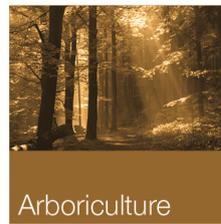




Consultancy
Services Ltd



Water Vole Survey

of

Land off West Road, Sawbridgeworth, Hertfordshire

on behalf of

Taylor Wimpey East Anglia

May 2014

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Service, value and innovation

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Disclaimer

JBA Consultancy Services Ltd. have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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EXECUTIVE SUMMARY

- 0.1 JBA Consultancy Services Ltd. were commissioned to undertake a survey of a stream and wet ditch adjacent to the land off West Road, Sawbridgeworth, Hertfordshire, to assess the presence or absence of water voles and otters.
- 0.2 Surveys were carried out by suitably experienced ecologists on the 28th April 2014.
- 0.3 The survey was based on the methods described within the 'Water Vole Conservation Handbook, 2nd Edition' (Strachan and Moorhouse 2006) and Essex Otter Survey, 2009-2010 (Darren Tansley 2011).
- 0.4 No conclusive evidence was recorded to suggest the presence of water voles within the site boundary. No evidence indicating the presence of otters was recorded during the survey.
- 0.5 Suggestions are made to enhance the stream for water voles and otters in the future.

1 INTRODUCTION

Background to the study

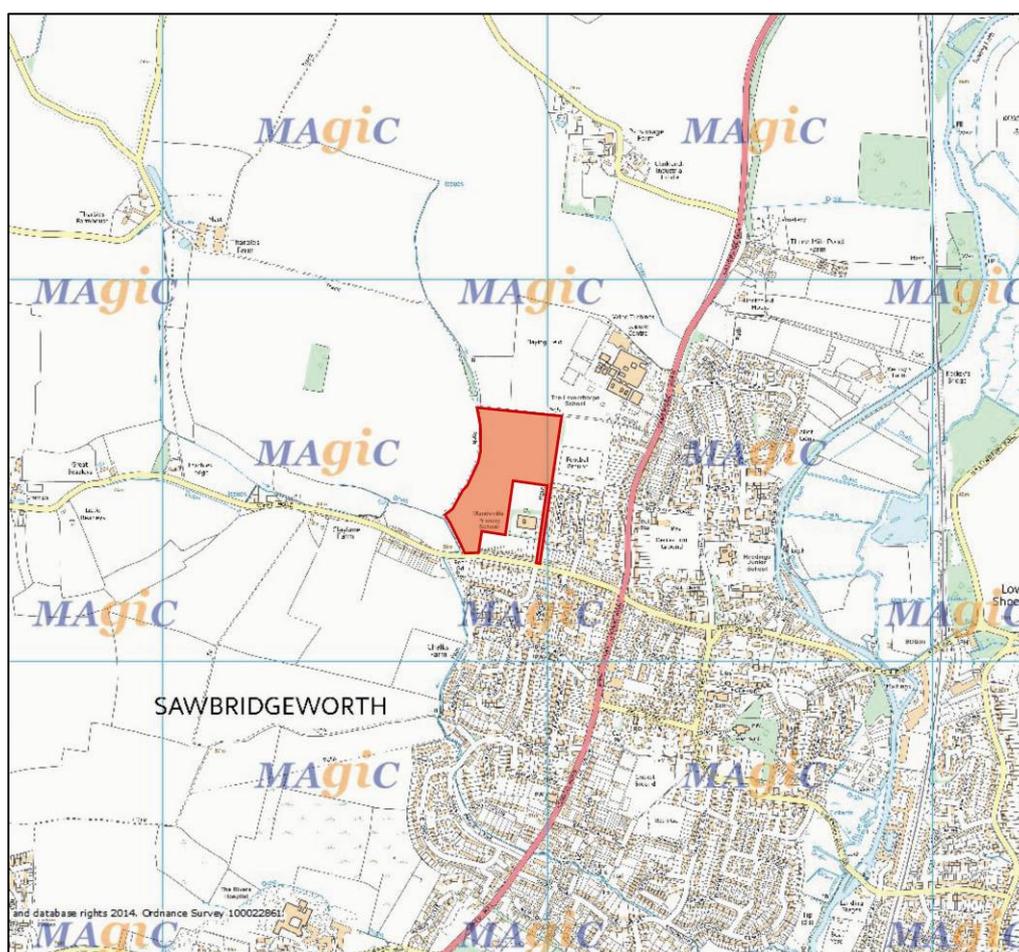
- 1.1 JBA Consultancy Services Ltd. were commissioned by Taylor Wimpey East Anglia to undertake a water vole (*Arvicola amphibious*) survey of the stream and wet ditch forming the western boundary of the site. During the survey signs indicating the presence of otters (*Lutra lutra*) were also recorded.
- 1.2 Water voles are included in the Hertfordshire Local Biodiversity Action Plan (BAP) and are listed as a species of principle importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Water voles are also protected under the Wildlife and Countryside Act 1981 (as amended) and the Wild Mammals (Protection) Act 1996. Legislation relating to water voles changed in 2008 and it is no longer possible to gain development licences to translocate water voles.
- 1.3 Otters are also included in the Hertfordshire Local BAP and are listed as a species of principle importance in England under Section 41 of the NERC Act 2006. Otter are protected under the Wild Mammals (Protection) Act 1996, are fully protected under the Wildlife and Countryside Act 1981, and are European Protected Species under the Conservation of Habitats and Species Regulations 2010, as amended.

