NORTH FALLS

Offshore Wind Farm

ENVIRONMENTAL STATEMENT

Appendix 23.3 Riparian Mammals (Water Vole and Otters) Survey Report

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NORTH FALLS
Offshore Wind Farm

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ECOLOGY
RESOURCES

Water Vole & Otter Survey Report

North Falls Offshore Wind Farm Ltd

October 2022

ECOLOGY | ARBORICULTURE

Status	Name	Date
Draft	Ben Payne BSc (Hons) MSc ACIEEM	19/10/2022
Rev 1	Gavin Mullan (BA) Hons MCIEEM	25/10/2022
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EXECUTIVE SUMMARY

Ecology Resources Limited was commissioned by Royal HaskoningDHV on behalf of North Falls Offshore Wind Farm Limited to undertake water vole *Arvicola amphibius* and otter *Lutra lutra* surveys of suitable water bodies within the North Falls Offshore Wind Farm onshore project area. Seven water bodies were identified as being suitable to support water voles and one as being suitable to support otters during Royal HaskoningDHV's 2022 Extended Phase 1 Habitat Survey[1], and all seven water bodies were subject to surveys during 2022.

Evidence of water voles was found on four of the water bodies surveyed. Evidence of American mink *Neovison vison*, which predates on water vole, was found on one water body. No signs of otters were observed.

[1] Royal HaskoningDHV, (2022). North Falls Offshore Wind Farm Extended Phase 1 Habitat Survey

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1. INTRODUCTION

Ecology Resources Limited was commissioned by Royal HaskoningDHV on behalf of North Falls Offshore Wind Farm Limited, to undertake water vole *Arvicola amphibius* and otter *Lutra lutra* surveys of suitable water bodies within the onshore project area.

1.1 Project Background

North Falls Offshore Wind Farm (herein North Falls or 'the project') is a proposed extension to the operational Greater Gabbard Offshore Wind Farm (GGOW), which is located off the east coast of England in the Southern North Sea and was opened in 2013. North Falls is located to the west of the existing GGOW and at its closest point is approximately 22km offshore. The wind farm is being developed by North Falls Offshore Wind Farm Limited, a joint venture between SSE Renewables and RWE.

North Falls is currently awaiting a formal grid connection offer from National Grid. Whilst this process is ongoing, in order to ensure that adequate baseline data is collected to inform the Environmental Impact Assessment (EIA), North Falls has progressed with site selection of the project's onshore infrastructure (landfall location, onshore cable route and onshore substation location) at risk. The outputs of North Falls site selection process have then been used to generate a study area for the purposes of undertaking a suite of ecological surveys during 2021 and 2022 so that baseline data for the project can be gathered. This is referred to herein as the 'onshore project area'.

An Extended Phase 1 Habitat Survey of the onshore project area was undertaken between April and October 2021, the findings of which were used to inform the scope of further 'Phase 2' ecology surveys required in 2022 to inform the project's Ecological Impact Assessment (EcIA) in support of its Development Consent Order (DCO) application.

This report details the scope, methodology and findings of a water vole and otter survey, which forms part of this suite of Phase 2 surveys.

1.2 Legislation

Water Voles are protected under UK law under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to:

- Intentionally kill, injure, or take them
- Possess or control them (alive or dead)

It is also an offence under the Wildlife and Countryside Act 1981 (as amended) to intentionally or recklessly:

- Damage or destroy a structure or place used for shelter or protection
- Disturb them in a place used for shelter or protection
- Obstruct access to a place used for shelter or protection

Water voles are a species of principal importance under Section 41 of the Natural Environment and Rural Communities Act (2006) and local authorities and other public bodies have a legal duty to take their conservation into account. They are also a material consideration in the planning process.

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Otters are designated and protected as European protected species (EPS). EPS are protected under the Conservation of Habitats and Species Regulations 2017 (as amended).

It is an offence to:

- Intentionally kill, injure, disturb, or capture them
- Damage or destroy their breeding sites and resting places – even if otters are not present
- Possess, control, or transport them (alive or dead)

It is also an offence under the Wildlife and Countryside Act 1981 (as amended) to intentionally or recklessly:

- Disturb otters while they occupy a structure or place used for shelter or protection
- Obstruct access to a place of shelter or protection

Otters are a species of principal importance under Section 41 of the Natural Environment and Rural Communities Act (2006) and local authorities and other public bodies have a legal duty to take their conservation into account. They are also a material consideration in the planning process.

