East Anglia
Offshore Wind

VATTENFALL

SCOTTISHPOWER RENEWABLES

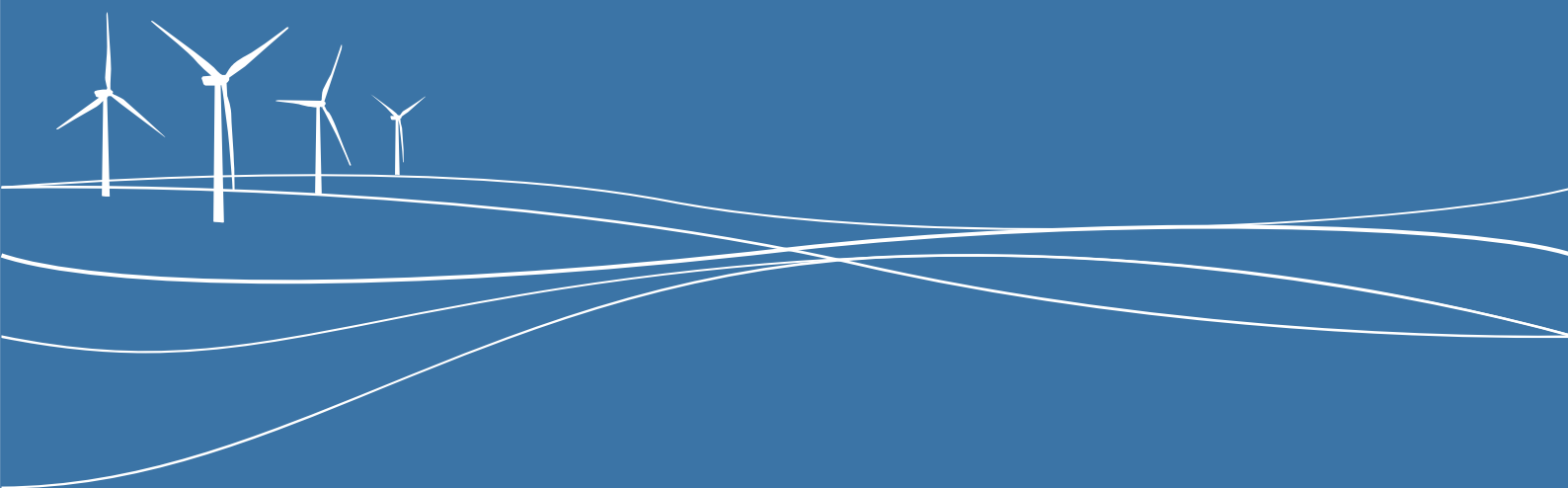
East Anglia THREE

Appendix 21.5

Schedule of Water Crossings

Environmental Statement
Volume 3
Document Reference - 6.3.21 (5)

Author – Royal HaskoningDHV
East Anglia THREE Limited
Date – November 2015
Revision History – Revision A



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21.5 SCHEDULE OF WATER CROSSINGS

21.5.1 Introduction

1. This appendix provides details on the water bodies that would be crossed by the proposed East Anglia THREE project.

21.5.2 Water Crossing Types

2. The two types of water crossing category are:

   - Crossings by the East Anglia THREE onshore export cables; and
   - Crossing by the routes which will be used to access the cable

3. As the onshore export cables would be pulled through ducts installed as part of the East Anglia ONE project, the crossings made by the East Anglia THREE onshore export cables would not impact on the water bodies.

4. To access the East Anglia THREE onshore cable route, the road network and existing tracks would be utilised as far as possible, however at certain locations new haul road and upgraded access tracks would be laid. Therefore two categories of water crossing would exist:

   - Crossings using existing infrastructure (i.e. bridges and fords); and
   - New temporary crossings which would require construction.

5. The former may require upgrading to allow heavy or large construction vehicles to use the crossing.

6. *Table 21.5.1* provides a list of all the water bodies crossed by the onshore cable route and the accesses. The locations of these crossings are displayed in *Figures 21.4.1a* to *21.4.1k* presented below.

Table 21.5.1.Water Crossings

Crossing Reference Number	Easting	Northing	Approximate Crossing Width (m)*	Method of estimating width	Type of crossing	Main River? (Y/N)
WC001	634413	239127	2	Measured using MasterMap	Access: crossing already exists	N
WC002	634201	239054	2	Estimated during survey	Cable: crossing through existing duct	N
WC003	634058	239047	3	Estimated during survey	Cable: crossing through existing duct	N
WC004	634042	239070	3	Measured using MasterMap	Access: potential new crossing	N
WC005	633606	238930	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC006	633569	238961	2	Measured using MasterMap	Access: potential new crossing	N
WC007	633634	239508	5	Measured using MasterMap	Access: crossing already exists	N
WC008	633385	239020	5	Estimated during survey	Cable: crossing through existing duct	N
WC009	632969	239243	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC010	632865	239459	2	Measured using MasterMap	Access: potential new crossing	N
WC011	632673	239425	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC012	632486	239545	4	Estimated during survey	Cable: crossing through existing duct	N
WC013	632317	239617	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC014	632303	239659	3	Measured using MasterMap	Access: potential new crossing	N
WC015	631978	239728	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC016	631972	240036	3	Measured using MasterMap	Access: crossing already exists	N

Crossing Reference Number	Easting	Northing	Approximate Crossing Width (m)*	Method of estimating width	Type of crossing	Main River? (Y/N)
WC017	631894	240215	4	Measured using MasterMap	Access: potential new crossing	N
WC018	631770	239791	4	Measured using MasterMap	Cable: crossing through existing duct	N
WC019	631744	239968	3	Measured using MasterMap	Access: potential new crossing	N
WC020	631581	239938	1.5	Estimated during survey	Cable: crossing through existing duct	N
WC021	631612	239960	1.5	Estimated during survey	Access: potential new crossing	N
WC022	631419	240012	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC023	631434	240043	3	Measured using MasterMap	Access: potential new crossing	N
WC024	631247	239930	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC025	631184	239849	12	Measured using MasterMap	Cable: crossing through existing duct	Y
WC026	630870	239735	360	Measured using MasterMap	Cable: crossing through existing duct	N
WC027	630665	239608	27	Measured using MasterMap	Cable: crossing through existing duct	N
WC028	630225	239488	1	Measured using MasterMap	Cable: crossing through existing duct	N
WC029	629266	239487	1	Measured using MasterMap	Cable: crossing through existing duct	N
WC030	628851	239777	1	Measured using MasterMap	Cable: crossing through existing duct	N
WC031	628060	241222	1	Measured using MasterMap	Cable: crossing through existing duct	N
WC032	628168	241304	3	Measured using MasterMap	Cable: crossing through existing duct	N

