White Young Green

SEVERN TRENT WATER: MARKET BOSWORTH STW

Otter Survey

from strength to strength

White Young Green

Severn Trent Water: Market Bosworth STW

Otter Survey

September 2007

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MARKET BOSWORTH STW: Otter Survey

1. INTRODUCTION

White Young Green Environmental was commissioned by Severn Trent Water to carry out an otter *(Lutra lutra)* survey of the stream passing to the south of Market Harborough STW (sewage treatment works) (OS SK 390 042) near the village of Carlton. The survey was undertaken prior to minor works taking place inside the site next year to assess any potential impact on otters in the nearby water course and also assess the scope for construction of an artificial otter holt on Severn Trent Water land to the south of the STW site. The surveys were carried out on the 30th of August and the 12th of September 2007.

Ecological works undertaken by WYGE as part of this survey included:

(i) Field Survey: two otter surveys, along the water course conducting searches for signs of otter activity including footprints and spraint. Suitable holes for use as holts or couches were noted and their location recorded. The surveys were undertaken at dawn on both occasions to maximise the chances of encountering otters.

(ii) Analysis & Recommendations: analysis of the data gathered during the field survey and identification of any potential ecological constraints to the proposed development, including recommendations for further surveys, avoidance, mitigation and compensation where appropriate and also opportunities to enhance the habitat for otter, particularly through construction of artificial holts.

2. SITE DESCRIPTION

Market Bosworth STW is located just off Congerstone Lane to the north-west of Market Bosworth and adjacent to Market Bosworth Light Railway. The adjacent watercourse for survey runs from east to west to the south of the site and appears to be an old mill stream leading down from Bosworth Mill to the east of the site and

flowing into the River Sence. Adjacent to this stream to the west of the site runs the Ashby-de-la-Zouch Canal, at it's nearest point to the stream only 10m away.

The minor works to take place within the STW site include a small area of road widening, raising the height of sludge tanks and construction of a retaining wall. A full description of the site, habitats and potential ecological constraints to minor works can be found in Appendix 1 (Baseline Ecological Appraisal WYGE – E007203).

3. FIELD SURVEY METHODOLOGY

Two surveys were carried out over a 600m stretch of the water course stretching approximately 300m to either side of the Severn Trent Water site. Two suitably experienced surveyors on each occasion were equipped with thigh waders, 'wading' sticks, a camera and binoculars, and walked the length of the 600m stretch of stream (within the stream wherever possible).The banks and emergent rocks were searched for spraint, footprints, holts, feeding remains and couches to determine the presence/absence of otter in the stream. Where otters are present the chances of finding spraint within 600m are considered high (Erlinge 1967).

There were no significant limitations to the survey work.

4. FIELD SURVEY RESULTS

4.1 Spraints

On the first survey occasion two potential spraints were found at grid references OS SK 39046 04256 and SK 38963 04262. Both of the spraints were relatively old and dry and, whilst they were observed to contain fish scales and bones, had lost their scent. On the second survey occasion a third spraint was found, again at SK 38963 04262. This spraint was fresher than the previous two and was confirmed as otter spraint.

4.2 Footprints

On the first survey occasion three otter prints were found, two confirmed prints, one at the entrance to the railway tunnel and one on the northern bank in the field to the east of the STW. The third print was considered a potential print but not confirmed as an otter print as it has undergone disturbance. On the second survey visit one

otter print was identified on the northern bank of the stream at the very western extent of the survey area.

4.3 Potential Holts/Couches

Two large holes were identified at the western extreme of the survey area on either bank, these appeared to be suitable as couches. A hollow tree on the southern bank to the east of the STW site offered another potential couch. A potential holt was identified to the eastern end of the survey range in a hole approximately 200mm high and 500mm deep.

4.4 Other Features

Mink spraint was found on the second survey occasion at the outfall from the canal into the stream at the western end of the survey site. A mink print was also identified to the east of the railway bridge, directly south of the STW site.

5. Potential Ecological Constraints and Recommendations

The minor nature of the works and the small zone of influence (restricted to within the site boundaries) indicates that the stream and any protected species are unlikely to be significantly affected by the proposed works.

The abundance of suitable habitat for otter in the immediate vicinity, not only in the stream but also within the canal nearby, indicates that the locality may well benefit from the construction of an artificial otter holt. Although no otters have previously been recorded in the catchment area. Female otters live in small territories (4-6km) and are seldom aggressive towards other females (Kruuk, 2006) with male otters living in much larger territories covering several female territories. Therefore, the construction of an additional holt is unlikely to disturb the current occupation of the territory and may well increase the carrying capacity of the area for otters.

Two sets of indicative costs for otter holt construction are included in section 6 and information on the types of holt are included in Appendices 2 and 3. The re-cycled plastic version is recommended due to the durability of the model and the success rates within captivity. Monitoring of the holt over a five year period is also recommended to observe and record any up-take by otters.

6. Indicative Costs for Otter Holts

After consultation with Swift Ecology and Leicestershire and Rutland Wildlife Trust two different type of otter holt were proposed and indicative costs for the construction were supplied.

6.1 Otter Holt Type 1

Otter holt type 1, recommended by Swift Ecology, is a re-cycled plastic construction detailed in Appendix 2. This type of holt was designed by the Surrey Otters and Rivers project and is considered to be very tough and durable with a good uptake by otters in captivity. Indicative costs for this are;

One flat packed otter holt supplied by Filcris Ltd. and delivered to Swift Ecology = £255 (inc. VAT, 2007 price),

1 day's work by 2 staff from Swift Ecology = approx £650 + VAT,

Travel from Kineton, Warwickshire at 45p per mile. (Approximately £37)

Other inexpensive materials may be needed, such as tool hire and sheep netting to secure the brash covering against removal by flood water.

