Hornsea Project Three Offshore Wind Farm



Preliminary Environmental Information Report: Annex 1.2 – Abstraction Licences

Date: July 2017





Hornsea Project Three

Offshore Wind Farm





Environmental Impact Assessment

Preliminary Environmental Information Report

Volume 6

Annex 1.2 – Abstraction Licences

Liability

This report has been prepared by RPS, with all reasonable skill, care and diligence within the terms of their contract with DONG Energy Power (UK) Ltd or a subcontractor to RPS placed under RPS' contract with DONG Energy Power (UK) Ltd as the case may be.

Report Number: P6.6.1.2

Version: Final

Date: July 2017

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

DONG Energy Power (UK) Ltd.

5 Howick Place,

London, SW1P 1WG

© DONG Energy Power (UK) Ltd, 2017. All rights reserved

Front cover picture: Kite surfer near one of DONG Energy's UK offshore wind farms © DONG Energy Hornsea Project Three (UK) Ltd., 2016.

Prepared by: RPS Checked by: Jennifer Brack Accepted by: Sophie Banham Approved by: Stuart Livesey







Table of Contents

1.	Intro	oduction	1
1	.1	Purpose	1

List of Tables

Table 1.1:	Abstraction licences	2

List of Figures

Figure 1.1:	Abstraction licences	4
1 19010 1.1.		•







1. Introduction

1.1 Purpose

- 1.1.1.1 This annex sets out the abstraction licences within a 1 km buffer of the onshore cable corridor search area, the onshore HVAC booster station and the onshore HVDC converter/HVAC substation. This buffer was selected to allow for variance in the final location and alignment of the onshore export cable, onshore HVAC booster station (if required) and onshore HVDC converter/HVAC substation. The data has been used to inform the baseline and impact assessment of volume 3, chapter 1: Geology and Ground Conditions.
- 1.1.1.2 Abstraction licences are regulated by the Environment Agency and local authorities. Details of the licences within the 1 km buffer have been obtained from Groundsure Limited and the local authorities (North Norfolk District Council, Broadland District Council and South Norfolk Council.
- 1.1.1.3 The abstraction licences are set out in Table 1.1 below and shown on Figure 1.1 (sheets 1 to 9).







Distance from onshore cable corridor search area(m)	Easting	Northing	EA Reference	Abstracted from	Name	Abstraction use
956	611790	340840	AN/034/0004/002	Eastern Area - Chalk	Borehole At Breck Farm Weybourne	Spray Irrigation - Direct
82	610200	340600	7/34/04/*G/0063	Eastern Area - Chalk	Bore, Warren Farm, Kelling	Spray Irrigation - Direct
596	612150	340300	7/34/04/*G/0066	Eastern Area - Chalk	Bore At Bodham	Spray Irrigation - Direct
916	609240	338810	7/34/04/*G/0059	Eastern Area - Chalk	Bore, Heath Farm, Holt	Spray Irrigation - Direct
0	609980	328780	7/34/06/*G/0218	Eastern Area - Chalk	Bore At Red Pit Farm	General Farming & Domestic
0	612370	322350	7/34/11/*G/0409	Eastern Area - Chalk	Bore At Booton	Spray Irrigation - Direct
349*	611590	318970	7/34/11/*G/0469	Eastern Area - Chalk	Chalk B/H - Gt.Witchingham NO.2	General Use Relating To Secondary Category (Medium Loss)
356*	611590	318940	7/34/11/*G/0469	Eastern Area - Chalk	Chalk B/H - Gt.Witchingham NO.1	General Use Relating To Secondary Category (Medium Loss)
448	611580	318700	7/34/11/*G/0364	Eastern Area - Chalk	Bore 3, Gt Witchingham	General Use Relating To Secondary Category (Medium Loss)
414	611620	318690	7/34/11/*G/0364	Eastern Area - Chalk	Bore 4, Gt Witchingham	General Use Relating To Secondary Category (Medium Loss)
483	611550	318680	7/34/11/*G/0364	Eastern Area - Chalk	Bore 2, Gt Witchingham	General Use Relating To Secondary Category (Medium Loss)
503	611540	318650	7/34/11/*G/0364	Eastern Area - Chalk	Bore 1, Gt Witchingham	General Use Relating To Secondary Category (Medium Loss)
884*	611140	318630	7/34/11/*G/0400	Eastern Area - Chalk	Bore At Gt Witchingham Hall	General Farming & Domestic
117	611869	315108	7/34/11/*G/0295	Eastern Area - Chalk	Bore, Field Fm, Weston Longville	Spray Irrigation – Direct
920	613280	314340	7/34/11/*G/0425	Eastern Area - Chalk	Bore At Ringland, Norfolk	General Farming & Domestic
920	613280	314340	7/34/11/*G/0425	Eastern Area - Chalk	Bore At Ringland, Norfolk	Spray Irrigation – Direct
920	613280	314340	7/34/11/*G/0425	Eastern Area - Chalk	Bore At Ringland, Norfolk	Spray Irrigation – Storage
184	613030	310210	7/34/13/*G/0166	Eastern Area - Chalk	Bore At Easton	Make-Up Or Top Up Water
184	613030	310210	7/34/13/*G/0166	Eastern Area - Chalk	Bore At Easton	Spray Irrigation – Direct
315	613710	309840	AN/034/0013/018	Eastern Area - Chalk	Borehole At Easton College Norwich Norfolk	Heat Pump
315	613710	309840	AN/034/0013/018	Eastern Area - Chalk	Borehole At Easton College Norwich Norfolk	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household
310	613870	309740	AN/034/0013/011	Eastern Area - Chalk	Borehole B At Easton College, Marlingford	Potable Water Supply – Direct
235	613800	309700	AN/034/0013/011	Eastern Area - Chalk	Borehole A At Easton College, Marlingford	Potable Water Supply – Direct
989	612350	308690	7/34/13/*G/0243	Eastern Area - Chalk	Borehole, Hall Fm, Marlingford	General Farming & Domestic
565	613450	308660	7/34/13/*G/0243	Eastern Area - Glacial Sands/Gravels	Borehole, Chapel Fm, Marlingford	General Farming & Domestic
464	615226	308046	7/34/13/*G/0161	Eastern Area - Chalk	Borehole At Bawburgh, Norfolk	Spray Irrigation - Direct
1992*	617660	307830	7/34/13/*G/0248	Eastern Area - Glacial Sands/Gravels	Well At Hall Farm, Colney	General Farming & Domestic
964*	617190	306700	7/34/13/*G/0287A	Eastern Area - Chalk	Borehole At Training Ground, Colney	Spray Irrigation - Direct
751*	617001	306601	AN/034/0013/016	Eastern Area - Chalk	Borehole At Little Melton	Spray Irrigation - Direct

