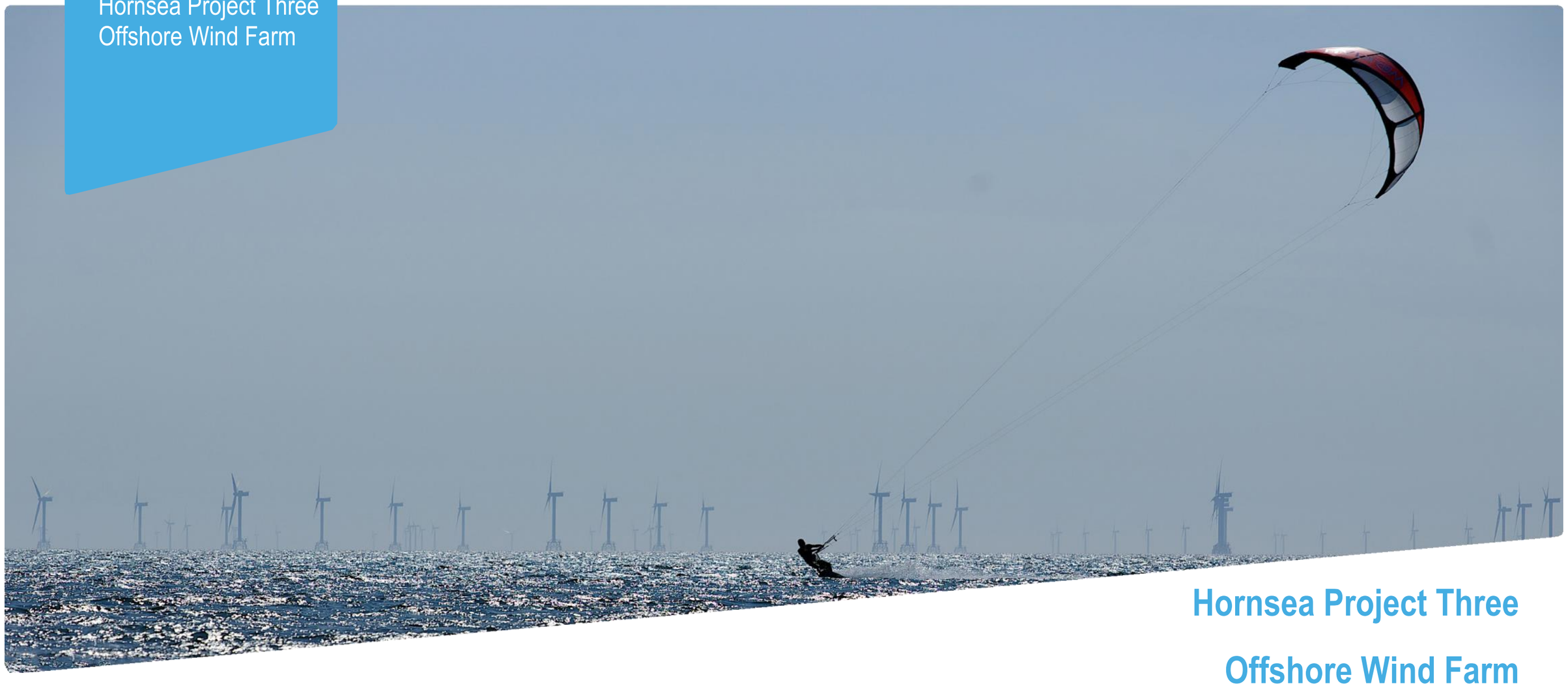
Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three

Offshore Wind Farm

Environmental Statement:
Volume 6, Annex 3.11 - Otter Sign Survey (non-confidential version)

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Date: May 2018

Hornsea 3
Offshore Wind Farm

Ørsted

Environmental Impact Assessment

Environmental Statement

Volume 6

Annex 3.11 – Otter Sign Survey (non-confidential version)

Liability

This report has been prepared by Thomson Ecology Ltd, with all reasonable skill, care and diligence within the terms of their contract with Orsted Power (UK) Ltd.

Report Number: A6.6.3.11

Version: Final (non-confidential)

Date: May 2018

This report is also downloadable from the Hornsea Project Three offshore wind farm website at:
www.hornseaproject3.co.uk

Ørsted

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Front cover picture: Kite surfer near a UK offshore wind farm © Orsted Hornsea Project Three (UK) Ltd, 2018.

