



**OTTER SURVEY REPORT**  
**Nant y Stepsau**  
**Flemingston**  
**St Athan**  
**Vale of Glamorgan**

Central Grid Reference ST0115969632

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On Behalf of Edenstone Homes

July 2016

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## 1 Introduction

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### 1.1 Survey Brief

TerrAqua Ecological Services Ltd were commissioned by Edenstone Homes to undertake an assessment of all watercourses within parcel of proposed development land at Flemingston, St Athan, Vale of Glamorgan, approximate central grid reference ST 0115969632, in order to ascertain the importance of the site, if any, to otter (*Lutra lutra*). The survey boundary was taken as that supplied by Mr Richard Kelso acting on behalf of Edenstone Homes.

The potential for the watercourse referred to as Nant y Stepsau to be used by otter was identified during the extended Phase I Habitat Survey of the site undertaken in February 2016 (TerrAqua ecological Services). This report sets out the results of the survey undertaken to assess the presence or otherwise of the species within the site boundary.

### 1.2 Client Details

The survey was undertaken on behalf of Edenstone Homes, Priory House, Priory Street, Usk NP115 1BJ following instructions to proceed by Mr Richard Kelso acting for Edenstone Homes.

## 2 Background

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### 2.1 Rationale

The survey was commissioned as by the client prior to the submission of a planning application for the development of the above site following recommendations made in the Extended Phase I Habitat survey undertaken by TerrAqua Ecological Services Ltd. The Phase I Habitat Survey identified the watercourse Nant y Stepsau as having the potential to be used by otter (*Lutra lutra*) (TerrAqua Ecological Services, 2016).

### 2.2 Site Description

The site lies in a semi-rural location on the outskirts of the villages of St Athan to the west and Flemingston to the east, within the Vale of Glamorgan. The site comprises a series of fields managed as agricultural grasslands. The fields are separated by a hedgerow system. To the south an area of amenity land with planted trees and areas of hard standing, referred to as Annington Land, is also included within the site. The main potential development area has a slope to the north where the watercourse of Nant y Stepsau runs in a west to east direction along the southern boundary. Nant y Stepsau is a tributary of the River Thaw (Afon Ddawen). No other substantial water bodies are present within the site boundary.

All watercourses are recognised as being important wildlife habitats in their own right providing suitable habitats for a number species of conservation concern within the UK including Schedule 1 protected species such as otter and white clawed crayfish. Watercourses also form important wildlife corridors allowing species to disperse and move throughout the countryside to other favourable habitats.

### 2.3 Otter Ecology

Otters (*Lutra lutra*) are very accomplished predators and are one of Great Britain's largest and effective land based mammals. An Otters territory must therefore be large enough to fulfil its ecological requirements for feeding and breeding. Essentially nomadic each animal can inhabit a home range of up to forty kilometres of waterway, which the otter will patrol and utilise for feeding often in a single night. Although mainly nocturnal otters can be seen throughout the day hunting for fish and amphibians in a diverse array of freshwater and coastal habitats, including rivers, streams, ditches, wetlands, lakes, ponds and reservoirs.

Otters feed on a variety of prey that varies throughout a season depending on the most abundant prey species present at a given time of year. Fish species and eels are among the favoured prey whilst amphibians such as frogs and toads become increasingly important prey during late winter and early spring. An abundance of food is essential for breeding otters with young litters. Otters can breed throughout the year, with no more than one litter per year, the cubs remaining with the bitch for many months.

Given the large territory needed by otters there must be an adequate number of safe resting areas or Holts along a particular stretch of watercourse. A suitable resting Holt would normally be utilised during daylight hours. Holts can take various forms including exposed root systems at water level, natural cavities along river banks and dense areas of scrub. Other habitats suitable for Holts include piles of fallen timber, earth tunnels, old rabbit burrows and couches in rough grassland. Suitable breeding holts are in short supply as they need to be larger to accommodate an adult and its litter as well as being sited in a secluded area away from potential disturbance.

Contrary to popular belief otters are not confined to large rivers and small-secluded tributaries can offer ideal breeding locations, as well as providing important resting Holts in flood conditions.

## 2.4 Legal Status

The otter is afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c) Regulations 1994 (as amended). It is listed as a European protected species.

Schedules 5 and 6 of the Wildlife and Countryside Act 1981 subsequently amended by the Countryside and Rights of Way Act 2000 makes it an offence for any person to:

- Intentionally kill, injure or take an otter.
- Possess or control a live or dead otter.
- Intentionally or recklessly damage, destroy or obstruct access to any place used for shelter or rest by otters.
- Intentionally or recklessly disturb an otter while it is occupying a structure or place that it uses for shelter or rest.

## 3 Survey Methodologies

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The survey methodologies as used to assess the site are outlined below. These are accepted by both local authority and conservation bodies as the standard ecological assessment methodologies.

The survey was undertaken along the length of Nant y Stepsau from the culvert below St Athan Road, St Athan to the culvert below an un-named road to the north east at Flemingston. The survey covered a distance of approximately 650m.

Further to the field survey work, an online data search was undertaken for records of otter within a 2km radius of the site in addition to information obtained during the St Athan Data Search undertaken as part of the Phase I Habitat Survey by the local record centre SEWBReC (February 2016). Additionally the authors have personal dataset of otter activity within the immediate area, and these have been used to inform the scope of survey work and considered recommendations relating to disturbance avoidance measures covered in Section 6.