Crossing Reference Number	Easting	Northing	Approximate Crossing Width (m)*	Method of estimating width	Type of crossing	Main River? (Y/N)
WC033	628114	241335	5	Measured using MasterMap	Cable: crossing through existing duct	N
WC034	628131	241388	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC035	628135	241454	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC036	628109	241606	10	Estimated during survey	Cable: crossing through existing duct	N
WC037	628250	241599	7	Measured using MasterMap	Access: crossing already exists	N
WC038	628064	241684	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC039	628125	241629	22	Measured using MasterMap	Cable: crossing through existing duct	N
WC040	628351	241736	1	Assumed from RSK water crossings shapefile	Access: crossing already exists	N
WC041	628174	241735	1	Assumed from RSK water crossings shapefile	Access: potential new crossing	N
WC042	628078	241982	1	Assumed from RSK water crossings shapefile	Cable: crossing through existing duct	N
WC043	626931	245902	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC044	626895	245882	1	Assumed from OS master map topographic line	Access: potential new crossing	N
WC045	626502	246808	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC046	626473	246802	1	Assumed from OS master map topographic line	Access: potential new crossing	N
WC047	626370	247239	140	Measured using MasterMap	Cable: crossing through existing duct	N
WC048	626334	247331	10	Measured using	Cable: crossing through existing duct	N

Crossing Reference Number	Easting	Northing	Approximate Crossing Width (m)*	Method of estimating width	Type of crossing	Main River? (Y/N)
				MasterMap		
WC049	626328	247439	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC050	626156	247790	1	Estimated during survey	Cable: crossing through existing duct	N
WC051	625999	247737	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC052	625829	247734	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC053	625188	247832	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC054	624966	247824	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC055	624911	247864	2	Measured using MasterMap	Cable: crossing through existing duct	N
WC056	624108	248218	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC057	624059	248217	1	Assumed from RSK water crossings shapefile	Cable: crossing through existing duct	N
WC058	623858	248234	1	Assumed from RSK water crossings shapefile	Cable: crossing through existing duct	N
WC059	623862	248263	1	Assumed from RSK water crossings shapefile	Access: potential new crossing	N
WC060	623431	248184	8	Measured using MasterMap	Cable: crossing through existing duct	N
WC061	623439	248213	8	Measured using MasterMap	Access: potential new crossing	N
WC062	622991	248324	1.5	Estimated during survey	Cable: crossing through existing duct	N
WC063	622165	248404	1	Assumed from OS 1:25000 line	Cable: crossing through existing duct	N

Crossing Reference Number	Easting	Northing	Approximate Crossing Width (m)*	Method of estimating width	Type of crossing	Main River? (Y/N)
WC064	620009	248567	1	Assumed from OS 1:25000 line	Cable: crossing through existing duct	N
WC065	620002	248602	1	Assumed from OS 1:25000 line	Access: crossing already exists	N
WC066	619167	249192	1	Assumed from OS 1:25000 line	Cable: crossing through existing duct	N
WC067	618972	249152	4	Measured using MasterMap	Cable: crossing through existing duct	N
WC068	615594	248975	1	Assumed from OS master map topographic line	Cable: crossing through existing duct	N
WC069	613334	249004	1	Assumed from RSK water crossings shapefile	Cable: crossing through existing duct	N
WC070	613286	248979	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC071	612499	248952	10	Measured using MasterMap	Cable: crossing through existing duct	N
WC072	612428	248932	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC073	612334	248962	5	Measured using MasterMap	Cable: crossing through existing duct	N
WC074	611361	247917	3	Measured using MasterMap	Cable: crossing through existing duct	N
WC075	610794	247053	1	Estimated during survey	Cable: crossing through existing duct	N

*to the nearest metre unless otherwise stipulated

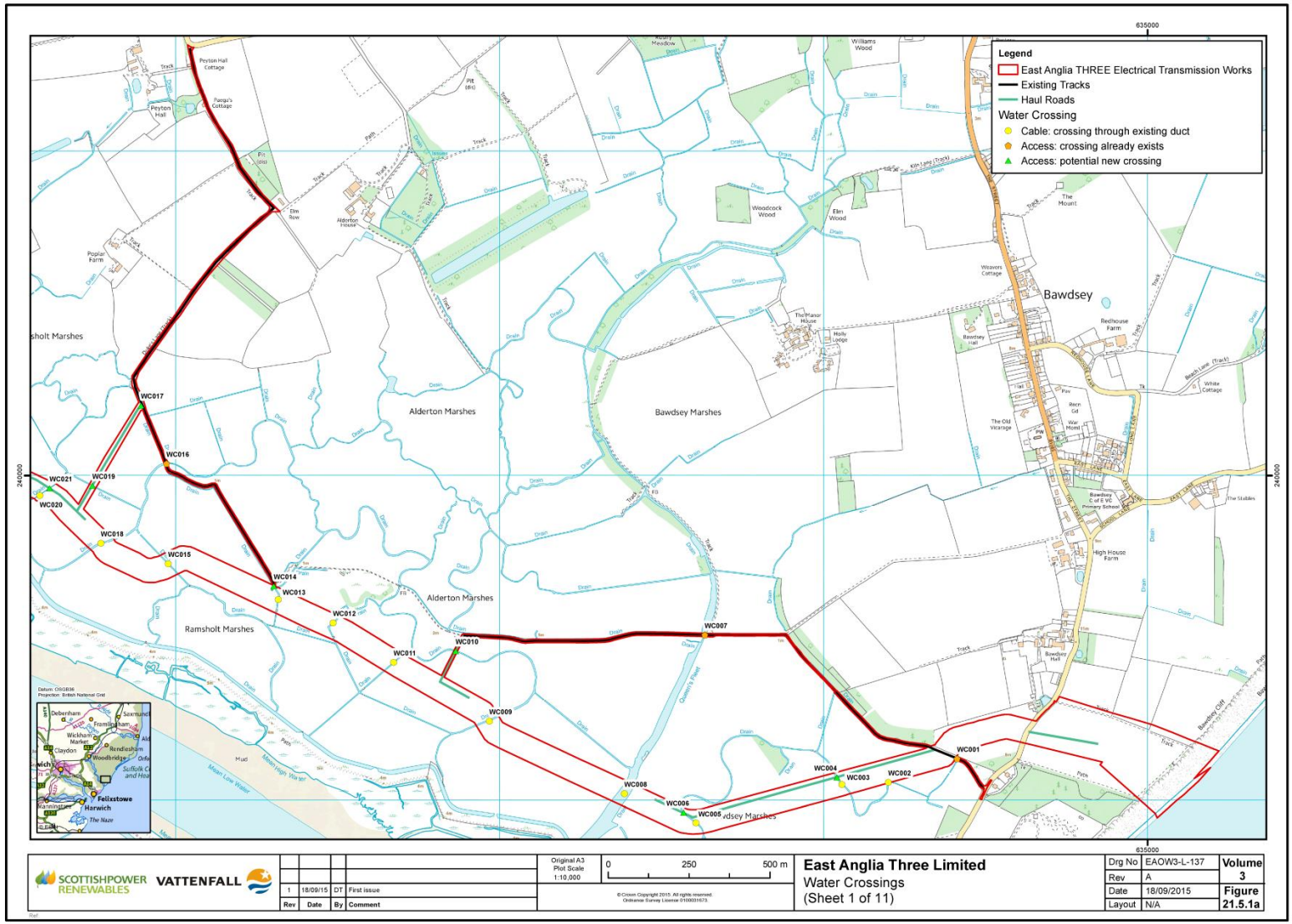
21.5.3 Water Crossing Figures

7. Presented below are Figures showing the location of the water crossings which have been identified using the following sources:

- Surveys conducted by RSK for the East Anglia ONE project;
- The Ordnance Surveys' MasterMap data;
- A survey completed in 2014 by Royal HaskoningDHV on behalf of East Anglia THRE limited
- The Ordnance Surveys' 1:25,000 maps; and
- Online sources such as Google Earth and Bing maps.