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Glossary

Term	Definition
Anal jelly	A separate secretion made by otters to mark territory.
Compound	A collective term used to refer to secondary construction compounds along the onshore cable corridor as well as the landfall construction compound (defined in detail in volume 1, chapter 3: Project Description). Although, there is also a main construction compound, this is referred to individually due to its distant location relative to the onshore cable corridor.
Eutrophic	Rich in nutrients and so supporting a dense plant population, the decomposition of which kills animal life by depriving it of oxygen.
Mesotrophic	With an intermediate level of productivity, resulting from an intermediate level of nutrient availability.
Otter holts	Den or resting place of an otter, often underground or under tree roots.
Otter spraints	The dung of an otter, often used to mark territory.
Phase 1 Habitat Survey	A field survey technique which provides a relatively rapid system to record and map semi-natural vegetation and other wildlife habitats.
Preliminary Ecological Appraisal	The first stage in any site ecological assessment. It has two main elements; an ecological desk study and an extended Phase 1 habitat survey.
Survey Area	The survey area for the otter survey comprised the PEIR onshore cable corridor search area and potential alternative routes (as shown in Appendix A, Figure 1.1).

Acronyms

Unit	Description
DCO	Development Consent Order
EIA	Environmental Impact Assessment
HVAC	High Voltage Alternating Current:
HVDC	High Voltage Direct Current
PEA	Preliminary Ecological Appraisal
PEIR	Preliminary Environmental Information Report
SSSI	Site of Special Scientific Interest

Units

Unit	Description
GW	Gigawatt (power)
ha	Hectare (area)
m	Metre (distance)
km	Kilometre (distance)

1. Introduction

1.1 Development background

1.1.1.1 Ørsted is promoting an application for a development consent order ('DCO') for the Hornsea Project Three Offshore Wind Farm (hereafter referred to as 'Hornsea Three') a proposed offshore wind farm located in the southern North Sea. This report focuses on the onshore components of Hornsea Three (as described in volume 1, chapter 3: Project Description).

1.1.1.2 At the time of ecological survey scoping in December 2016, a 200 m wide cable corridor search area had been identified by Ørsted. The 200 m wide search area included the locations of the proposed onshore cable corridor, HVAC booster station, HVDC converter/HVAC substation, Norwich Main National Grid substation and construction compounds and was the focus of the Preliminary Environmental Information Report (PEIR) published in July 2017. This search area is hereafter referred to as the 'PEIR onshore cable corridor search area'. Following this, some alternate route considerations were added. Ecological survey area boundaries were based on the PEIR onshore cable corridor search area and alternate routes considered, with an appropriate survey buffer added for some survey types where necessary. The survey area applicable to this report is shown in Appendix A, Figure 1.1.

1.1.1.3 Subsequently, a route refinement process has been undertaken to refine the Hornsea Three onshore cable corridor to an approximately 80 m wide corridor (referred to as the 'onshore cable corridor') as well as identify locations of compounds, access roads and storage areas. The location of permanent and temporary land take associated with the HVDC converter/HVAC substation and HVAC booster station has also been refined. This process is described in more detail in chapter 4: Site Selection and Alternatives of volume 1 of the Environmental Statement.

1.1.1.4 A full description of Hornsea Three is provided in volume 1, chapter 3: Project Description.

1.2 Ecology background

1.2.1.1 A Preliminary Ecological Appraisal (PEA) of the onshore components of Hornsea Three was undertaken in 2016 (RPS, 2016). This included a Phase 1 habitat survey area comprising a 500 m wide corridor (including the PEIR onshore cable corridor search area) and an ecological desk study, whereby protected species data was requested from the Norfolk Biodiversity Information Service (NBIS). The PEA results were used to inform the Preliminary Environmental Information Report (PEIR) and to determine the scope and extent of further ecological surveys required to inform the Environmental Impact Assessment (EIA) for Hornsea Three.

1.2.1.2 Records of otter (*Lutra lutra*) were returned as part of the desk study and the PEA identified suitable terrestrial and aquatic habitat within the Phase 1 survey area, including within the PEIR onshore cable corridor search area and so it was recommended that otter sign surveys be carried out.

1.2.1.3 Based on this recommendation, Thomson Ecology was commissioned in November 2016 to undertake an otter sign survey within a survey area that included the PEIR onshore cable corridor search area, alternative routes considered and an additional 250 m survey buffer, as shown on Appendix A, Figure 1.1.

1.2.1.4 Following the route refinements, an additional Phase 1 habitat survey was undertaken to cover 30 areas which were either not accessible during the PEA, or became relevant to Hornsea Three due to design refinements (see volume 6, annex 3.: Desk Study and Phase 1 Habitat Report as well as 2.4 of this report).

1.3 Legislative background

1.3.1.1 Both within and outside designated sites, otters are protected by law. Otters are covered by the Conservation of Habitats and Species Regulations 2010 (as amended). The Regulations make it an offence, with very few exceptions, to:

- Deliberately capture, injure or kill an otter;
- Deliberately disturb an otter in such a way as to be likely:
    - To impair its ability to survive, to breed or reproduce, or to rear or nurture its young; or
    - To impair its ability to hibernate or migrate; or
    - To affect significantly the local distribution or abundance of the species to which they belong.
- Damage or destroy a breeding site or resting place of an otter; and
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead otter, or any part of, or anything derived from an otter.