2. METHODOLOGY

2.1 Habitat Assessment

Fourteen water bodies were originally identified as providing suitable habitat for water vole during the Extended Phase 1 Habitat Survey[2].

Following amendments to the onshore project area and refined scope between 2021 and 2022, Royal HaskoningDHV have instructed Ecology Resources to survey a total of seven water bodies for water vole and otter. All seven were deemed suitable to support water voles and one to support otters, habitat suitability is outlined in the results section.

2.2 Surveying

2.2.1 Water Vole Survey

The water vole surveys were undertaken in accordance with the methodology set out in the Water Vole Conservation Handbook[3] (3rd Ed.) and as modified by The Water Vole Mitigation Handbook[4].

Surveys were conducted along one bank for the full length of each water body within the survey area plus an additional 100m buffer for water vole and 250m buffer for otter. Each water body was surveyed by an ecologist, and all field signs of water vole recorded. This included sightings, burrows, latrines, feeding stations, lawns, nests, footprints, and runways.

Each field sign type and its location were recorded, and a photograph taken. In addition to all water vole field signs, field signs of other aquatic mammals (e.g., rats, otter and mink) were also recorded.

[2] Royal HaskoningDHV, (2022). North Falls Offshore Wind Farm Extended Phase 1 Habitat Survey

[3] Strachan, Moorhouse and Gelling (2011) Water Vole Conservation Handbook (3rd Ed.)

[4] Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London

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Weather conditions were recorded during the survey.

2.2.2 Otter Survey

During the water vole survey, the water bodies were also searched for field signs of otters. All evidence of otter activity – spraints, feeding remains, slides, couches, and holts – was recorded. Each field sign type and its location were recorded, and a photograph taken.

2.3 Surveyors

The surveys for both species were by led Johnnie Johnson (CIEEM Qualifying Member), a competent surveyor of water voles and otters with seven years' experience. Assisting on the surveys were Patrick Davis and Kate Mann; both CIEEM Qualifying Members and both competent and experienced water vole and otter surveyors with six and nine years' experience respectively.

2.4 Survey Conditions

Table 1 shows weather conditions on the dates that surveys took place.

Table 1: Survey weather conditions

Date	Survey conditions
12/05/2022	Sunny with slight breeze, 17°C
13/05/2022	Sunny with slight breeze, 18°C
19/05/2022	Sunny with slight breeze, 18°C
08/06/2022	Sunny with moderate breeze, 19°C
09/06/2022	Sunny with a breeze and overcast, 19°C
18/06/2022	Cloudy and humid, 20°C
08/09/2022	Light rain and cloudy at start of survey becoming sunny and warm as the survey continued, 18°C
09/09/2022	Cloudy, intervals of sun and breezy, 17°C
16/09/2022	Sunny spells after light rain, partial cloud, 13°C
19/09/2022	Sunny spells, dry, cloudy, light breeze, 14°C
22/09/2022	Sunny with slight breeze, 16°C
29/09/2022	Sunny with slight breeze, 18°C

2.5 Survey Limitations

Surveys were conducted in suitable weather conditions and no limitations were encountered throughout the survey period. Full access to water bodies was available across the survey area.

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3. RESULTS

3.1 Habitat Suitability

In total seven water bodies were scoped into the water vole survey and otter survey based on their suitability for water vole and/or otter, all of which were subject to the required survey effort.

Table 2 shows the water bodies selected for survey, based on the Extended Phase 1 Habitat Survey[5].

Table 2: Water bodies selected for further survey

Water body ID	Habitat Description	Otter Potential	Water Vole Potential	Figure (Appendix A)
TN017	5m wide at widest point and depth at 1.5m. Steep clay banks. Vegetation consisting of reeds, willow herb, bramble, and iris. Cattle disturbance except where fenced off	Negligible	Suitable	Figure 1
TN403	1m wide channel with steep earth banks. Not holding water at time of assessment. 100% vegetation cover consisting of tall and tussocky grasses, bramble, and trees.	Negligible	Suitable	Figure 2
W001	1m wide channel with steep earth banks. Not holding water at time of assessment. 90% vegetation cover consisting of tall and tussocky grasses	Negligible	Suitable	Figure 3
W003	2m wide channel with earth banks and water depth of 0.25m. 100% Vegetation cover consisting of tall	Suitable	Suitable	Figure 3

[5] Royal HaskoningDHV, (2022). North Falls Offshore Wind Farm Extended Phase 1 Habitat Survey

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Water body ID	Habitat Description	Otter Potential	Water Vole Potential	Figure (Appendix A)
	and tussocky grasses			
W004	2m wide channel with steep earth banks and water depth of 0.25m. 100% vegetation cover consisting of tall and tussocky grasses	Negligible	Suitable	Figure 3
W012	2m wide channel with steep earth banks and water depth of 1m. 80% Vegetation cover consisting of trees, shrubs, tall grasses and reeds	Negligible	Suitable	Figure 4
W013	Steep slope with clay and gravel substrate. Vegetation included nettle, bramble, and willow herb	Negligible	Suitable	Figure 4

3.2 Survey Results Summary

Four of the seven water bodies surveyed displayed signs of water vole and one displayed signs of American mink. No field signs of otters were recorded on any water body during the survey.