8. The crossings are categorised as:

- Cable: crossing through existing duct;
- Access: crossing already exists; and
- Access: potential new crossing.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East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
635000
240000
Bawdsey
Alderton Marshes
Bawdsey Marshes
Ramsholt Marshes
WC001
WC002
WC003
WC004
WC005
WC006
WC007
WC008
WC009
WC010
WC011
WC012
WC013
WC014
WC015
WC016
WC017
WC018
WC019
WC020
WC021
Original A3
Plot Scale
1:10,000
0
250
500 m
East Anglia Three Limited
Water Crossings
(Sheet 1 of 11)
Drg No EAOW3-L-137
Volume 3
Rev A
Date 18/09/2015
Figure 21.5.1a
Layout N/A
1 18/09/15 DT First issue
Rev Date By Comment

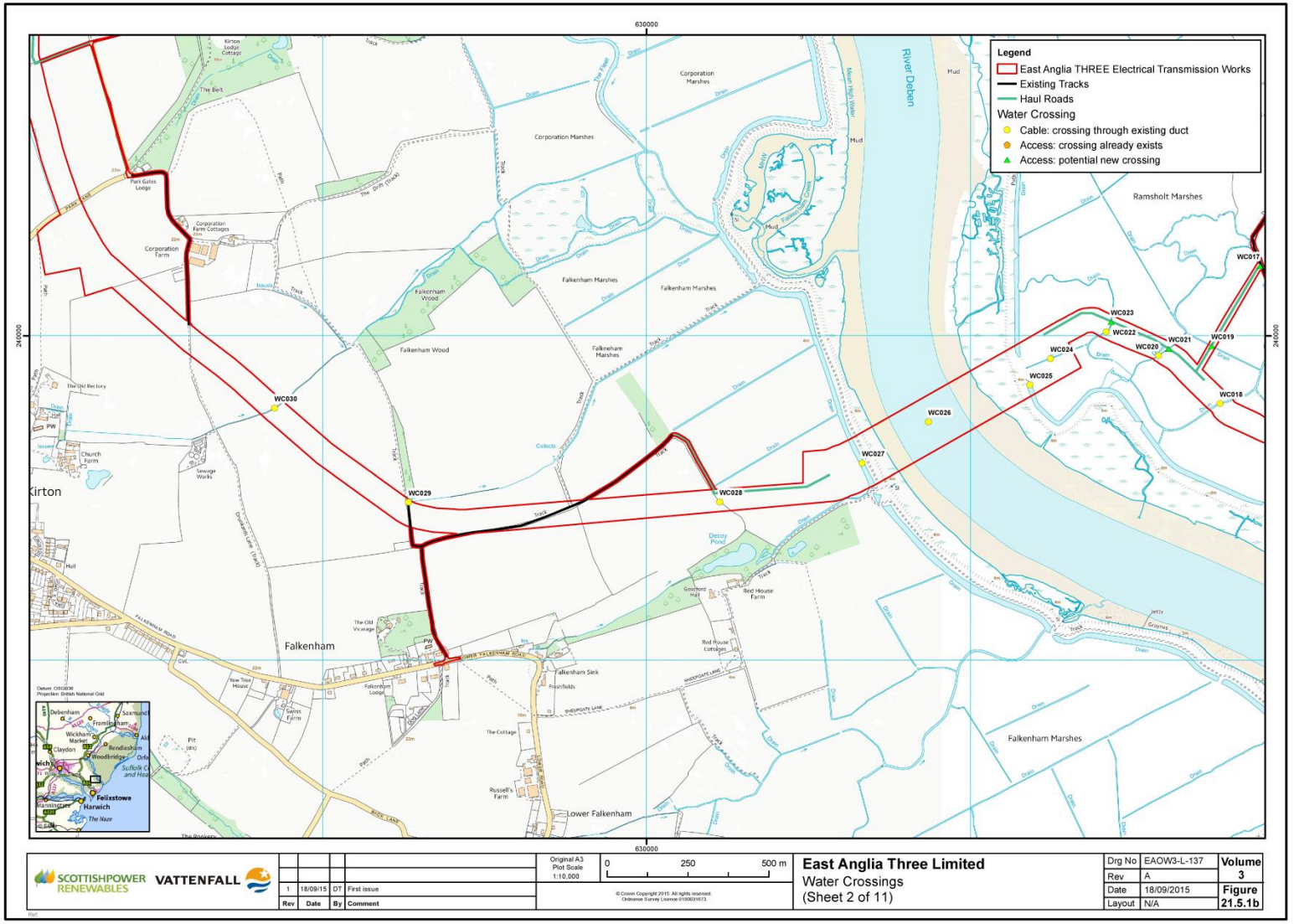
630000
240000
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
River Deben
Ramsholt Marshes
Corporation Marshes
Falkenham Marshes
Falkenham Wood
Falkenham
Kirton
Lower Falkenham
WC017
WC018
WC019
WC020
WC021
WC022
WC023
WC024
WC025
WC026
WC027
WC028
WC029
WC030
Original A3
Plot Scale
1:10,000
0
250
500 m
East Anglia Three Limited
Water Crossings
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Figure 21.5.1b
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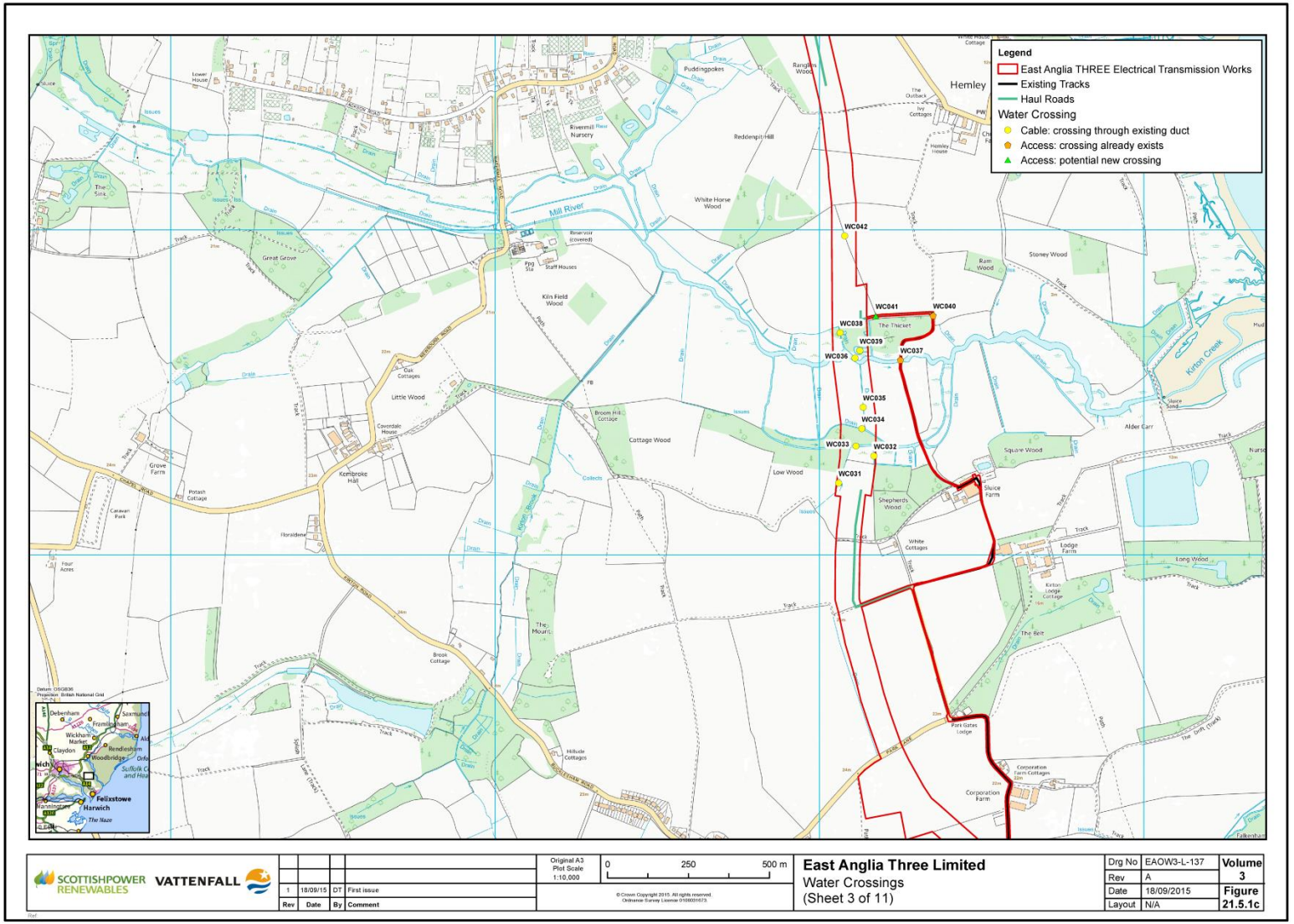
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East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC042
WC041
WC040
WC038
WC039
WC036
WC037
WC035
WC034
WC033
WC032
WC031
Hemley
Mill River
Kirton Creek
Felixstowe
Harwich
SCOTTISHPOWER RENEWABLES
VATTENFALL
Original A3
Plot Scale
1:10,000
0
250
500 m
1 18/09/15 DT First issue
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Figure 21.5.1c