1.3.1.2 In addition to the protection given to otters under the conservation of Habitats and Species Regulations 2010 already described, otters are also protected in England under the Wildlife and Countryside Act, which adds the following offences (with certain exceptions):

- Disturbance while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructing access to any structure or place used for shelter or protection.

1.3.1.3 Based on this legislation, if proposed work has the potential to kill, injury or disturb this species or damage its habitats, appropriate mitigation which seeks to avoid these impacts should be devised and implemented under licence from Natural England.

1.4 The brief and objectives

1.4.1.1 The brief of the survey was to:

- Carry out a survey for fields signs indicating the presence of otter in suitable habitat that could potentially be impacted by the proposed development; and
- Provide a survey report to include methods and results of the survey, including digital mapping.

1.4.1.2 The objective of the survey was to identify the presence of otter populations by locating signs of otter within the Hornsea Three onshore cable corridor to enable an assessment of the impacts of Hornsea Three on otter within volume 3, chapter 3: Ecology and Nature Conservation of the Environmental Statement.

2. Methodology

2.1 Survey area

2.1.1.1 An otter survey area was defined that included all land within the PEIR onshore cable corridor search area and alternative routes being considered, with an additional survey buffer of 250 m. The location of waterbodies for survey were identified from the PEA (RPS, 2016). The otter survey area is shown in Appendix A, Figure 1.1 and the survey area and waterbody locations are shown on Figure 2.1 to 2.23 (REMOVED FOR CONFIDENTIALITY REASONS).

2.1.1.2 The main construction compound to the east of the Hornsea Three onshore cable corridor is outside of the survey area for this study and comprises existing hard standing with negligible ecological importance. Therefore, a detailed survey of baseline conditions was not required.

2.2 Otter sign survey

2.2.1.1 Eighty-nine waterbodies (including rivers, streams, ditches and ponds) in the survey area were identified as requiring further survey for otters in the PEA report.

2.2.1.2 Of this 89, a total of 75 waterbodies (including rivers, streams, ditches and ponds) in the survey area were surveyed for signs of otter. Each waterbody surveyed was assigned a unique identification code for the purpose of this survey. However, numbering is not continuous due to discovery of new waterbodies during the survey or removal of waterbodies following minor route changes made following numbering.

2.2.1.3 Fourteen waterbodies could not be visited due to permission to access the land not being granted. Waterbodies which could not be accessed for survey are shown in Appendix A, Figure 2.1 to 2.23 (REMOVED FOR CONFIDENTIALITY REASONS) and in Table 2.2.

2.2.1.4 The survey included a visual search for signs indicating presence of otter by suitably experienced ecologists, habitat parameter data was collected and photographs were taken of each survey location as shown in Appendix A, Figure 3.1 to 3.3 (REMOVED FOR CONFIDENTIALITY REASONS). The surveys were undertaken between 4 April and 10 May 2017. All surveys were conducted in optimal weather conditions (not after heavy rainfall and flooding).

2.2.1.5 Both banks of the waterbody within the survey area were walked by two ecologists to identify signs indicating the presence of otter. These include:

- Otter footprints;
- Otter feeding remains;
- Otter spraints (faeces); and
- Anal jelly.

2.2.1.6 The location of otter signs, or any actual otter sightings, were recorded on a GPS enabled mobile mapping device and geo-referenced photographs were taken, as appropriate.

2.2.1.7 Where evidence of otter was found at a waterbody, the banks and immediate vicinity (within 30 m of the water's edge) were surveyed in more detail for otter habitat features. Features searched for include:

- Breeding sites - where there was evidence of breeding which may include a number of very well defined otter trails in a small area, cub sized otter foot prints (positive identification of breeding sites is only rarely possible and lack of signs does not rule out breeding in the area);
- Actual resting sites and otter holts – including hollow trees, tree root cavities, dense thicket, burrows and areas of flattened grass, where there is evidence that the site has recently been used by an otter. This may include spraint (faeces) in or just outside the entrance, footprints or identifiable otter trails leading into the site;
- Potential resting sites – as listed above, which are suitable for use by otters but where there is no evidence of use; and
- Other areas which do not constitute a recognisable breeding or resting site, but which provide general cover for an otter travelling about its home range and which may be used as a resting site. For example, dense tall herbaceous vegetation.

2.2.1.8 Each otter resting site identified was categorised as low, medium or high quality, and it was noted whether there was evidence of recent use, or not. These categories are relative, taking into account the presence and availability of other features on the site (see Table 2.1).

Table 2.1: Otter resting site categories.

Quality of resting site	Description
Low	Site providing limited shelter from the elements, and little protection from interference by people and dogs. e.g. open scrub, small unenclosed spaces in flood debris piles, open fronted overhang in bank.
Medium	Site providing moderate degree of shelter from the elements and some security from interference by people and dogs, e.g. partly enclosed spaces in flood debris piles.
High	Site providing secure and enclosed resting place for an otter, e.g. deep cavity, pipe or burrow of suitable size.
Not known	Areas or sites which could not be surveyed, for example, for safety reasons.