Table 1.1: Abstraction licences.







Distance from onshore cable corridor search area(m)	Easting	Northing	EA Reference	Abstracted from	Name	Abstraction use
356*	615550	306100	7/34/13/*G/0271	Eastern Area - Chalk	Bore At Little Melton, Norwich	General Washing/Process Washing
347	617210	305880	7/34/13/*G/0079	Eastern Area - Glacial Sands/Gravels	Well, Thickthorn Farm	General Farming & Domestic
775*	617680	305750	7/34/13/*G/0079	Eastern Area - Chalk	Bore,Thickthorn Farm	Spray Irrigation - Direct
383*	616330	305020	7/34/13/*G/0164	Eastern Area - Chalk	Borehole, Hethersett	General Use Relating To Secondary Category (Medium Loss)
383*	616330	305020	7/34/13/*G/0164	Eastern Area - Chalk	Borehole, Hethersett	General Farming & Domestic
244*	616500	304960	7/34/13/*G/0258A	Eastern Area - Chalk	Borehole At Hethersett	Spray Irrigation - Storage
526	619350	304240	7/34/13/*G/0179	Eastern Area - Chalk	Bore, Intwood Hall, Keswick	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household
425	619120	304130	7/34/13/*G/0179	Eastern Area - Chalk	Bore, Intwood Hall, Keswick	Spray Irrigation - Direct
301	618880	304040	7/34/13/*G/0179	Eastern Area - Chalk	Bore, Hall Fm, Keswick	General Farming & Domestic
387	622035	303426	AN/034/0014/003	Eastern Area - Chalk	Borehole At Swardeston Norfolk	Dust Suppression
387	622035	303426	AN/034/0014/003	Eastern Area - Chalk	Borehole At Swardeston Norfolk	Mineral Washing
387	622035	303426	AN/034/0014/003	Eastern Area - Chalk	Borehole At Swardeston Norfolk	Process Water
50	620640	303280	7/34/13/*G/0211	Eastern Area - Chalk	Bore, Sports Ground, Swardeston	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public
2	621470	302860	7/34/13/*G/0201	Eastern Area - Chalk	Borehole At Mangreen Hall Farm, Swardeston	General Farming & Domestic
483	622760	302680	7/34/14/*G/0131	Eastern Area - Chalk	Borehole At Dunston Common, Stoke Holy Cross, Norfolk	Transfer Between Sources (Post Water Act 2003)
586	622700	302150	7/34/14/*G/0112	Eastern Area - Chalk	Borehole No.2 At Dunston Hall, Norwich	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services
381	619000	302100	7/34/13/*G/0196	Eastern Area - Glacial Sands/Gravels	Seepage Reservoir (1), At Mulbarton	Spray Irrigation – Direct
522	622600	302050	7/34/14/*G/0112	Eastern Area - Chalk	Borehole No.1 At Dunston Hall, Norwich	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services
139	619570	302010	7/34/13/*G/0198	Eastern Area - Chalk	Bore Nr Hillside Nur'ies, Mul'n	General Farming & Domestic