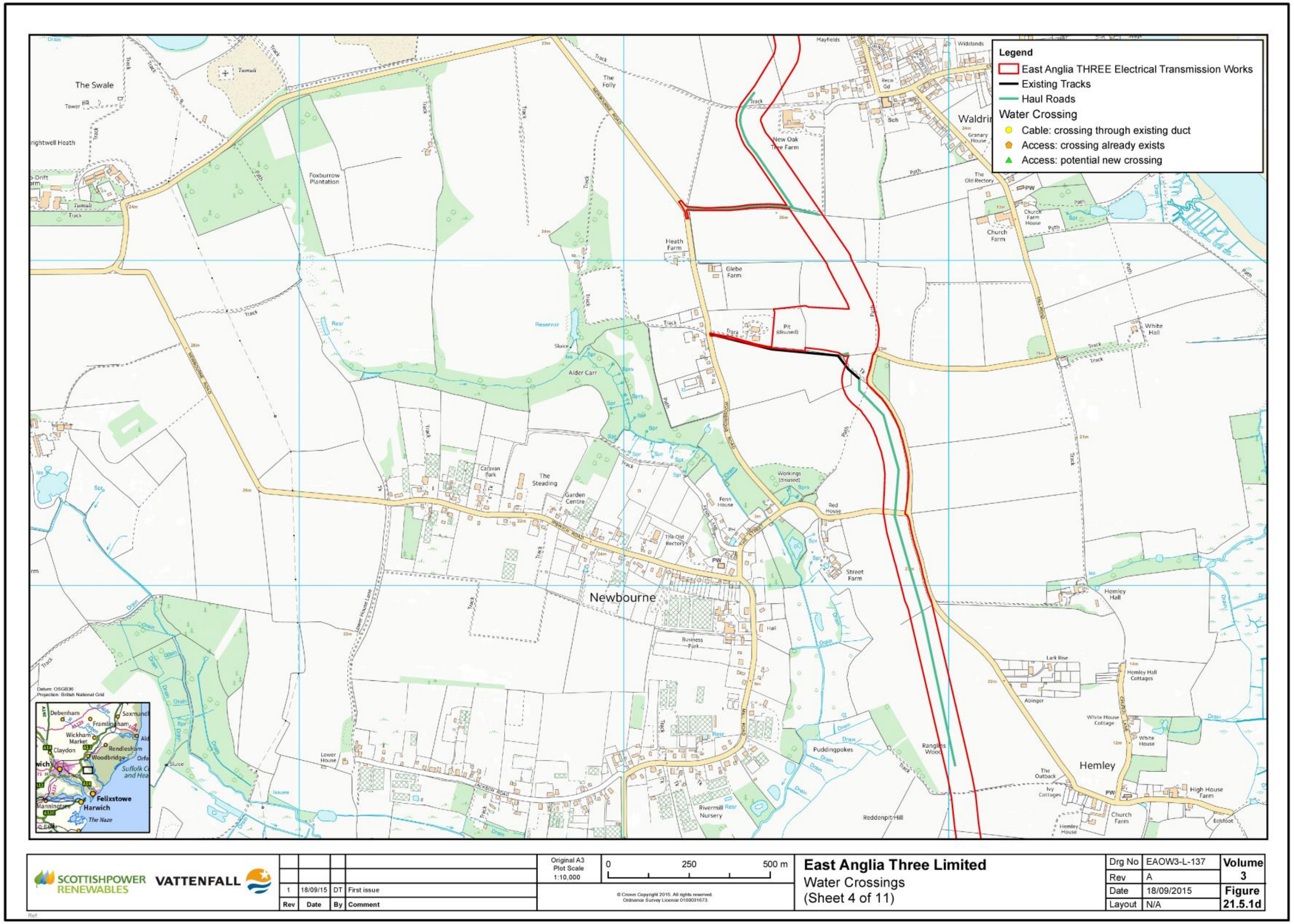
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
Newbourne
Hemley
SCOTTISHPOWER RENEWABLES
VATTENFALL
1 | 18/09/15 | DT | First issue
Rev | Date | By | Comment
Original A3 Plot Scale 1:10,000
0 250 500 m
East Anglia Three Limited
Water Crossings
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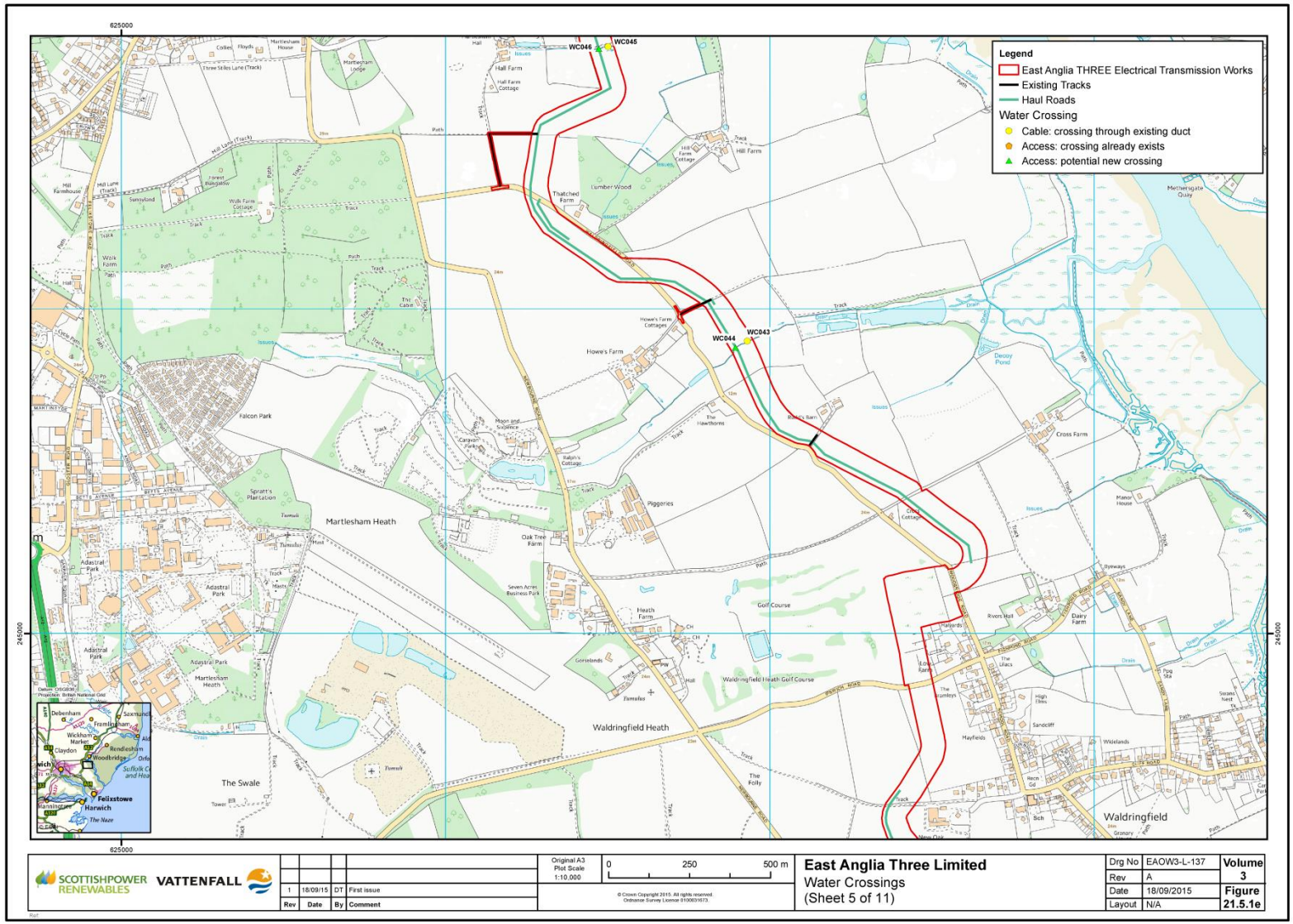
Figure 21.5.1d


