## Executive Summary

### Purpose
Delta-Simons Environmental Consultants Ltd was commissioned by BeLa Partnership Ltd. (‘the Client’) to undertake a Riparian Mammal Survey of land adjacent to Rockingham Motor Speedway in Corby, Northamptonshire (‘the Site’). The survey was required in order to monitor the Site for riparian mammal activity.

### Current Site Status
The Site is located approximately 1 km to the north-east of Corby, Northants. It is situated with Rockingham Motor Speedway to the north and Weldon Industrial Estate to the south. It is understood that the road route covers land previously utilised for mineral extraction works and existing road networks. The Corby North Orbital Road (CNOR) starts on Steel Road, which is an existing road network, before running parallel to the route of a former mineral railway line across previously quarried land. It joins with existing roads to connect to Phoenix Parkway. The road scheme east of the Willow Brook is completed, whilst to the west it is still under construction and the surrounding area is largely made up of bare ground with patches of ephemerals/short perennials, a strip of amenity grassland and patches of scrub. There are also two areas of woodland within close proximity to the Site. One is to the south on the former Tata Steelworks land whilst a second smaller woodland is situated in between the Speedway and the road footprint. There are also a number of ponds within close proximity to the Site.

### Proposed Development
It is understood that the Site is being developed to provide access for residential properties, schools and commercial buildings associated with the Priors Hall development. This requires extensive earthworks to level out the Site. Sections of woodland and grassland will be included within the landscaping works and two attenuation ponds have been built, with a third due to be built.

### Results: Water Vole/Otter Survey
No evidence of water vole or otter was found on-Site at the time of the survey. The banks of the Willow Brook were not considered suitable for burrowing by water voles due to both banks being lined with woven membrane supported by wooden stakes used to aid bank stabilisation along the majority of its length on-Site, and gabions present at the end of this section. The off-Site section surveyed was also unsuitable for burrowing due to it having man-made gabion banks. The majority of the stream was also overgrown with common reed, which whilst a food source of water voles, would restrict access to the water for this species, which they require to avoid predation.

The Willow Brook offers limited foraging opportunities for otter, furthermore, there is limited dense vegetation within close proximity to the on-Site section considered to provide shelter, and any further afield would require this species to move through an area disturbed by construction works and dog walkers. The Brook does offer a corridor for dispersal for otters, if present in the local area.

### Recommendations
Recommendation 1 (Water Voles)
Since there are no suitable banks to support water voles along the Willow Brook, either on-Site or immediately beyond, no further monitoring surveys for this species are considered necessary as there are no opportunities for colonisation within the local area.
<table>
<thead>
<tr>
<th>Recommendation 2 (Otter)</th>
<th>Monitoring of the Willow Brook for signs of otter should continue annually for five years following completion of the road scheme as required by the Ecological Management Plan (EMP).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation 3 (Common Reed Management)</td>
<td>Without management of the reedbed within the Willow Brook, there is potential for extensive flooding within the local area following periods of heavy rainfall as it will become choked with this plant species. Therefore, annual management should be undertaken in late autumn to ensure that the water flow is not impacted upon.</td>
</tr>
</tbody>
</table>

This Riparian Mammal Survey Executive Summary is intended as a summary of the assessment of the Site based on information received by Delta-Simons at the time of production. The Executive Summary should be read in conjunction with the full Report.
1.0 INTRODUCTION

1.1 Purpose and Scope of the Survey

Delta-Simons Environmental Consultants Ltd was commissioned by BeLa Partnership Ltd. (the ‘Client’) to undertake a riparian mammal survey of the Willow Brook on land south of the Rockingham Motor Speedway being developed to create the Corby North Orbital Road (CNOR) in Corby, Northamptonshire (hereafter referred to as ‘the Site’). The survey was required in order to monitor the Site for riparian mammals as a requirement of the Ecological Management Plan (EMP).