* indicates historical abstractions







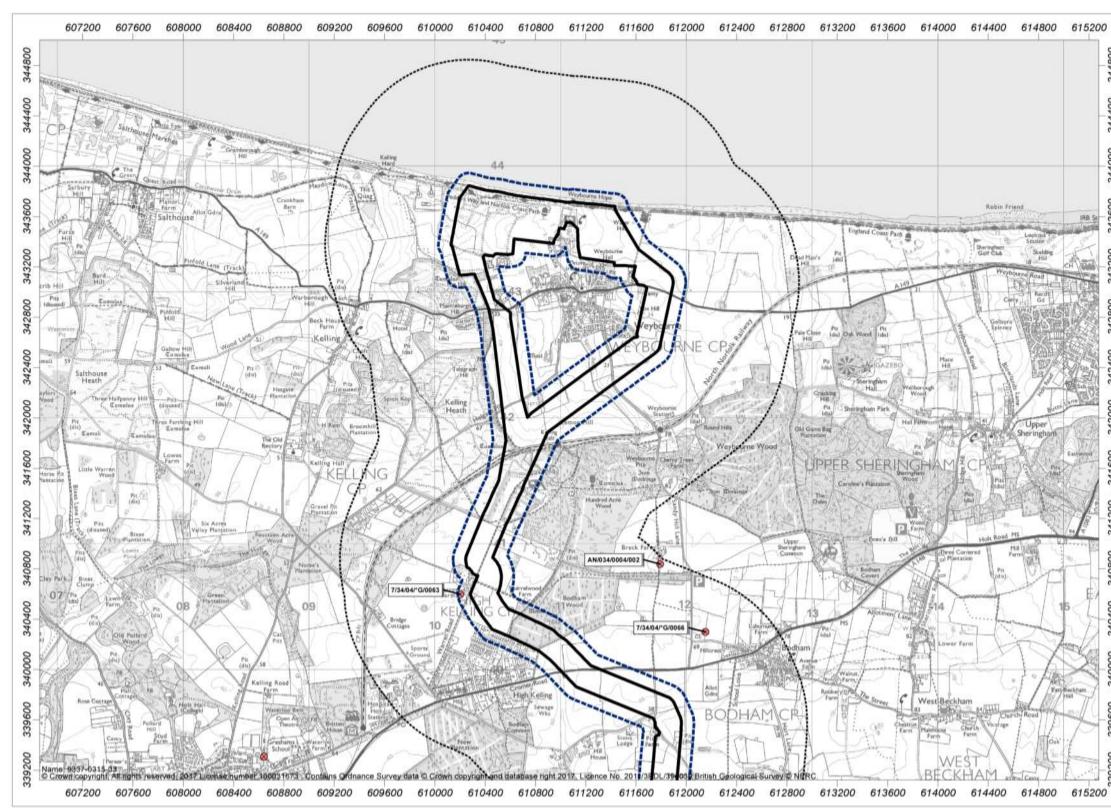


Figure 1.1: Abstraction licences.



	Onshore cable corridor searc	h area
	100m Study area	
	1km Study area	
0	Private water supplies	
8	Current licensed abstractions	(EA)
Referenc	e System : OSGB36	Scale@A3:1:30,000
Projection		Vertical reference: New
0	0.5 1 Kilo	metres
REV	REMARK	DATE
00	Initial Issue	05/01/17
	Hornsea Projec	t Three
	Hornsea Projec Abstraction lice Sheet 1	ences
	Sheet 1	
	ander se h	





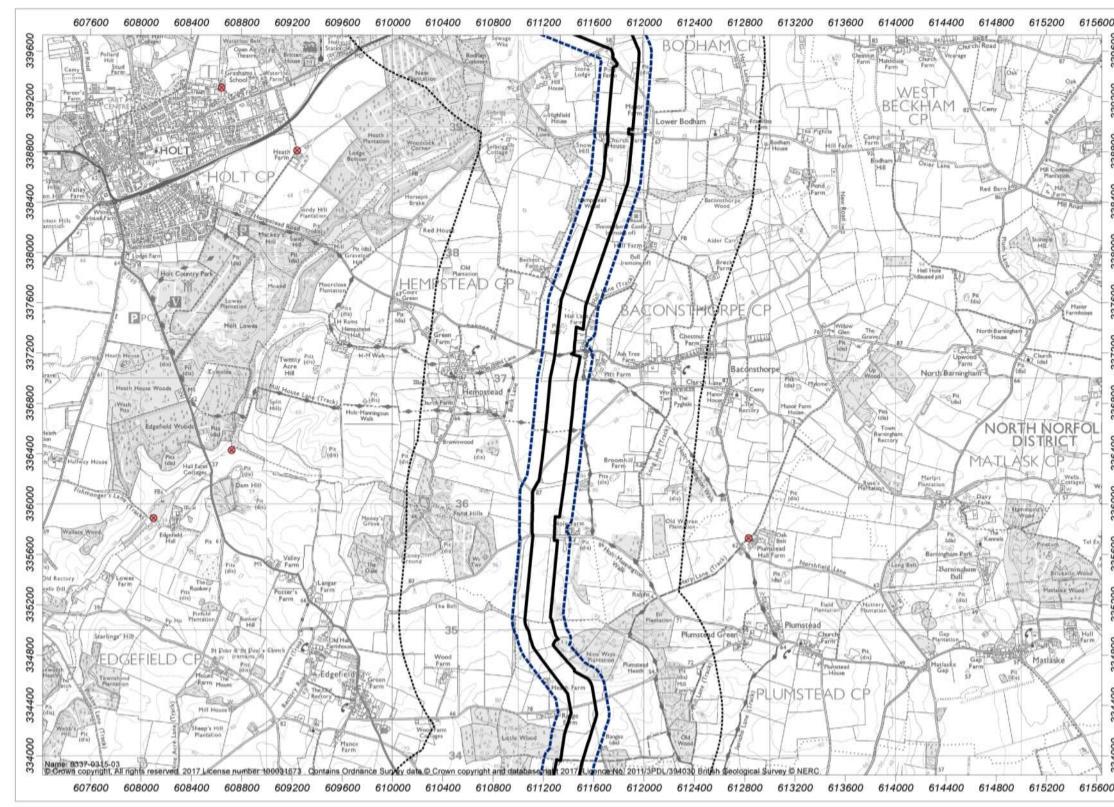


Figure 1.1: Abstraction licences.