2.3 Surveyors

2.3.1.1 Surveys were undertaken by the following suitably qualified and experienced ecologists: Ishbel Campbell BSc (Hons) MSc ACIEEM; Karen Akehurst BSc (Hons) MSc GradCIEEM; Lauren Hornsby BSc (Hons); Louise Bunn BSc (Hons) MSc ACIEEM; Rhiannon Williams BSc (Hons) MRes GradCIEEM; Robert Allen BSc (Hons) MSc GradCIEEM; Caroline Ritchie BSc (Hons) MSc; Joseph Baker BSc (Hons); Mercedes Malax-Echevarria BSc (Hons); Neil Whitehead BSc (Hons) MSc; Stephen Hewitt Bsc (Hons) ACIEEM.

2.4 Limitations

2.4.1.1 The survey area for the otter sign survey was based on the PEIR onshore cable corridor search area with a 250 m survey buffer and extended accordingly to consider some alternative route options considered after issue of the PEIR. Following completion of the survey the locations of the Hornsea Three onshore cable corridor (80 m wide), construction compounds, access roads and storage areas have been finalised. At two locations (see Appendix A, Figure 2.4 and 2.10- REMOVED FOR CONFIDENTIALITY REASONS). the Hornsea Three onshore cable corridor and associated infrastructure fall outside of the otter survey area. However, examination of the Phase 1 habitat survey mapping and Ordnance Survey mapping indicate that there are no waterbodies likely to be used by otters within the Hornsea Three onshore cable corridor at these locations.

2.4.1.2 Land owner permission was necessary to access land within the survey area. Although the status of landowner permission was reviewed on a weekly basis during the survey season, land access permission was not available for 13 of the waterbodies identified for survey. A further waterbody could not be surveyed due to dense vegetation causing health and safety concerns. Table 2.2 lists waterbodies where access was not possible to survey and identifies on which figure they are shown.

Table 2.2: Waterbodies with no access to survey.

Waterbody Number	Access restrictions	Figure Number (Appendix A)
OA2	No access by landowner	2.1
OA7		2.2
OA8		2.3
OE3		2.11
OE16		2.13
OE17		2.14
OF1		2.15
OF2		2.16
OF3		2.16
OF25		2.20
OF26		2.20
OG3	No access due to unsafe vegetation	2.23
OG4	No access by landowner	2.23
OG11		2.23

2.4.1.3 Although not all waterbodies could be surveyed, the survey effort was sufficient to establish the presence of otters within the Hornsea Three onshore cable corridor. Otters are likely to occur on waterbodies that could not be surveyed where suitable habitat is present as otters are highly mobile and range over large areas. However, the areas which were not accessible were covered by the PEA (desk study and Phase 1 habitat survey) providing ecological data, which combined with the ability to characterise from the data collected in the remainder of the survey area, is considered sufficient to inform the impact assessment on otters reported in volume 3, chapter 3: Ecology and Nature Conservation.

2.4.1.4 The areas where survey could not be completed, but will be impacted by Hornsea Three (it is likely that impacts on rivers and streams will be avoided by horizontal directional drilling), will be checked during pre-construction surveys enabling amendment of mitigation or the application of further mitigation to that specified in volume 3, chapter 3: Ecology and Nature Conservation, if required.

3. Results

3.1.1.1 The location of surveyed waterbodies and results of the otter sign survey are shown on Appendix A, Figure 2.1 to 2.23 (REMOVED FOR CONFIDENTIALITY REASONS). Habitat descriptions are given for waterbodies where otter signs were recorded in Table 3.1 and photographs of waterbodies are given in Appendix A, Figure 3.1 to 3.3 (REMOVED FOR CONFIDENTIALITY REASONS). Habitat parameters for all waterbodies surveyed are given in Appendix B: Waterbody habitat parameters.

3.1.1.2 Of the 75 waterbodies surveyed, signs indicating the presence of otter were recorded at 14 waterbodies within the survey area. Three waterbodies (OF5, OF23, OF24) recorded presence of otter within the onshore cable corridor (80 m width) and a further five waterbodies (OC3, OC9, OE2, OF11, OG8) that intercept the onshore cable corridor recorded signs of otter although do not necessarily have presence records inside the corridor, including OC3 and OE2 which contain potential holts.

3.1.1.3 The otter signs recorded at each waterbody are listed in Table 3.1. Potential otter holt sites were identified in waterbody OC2 and OE2 and were given a quality rating of medium indicating the resting site provided a moderate degree of shelter and some security from interference by people and dogs. Waterbody OC3 was also given this rating as, although no otter signs were found, it is within close approximately (approximately 40 m) of OC2.