The aim of the riparian mammal survey was to:

△ Examine any riparian habitats on, or immediately adjacent to, the Site for the presence of water voles *Arvicola amphibious* and/or otters *Lutra lutra*;

△ Record any evidence of associated activity to determine their presence or likely absence;

△ Assess the results of the survey and determine the potential impact of the proposed development works on any water voles and/or otters that might use aquatic habitats and immediately surrounding terrestrial habitats;

△ Where necessary provide recommendations for working methodologies, further surveys and/or the need for a European Protected Species Licence (EPSL) for otters, or Conservation Licence for water voles, from Natural England in light of the survey results; and

△ Make any initial recommendations for mitigation following the survey with respect to water voles and/or otters to liaise with the Natural England Local Species Officer, if necessary.

The Site location is shown in Figure 1.
1.2 Site Description

The CNOR Site covers an area of approximately 22 hectares and comprised broadleaved plantation woodland, broadleaved semi-natural woodland, poor semi-improved grassland fields with associated hedgerows and scattered trees. However, the majority of the road is already built and the rest is under construction with patches of bare ground ready for development. There are also a number of ponds within close proximity to it that comprise man-made receptor ponds, occasional naturally formed ponds and attenuation ponds. The Willow Brook, in the northern extent of the Site, runs south to north through the Site.

The Site is surrounded by mostly bare ground, whilst beyond that to the south is woodland within the former Tata Steelworks land, and to the south of it is the Willowbrook East Industrial Estate. To the immediate north, colonisation of the former bare ground habitat by ephemerals/short perennials has occurred, with a strip of amenity grassland to the north of that, beyond which is a large area of bare ground and gravel car parking associated with the Rockingham Motor Speedway. A small parcel of woodland lies in between the Speedway and the Site.

1.3 Proposed Developments

It is understood that the Site is being developed to provide access for residential properties, schools and commercial buildings associated with the Priors Hall development. This requires extensive earthworks to level out the Site. Sections of woodland and grassland will be included within the landscaping works and two attenuation ponds have been built and a third is to be built.
2.0 LEGISLATION

2.1 Water Voles

The water vole received limited legal protection up until April 1998 through its inclusion in Schedule 5 of the Wildlife & Countryside Act (WCA) 1981 (as amended) for some offences. This protection was extended on 6th April 2008, so the water vole is now fully protected under Section 9.

Legal protection makes it an offence to:

- Intentionally kill, injure or take (capture) a water vole;
- Possess or control a live or dead water vole, or any part of a water vole;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection; or intentionally or recklessly disturb water voles while they are using such a place; and
- Sell, offer for sale or advertise for live or dead water voles.

2.2 Otters

Otters are fully protected through the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) as a European Protected Species (EPS). They also receive protection through their inclusion in Schedule 5 of the WCA 1981 (as amended). Under the legislation, it is an offence to deliberately capture, injure or kill an otter. It is an offence to damage or destroy a breeding site or resting place of an otter. It is also an offence to intentionally or recklessly disturb an otter while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is an offence to deliberately disturb an otter in such a way as to be likely significantly to affect - (i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or (ii) the local distribution or abundance of that species. For the purposes of this paragraph, disturbance of animals includes in particular any disturbance which is likely - (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young; or (ii) in the case of animals of a hibernating
or migratory species, to hibernate or migrate; or (b) to affect significantly the local
distribution or abundance of the species to which they belong.”

2.3 Planning

With reference to the National Planning Policy Framework (NPPF), the Circular (2005)
advises that ecological surveys are undertaken before planning permission is
determined. The circular states “The need to ensure that ecological surveys are carried
out should therefore only be left to coverage under planning conditions in exceptional
circumstances” (see References, Appendix I).
3.0 METHODOLOGY

3.1 Review of Previous Survey Reports
A review of the Environmental Statement (ES) Biodiversity Impacts Chapter written by Wardell Armstrong in 2006 was undertaken to inform this Report.