Longard			
Legend			
c	nshore cable corridor	search area	
CTTD 1	00m Study area		
1	km Study area		
🗢 P	rivate water supplies		
🛞 C	urrent licensed abstra	ictions (EA)	
Reference	System : OSGB36	Scale@A3.1	30.000
Reference Projection	System : OSGB36 : BNG	Scale@A3:1 Vertical refer	30,000 ence: Newlyn
Projection 0	: BNG 0.5	Scale@A3:1 Vertical refer 1 Kilometres	30,000 ence: Newlyn
Projection	: BNG 0.5	Vertical refer	30,000 ence: Newlyn
Projection 0	: BNG 0.5	Vertical refer	30,000 ence: Newlyn
Projection	: BNG 0.5	Vertical refer	ence: Newlyn
Projection	: BNG 0.5 	Vertical refer	once: Newlyn
Projection	: BNG 0.5 	Vertical refer	once: Newlyn
Projection	REMARK	Vertical refer	once: Newlyn
Projection	BNG 0.5. REMARK Initial Issue Hornsea P	Vertical refer	once: Newlyn
Projection	BNG 0.5. REMARK Initial Issue Hornsea P	Vertical refer	once: Newlyn
Projection 0	BNG 0.5. Initial Issue Hornsea P Abstractio Sho	Vertical refer	once: Newlyn
Projection 0	BNG 0.5. REMARK Initial Issue Hornsea P Abstractic She	Vertical refer 1 Kilometres roject Three on licences aet 2	once: Newlyn





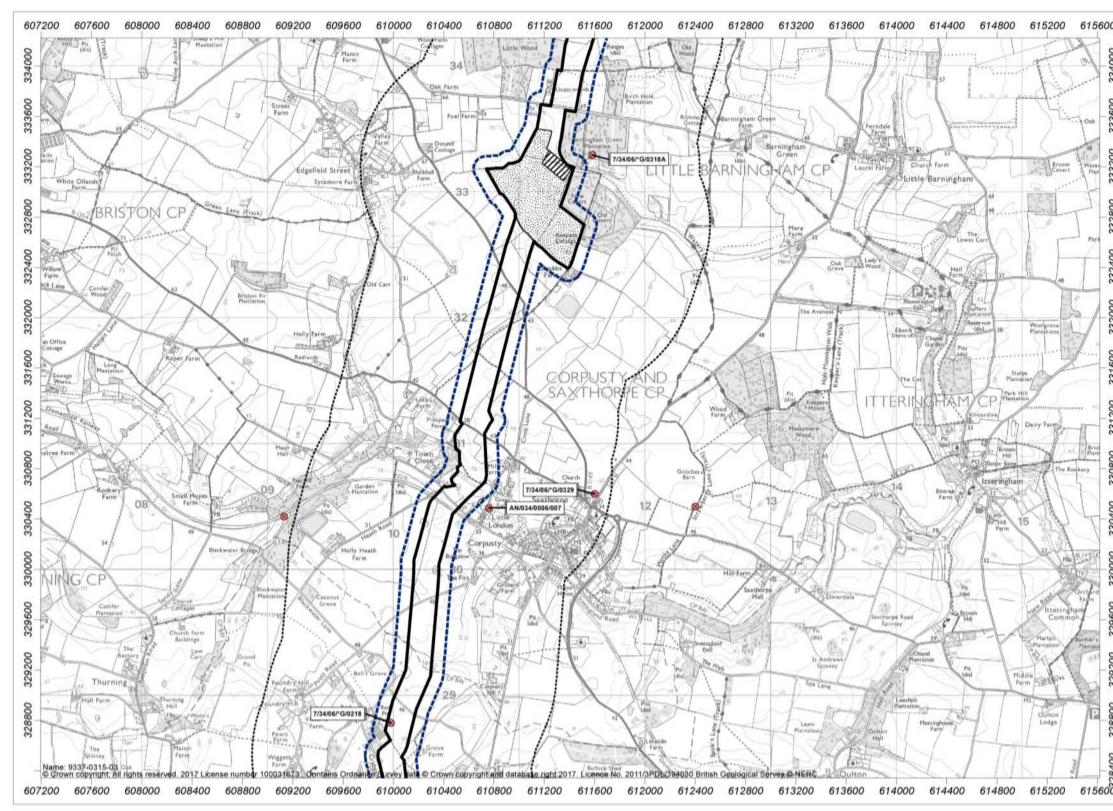


Figure 1.1: Abstraction licences.



	d	
	Onshore cable corridor sea	arch area
////	Onshore HVAC booster st	ation - permanent
11703	Onshore HVAC booster sta	ation - temporary
	100m Study area	
	1km Study area	
8	 Private water supplies 	
0	Current licensed abstractio	ons (EA)
		solar din sin
	nce System : OSGB36 ion : BNG	Scale@A3:1:30,000 Vertical reference: Newly
Project	tion : BNG	Vertical reference: Newly
Project	tion : BNG	
Project	lion : BNG 0.5 1 F	Vertical reference: New!
Project 0 L I	Ion : BNG 0.5 1 F	Vertical reference: New!
Project	lion : BNG 0.5 1 F	Vertical reference: New!
Project 0 1 1	Ion : BNG 0.5 1 F	Vertical reference: Newly Kilometres DATE
Project 0 1 1	Ion : BNG 0.5 1 P REMARK Initial Issue	Vertical reference: Newly Kilometres DATE 05/01/17
Project 0 1 1	Ion BNG 0.5 1 P REMARK Initial Issue Hornsea Proje	Vertical reference: Newly Kilometres DATE 05/01/17 ect Three
Project 0 1 1	Ion : BNG 0.5 1 P REMARK Initial Issue	Vertical reference: Newly Kilometres DATE 05/01/17 ect Three
Project 0 L REV 00	Ion BNG 0.5 1 P REMARK Initial Issue Hornsea Proje Abstraction I Sheet	Vertical reference: Newly Kilometres DATE 05/01/17 ect Three
Project 0 L	Ion : BNG 0.5 1 P REMARK Initial Issue Hornsea Proje Abstraction I Sheet RP5-9337-0315-03	Vertical reference: Newly Kilometres DATE 05/01/17 ect Three



