



The Great Grid Upgrade

Sea Link

Sea Link

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Riparian Mammal Survey Report

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1. Riparian Mammal Survey Report

1.1 Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the Southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.
- 1.1.2 The purpose of this document is to:
- summarise relevant legislation and policy;
 - describe the methodologies used for desk and field-based assessments;
 - describe any limitations to the surveys undertaken; and
 - detail the results of ecological presence/absence surveys for riparian mammals including otter (*Lutra lutra*), and water vole (*Arvicola amphibius*) conducted in relation to the Suffolk Onshore Scheme.
- 1.1.3 The baseline findings of this report provide information on any potential ecological constraints associated with riparian mammals, for incorporation into **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity** for the Suffolk Onshore Scheme.
- 1.1.4 Details of avoidance, mitigation, compensation and enhancement measures relating to riparian mammals are not included in this report and are instead reported within **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology & Biodiversity**.
- 1.1.5 This appendix should be read in conjunction with the following figures:
- **Application Document 6.4.2.2.D.1 Suffolk Riparian Mammal Locations.**

Scope

- 1.1.6 This report details the results of surveys undertaken to confirm the presence or likely absence of otter and water vole within the Suffolk Onshore Scheme Order Limits.
- 1.1.7 The findings of riparian mammal surveys within the Suffolk Onshore Scheme Order Limits have informed the ecological impact assessment and identification of mitigation measures (where required) which are reported in **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity**.

Survey Area

- 1.1.8 A total of eight water courses (including rivers, streams and ditches) were identified as requiring survey. These areas were identified from mapping data, aerial imagery and observations made during extended Phase 1 survey. The locations of these water courses are shown in **Application Document 6.4.2.2.D.1 Suffolk Riparian Mammal Locations**.

1.2 Legislation, Policy and Guidance

Otter

- 1.2.1 Otter are afforded protection under the Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) and the Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2017). Under this legislation it is an offence to:
- deliberately or recklessly capture, injure or kill an otter;
 - disturb an otter in a way that will impair its ability to reproduce or migrate; or,
 - damage, destroy or obstruct access to their breeding or resting places (note: this is an offence whether an individual is present or not, and is an offence whether deliberate or not).
- 1.2.2 Otter is also listed as a priority species under Section 41 of the Natural Environment and Rural Communities Act 2006 (HM Government, 2006).

Water Vole

- 1.2.3 Water vole are afforded protection under the Wildlife and Countryside Act 1981 (as amended). (HM Government, 1981) Under this legislation it is an offence to:
- intentionally kill, injure or take a water vole;
 - possess or control a live or dead water vole or derivative;
 - intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection, or to disturb a water vole whilst it is using such a place;
 - sell a water vole, or offer or expose for sale or transport for sale; or,
 - publish or cause to be published any advertisement which conveys the buying or selling of a water vole.
- 1.2.4 Water vole is also listed as a priority species under Section 41 of the Natural Environment and Rural Communities Act 2006 (HM Government, 2006).

1.3 Methodology

Desk Study

- 1.3.1 A desk study has been undertaken. The desk study requested records of riparian mammals within the preceding 10 years and within a 2 km radius of the Suffolk Onshore Scheme from the Suffolk Biodiversity Information Centre.

- 1.3.2 The desk-study was undertaken on 6 June 2022 and updated on 4 October 2024 to obtain records of protected and notable species (JNCC, 2020), (HM Government, 2006), (Suffolk Biodiversity Planning Group, 2012) within the Suffolk Onshore Scheme Order Limits and appropriate Zones of Influence (ZOI).

Zone of Influence

- 1.3.3 The potential impact(s) of a development are not always limited to the boundaries of the site concerned. A development may also have the potential to result in impacts upon ecologically important sites, habitats or species that are located beyond the site boundaries.
- 1.3.4 The area over which a development may impact ecologically important features is known as the ZOI. The ZOI is determined by the source/type of impact, the potential pathway(s) for that impact and the location and sensitivity of the ecologically important feature(s) beyond the Order Limits. The potential ZOI of a project in relation to riparian mammals is used to determine the extent of the riparian mammal survey and study areas.
- 1.3.5 The ZOI was determined as all suitable habitats within the Order Limits and relevant adjacent habitats (boundary scrub, tree lines and hedgerows), also noting any obvious territorial behavior that encompassed both the Order Limits and adjacent fields. This was used to establish the required extent of the riparian mammal survey.

Habitat Suitability Assessments

- 1.3.6 Habitat suitability assessments were carried out using aerial imagery and available GIS mapping, prior to Order Limit visits commencing in June 2024. This method was used to identify potential habitats (based on the presence of suitable water features). The suitability of these features was confirmed during the initial presence/absence surveys undertaken in June 2024.