### 3.1 Survey Dates and Personnel

The survey was undertaken on the 7<sup>th</sup> August 2016 by Carmen Jones MSc MCIEM Senior Ecological Consultant and Dyfrig Jones BSc Senior Ecological Consultant. Both highly experienced ecologists with extensive experience in both ecological assessment and species specific issues and licenced by Natural Resources Wales to undertaken work with Otter. .

### 3.2 Survey Techniques

Otter presence was based on the identification of field signs including:

- Spraints
- Sprainting Areas
- Footprints
- Otter Holts
- Otter Runs (Pathways leading to holts)
- Other otter resting sites
- Feeding areas

The identification of an Otter Holt was determined by examining additional evidence found at the site. Depending on this additional information a resting site / holt will be divided into one of three categories: -

- 1) **Actual Holt** – These show signs that the entrance is well used by otters, including a well-trampled entrance, extra excavation spraints or footprints.
- 2) **Probable Holt** – These sites meet the typical needs of otters and that there is known otter activity in the area but there are no obvious otter signs in close vicinity to the Holt.
- 3) **Potential Holt** – These sites are typical of an otter resting area but no confirming evidence of otter activity could be found.

All Sprainting sites were recorded and both the numbers and ages of spraints found recorded. This information is important in determining the extent of otter activity and the time period over which otters have been utilising a given stretch of river or wetland.

### 3.3 Survey Limitations

The survey was carried out under settled weather conditions with very limited rainfall in the week preceding the survey. There were no limitations to the effectiveness of the survey and therefore the results as given are considered to be a true indication of otter presence/activity within the survey area at the time of survey.

## 4 Results

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### 4.1 General

The results of the survey confirm that otter do use Nant y Stepsau as a commuting and/or feeding area. This was confirmed by the presence of two old spraints located at either end of the survey length. No evidence was found indicating that otter have resting or breeding holts within any of the habitats within the site boundary. Full results of the survey are shown in table 1:

**Table 1** Showing Results of Otter Survey along 650m length of Nant y Stepsau

Location	Evidence Otter Activity
Below culvert at St Athan Road	Very old desiccated spraint on rock on left bank
Along watercourse below St Athan Road	Dense scrub along bank with potential for use as lying up or resting area for otter. No evidence of use recorded
Woodland block approximately half way along survey stretch	Area of woodland with potential for use as lying up and resting area. Ground and field layers sparse limiting opportunities for use as resting area. No evidence of otter activity recorded.
Watercourse through eastern end with un-vegetated banks.	Open watercourse no evidence of otter recorded
Watercourse with dense scrub below un-named road	Old and very old spraint on boulders within stream

### 4.2 Data Search Results

The results of the data search confirm that otter are known to be present and breeding within 1.5km of the site boundary. Otter are known to be present along the River Thaw and its tributaries of which Nant y Stepsau is one.

## 5 Conclusions

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Evidence collected during the field survey confirm that otter to occasionally travel along the watercourse. This is based on the observation of old otter spraints at either end of the survey stretch. The old and desiccated nature of the spraints found would indicate that otter are occasional and infrequent visitors to this stretch of watercourse and are likely to use the site on an opportunistic basis while feeding.

No evidence was found suggesting that otter regularly lie up within the site or that they use any part of the site as a breeding holt.

In conclusion the development of the site is unlikely to have a direct significant impact on otter. Any development of the adjacent land does have the potential to have an indirect impact on otter potentially discouraging them from using the watercourse, although this is likely to be an occasional and low impact.



It is considered highly unlikely that the development of the land adjacent to Nant y Stepsau at this location would have a negative impact on the favourable conservation status of otter at a local, national or international level.

In order to ensure that otter are protected during the construction phase and following completion of the development it is considered important that adopting best practice with regard to all work adjacent to watercourses should be considered as standard.

## 6 Recommendations & Suitable Disturbance Avoidance Measures

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No further survey work is considered necessary.

Adopting best practice with regard to all work adjacent to watercourses and ensuring no disturbance between dusk and dawn should be considered as standard.

Specifically the following measures should be followed to ensure minimal disturbance to otters during the construction phase of work:

- No work to be undertaken between dusk and dawn.
- No site security or working lights should be directed onto the watercourse or onto adjacent habitat.
- All working footprint areas will be fenced with security fencing and solid panels thus reducing the disturbance, both visual and noise of the ongoing works.
- All materials (pipes and building material) will be stored within a suitably fenced compound with a mesh size, no larger than 7.5cm (3 inches). All material required for the construction of the outfall structure will be stored away from the watercourse and fenced as referenced.

Although not specifically an issue relating to otters, the management of substrate run off into the watercourse during the construction works should be considered a priority.

**Adopting the above approach will ensure minimal disturbance to otters during the construction phase.**

It is recommended that consideration is given during the design of the site layout to protecting the watercourse from future excessive disturbance thereby allowing otter to continue to travel along the stream unhindered.

The planting of native shrubs along the stream corridor will help to retain the corridor and prevent excessive light spillage into these areas.

Where dwellings are to be constructed such that they back onto the stream these gardens should be fenced with wooden panels preventing direct access from the garden into the stream corridor.

The use of security and other lighting at the rear of any properties backing on to the stream (or street lighting) should be designed to prevent light spillage into this dark corridor.

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## **APPENDIX I**

### **AERIAL VIEW SHOWING LOCATION OF NANT Y STEPSAU AND EVIDENCE OF OTTER ACTIVITY**



**Aerial View 1** Showing Survey Length and Otter Signs Recorded (Image Google Earth 2016)