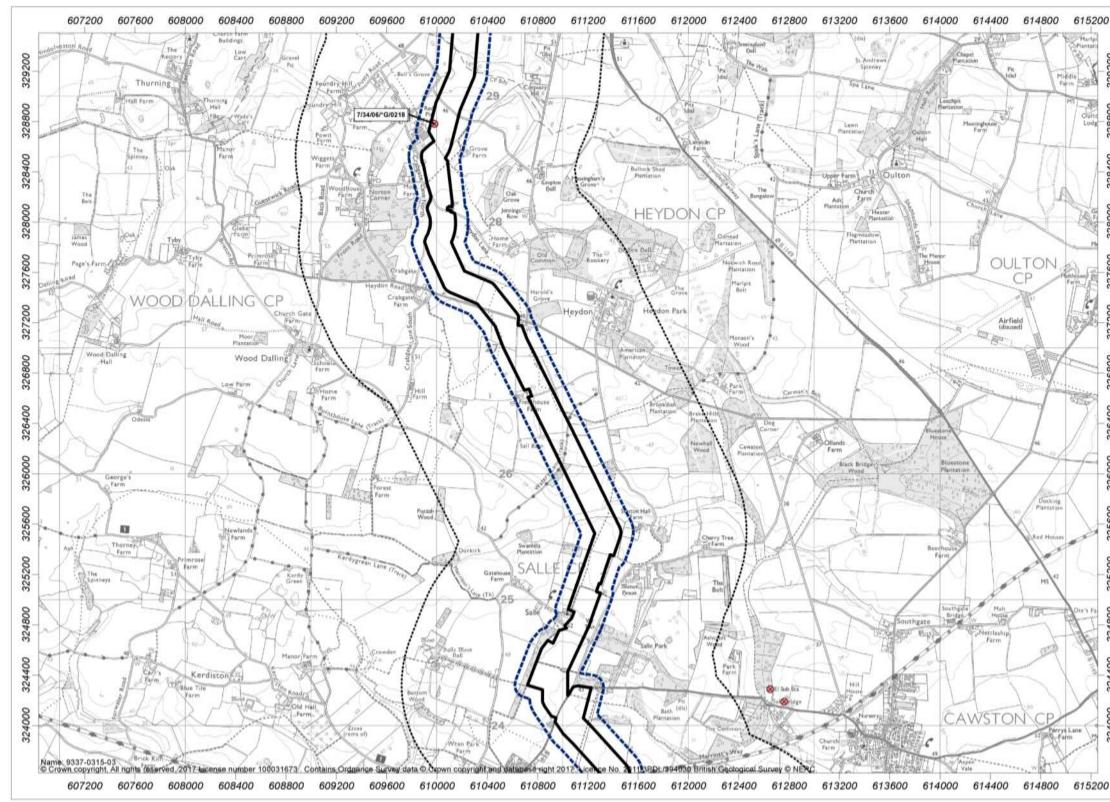


Figure 1.1: Abstraction licences.



	Onshore cable corridor sear	ch area
CID	100m Study area	
	1km Study area	
0	Private water supplies	
	Current licensed abstraction	s (EA)
Reference Projection 0	0.5 1 Kil	Scale@A3:1:30,000 Vertical reference: Newly ometres
Projection 0	n : BNG 0.5 1 Kil	Vertical reference: Newly
Projection	n BNG 0.5 1 Kil	Vertical reference: Newly ometres
Projection	n : BNG 0.5 1 Kil REMARK	Vertical reference: Newly ometres DATE
Projection	n : BNG 0.5 1 Kil REMARK	DATE DATE OS/01/17 Ct Three ences