Otter Presence/Absence Survey

- 1.3.7 Otter presence/absence surveys were undertaken by experienced ecologists from AECOM in accordance with standard search methods as outlined in (Chanin, Monitoring the Otter Lutra Lutra. Conserving Natura 2000 Rivers Monitoring Series No 10., 2003). The surveyors searched banks within 50 m of the watercourses where accessible, for otter field signs, including spraints, footprints, feeding remains, holts and runs. The potential of bank side habitat to support otter resting sites and/or holts was assessed. Ledges and footpaths were checked for the presence of spraints.
- 1.3.8 Where access was possible, two surveys of each watercourse were undertaken (one in spring/early summer and one in late summer/ early autumn). Guidelines require a minimum of one survey (Chanin, 2003). As otter surveys can be undertaken concurrently with water vole surveys, two otter surveys were undertaken. Due to the size of the Suffolk Onshore Scheme, multiple visits were required to ensure each watercourse was fully surveyed. The first survey was undertaken on 4 and 5 June 2024. The second survey was undertaken on 16 and 17 September 2024.
- 1.3.9 For the purposes of recording types of otter refuge in this report, the following terms are used:

- a ‘holt’ is a well-enclosed refuge, including excavated tunnels (often in steep banks amongst tree roots) and cavities in rocks or man-made structures;
- a ‘laying-up area’ or ‘lie-up’ is a partially enclosed or screened refuge;
- birth of cubs may occur at a ‘natal holt’, typically above normal flood levels and occupied for up to three months; and,
- a ‘couch’ is constructed in reeds; they are difficult to locate or recognise and may be some distance from main water bodies and other otters.

Water Vole Presence/Absence Survey

- 1.3.10 Water vole presence/absence surveys were undertaken by experienced ecologists from AECOM. The survey methodology used was in accordance with the Water Vole Conservation Handbook (Strachan, Moorhouse, & Gelling, 2011). This consisted of identifying the extent and distribution of water vole activity through searches of the banks of the watercourses for field signs indicating recent activity (e.g. feeding stations, latrines, burrow entrances and footprints) as well as signs of past and potentially present activity (e.g. burrows). Latrines are recognised as good indicators of territorial behaviour, which in turn generally correlate with water vole breeding activity.
- 1.3.11 Where access was possible, two surveys of each watercourse were undertaken (one in spring/early summer and one in late summer/ early autumn). It is in line with good practice guidelines to undertake two scoping surveys for water vole. Due to the size of the Suffolk Onshore Scheme, multiple visits were required to ensure each watercourse was fully surveyed. Survey 1 was undertaken on the 4 and 5 June 2024. Survey 2 was undertaken on the 16 and 17 September 2024.

Limitations

- 1.3.12 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason and in accordance with current guidance, the field survey data detailed in this report are valid for two years from the date of the survey (CIEEM, 2018). After this date, updated surveys may be required, and advice should be sought from an appropriately qualified ecologist to determine the survey scope and methods.

1.4 Results

Desk Study Results

Table 1.1 Summary of records of riparian species

Common Name	Scientific Name	Legally Protected Species	Species of Principal Importance	Other Notable Species	Present in Order Limits	Present/Potentially Present in Wider Zol	Latest Record	Closest Record
European water vole	<i>Arvicola amphibius</i>	Y	Y	Y	-	Y	Within Suffolk Onshore Scheme Order Limits (2023)	Within Suffolk Onshore Scheme Order Limits (2023)
Eurasian otter	<i>Lutra lutra</i>	Y	Y	-	-	Y	Approximately 1.3 km north (2015)	Approximately 1.3 km north (2015)

Habitat Suitability Assessments

- 1.4.1 The descriptions of each watercourse surveyed are outlined in Table 1.2 and Table 1.3 below and shown in **Application Document 6.4.2.2.D.1 Suffolk Riparian Mammal Locations** Photographs of each watercourse are shown in **Annex 2.D.1**.
- 1.4.2 Table 1.2 and Table 1.3 provide the results of the habitat suitability assessment for otter and water vole, respectively, for each watercourse.

Table 1.2 Otter habitat suitability assessments

Watercourse	Watercourse Type	Width (m)	Flow	Connectivity	Presence of Refuges Cover	Level of Human Disturbance	Opportunities for Breeding Holts	Opportunities for Above Ground Resting Sites	Presence of Foraging Opportunities
WV1 TM 387 618	Ditch	2 m	Nil	None	Tall dense ruderal herbs	Occasional disturbance due to farming	None	None	None
WV2 TM 387 622	River Fromus	3 m	1m-s	Yes	Tall dense ruderal herbs and woodland	Occasional disturbance due to farming	None	Yes	Yes
WV2b TM 388 620	Ditch east of River Fromus	2 m	Nil	None	Tall dense ruderal herbs and scrub	Occasional disturbance due to farming	None	None	None
WV3 TM 404 620	Ditch	2 m	Nil	None	Field edge vegetation	Occasional disturbance due to farming	None	None	None
WV4 TM 407 620	Ditch	2 m	Nil	None	Field edge vegetation	Occasional disturbance due to farming	None	None	None
WV5 TM 410 614	Ditch	2 m	Nil	None	Field edge vegetation	Occasional disturbance due to farming	None	None	None