Table 3.1: Otter survey results and waterbody descriptions.

Waterbody ID	Figure No. Photo No. Appendix A	Waterbody Type/Name	Waterbody Description	Otter signs and habitat features recorded
OB5	Fig 2.4 Fig 3.1	Pond	Up to 20 m wide and 0.5-1 m deep. Dense tree cover around pond, low veg and moss on banks. Arable fields Surround with moderate disturbance by human activity.	Anal Jelly
OC2	Fig 2.6 Fig 3.1	Lake	Lowland lake greater the 40 m wide with and estimated depth between 1-2 m. No evidence of polution, Island in centre of lake. Situated within woodland. 70% of veg on bank soft rush	Potential Holt (medium quality) Slide, Feeding Remains (x2) Spraint (x2), Footprint
OC3	Fig 2.6 Fig 3.1	[redacted]	[redacted] - Moderately running water 2-5 m wide with and average depth between 1-2 m. Dense vegetation for majority of stretch, bridge at the start surrounded by semi-improved grassland with moderate disturbance by human activities.	Potential Holt (medium quality) – precautionary due to proximity to OC2
OC8	Fig 2.8 Fig 3.1	[redacted]	Slow flowing ditch no wider the 1-2 m with a depth less then 0.5 m. Narrow ditch between arable fields with low level of disturbance from human activities.	Feeding Remains (x2) Spraint (x2)
OC10	Fig 2.9 Fig 3.1	Pond	A large pond surrounded by mature trees, within agricultural land, 20-40 m wide, 0.5-1 m deep, low pollution, Mesotrophic, low disturbance by human activity.	Spraint
OE2	Fig 2.11 Fig 3.1	[redacted]	Moderatly flowing shallow running water 2-5 m wide with an average depth of less the 0.5 m. Surrounded by arable fields with moderate human disturbance.	Spraint (x6), Footprint Potential Holt (medium quality), Slide
OF5	Fig 2.17 Fig 3.2	[redacted]	Slow running water approximately 5 m wide and more 2 m deep. A Mesotrophic waterbody with a silt like substrate. Surrounded by improved grassland with a low level of human disturbance.	Spraint (x6), Footprint (x7) Feeding Remains (x5), Slide
OF7	Fig 2.17 Fig 3.2	Pond	A still pond between 10-20 m wide and no more than 0.5 m deep. A Eutrophic waterbody with a silt like substrate. Surrounded by arable fields with a low level of human disturbance.	Footprint
OF11	Fig 2.18 Fig 3.2	Stream	Slow flowing narrow stream with a width of 1 m and an average depth of less the 0.5 m. Low human disturbance at the edge of a grazing field.	Footprint Spraint
OF21	Fig 2.19 Fig 3.2	Pond	A still pond between 10-20 m wide and no more than 0.5 -1 m deep. A Mesotrophic waterbody with a silt like substrate. Surrounded by improved grassland with a high level of human disturbance.	Feeding Remains
OF23	Fig 2.20 Fig 3.2	Stream	Slow running water approximately 1-2 m wide and less than 0.5 m deep. A Mesotrophic waterbody with a gravel like substrate. Surrounded by improved grassland with a moderate level of human disturbance.	Spraint (x2)
OF24	Fig 2.20 Fig 3.2	Stream	Moderately running water approximately 1 m wide and no more than 0.5-1 m deep. A Mesotrophic waterbody with a silt like substrate. Surrounded by improved grassland with a high level of human disturbance.	Footprint
OG1	Fig 2.22 Fig 3.3	Stream	Slow running water approximately 1-2 m wide and no more than 0.5 m deep. A Mesotrophic waterbody with a gravel like substrate. Surrounded by arable fields with a low level of human disturbance.	Anal Jelly
OG8	Fig 2.22 Fig 3.3	Stream	Slow running water approximately 1-2 m wide and no more than 0.5-1 m deep. A Mesotrophic waterbody with a gravel like substrate. Surrounded by improved grasslands with a moderate level of human disturbance.	Footprint

4. Conclusion

4.1.1.1 The otter sign survey confirmed the presence of otter at some sites within the survey area. Otter signs were recorded at 14 sites distributed along the approximate 55 km length of the survey area, with three potential holt locations which are deemed of medium quality.

4.1.1.2 Three of the waterbodies (OF5, OF23, OF24) which recorded presence of otter were within the Hornsea Three onshore cable corridor. A further five waterbodies (OC3, OC9, OE2, OF11, OG8) that intercept the Hornsea Three onshore cable corridor recorded signs of otter (although did not record presence), including OC3 and OE2 which contain potential holts.

4.1.1.3 Results of the survey have been used to inform the final location and design of the Hornsea Three onshore cable corridor (see volume 1, chapter 4: Site Selection and Alternatives) and to enable the assessment of the impacts of Hornsea Three on otters, reported in volume 3, chapter 3: Ecology and Nature Conservation. Where impacts are identified appropriate mitigation is specified in the same chapter of the Environmental Statement.