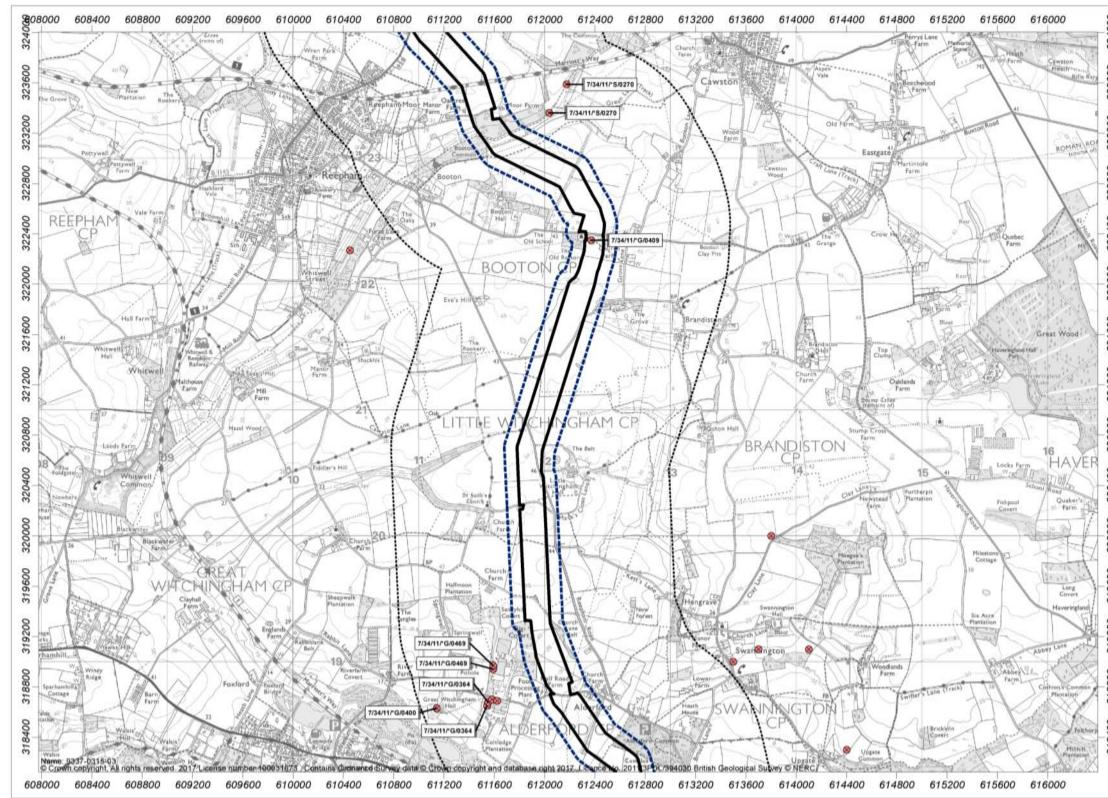


Figure 1.1: Abstraction licences.



	Onshore cable corridor search	n area
	100m Study area	
	1km Study area	
0	Private water supplies	
۲	Current licensed abstractions	(EA)
8.2		
Referen Projectio	ce System : OSGB36 5 on : BNG	Scale@A3:1:30,000 /ertical reference: Newly
0	0.5 1 Kilor	netres
1		
REV	REMARK	DATE
00	Initial Issue	05/01/17
	Harmona Decion	Three
	Hornsea Project Abstraction lice	inces
	Abstraction lice Sheet 5	inces



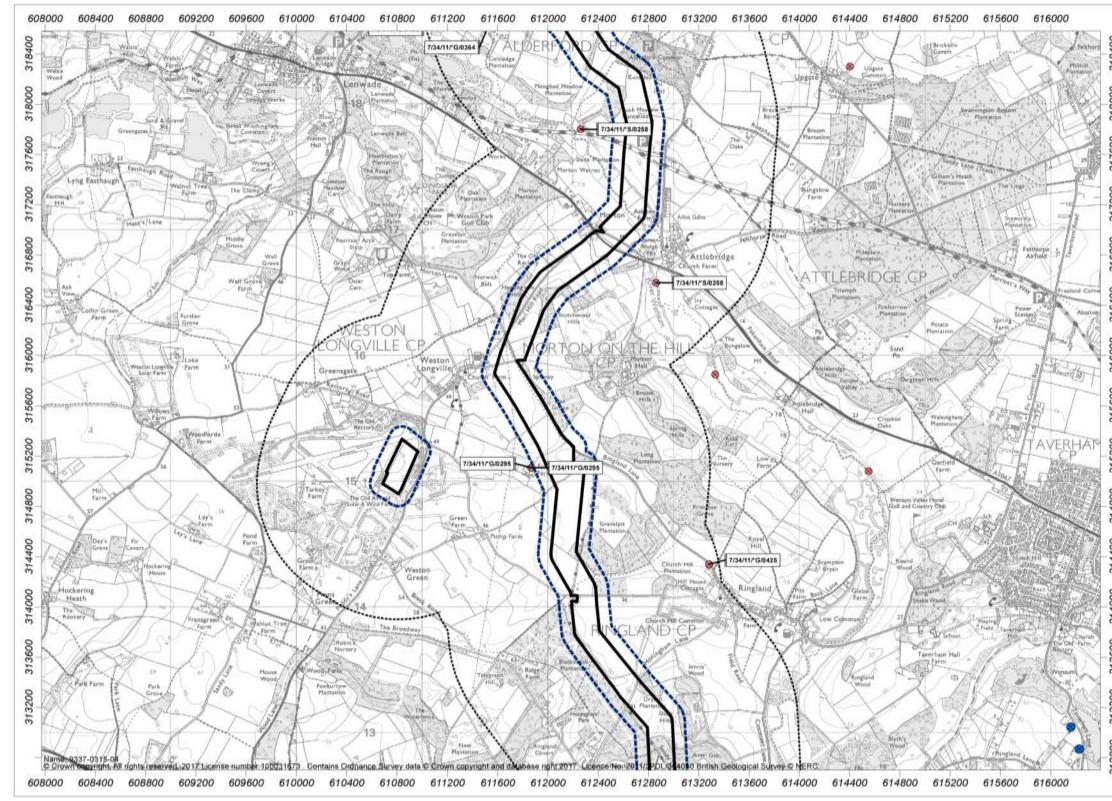


Figure 1.1: Abstraction licences.