Watercourse	Watercourse Type	Width (m)	Flow	Connectivity	Presence of Refuges Cover	Level of Human Disturbance	Opportunities for Breeding Holts	Opportunities for Above Ground Resting Sites	Presence of Foraging Opportunities
WV6 TM 409 613	Ditch	2 m	Nil	None	Field edge vegetation	Occasional disturbance due to farming	None	None	None
WV7 TM 427 614	Hundred River	3 m	Nil ¹	None	Tall dense ruderal herbs and scrub	Occasional disturbance due to farming	None	Yes	None

¹ This was dry during the September Survey

Table 1.3 Water vole habitat suitability assessments

Watercourse	Watercourse Type	Width (m)	Flow	Bank Profile and Substrate	Frequency and Height of Water Level Changes	Shading	Bankside Vegetation and Density	In-Channel Vegetation	% In Channel Vegetation Density
WV1 TM 387 618	Ditch	2 m	Nil	Trapezoidal	Normally wet all year	Partial	Tall dense ruderal herbs	Yes	95%
WV2 TM 387 622	River Fromus	3 m	1m/s	Natural bank profile in floodplain	Flowing year round, but can be dry in some stretches in summer	Yes	Tall dense ruderal herbs and woodland	Yes	Variable, shaded areas mostly un-vegetated, open areas some macrophytes. 0-100%
WV2b TM 388 620	Ditch East of River Fromus	2 m	Nil	Trapezoidal	Normally wet all year	Yes	Tall dense ruderal herbs and scrub	Yes	100%
WV3 TM 404 620	Ditch	2 m	Nil	Trapezoidal	Seasonally wet	No	Field edge vegetation	Yes	100%
WV4 TM 407 620	Ditch	2 m	Nil	Trapezoidal	Seasonally wet	No	Field edge vegetation	Yes	100%
WV5 TM 410 614	Ditch	2 m	Nil	Trapezoidal	Seasonally wet	No	Field edge vegetation	Yes	5%

Watercourse	Watercourse Type	Width (m)	Flow	Bank Profile and Substrate	Frequency and Height of Water Level Changes	Shading	Bankside Vegetation and Density	In-Channel Vegetation	% In Channel Vegetation Density
WV6 TM 409 613	Ditch	2 m	Nil	Trapezoidal	Seasonally wet	No	Field edge vegetation	Yes	5%
WV7 TM 427 614	Hundred River	3 m	Nil	Natural bank profile	Dry at survey location September 2024	Yes	Tall dense ruderal herbs and scrub	Yes	N/A

Presence/Absence Survey Results

Otter

- 1.4.3 Table 1.4 summarises evidence of the presence of otter found during the surveys, further details are shown in **Application Document 6.4.2.2.D.1 Suffolk Riparian Mammal Locations**.

Table 1.4 Summary of evidence of otter presence

Watercourse	Visit	Evidence
WV1	June 2024	No evidence found
	September 2024	No evidence found
WV2	June 2024	No evidence found
	September 2024	Otter spraint and flattened sand indicating possible slide under bridge at TM 387 618
WV2b	June 2024	Potential holt located within the roots of a tree on the bank
	September 2024	Potential holt showed no signs of otter. However, evidence of significant badger (<i>Meles meles</i>) use was identified. Could be used as a laying-up area
WV4	June 2024	Dry ditch and pond, otter highly unlikely
	September 2024	Ditch and pond still dry
WV5	June 2024	No evidence found, wet ditch probably spring fed, otter highly unlikely
	September 2024	No evidence found

Watercourse	Visit	Evidence
WV6	June 2024	No evidence found, seasonally dry, otter highly unlikely
	September 2024	No evidence found
WV7	June 2024	No evidence found, completely dried up, no macrophytes.
	September 2024	No evidence found

River Fromus (WV2)

- 1.4.5 In June 2024 a potential holt was identified on the River Fromus within the Suffolk Onshore Scheme Order Limits. While there appeared to be a holt, no slide, footprints or spraint were observed in its vicinity. The potential holt was reassessed to more likely be a laying-up area during the September 2024 survey. In September 2024 signs of use by badger were identified indicating that there was no otter usage at the time of the survey. However, otter spraints and flattened sand (a possible otter slide) were found under the bridge 50 m south of the Suffolk Onshore Scheme Order Limits indicating that the section of the river within the Suffolk Onshore Scheme Order Limits is frequented by otter.