5. References

HM Government (2006) Natural Environment and Rural Communities Act.

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JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) UK Post-2010 Biodiversity Framework. Available from: http://jncc.defra.gov.uk/page-6189.

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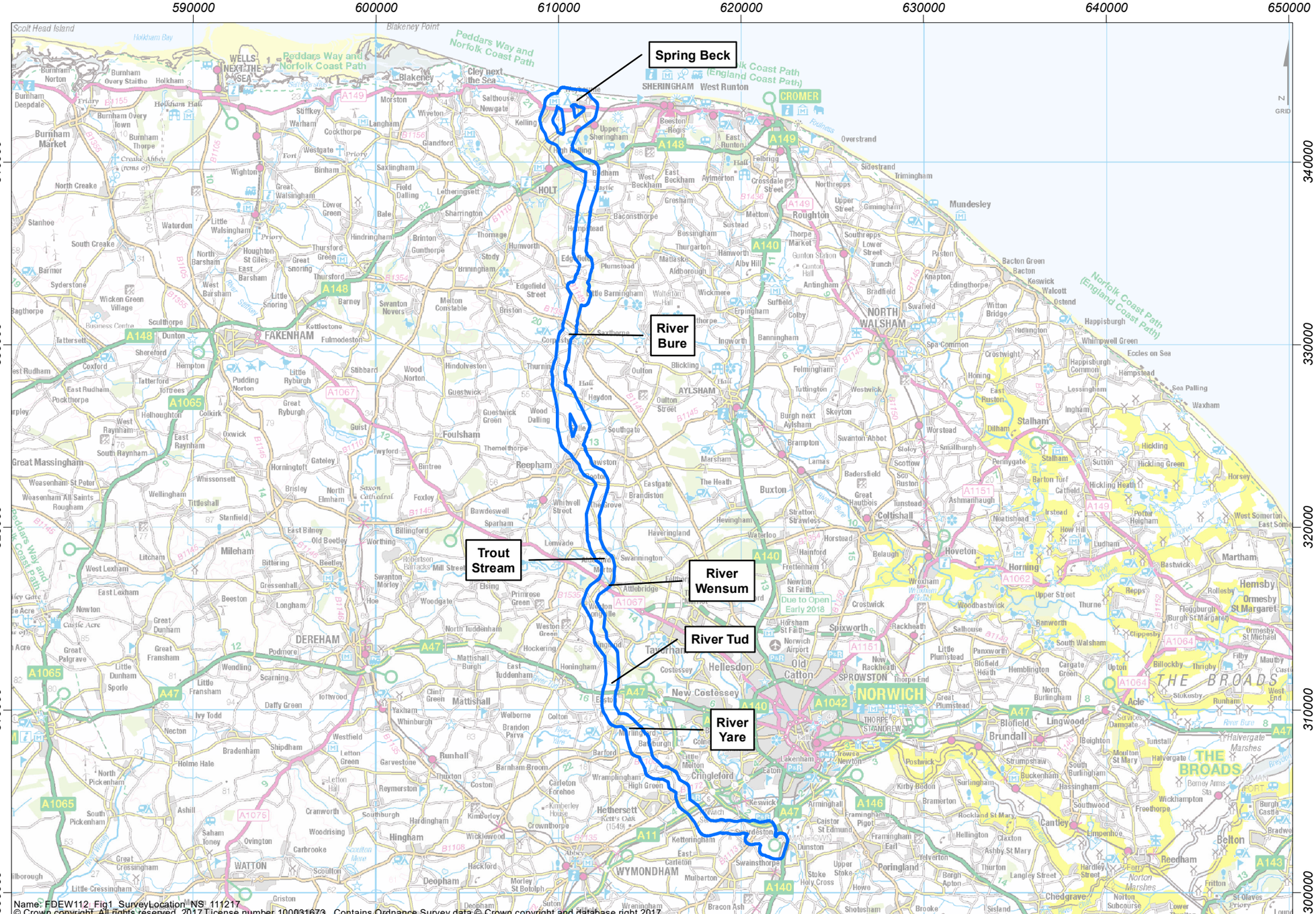
NCC (1989) Guidelines for Selection of Biological SSSIs. Nature Conservancy Council, Peterborough.

Otters and Water voles booklet. Hampshire Wildlife Trust.

RPS (2016) Hornsea Three Preliminary Ecological Appraisal.

Appendix A Figures

A.1 Otter survey area



Otter Survey Area

It is drawn to the readers attention that the survey area depicted in this figure is not representative of the final project boundary. The relationship between the final project boundary and the survey area, as well as any implications for the baseline information as it relates to the EIA is discussed in the limitations section of this annex (see Section 2).