	Onshore cable corridor search	area
يييا	100m Study area	
*******	1km Study area	
0	Private water supplies	
8	Current licensed abstractions (I	EA)
2014.00		
Reference Projectio	e System : OSGB36 So n : BNG Ve	ale@A3:1:30,000 rtical reference: Newl
0	0.5 1 Kilom	etres
L	1 1 1 1 1	
REV	REMARK	DATE
00	Initial Issue	05/01/17
	Hornson Droject	Three
	Hornsea Project	
	Abstraction licen Sheet 6	ces





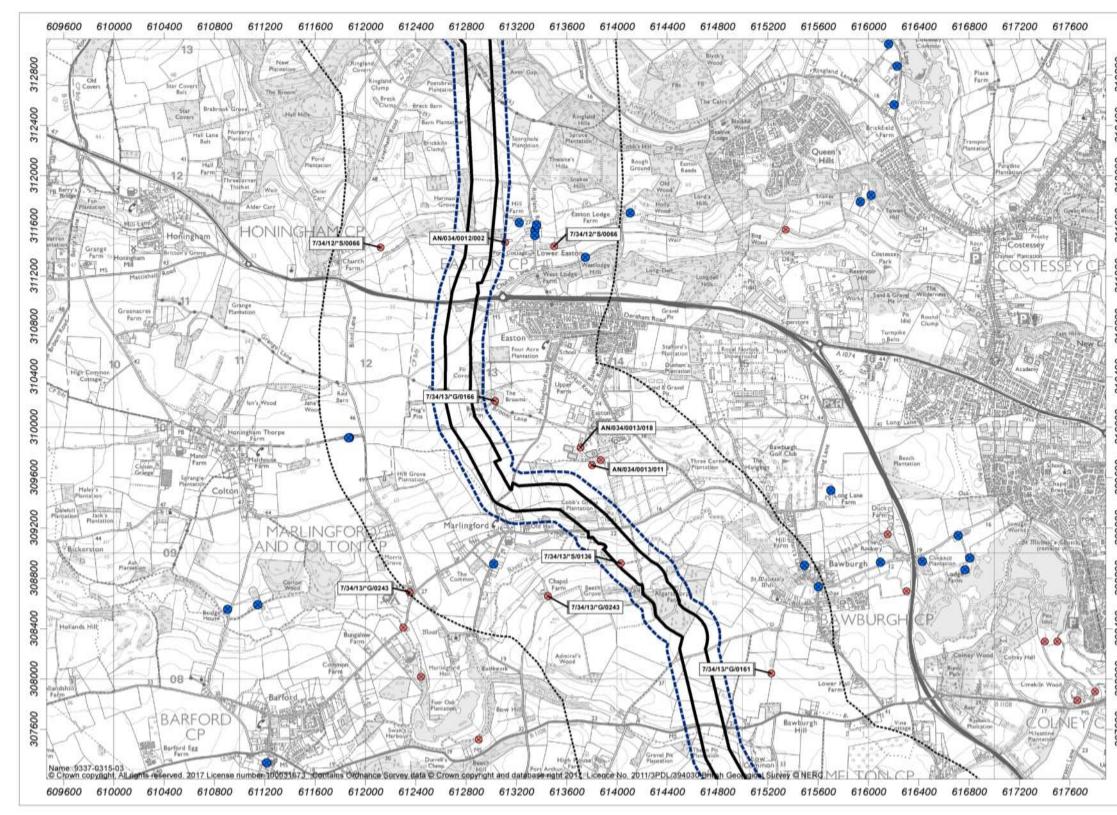


Figure 1.1: Abstraction licences.



	Onshore cable corridor search	area
	100m Study area	
	1km Study area	
	Private water supplies	
	Current licensed abstractions	(EA)
Reference Projection	e System : OSGB36 S	Scale@A3:1:30,000 /ertical reference: New
0	0.5 1 Kilor	
<u> </u>		
REV	REMARK	DATE
00	Initial Issue	05/01/17
	Hornsea Project	Three
	Abstraction lice Sheet 7	nces
	Sheet /	





