connectivity to other ponds within 1km.</p>
<p><b>Recommendations</b></p>	<p>Due to the close proximity of the pond and the potential for GCNs to utilise the site, if any works are to be undertaken within the grounds of the Priory involving vegetation clearance or excavation works then further ecological assessment of the pond and surrounding habitat will be required. This is likely to require a survey of the pond for the presence of GCNs (4 visits between mid-March to mid-June 2015 with 2 visits in the peak breeding period of mid-April – mid-May). If <b>all</b> works will be confined to <b>outside</b> of the precinct boundary wall then the risk to any GCNs present is considered to be negligible.</p>

	<p>If the brash and scrub along the boundary wall is to be removed then this should be undertaken between September and February, outside of the bird breeding season. If this is not possible then a search must be made by an ecologist beforehand to check for the presence of nests.</p> <ul style="list-style-type: none"> <li>• If the logs and brash piles are to be removed this should be done outside of the period when hibernating reptiles maybe present (mid-March-October inclusive).</li> </ul> <p>UPDATE: A preliminary Bat roost assessment is required for the buildings for demolition of Llanthony road, opposite the Priory. If Absence can not be confirmed then further surveys will be required as per the Bat Conservation trust guidelines (2016)</p>
<p><b>Additional Notes</b></p>	<p>N/A</p>
<p><b>References</b></p>	<p>Bang, P. &amp; Dahlstrom, P. (2001). Animal Tracks and Signs, Oxford University Press.</p> <p>IEEM (2016). Institute of Ecology and Environmental Management: Guidelines for Ecological Impact Assessment in the United Kingdom (2<sup>nd</sup> Ed).</p> <p>JNCC (2010). Handbook for Phase I Habitat Survey – a Technique for Environmental Audit. JNCC, Peterborough.</p>