Reference System : OSGB36
Projection : BNG

Scale@A3:1:250,000
Vertical reference: Newlyn

0 1 2 Kilometres

REV	REMARK	DATE
01	Initial Issue	15/08/2017

Hornsea Project Three
Figure 1.1:
Otter Survey Area

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Created by: DJ
Checked by: NS
Approved by:NS

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A.2 Otter survey results (REMOVED FOR CONFIDENTIALITY REASONS).

A.3 Otter habitat photographs (REMOVED FOR CONFIDENTIALITY REASONS).

Appendix B Waterbody habitat parameters

Table B.1: Waterbody habitat parameters for all waterbodies surveyed.

Waterbody ID	Weather	Waterbody type	Average Water Width (m)	Average Water Depth (m)	Channel Substrate	Flow velocity	Apparent trophic status	Surrounding land use
OA1	Sunny	Gravel Pit	5-10	0.5-1	Silt	Still	Mesotrophic	Arable
OA3	Cloudy	Ditch	10-20	<0.5	Earth	Still	Eutrophic	Scrub
OA4	Cloudy	Pond	10-20	<0.5	Silt	Still	Mesotrophic	Mixed Woodland
OA6	Patchy Cloud	Running Water	2-5	0.5-1	Silt	Slow	Mesotrophic	Arable
OA6	Cloudy	Pond	10-20	<0.5	Not Recorded	Still	Mesotrophic	Mixed Woodland
OA7	Patchy Cloud	Running Water	1-2	<0.5	Gravel	Moderate	Mesotrophic	Semi-improved Grassland
OA9	Cloudy	Pond	10-20	0.5-1	Earth	Still	Mesotrophic	Unimproved Grassland
OA10	Cloudy	Pond	5-10	<0.5	Earth	Still	Eutrophic	Scrub
OA11	Cloudy	Pond	1-2	<0.5	Not recorded	Still	Oligotrophic	Mixed Woodland
OA12	Light Rain	Running Water	1-2	<0.5	Silt	Moderate	Mesotrophic	Arable
OB1	Sunny	Ditch	1	<0.5	Silt	Slow	Mesotrophic	Improved Grassland
OB2	Cloudy	Pond	2-5	0.5-1	Silt	Slow	Mesotrophic	Arable
OB4	Cloudy	Pond	10-20	<0.5	Silt	Still	Mesotrophic	Broadleaved Woodland
OB5	Cloudy	Pond	20-40	0.5-1	Silt	Still	Mesotrophic	Arable
OB11	Sunny	Reservoir	>40	1-2	Sheet Piling	Still	Oligotrophic	Urban/Industrial
OB12	Sunny	Ditch	1	<0.5	Silt	Still	Mesotrophic	Arable
OB13	Sunny	Ditch	1	<0.5	Silt	Slow	Mesotrophic	Arable
OB14	Cloudy	Pond	5-10	<0.5	Silt	Still	Mesotrophic	Arable
OB15	Cloudy	Pond	5-10	0.5-1	Not Recorded	Still	Mesotrophic	Arable
OC1	Sunny	Ditch	1	<0.5	Silt	Slow	Mesotrophic	Improved Grassland
OC2	Sunny	[redacted]	>40	1-2	Silt	Still	Mesotrophic	Mixed Woodland
OC3	Sunny	Running Water	2-5	1-2	Silt	Moderate	Mesotrophic	Semi-improved Grassland
OC4	Sunny	Pond	20-40	0.5-1	Silt	Still	Mesotrophic	Fen
OC5	Sunny	Pond	10-20	1-2	Earth	Still	Mesotrophic	Arable
OC7	Sunny	Reservoir	5-10	>2	Sheet Piling	Still	Mesotrophic	Arable