Site description

- 1.3 The site was located to the north of West Road, to the west of the town of Sawbridgeworth, Hertfordshire. The site was bordered to the west by arable fields, which dominated the wider landscape to the west and north. Adjacent to the northern and north eastern boundaries were sports pitches, a primary school and residential houses. To the south and east were residential areas of the town of Sawbridgeworth. Beyond the town to the east was the River Stort, along the length of which were numerous wooded areas (see Figure 1 below).
- 1.4 The site itself was an arable field sown with a cereal crop, with a grass margin ranging approximately 1-5m in width. A partially wet ditch was present along the western boundary, which held more water to the north due to being diverted to an adjacent ditch approximately halfway down the length

of the site. Outgrown, native hedgerows were present to the eastern and western boundaries and a mature tree line and well managed hedgerow bordered the site to the north. An access track was present along the western boundary, adjacent to which were areas of scrub.

Figure 1: Ordnance Survey Map of site location



Reproduced from MAGIC. Nature on the Map

Aims and objectives

1.1 The aim of the survey was to:

- To determine presence or likely absence of water voles and otters on the water course within the site.
- To provide sufficient data to inform steps required for compensation of habitats, precautionary measures or mitigation, if necessary;
- Make recommendations for further surveys and/or mitigation following the survey (if necessary).

2 METHODS

- 2.1 The Hertfordshire Environmental Records Centre (HERC) was consulted for records of non-statutory sites and protected and rare species within a 2km search radius (HERC data provided on the 3rd February 2014).
- 2.2 A survey was undertaken by James Booty BSc (Hons) Grad CIEEM and Alister Killingsworth BSc (Hons) MSc on the 28th April 2014.
- 2.3 The survey methodology followed best practice as recommended by the Water Vole Conservation Handbook 2nd Edition (Strachan and Moorhouse 2006) and Essex Otter Survey, 2009-2010 (Darren Tansley 2011).
- 2.4 The surveys were undertaken within the optimal survey period (March to October) following accepted guidelines (Strachan and Moorhouse 2006).
- 2.5 In order to effectively determine the presence of water voles in the survey area a minimum of three different fresh, water vole field signs (such as burrows, droppings, feeding remains, latrines, footprints or sightings of individuals) must be found. A single field sign could potentially be confused with signs left by other mammal species associated with bank side habitats such as brown rat (*Rattus norvegicus*) or bank voles (*Clethrionomys glareolus*). In addition, burrows indicative of water voles may actually be colonised by rats or other vole species. However, if water vole droppings or latrines are found these confirm the presence of water voles immediately, as they are distinct from those of other potentially present species.
- 2.6 To determine whether otter were present or likely absent, the site was surveyed for spraints (droppings). Commonly used prominent features such as large rocks and the bases of streamside trees were targeted, and footprints and other field signs such as slides were noted.

3 RESULTS

3.1 The desk study highlighted records of water vole within 1km of the site from 1998 and otter records 1km from the site in 1996.