Table 3 provides a summary of the findings on each water body surveyed. Detailed results, with photographs can be found in Appendix B.

Table 3: Water vole and otter survey results summary

Waterbody ID	Field sign(s)	Figure (Appendix A)
TN017	Water vole - Feeding remains (x 6) - Latrine (x 5)	Figure 1
TN403	No field signs observed	Figure 2
W001	No field signs observed	Figure 3
W003	Water vole - Feeding remains (x 2) American mink - Spraint (x 1)	Figure 3
W004	Water vole - Burrow (x 3) - Latrine (x 1) - Footprint (x 1)	Figure 3

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Waterbody ID	Field sign(s)	Figure (Appendix A)
W012	No field signs observed	Figure 4
W013	Water vole - Feeding remains (x 1)	Figure 4

3.3 Population Assessment

Table 4 shows a population assessment of the water bodies where water vole signs were observed, based on the methodology outlined in the Water Vole Mitigation Handbook[2].

Table 4: Water vole population assessment

Waterbody ID	Approx. length of bank surveyed	Average No. of latrines per 100m of bankside habitat	Relative population density
TN017	4800m	0.1	Low
W003	1100m	None, but with other confirmatory signs	Low
W004	700m	0.14	Low
W013	600m	None, but with other confirmatory signs	Low

No signs of otter were observed; therefore, no population assessment was possible for this species.

4. CONCLUSION

A total of seven water bodies were surveyed across the onshore project area. Evidence of water vole activity confirming presence was found along four water bodies:

- TN017,
- W013,
- W003,
- W004.

Evidence of American mink was also found on water body WV003.

No evidence of otters was found during the surveys.

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REFERENCES

Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London

Royal HaskoningDHV, (2022). North Falls Extended Phase 1 Habitat Survey Report

Strachan, R. , Moorhouse, T. , Gelling, M. (2011). Water Vole Conservation Handbook, Third Edition, WildCRU, University of Oxford

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APPENDIX A: Figures

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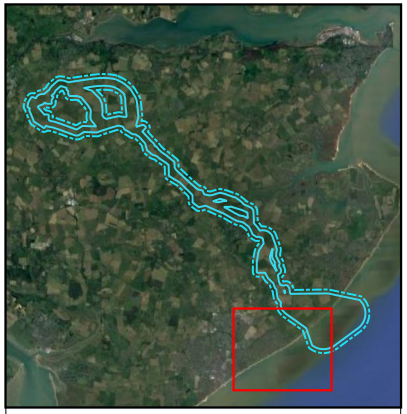

LEGEND

- North Falls Onshore plus 50m
- Water body survey extent
- Feeding remains
- Latrine

Water Vole & Otter Survey
FIGURE 1

PROJECT
North Falls Offshore Wind Farm

CLIENT:
Royal HaskoningDHV

DATE:
09.11.2022

PRODUCED BY:
B. Payne

REF: 22042

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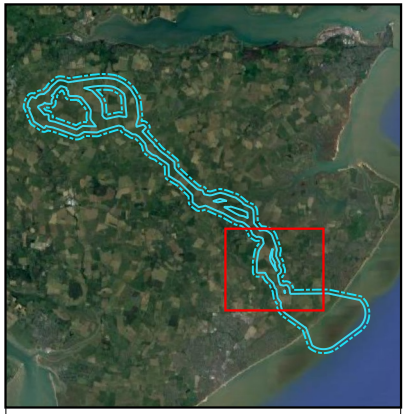


