

A303 Amesbury to Berwick Down

**Applicant's provision of technical reports supporting the
Environmental Information Review**

Otter and Water Vole Survey Report (2021)

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Executive Summary

Otter *Lutra lutra* and water vole *Arvicola amphibius* surveys were undertaken in 2020-2021 to inform the requirement of any further mitigation and the applications for any Natural England protected species licences required to facilitate the A303 Stonehenge (Amesbury to Berwick Down) Scheme (“the Scheme”). This report presents the methodology and results of the surveys.

The surveys confirmed the continued presence of water vole along the River Avon. Evidence of water vole along the River Avon included latrines, burrows, feeding stations and a dead water vole. No evidence of water vole was recorded along the River Till, however, it is anticipated that they are likely present along the lower reaches, and may move into the upper reaches in subsequent years.

The surveys confirm that otters are still present along both the River Avon and River Till, with spraints and potential resting places identified. It is considered likely that otters are using the watercourses to forage and commute and may potentially use the identified features as temporary places of rest. Otters use many different resting sites throughout their range (Green *et al*, 1984). Often otters will lie up above ground in places which could not be detected other than by radio-tracking. Sites such as these are typically plentiful in the otter ranges and are not a limiting resource for the species.

1 Introduction

1.1.1 This report presents the results of the updated otter *Lutra lutra* and water vole *Arvicola amphibius* surveys for the A303 Amesbury to Berwick Down Scheme (hereafter referred to as the 'Scheme'). The update surveys inform the requirement of any further mitigation and the applications for any Natural England protected species licences.

1.1.2 This report outlines the methodology and results for the otter and water vole pre-construction baseline survey for the Scheme, carried out in 2020 and 2021 that update the 2017 surveys.

1.2 Relevant Legislation

1.2.1 Otter are fully protected under Section 9 of the Wildlife and Countryside 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. This legislation, when taken together, results in a level of protection that prohibits the intentional, deliberate or reckless:

- killing, injuring, taking or disturbance of otters;
- damaging, destroying or obstructing any place used by otters for the purposes of breeding, sheltering or protection; and
- selling and/ or advertising for sale an otter or any part thereof.

1.2.2 Otter is also a species of principal importance (SPI) for nature conservation in England under Section 41 of the NERC Act 2006. Section 40 of the same Act requires that local and regional authorities have regard to the conservation of biodiversity in England, when carrying out their normal functions.

1.2.3 Water vole receives full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended); as such it is illegal to intentionally or recklessly:

- capture, kill or injure water voles;
- damage, destroy or block access to their places of shelter or protection;
- disturb them in a place of shelter or protection; and
- possess, sell, control or transport live or dead water voles or parts of them.

1.2.4 Water vole is also listed as an SPI under Section 41 of NERC Act 2006. Section 40 of the same Act requires that local and regional authorities have regard to the conservation of biodiversity in England, when carrying out their normal functions.

1.2.5 Both otter and water vole are listed with the Wiltshire Biodiversity Action Plan (BAP) (2008) as BAP species and under Objective RSO2 of the Wiltshire BAP Rivers, Streams and Associated Habitats Action Plan, the following two targets are listed:

- RST12: Restore otters to all catchments – influence developments and road schemes to ensure that potential impacts on otters are mitigated.
- RST13: To ensure no net loss of water vole distribution from Wiltshire rivers and streams.

1.2.6 Under Core Policy 50 within the Wiltshire Core Strategy (2015) it states that “All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development.

2 Methods

2.1 Field Survey

2.1.1 Two otter and water vole surveys were completed by suitably experienced ecologists on 10th September 2020 and 2nd July 2021 in accordance with best practice guidance (Crawford, 20210; Chanin, 2003 and Strachan *et al.*, 2011). Both surveys were led by an ecologist with over ten years' experience in surveying for otter and water voles.

2.1.2 Both surveys were completed during periods of dry weather (both in the days preceding the survey and during the survey) to increase the likelihood that field signs such as spraints and droppings, would persist in the habitats surveyed.