625000
245000
WC046
WC045
WC044
WC043
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
Martlesham Heath
Waldringfield Heath
Waldringfield
The Swale
Howe's Farm
Thatched Farm
Hall Farm
Falcon Park
Adastral Park
Golf Course
Waldringfield Heath Golf Course
Felixstowe
Harwich
SCOTTISHPOWER RENEWABLES
VATTENFALL
1 18/09/15 DT First issue
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Original A3 Plot Scale 1:10,000
0 250 500 m
East Anglia Three Limited
Water Crossings
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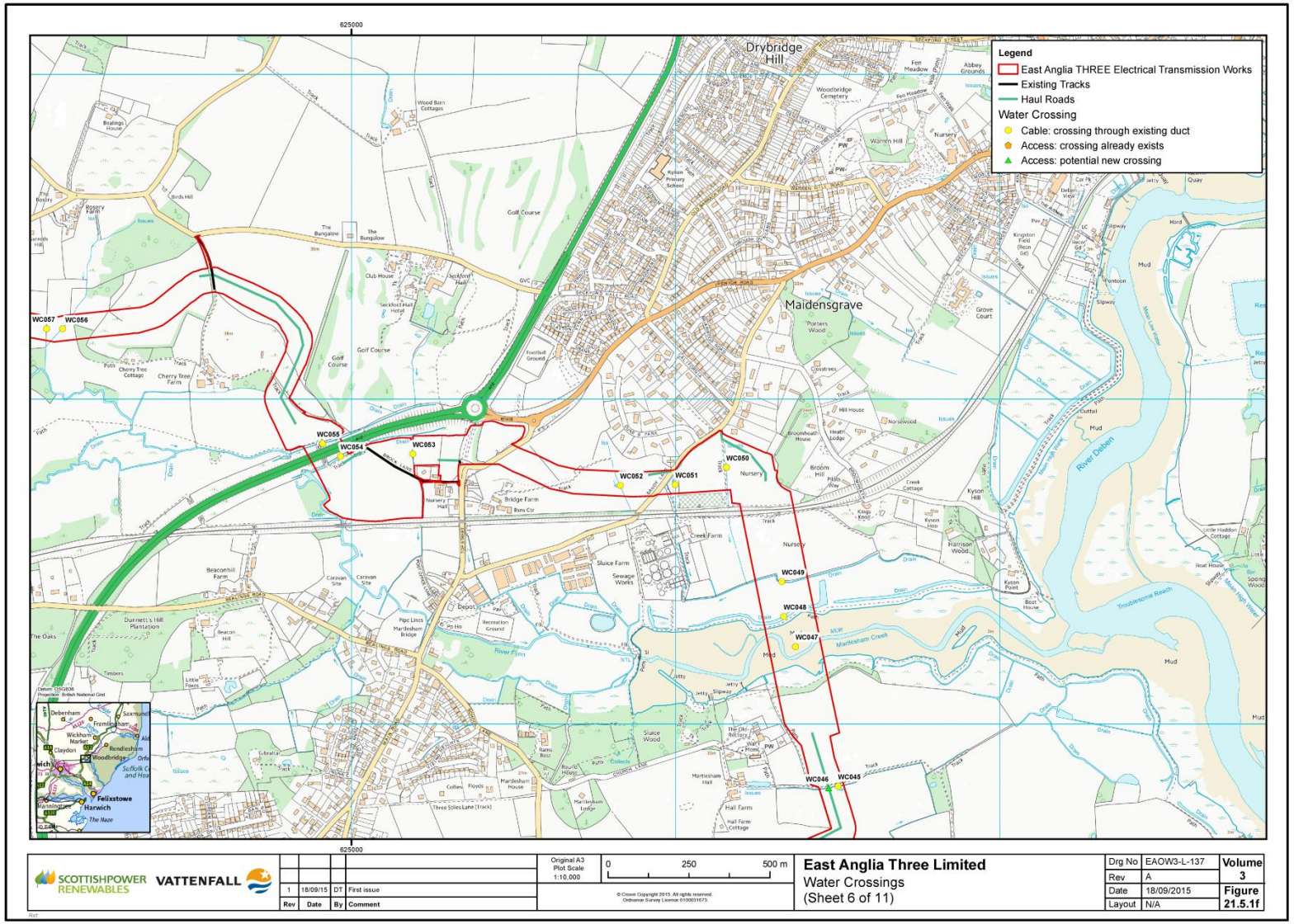
Figure 21.5.1e