Plate 1.1 Potential otter laying-up area

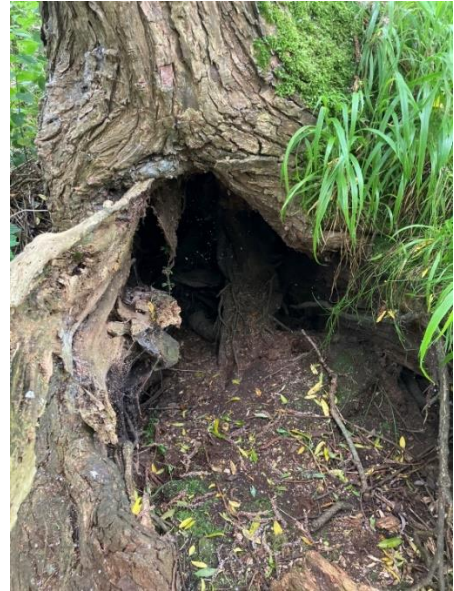


Plate 1.2 Potential otter laying-up area



Plate 1.3 Otter spraint under bridge 50 m south of Order Limits



Plate 1.4 Possible otter slide under bridge 50 m south of Order Limits

Water vole

1.4.6 Table 1.5 summarises evidence of the presence of otter found during the surveys, further details are shown in **Application Document 6.4.2.2.D.1 Suffolk Riparian Mammal Locations**.

Table 1.5 Summary of evidence of water vole presence

Watercourse	Visit	Evidence
WV1	June 2024	Potential feeding remains (2 areas)
	September 2024	No evidence found
WV2	June 2024	No evidence found
	September 2024	No evidence found
WV2b	June 2024	No evidence found
	September 2024	No evidence found
WV3	June 2024	No evidence found
	September 2024	No evidence found
WV4	June 2024	No evidence found
	September 2024	No evidence found
WV5	June 2024	No evidence found
	September 2024	No evidence found
WV6	June 2024	No evidence found
	September 2024	No evidence found
WV7	June 2024	No evidence found
	September 2024	No evidence found

WV1

1.4.7 In June 2024 feeding remains were found in Ditch 1 (parallel to and approximately 100 m from River Fromus) in two areas:

- small amount within bramble thicket; and,
- potential feeding remains.



Plate 1.5 Potential water vole feeding remains



Plate 1.6 Potential water vole feeding remains

1.5 Discussion

- 1.5.1 A total of eight water courses were assessed for the presence of riparian mammals.
- 1.5.2 Mammal signs which could indicate the presence of otter were found at one water course (WV2 – River Fromus), 50 m south of the Suffolk Onshore Scheme Order Limits at TM 387 618.
- 1.5.3 One water course showed potential evidence of water vole during the first survey visit. The evidence of water vole presence was of feeding remains. Other corroborating evidence was not found.

References

- Chanin, P. (2003). *Monitoring the Otter Lutra Lutra. Conserving Natura 2000 Rivers Monitoring Series No 10*. Peterborough: English Nature. Retrieved October 09, 2024, from Natural England Access to Evidence: <https://publications.naturalengland.org.uk/file/114036>
- Chanin, P. (2003). *Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10*. Peterborough: English Nature. Retrieved November 14, 2024, from Natural England Access to Evidence: <https://publications.naturalengland.org.uk/publication/78009>
- HM Government. (1981). *Wildlife and Countryside Act 1981*. Retrieved July 11, 2024, from Legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/1981/69/contents>
- HM Government. (2006). *Natural Environment and Rural Communities Act 2006*. Retrieved July 11, 2024, from Legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/2006/16/contents>
- HM Government. (2017). *The Conservation of Habitats and Species Regulations 2017*. Retrieved July 11, 2024, from Legislation.gov.uk: <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>
- JNCC. (2020, Jan). *Red Lists in Great Britain*. Retrieved from jncc.gov.uk: <https://jncc.gov.uk/our-work/red-lists-in-great-britain/>
- Strachan, R., Moorhouse, T., & Gelling, M. (2011). *Water Vole Conservation Handbook, Third Edition*. Wildlife Conservation Research Unit, University of Oxford.
- Suffolk Biodiversity Planning Group. (2012). *Suffolk Biodiversity Action Plan and Planning*. Retrieved from Suffolkbis.org.uk: <https://www.suffolkbis.org.uk/planning/BAP>

Annex 2.D.1 - Watercourse Photographs



Plate A.1 Watercourse WV1



Plate A.2 Watercourse WV2b



Plate A.3 Watercourse WV3



Plate A.4 Watercourse WV5



Plate A.5 Watercourse WV6



Plate A.6 Watercourse WV7 (Hundred Stream)



Plate A.7 Watercourse WV2 (River Fromus)

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