2.1.3 The survey involved searching the banks and margins of the relevant waterbodies for field signs of water vole and otter as detailed below. Otter field signs include the following:

- **spraints** – these are usually black in colour and contains the remains of the otters diet. The otter uses spraints to define its home range, and these are deposited at prominent points such as on boulders, fallen trees and ledges (such as under bridges);
- **footprints** – the otter has five toes that are webbed. The footprints are very characteristic and easy to recognise. Each print is around 50 – 60mm wide;
- **slides** (or other well-used access points to the watercourses) - found along riverbanks;
- **couches** - flattened vegetation amongst scrub or dense vegetation, which may indicate an above ground resting area for an otter during the day;
- **holts** - holes in the riverbank, hollow trees, cavities amongst tree roots, piles of rocks, wood or debris may all be used as holts; and
- **feeding remains** – including fish remains.

2.1.4 The presence and distribution of these signs can be used to assess the likely importance of the relevant waterbodies for the local otter population.

2.1.5 Water vole field signs include the following:

- **droppings** – these are 8-12mm long and 4-5mm wide, with a smooth 'tic tac' like shape, varying in colour from green to black, and odourless with a putty-like texture;
- **latrines** – found throughout the territory, often comprising a pile of flattened droppings, with fresh droppings on top;
- **feeding stations** – comprise a neat pile of chewed feeding remains, often comprising lengths of vegetation up to 100mm long, showing the marks of the two large incisors and the typical 45° angle;

- **burrows** – these are typically wider than they are high, with a diameter of 4-8 cm, and are usually located along the water's edge;
- **lawns** – around burrows there is often an area of grazed vegetation, surrounded by taller vegetation, these are most often produced when the female is nursing young;
- **footprints** – as with other rodents, the footprints of the fore foot show four toes in a star arrangement, with the hind foot showing five toes. The size of footprints for the hind foot is 26-34mm.

2.1.6 The presence and distribution of these signs can be used to assess the likely importance of the relevant waterbodies for the local water vole population.

2.1.7 Observations of the field signs of water vole and otter were also made and recorded during other protected species surveys, prior to the water vole and otter survey. These observations are included, as relevant, in the survey results given in this report.

2.2 Limitations

2.2.1 The survey guidance indicates that two surveys are usually necessary for determining the presence/ absence of water voles (Strachan *et al.*, 2011), usually with one visit between April and June and a second visit between July and September. However, the surveys were undertaken over two years in the latter part of the survey season. This was not considered to impact the validity of the results as otter and water vole had already been confirmed as being present and the purpose of the surveys were to attempt to establish a population size class estimate to inform mitigation for the Scheme.

2.2.2 It was not possible to access the eastern bank of the River Avon north of the A303 bridge structure during the second survey repeat. It was also not possible to access the River Avon to the west of Countess Road. This was not considered a limitation in informing the need for mitigation or the requirement of a Natural England protected species licence as it was considered unlikely that future works related to the Scheme would occur within close proximity of these areas.

3 Survey Results

3.1 Otter

- 3.1.1 Evidence of otter was recorded along both the River Till and River Avon. A spraint was identified along the banks of the River Avon south of the A303 and to the east of Countess roundabout. A potential resting place was also identified the banks of the River Avon south of the A303 and to the west of Countess Roundabout, approximately 100m west of the spraint (Figure 1).
- 3.1.2 A potential above ground otter resting site was identified under a small area of scrub, along the banks of the River Till, approximately 218m north of the A303 and approximately 120m south of the proposed River Till viaduct 265m. There was no evidence of otter observed within proximity of the potential above ground resting site. A further two spraints were identified downstream located on either side of the A303 road, in close proximity to where the river passes underneath the road (Photographs 1- 2).
- 3.1.3 Otter footprints were also recorded along the River Till, to the south of the A303 and approximately 24m downstream of where the second spraint was recorded.

3.2 Water vole

- 3.2.1 Evidence of water vole was only recorded along the River Avon. A total of three water vole burrows were recorded along the western bank of the River Avon, to the north (upstream) of the A303 and east of Countess roundabout (Photographs 3-5, Figure 1). The closest burrow to the A303 was located approximately 235 m upstream of the A303, on the western bank.
- 3.2.2 Four water vole latrines (Photograph 6-7) and four feeding stations (Photograph 8) were also identified along both banks of the River Avon, upstream of the A303 and to the east of Countess roundabout (Figure 1). The closest latrine was located on the eastern bank approximately 308m upstream of the A303, whilst the closest feeding station was located approximately 127m upstream of the A303 on the eastern bank.
- 3.2.3 A dead water vole was observed along the western bank of the River Avon (Photograph 9), approximately 270m upstream of the A303 (Figure 1).