625000
Drybridge Hill
Maidensgrave
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC057
WC056
WC055
WC054
WC053
WC052
WC051
WC050
WC049
WC048
WC047
WC046
WC045
River Deben
Troublesome Reach
Martlesham Creek
River Fynn
Felixstowe
Harwich
SCOTTISHPOWER RENEWABLES
VATTENFALL
Original A3 Plot Scale 1:10,000
0
250
500 m
East Anglia Three Limited
Water Crossings
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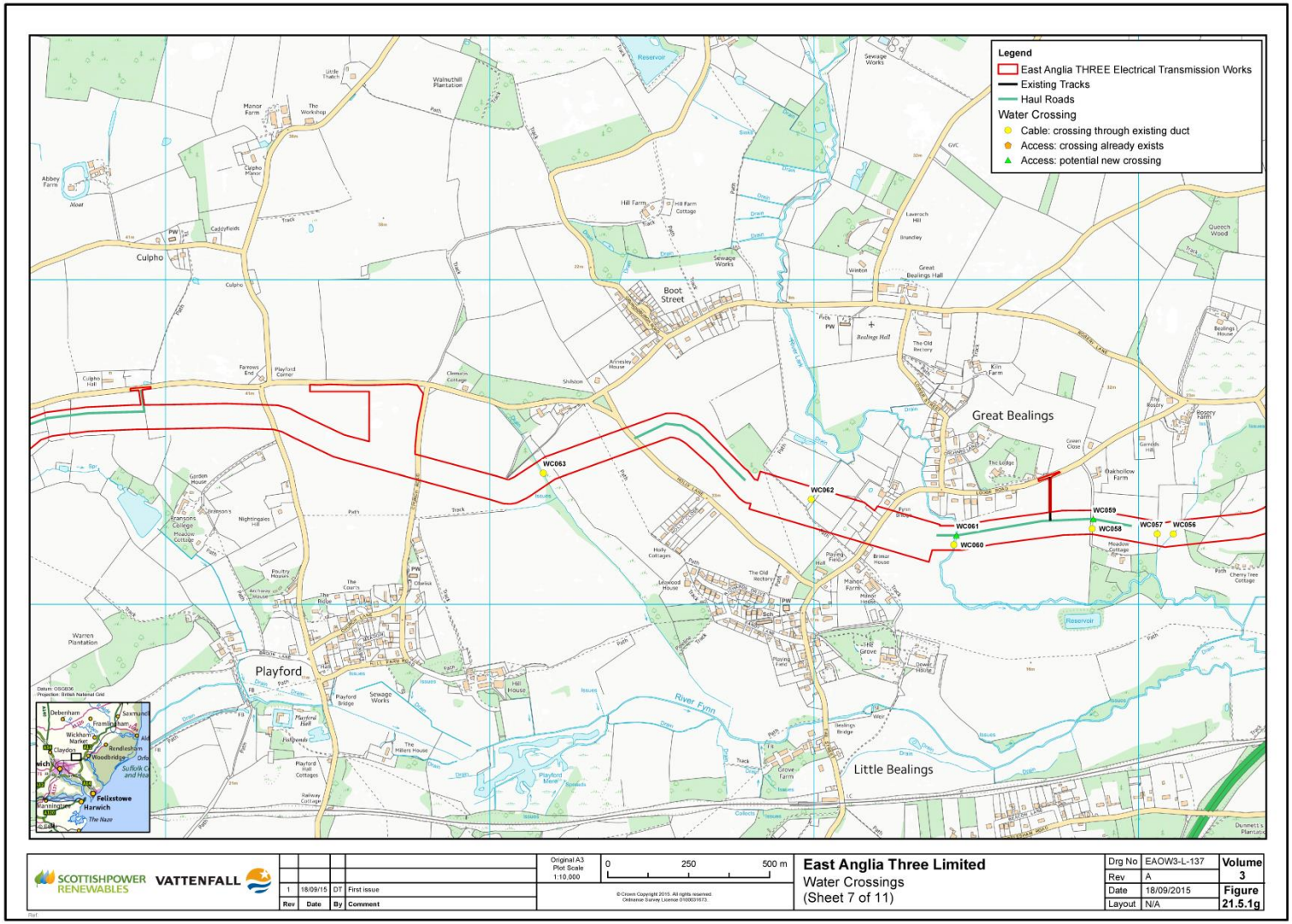
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East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC063
WC062
WC061
WC060
WC059
WC058
WC057
WC056
Great Bealings
Little Bealings
Playford
Boot Street
Culpho
River Fynn
SCOTTISHPOWER RENEWABLES
VATTENFALL
Original A3 Plot Scale 1:10,000
0
250
500 m
East Anglia Three Limited
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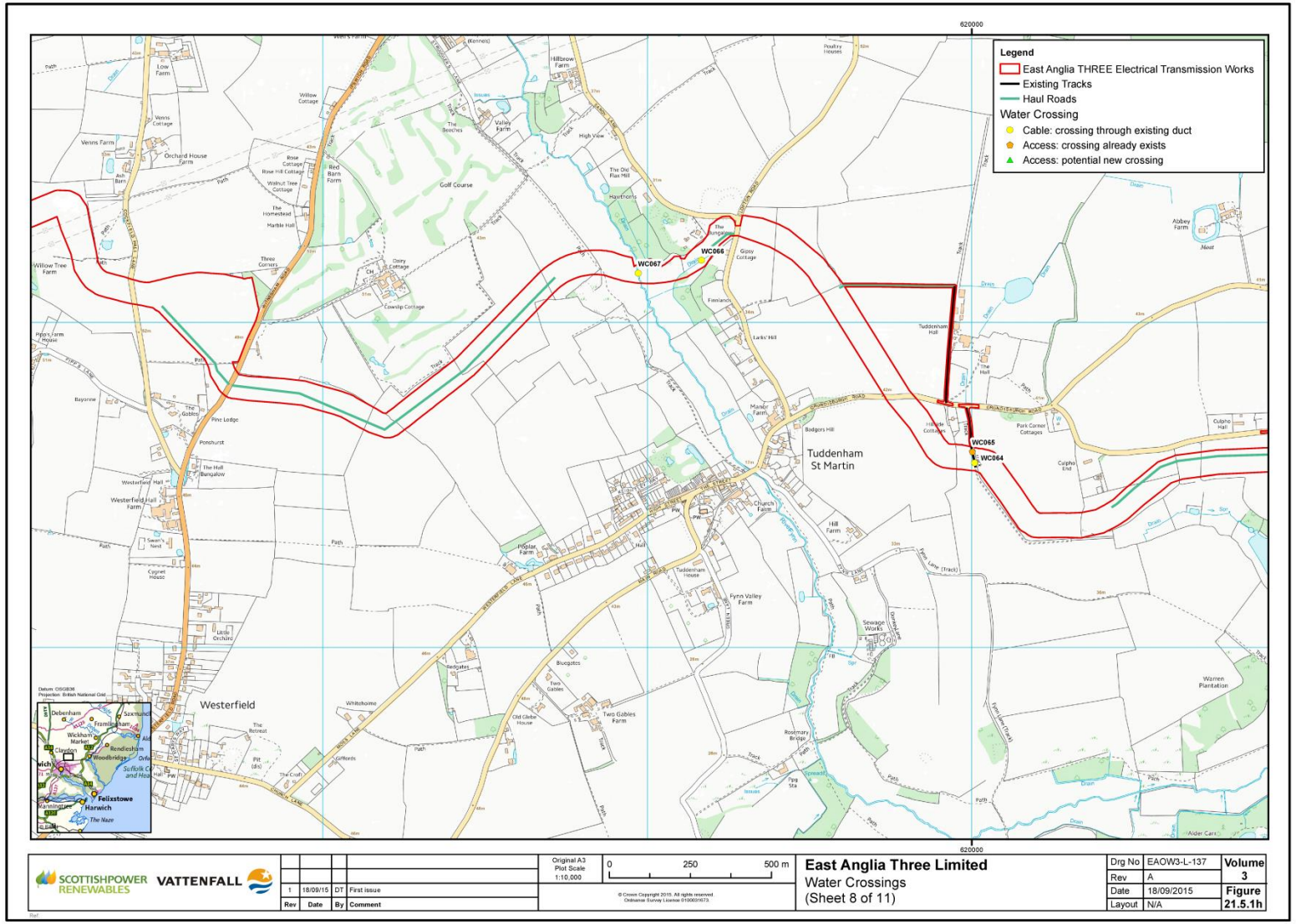
620000
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC067