3.2 Water Vole Survey
The survey focused on areas along, and immediately surrounding, the banks of Willow Brook that is situated to the south of Rockingham Motor Speedway. An assessment was made of the value of the habitat for water voles, and a search for evidence of water vole activity was undertaken on the 3rd July 2014. The methodology followed that of Strachan, Moorhouse & Gelling (2011) and involved entering the water body in order to undertake a fingertip search of the banks to at least 2 m from the water’s edge. This allowed for the identification of field signs associated with this species, including any burrow entrances, lawns, prints, latrines, droppings, mammal runs and feeding stations that may be present at the margins of the stream, or in the case of burrows, in the bed of the stream. The location of any water vole activity was recorded.

3.3 Otters
Field signs such as spraints, runs, sightings, footprints, and resting areas or holts, which are identifiable by the presence of the aforementioned field signs, and/or scratch marks, rubbing and hair around the entrance, and tunnel size, were searched for, and recorded where present, during the survey. The methodology followed Lenton et al (1980). The survey was undertaken on 3rd July 2014 in conjunction with the water vole survey. The banks of Willow Brook and the water bodies themselves were surveyed.
4.0 RESULTS

4.1 Previous Survey Results

A comprehensive water vole and otter survey of the Willow Brook corridor was undertaken on 26th October 2006 to inform the ES. It should be noted that this is one month after the end of the survey season for water voles (mid-April - September, inclusive). No signs of either species were recorded, furthermore, desk search records indicated at the time that the most recent record of otter for the local area was 9 years old, and for water vole, the closest on the Willow Brook south, 600 m from the Site was 11 years old.

4.2 Water Vole Survey

No evidence of water vole activity was found on the banks, verges or in the water of the stream surveyed (Photograph 1, Appendix II). The banks of the Willow Brook were considered unsuitable for water voles foraging and burrowing activity due to the presence of woven membrane supported by wooden stakes used to aid bank stability that would prevent water vole from burrowing into them. The stream was also extremely overgrown with common reed *Phragmites australis*, leading to limited areas of open water for water voles to move through. The off-Site banks were man-made gabions, again, substrates that cannot be burrowed through by water voles.

An approximate 200 m length of Willow Brook stream was surveyed. The extent surveyed was limited by access to the south, where it passed through two concrete tunnels. The banks were high where the stream passed to the opposite side and the soil substrate was loose due to recent construction works. The water body here resembled a stream with shallow earth banks to a height of 1.5 m (Photograph 2). Common reed was present on the banks and in the water body itself all of the way along the on-Site stretch surveyed, such that water was barely visible in sections (Photograph 3). Those sections of the Brook that lacked the common reed were under the bridges and the 25 m section to the north that was off-Site. The Brook ranged in width from 1 - 2 m wide and a maximum depth of 0.5 m, with a pebble bottom. In addition to the common reed, common nettle *Urtica dioica* was present along the banks. There was also occasional bramble *Rubus fruticosus* agg. and scattered bushes. To the north and west of the
stream was broadleaved semi-natural woodland. Surrounding the banks to the east and west, was poor semi-improved grassland. There were three bridges that crossed the stream, two of which were small wooden bridges (Photograph 4), and the other being the CNOR bridge (Photograph 5).

The length of the on-Site and off-Site stretches showed the water quality to be poor. Iron had leached into the water which gave it an orange tinge (Photograph 6); this was from the industrial workings in the area. There was also an oil substance on the water surface. The on-Site sections also had small plastic pellets in the water, on the reeds and large concentration on the banks near the two wooden bridges (Photograph 7).

As anticipated given the bank structures (Photograph 8), no evidence of water voles was found. There were small prints found on the banks under the Willow Brook bridge, these were determined to be rat footprints and led down to the water and back again. Occasional patches of flattened vegetation were noted on either side of the Willow Brook. They were found at points where both deer species and badger cross the water body.