4 Discussion and Conclusions

4.1 Otter

4.1.1 The 2020-21 surveys confirm that otters are still present along both the River Avon and River Till, with spraints and potential resting places identified. It is considered likely that otters are using the watercourses to forage and commute and may potentially use the identified features as temporary places of rest. Otters use many different resting sites throughout their range (Green *et al*, 1984). Often they will lie up above ground in places which could not be detected other than by radio-tracking. Sites such as these are typically plentiful in the otter ranges and are not a limiting resource for the species. Due to the distance of the Scheme to the potential above ground resting site, it is unlikely that any otter present would be disturbed and so it is not considered necessary to obtain a European Protected Species Licence from Natural England to facilitate the works associated with the Scheme. However, as otters are known to be present along the River Till, suitable mitigation measures have been incorporated into the Construction Environmental Management Plan (CEMP). It is recommended that a pre-works update survey is undertaken prior to the commencement of the preliminary works (the requirement and timing of which will be dependent on the schedule / scope of the works), in accordance with DCO Requirement 6, Protected Species Scheme of Protection and Mitigation to confirm the continued absence of otter holts / resting places within areas that may be directly impacted by the Scheme.

4.2 Water vole

4.2.1 The 2020-21 surveys confirmed the continued presence of water vole presence along the River Avon. No evidence of water vole was recorded along the River Till, however, it is anticipated that they are likely present along the lower reaches (south of the current A303), and may move into the upper reaches in subsequent years.

4.2.2 The proposed works associated with the Scheme are unlikely to directly impact any water voles (under current proposals). Suitable working practices included within the CEMP are considered suitable to mitigate for any indirect impacts associate with the Scheme. It is recommended that a pre-works update survey is undertaken prior to the commencement of the preliminary works (as summarised above), in accordance with DCO Requirement 6, Protected Species Scheme of Protection and Mitigation to confirm the continued absence of water voles within areas that may be directly impacted by the Scheme.

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Appendices

A.1 Figure 1 – Otter and water vole survey results



NOTES / LEGEND

Legend

- ▭ DCO Area
- ▣ Water vole, Burrow
- ◇ Water vole, Dead water vole
- ⬠ Water vole, Feeding station
- ▲ Water vole, Latrine
- ▲ Otter, Spraint
- Otter, Potential resting site



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OTTER AND WATER VOLE SURVEY RESULTS

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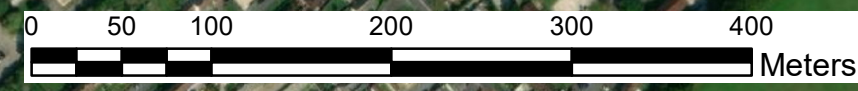
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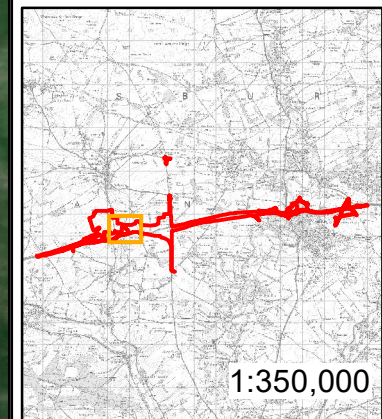




NOTES / LEGEND

Legend

- DCO Area
- ▲ Otter, Spraint
- Otter, Potential resting site
- Otter, Footprint



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OTTER AND WATER VOLE
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A.2 Photographs



Photograph 1 – Otter spraint identified along the banks of the River Till, upstream of the A303 road.



Photograph 2 – Part of an otter spraint site identified along the banks of the River Till, downstream of the A303 road.



Photograph 3 – Water vole burrow identified along the western bank of the River Avon, upstream of the A303 road.



Photograph 4 – Water vole burrow identified along the western bank of the River Avon, upstream of the A303 road.



Photograph 5 – Western bank of the River Avon, upstream of the A303.



Photograph 6 – Water vole latrine identified along the banks of the River Avon, upstream of the A303 road.