WC066
WC065
WC064
Tuddenham St Martin
Westerfield
620000
SCOTTISHPOWER RENEWABLES
VATTENFALL
Original A3 Plot Scale 1:10,000
0
250
500 m
East Anglia Three Limited
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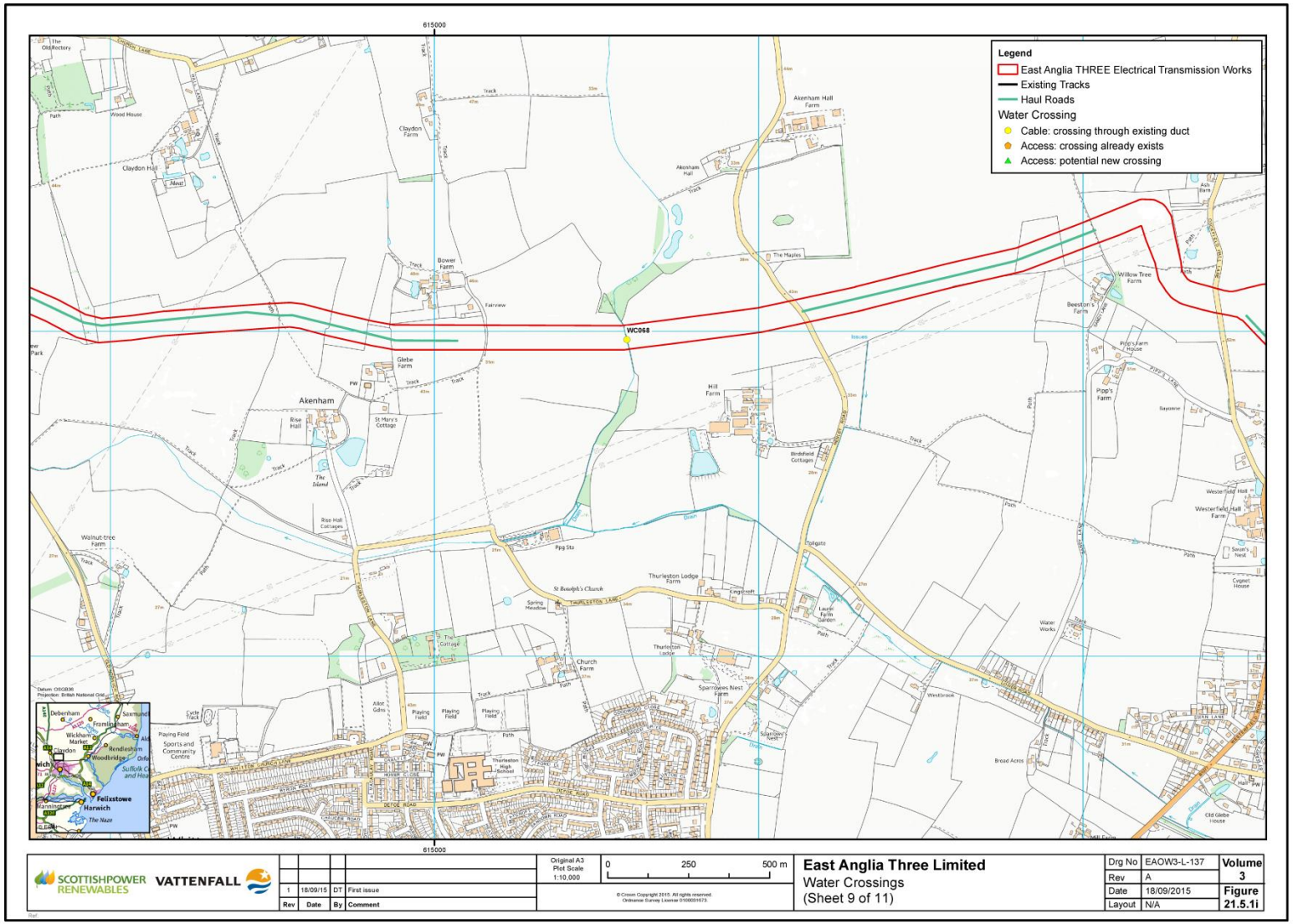
615000
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC068
Akenham
615000
SCOTTISHPOWER RENEWABLES
VATTENFALL
Original A3 Plot Scale 1:10,000
0
250
500 m
East Anglia Three Limited
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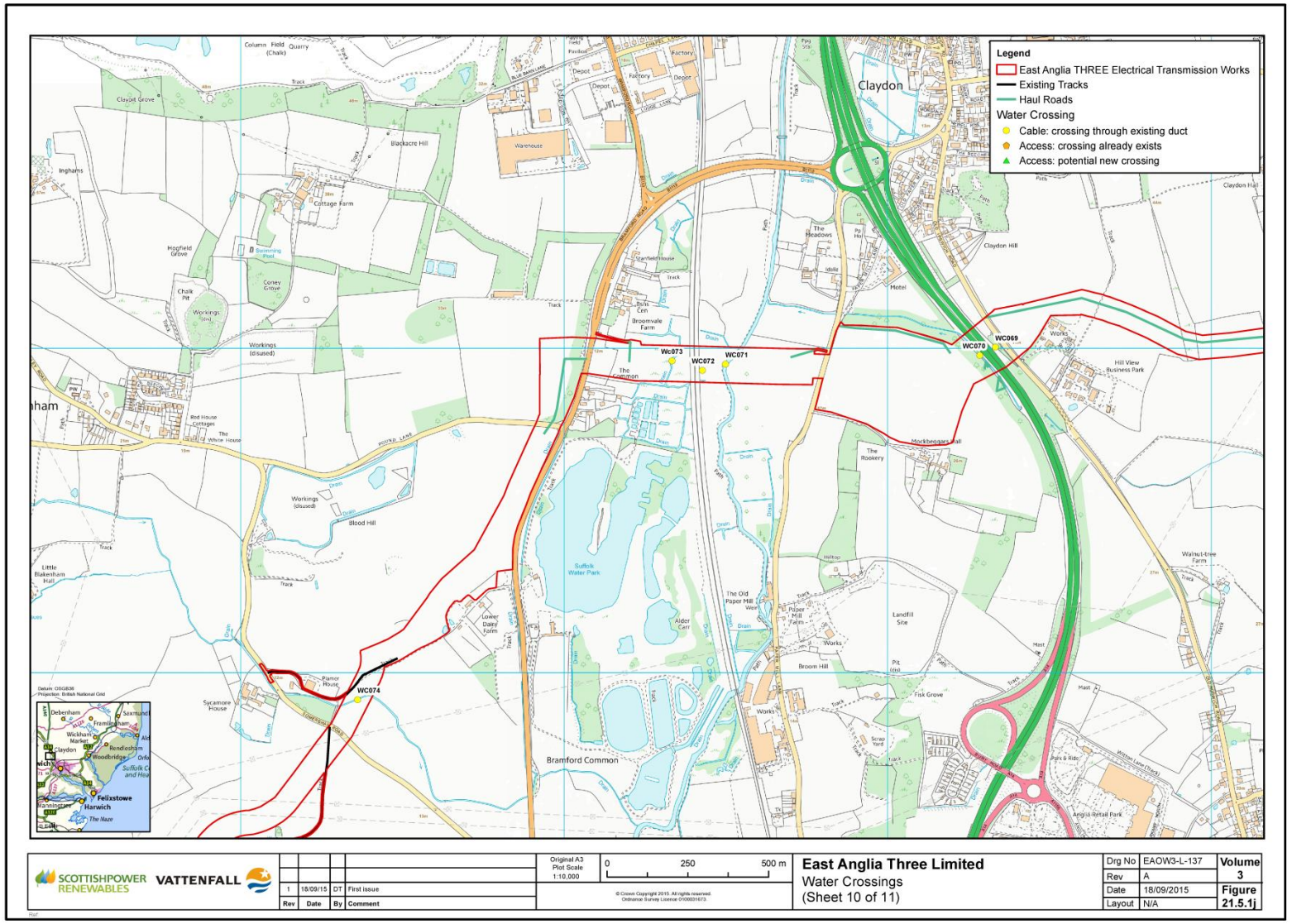
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
Claydon
WC073
WC072
WC071
WC070
WC069
WC074
Bramford Common
Suffolk Water Park
Original A3
Plot Scale
1:10,000
0
250
500 m
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Water Crossings
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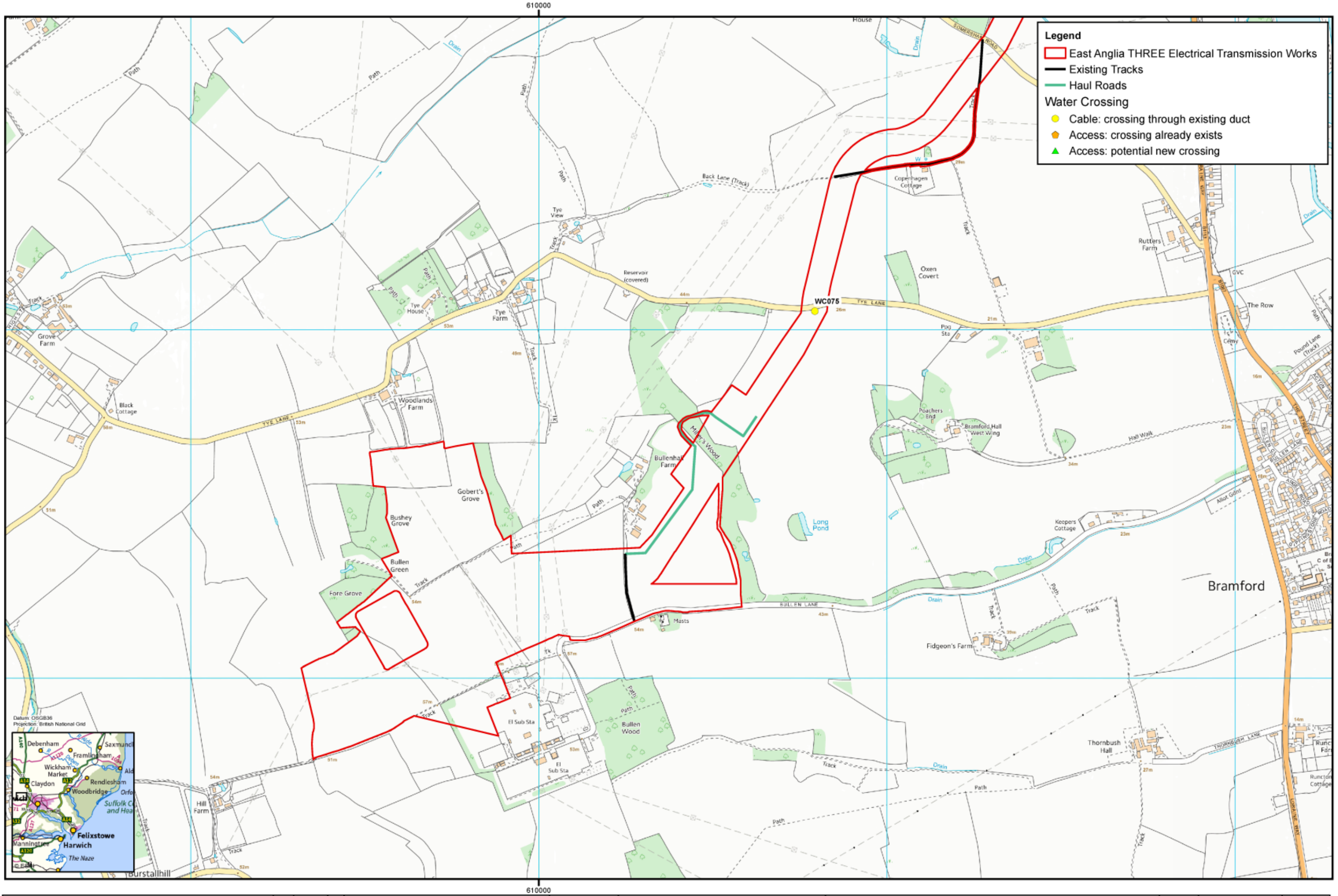
610000
Legend
East Anglia THREE Electrical Transmission Works
Existing Tracks
Haul Roads
Water Crossing
Cable: crossing through existing duct
Access: crossing already exists
Access: potential new crossing
WC075
Bramford
Tye Lane
Back Lane (Track)
Long Pond
Bullen Wood
Gobert's Grove
Bushey Grove
Bullen Green
Woodlands Farm
Tye Farm
Grove Farm
Black Cottage
Copenhagen Cottage
Osiers Covert
Rutters Farm
The Row
Hall Walk
Keepers Cottage
Fidgeon's Farm
Thornbush Hall
Hill Farm
Burstallhill
Debenham
Saxmundham
Framlingham
Wickham Market
Claydon
Rendlesham
Woodbridge
Felixstowe
Harwich
The Naze
Manningtree

SCOTTISHPOWER RENEWABLES VATTENFALL				Original A3 Plot Scale 1:10,000	0 250 500 m	East Anglia Three Limited	Drg No	EAOW3-L-137	Volume 3
						Water Crossings	Rev	A	
	1	18/09/15	DT	First issue		(Sheet 11 of 11)	Date	18/09/2015	Figure 21.5.1k
	Rev	Date	By	Comment			Layout	N/A	

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