LEGEND

North Falls Onshore plus 50m

Water body survey extent

Water Vole & Otter Survey
FIGURE 2

PROJECT
North Falls Offshore Wind Farm

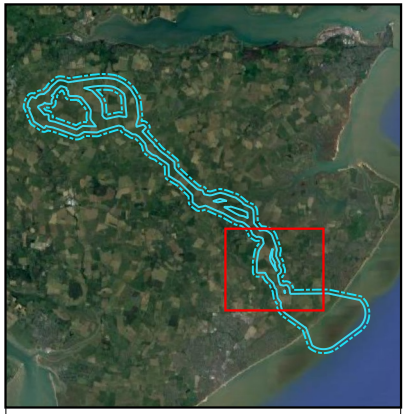
CLIENT:
Royal HaskoningDHV

DATE:
09.11.2022

PRODUCED BY:
B. Payne

REF: 22042

ECOLOGY RESOURCES



LEGEND

- North Falls Onshore plus 50m
- Both
- Mink Spraint
- Burrow
- Feeding remains
- Latrine

Water Vole & Otter Survey
FIGURE 3

PROJECT
North Falls Offshore Wind Farm

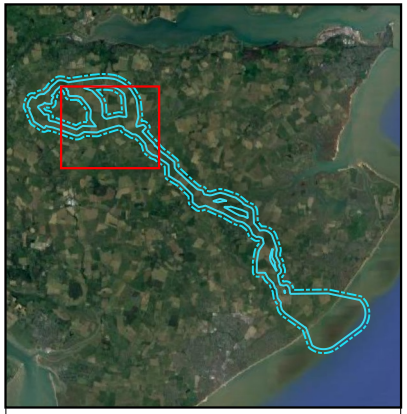
CLIENT:
Royal HaskoningDHV

DATE:
09.11.2022

PRODUCED BY:
B. Payne

REF: 22042

ECOLOGY RESOURCES



LEGEND

- North Falls Onshore plus 50m
- Water body survey exent
- Feeding remains

Water Vole & Otter Survey
FIGURE 4

P R O J E C T
North Falls Offshore Wind Farm

CLIENT:
Royal HaskoningDHV

DATE:
09.11.2022

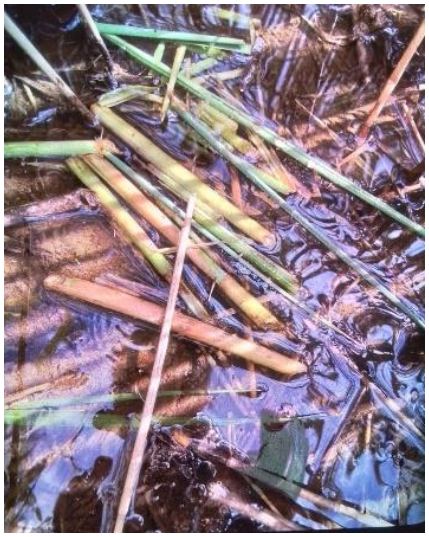
PRODUCED BY:
B. Payne

REF: 22042

ECOLOGY RESOURCES

APPENDIX B: Detailed Results

Table 5: Detailed survey results

Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Feeding remains		621914, 217481	19/05/2022	

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Feeding remains		622069, 217574	19/05/2022	
TN017	Water vole	Feeding remains		621700, 217751	19/05/2022	

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Feeding remains		621815, 217643	29/09/2022	 

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Feeding remains		621817, 217633	29/09/2022	 

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Latrine	Fresh latrine and feeding station	621925, 217537	22/09/2022	 

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Latrine	Fresh latrine by watercourse with runs going in both directions on bank	621913, 217503	22/09/2022	
TN017	Water vole	Latrine	Fresh droppings on polystyrene debris	621915, 217516	22/09/2022	

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Latrine	Fresh latrine	622095, 217666	22/09/2022	
TN017	Water vole	Latrine	Latrine by water's edge	622148, 217719	22/09/2022	

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
TN017	Water vole	Feeding remains	Fresh feeding station with fresh droppings throughout	621931, 217540	22/09/2022	 

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
W013	Water vole	Feeding remains		611190, 228337	13/05/2022	No photograph
W003	Water vole	Feeding remains		615560, 225160	13/05/2022	No photograph
W003	American Mink	Spraint (old)	Mink spraint	615655, 225252	13/05/2022	

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Waterbody ID	Species	Field sign(s)	Notes	Eastings, Northings	Survey Date	Photograph(s)
W003	Water vole	Feeding remains		615389, 225038	13/05/2022	
W004	Water vole	Burrow	2 burrows present	614910, 225071	18/06/2022	No photograph
W004	Water vole	Burrow		614920, 225059	18/06/2022	No photograph
W004	Water vole	Burrow		614799, 225217	18/06/2022	No photograph
W004	Water vole	Latrine		614807, 225212	18/06/2022	No photograph
W004	Water vole	Print		614961, 227548	18/06/2022	No photograph

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HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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