Waterbody ID	Weather	Waterbody type	Average Water Width (m)	Average Water Depth (m)	Channel Substrate	Flow velocity	Apparent trophic status	Surrounding land use
OC9	Sunny	Ditch	1-2	<0.5	Sand	Slow	Oligotrophic	Arable
OC10	Cloudy	Pond	20-40	0.5-1	Not Recorded	Still	Mesotrophic	Arable
OC11	Sunny	Ditch	1-2	<0.5	Earth	Still	Mesotrophic	Improved Grassland
OC12	Sunny	Ditch	2-5	<0.5	Earth	Still	Mesotrophic	Semi-improved Grassland
OC13	Sunny	Ditch	2-5	0.5-1	Earth	Still	Mesotrophic	Improved Grassland
OD1	Cloudy	Running Water	2-5	0.5-1	Silt	Slow	Mesotrophic	Broadleaved Woodland
OE1	Light Rain	Ditch	2-5	<0.5	Earth	Still	Mesotrophic	Semi-improved Grassland
OE2	Sunny	Running Water	2-5	<0.5	Gravel	Moderate	Mesotrophic	Arable
OE4	Sunny	Ditch	2-5	<0.5	Silt	Slow	Mesotrophic	Arable
OE5	Sunny	Ditch	2-5	1-2	Silt	Still	Eutrophic	Improved Grassland
OE6	Sunny	Ditch	2-5	<0.5	Silt	Slow	Mesotrophic	Arable
OE7	Sunny	Pond	10-20	<0.5	Silt	Still	Eutrophic	Arable
OE9	Sunny	Ditch	2-5	<0.5	Silt	Still	Eutrophic	Arable
OE10	Sunny	Ditch	2-5	<0.5	Silt	Slow	Mesotrophic	Arable
OE11	Sunny	Ditch	2-5	<0.5	Silt	Slow	Mesotrophic	Arable
OE12	Sunny	Ditch	1-2	<0.5	Earth	Not Recorded	Not Recorded	Arable
OE15	Patchy Cloud	Ditch	2-5	<0.5	Earth	Still	Mesotrophic	Improved Grassland
OE18	Patchy Cloud	Ditch	1-2	<0.5	Earth	Still	Mesotrophic	Improved Grassland
OF10	Patchy Cloud	Pond	20-40	1-2	Silt	Still	Oligotrophic	Arable
OF11	Patchy Cloud	Running Water	1	<0.5	Silt	Slow	Mesotrophic	Improved Grassland
OF12	Showers	Pond	20-40	1-2	Earth	Still	Mesotrophic	Arable
OF13	Sunny	Pond	20-40	0.5-1	Silt	Still	Mesotrophic	Broadleaved Woodland
OF14	Light Rain	Ditch	1	<0.5	Earth	Still	Mesotrophic	Semi-improved Grassland
OF15	Patchy Cloud	Running Water	1	<0.5	Silt	Moderate	Mesotrophic	Improved Grassland
OF16	Patchy Cloud	Pond	20-40	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Arable
OF17	Patchy Cloud	Pond	10-20	1-2	Silt	Still	Mesotrophic	Mixed Woodland
OF18	Patchy Cloud	Pond	2-5	<0.5	Silt	Still	Mesotrophic	Mixed Woodland
OF19	Sunny	Pond	10-20	0.5-1	Silt	Still	Mesotrophic	Arable
OF20	Sunny	Pond	10-20	0.5-1	Silt	Still	Eutrophic	Arable

Waterbody ID	Weather	Waterbody type	Average Water Width (m)	Average Water Depth (m)	Channel Substrate	Flow velocity	Apparent trophic status	Surrounding land use
OF21	Sunny	Pond	10-20	0.5-1	Silt	Still	Mesotrophic	Improved Grassland
OF22	Sunny	Lowland Lake	20-40	1-2	Silt	Still	Not Recorded	Improved Grassland
OF23	Cloudy	Running Water	1-2	0.5-1	Silt	Slow	Mesotrophic	Improved Grassland
OF24	Light Rain	Running Water	1	<0.5	Gravel	Moderate	Mesotrophic	Improved Grassland
OF27	Sunny	Pond	5-10	<0.5	Silt	Still	Eutrophic	Arable
OF28	Sunny	Pond	10-20	1-2	Earth	Still	Eutrophic	Improved Grassland
OF29	Sunny	Pond	10-20	1-2	Not Recorded	Still	Mesotrophic	Arable
OF30	Sunny	Ditch	2-5	<0.5	Silt	Still	Mesotrophic	Arable
OF31	Sunny	Pond	20-40	<0.5	Earth	Not Recorded	Not Recorded	Arable
OG1	Cloudy	Running Water	1-2	<0.5	Gravel	Slow	Mesotrophic	Arable
OG2	Patchy Cloud	Running Water	1-2	<0.5	Cobble	Moderate	Mesotrophic	Mixed Woodland
OG5	Sunny	Running Water	1	<0.5	Earth	Moderate	Mesotrophic	Arable
OG8	Patchy Cloud	Running Water	1-2	0.5-1	Gravel	Slow	Mesotrophic	Improved Grassland
OG9	Sunny	Running Water	1	<0.5	Silt	Moderate	Mesotrophic	Arable
OG26	Patchy Cloud	Pond	20-40	0.5-1	Silt	Still	Eutrophic	Arable
OG27	Patchy Cloud	Pond	10-20	<0.5	Earth	Still	Not Recorded	Arable
OG28	Patchy Cloud	Pond	20-40	<0.5	Earth	Still	Eutrophic	Arable
OG36	Patchy Cloud	Ditch	1	<0.5	Earth	Still	Mesotrophic	Mixed Woodland
OG37	Patchy Cloud	Pond	20-40	0.5-1	Not Recorded	Still	Eutrophic	Arable
OG38	Patchy Cloud	Ditch	1	<0.5	Earth	Slow	Mesotrophic	Mixed Woodland
OG39	Patchy Cloud	Ditch	1	<0.5	Earth	Still	Mesotrophic	Mixed Woodland