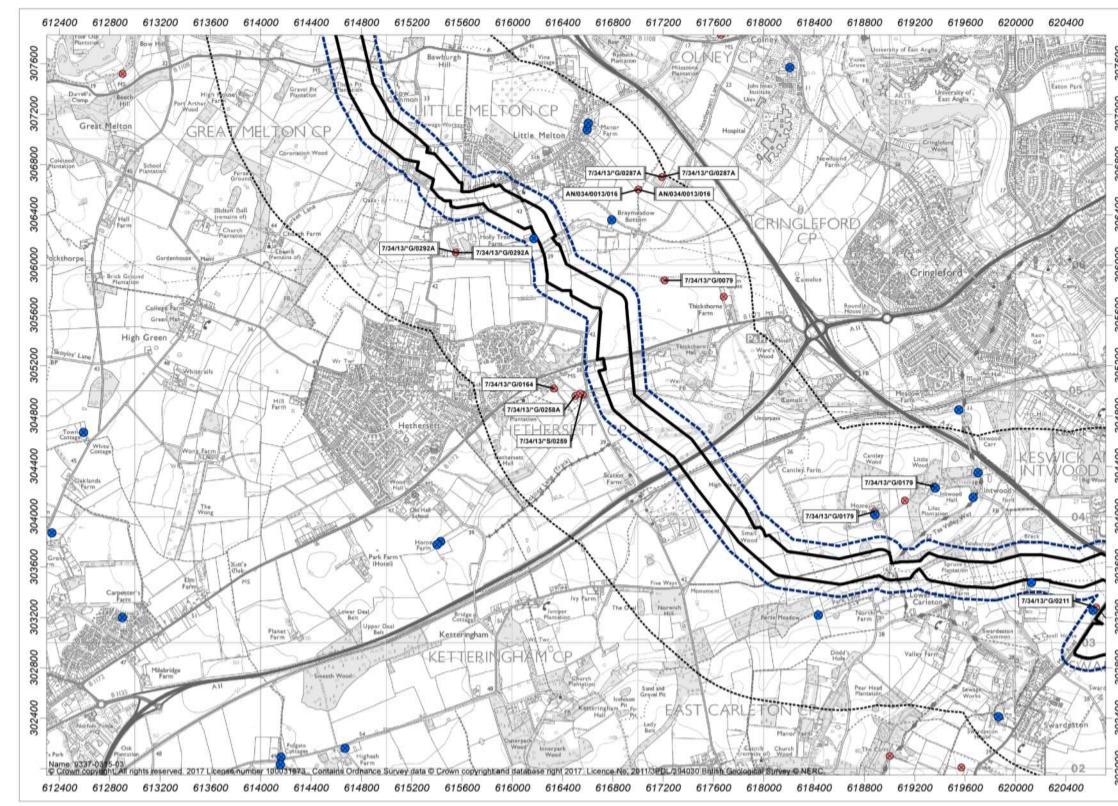


Figure 1.1: Abstraction licences.



REMARK		DATE 05/01/17
110000000000000000000000000000000000000		a transmission of the second s
110000000000000000000000000000000000000		a transmission of the second s
	Scale@A3: Vertical refe 1 Kilometres	1:30,000 erence: Newly
	System : OSGB36 ; BNG 0.5	BNG Vertical refe





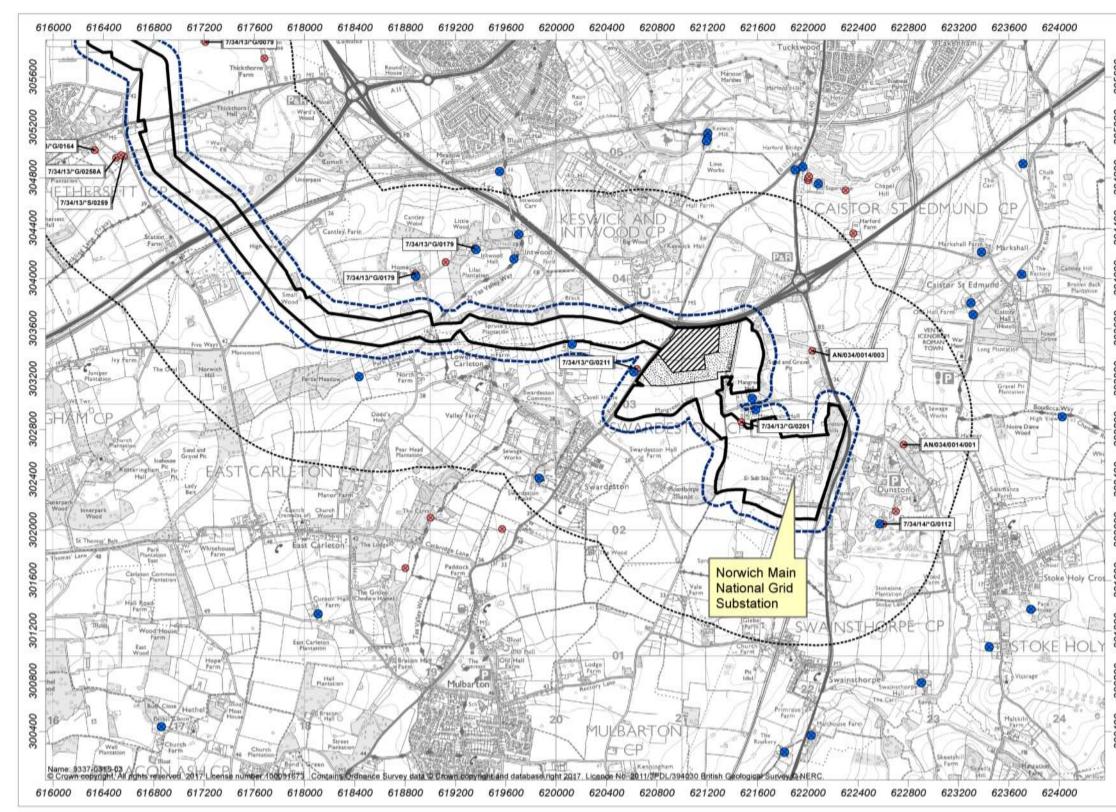


Figure 1.1: Abstraction licences.



	Hornsea Projec Abstraction lic Sheet 9	ct Three ences	
00	Initial Issue	05/01/17	
REV	REMARK	DATE	
Projecti 0		Scale@A3:1:30,000 Vertical reference: Newly ometres	
8	Current licensed abstraction	s (EA)	
0	Private water supplies	rivate water supplies	
	1km Study area		
San 1959	HVAC/HVDC substation - ter 100m Study area	mporary	
		Inshore HVDC converter/HVAC substation -	
7///	Onshore HVDC converter/HVAC substation -		
	Onshore cable corridor searc		