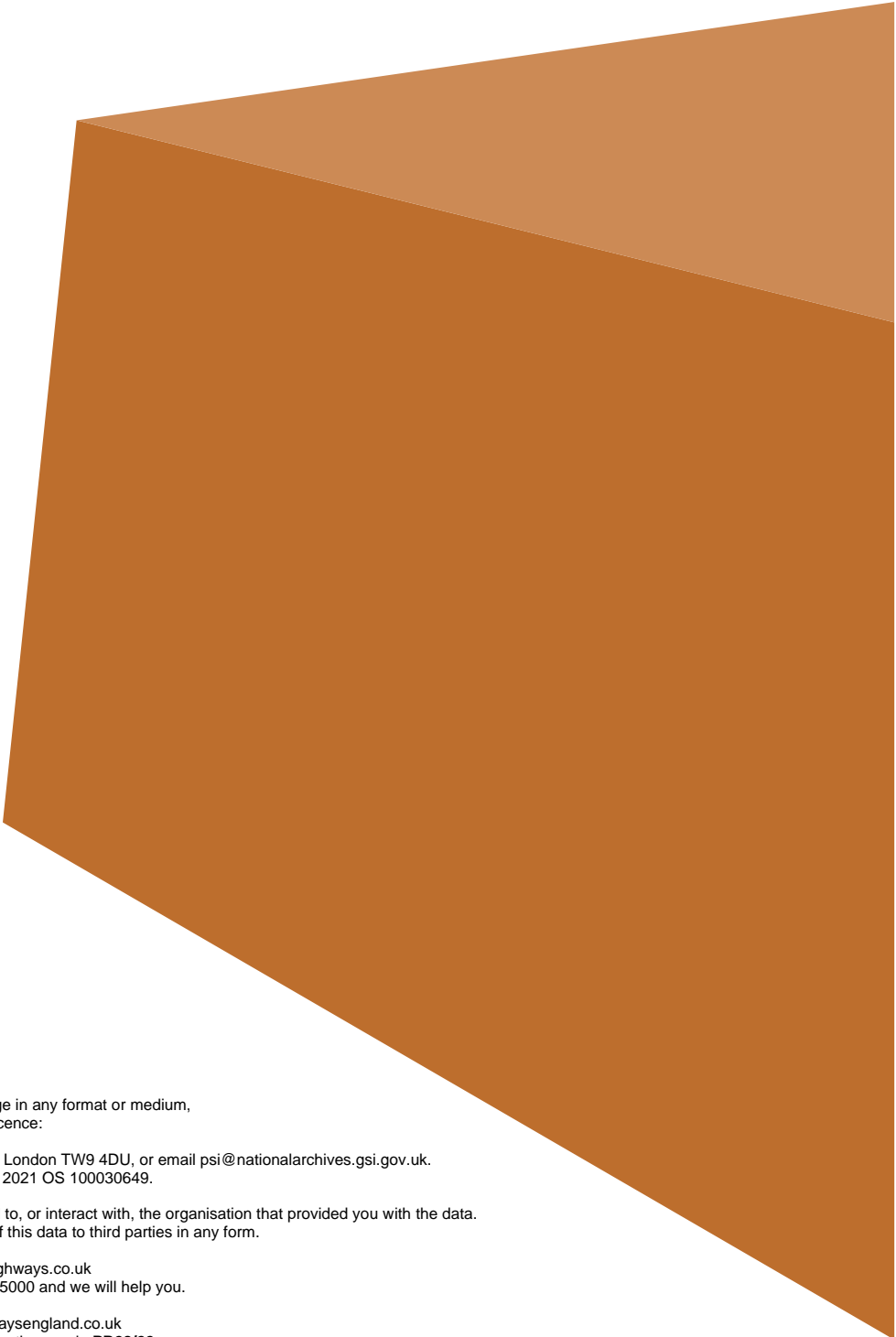
Photograph 7 - Water vole latrine identified along the banks of the River Avon, upstream of the A303 road.



Photograph 8 – Feeding station along the western bank of the River Avon, upstream of the A303 road.



Photograph 9 – A dead water vole was identified along the western banks of the River Avon, approximately 270 m upstream of the A303 road.



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