3.2 The field signs recorded in the stream during the survey are shown in Table 1.

Table 1. Water vole survey results

Sign	Burrows	Latrines/Droppings	Feeding remains	Lawn	Visual Sighting	Footprints
No of signs found	7	0	0	0	0	0

3.3 Seven holes was recorded that could have potentially been created by water voles. However, no other evidence indicating the presence of water voles (latrines, lawns or feeding remains) were recorded in the vicinity of the holes, and no other signs were recorded along the banks of the stream.

3.4 The banks of the ditch were overgrown and the majority of the vegetation was unsuitable for supporting foraging water voles, with a lack of rushes and sedges, which are preferred food sources. More suitable vegetation was present along the banks of the stream at the south of the site; however no signs of foraging were noted.

3.5 No evidence of otters was recorded on site during the survey.

4 EVALUATION AND CONCLUSION

- 4.1 The survey was carried out at the optimal time of year for otter and water vole surveys, consequently, the survey results are considered to provide an accurate account of the water vole and otter status on the site.
- 4.2 Several burrows potentially created by water vole were recorded on the bank, although no other field signs were recorded in the vicinity of the hole or along the banks of the stream, extending 25m upstream and 50m downstream of the site boundary. No evidence of otters was recorded during the survey.
- 4.3 **A further checking survey of the areas directly affected is recommended prior to the start of construction. This will ensure no water voles are likely to be affected.**
- 4.4 All works within the vicinity of the water course should be carried out in line with current pollution prevention guidance.
- 4.5 The stream and banks within the site boundary have potential to be suitable for water voles, therefore it is important that the banks are managed appropriately in order to prevent the degradation of the habitat and enhance the area for water voles and otters post development.
- 4.6 The banks of the stream are already heavily vegetated and dominated by nettle (*Urtica dioica*) and great willowherb (*Epilobium hirsutum*). In order to maintain habitat for water voles and otter a management plan specifically detailing long-term ditch maintenance should be drawn up to be included within a S106 agreement and implemented by a management company to ensure ongoing protection, maintenance and enhancement of the habitat. This management plan is likely to include:
- Hand strimming of the banks under rotation, to control excessive ruderal vegetation growth. Encroaching willow and scrub will need to be cut back and controlled.
 - Ideally, the bank side plant community should be dominated by a matrix of tussock grassland habitat, sparse bramble and sedge and reed

dominated areas. Areas that have been cleared of scrub or ruderals could be re-sown with tussock forming grass seed mix.

- Willowherb, nettle and thistle should occupy less than five percent of the bank side habitat. Trees and scrub should ideally cover less than ten percent of the bank. Scrub clearance should take place yearly on alternate banks to prevent unnecessary disturbance.
- Ditches should be dredged when necessary to prevent them from silting up and reducing water flow in the stream channel. This should be carried out following a checking survey by a suitably qualified ecologist and at an appropriate time of year.

4.7 If development does not begin within 12 months of this report, then the surveys should be updated to ensure that otters and water voles have not colonised the site in the interim. Surveys should avoid times of year when water voles are less active (November to March).

5 REFERENCES

Darren Tansley (2011). *Essex Otter Survey, 2009-2010*

Hertfordshire Local BAP

http://www.hef.org.uk/nature/biodiversity_vision/contents.htm

Strachan, R and Moorhouse, T. (2006), *Water Vole Conservation Handbook (2nd Edition)*.

6 LEGISLATION

Species	Relevant Legislation	Level of Protection
Water Vole	<ul style="list-style-type: none"> ○ Protected under the Wildlife and Countryside Act (1981) as amended 1998. ○ Water voles are also protected by the Wild Mammals (Protection) Act 1996 	<p>The WCA (1981) makes it an offence to:</p> <ul style="list-style-type: none"> • intentionally kill or injure these animals • intentionally or recklessly damage or destroy or obstruct access to any place or structure which water voles use for shelter or protection • disturb water voles whilst they are using such a place
Otters	<ul style="list-style-type: none"> ○ Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended ○ Classified as European protected species under Conservation of Habitats and Species Regulations 2010 ○ Otters are also protected by the Wild Mammals (Protection) Act 1996 	<p>Under the WCA (1981), it is an offence to:</p> <ul style="list-style-type: none"> • intentionally kill, injure, or take otters • intentionally or recklessly disturb otters • intentionally or damage destroy or obstruct access to otter holts or any place used by the animal for shelter or protection