4.3 Otters

No evidence of otters was found during the survey. Whilst there were no mature trees with opportunities for shelter within the root structures or trunk cavities along the Brook, there was also a lack of dense scrub to provide shelter within proximity to it. In addition, the section of Willow Brook surveyed offered limited foraging opportunities, as no fish were recorded to be present in the water body. Furthermore, it did not support any water fowl, which are taken on occasion by otters. However, common frogs *Rana temporaria* were seen at the time of the survey. Also, given that the stream is in close proximity to the current construction works and visited by dog walkers, it is unlikely that any suitable cover within the wider area would be used as breeding sites as females will not tolerate any disturbance in the area they rear the young cubs. Any use of the water body, therefore, is likely to be by otters commuting between more suitable foraging or breeding areas.

The results of the survey are shown in Figure 2.
5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

No evidence of either otter or water vole was found by Wardell Armstrong in 2006 along the Willow Brook.

No evidence of water vole was found along the banks of the Brook at the time of the survey. Both the on-Site and off-Site sections of the Brook’s banks were found to be unsuitable for burrowing water vole as they had been reinforced with man-made materials. Therefore, the Site itself is considered unsuitable to support water vole.

There was also no evidence of otter. Whilst there are amphibians within terrestrial habitats, and ponds in close proximity to the Brook, there are not anticipated to be any other food sources along it. Furthermore, a combination of a lack of shelter close to the Brook, and disturbance within the surrounding area form the construction works and dog walkers, deterring them, if present, from sheltering or rearing young further afield, makes the Site only suitable as a corridor for dispersal between more suitable foraging/sheltering areas.

5.2 Recommendations

Recommendation 1 (Water Voles)
Since there are no suitable banks to support water voles along the Willow Brook, either on-Site or immediately beyond, no further monitoring surveys for this species are considered necessary as there are no opportunities for colonisation within the local area.

Recommendation 2 (Otter)
Monitoring of the Willow Brook for signs of otter should continue annually for five years following completion of the road scheme as required by the EMP.

Recommendation 3 (Common Reed Management)
Without management of the reedbed within the Willow Brook, there is potential for extensive flooding within the local area following periods of heavy rainfall as it will become choked with this plant species. Therefore, annual management should be undertaken in late autumn to ensure that the water flow is not impacted upon.
6.0 LIMITATIONS OF SURVEY

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This Report therefore, cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

The survey was done at an optimal time of year for surveying for riparian mammals, however, at the time of the survey, both the banks and stream were heavily vegetated with nettles and common reed, which hindered the visibility of both the banks and within the stream.

The recommendations contained in this Report represent Delta-Simons’ professional opinions, based upon the information referred to in Section 4 of this Report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons does not warranty or guarantee that the Site is free of water voles or other protected species.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whenever arising), arising out of or resulting from the performance of the work by the Consultant.
This Report was prepared by:

[Signature]
Alexandrea Clark
Graduate Ecologist

[Signature]
30/9/14
Date

This Report was reviewed and authorised by:

[Signature]
Charlotte Sanderson
Ecology Unit Manager

[Signature]
30/9/14
Date


Office of the Deputy Prime Minister (2005): Circular 06/05: Biodiversity and geological conservation - statutory obligations and their impact within the planning system.

The Conservation of Habitats and Species Regulations 2010 (as amended) HMSO

Wildlife and Countryside Act 1981 (as amended), HMSO.

Prior’s Hall, Corby
Delta-Simons Project No. 14-0117.14

Photograph 1 – Willow Brook

Photograph 2 – Height of the banks
Prior's Hall, Corby
Delta-Simons Project No. 14-0117.14

Photograph 3 – Common reed dominated banks

Photograph 4 – Wooden bridge
Photograph 5 – Large concrete bridge

Photograph 6 – Iron pollution
Photograph 7 – Small plastic pellets in the water, reeds and on the banks

Photograph 8 – Off-Site man-made banks