6.2 Otter Holt Type 2

The second type of holt is a simple log-pile holt, details of which are included in Appendix 3. This example is from Herefordshire Action for Mammals and the precise design may vary. This would be cheaper than holt type 1 as many of the materials can be sourced on site and the construction would be undertaken by members of the Leicestershire and Rutland Wildlife Trust. Indicative costs for this would be:

Construction of a two-chambered log pile otter holt at Carlton/Mkt Bosworth works £800.00 plus vat.

7. SUMMARY

- WYGE undertook an otter survey of the water course to the south of Market Bosworth to identify any potential ecological constraints prior to minor works within the site, and to ascertain the suitability of the area of Severn Trent Water land to support an artificial otter holt.

- Owing to the minor nature of the works within the site and the extremely small zone of influence none of the proposed works are likely to have an adverse effect on the nearby stream or protected species recorded.

- An area of land to the south of the STW site on the northern bank of the water course was identified as suitable for an artificial otter holt. Some clearance of saplings and scrub may be necessary.

7. REFERENCES

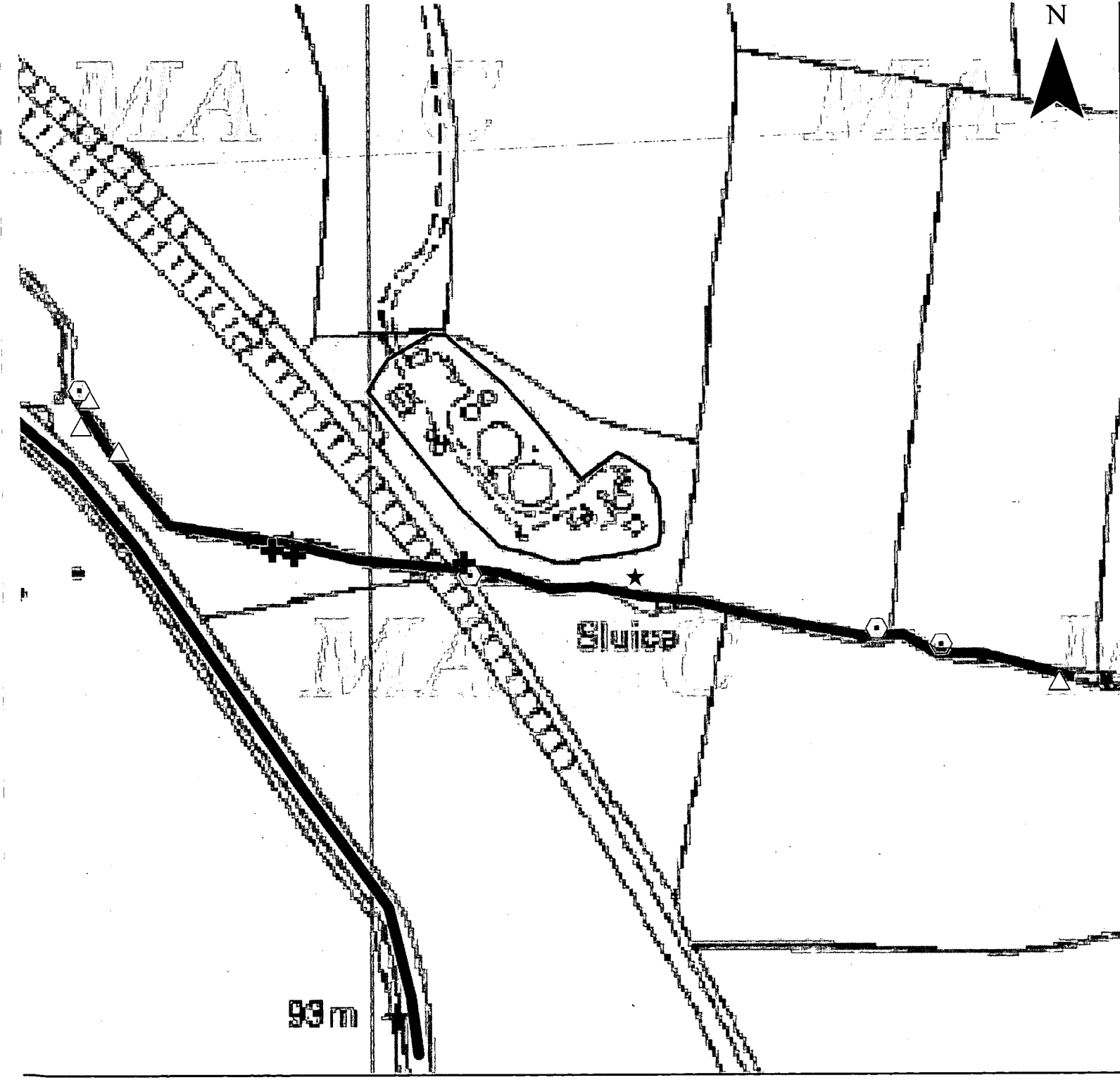
Chanin, P. (2003)

Monitoring the otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series NO. 10, English Nature, Peterborough

Kruuk H (2006)

Otters, Ecology, Behaviour and Conservation. Oxford University Press 2006.

Plan 1 – Otter Survey



Legend

- Otter Spraint
- Potential Otter Spraint
- Otter Footprint
- Potential Footprint
- Potential Holt or Couch
- Prime location for new Hol
- Sewage Treatment Works
- Canal

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