

Onshore Cable Works

Ecological Management Plan DCO Requirement 21 (1)

(Applicable to 5B to 20, 25 to 38, 41 to 49 and 52 to 61)

Note: this report contains confidential information relating to legally protected species which should be for limited circulation only

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FOR DISCHARGE

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1 INTRODUCTION AND SCOPE

1.1 Project Overview

1. East Anglia Three Limited (EATL) was awarded a Development Consent Order (DCO) by the Secretary of State, Department for Business, Energy and Industrial Strategy (DBEIS) on 7 August 2017 for the East Anglia THREE Offshore Windfarm (EA THREE). The DCO granted consent for the development of a 1,200MW offshore windfarm and associated infrastructure.
2. The DCO has now been subject to three non-material variations:
 - In March 2019 EATL submitted a non-material change application to DBEIS to amend the consent to increase the maximum generating capacity from 1,200MW to 1,400MW and to limit the maximum number of gravity base foundations to 100. In June 2019 DBEIS authorised the proposed change application and issued an Amendments Order.
 - In July 2020 EATL submitted a second non-material change application to DBEIS to amend the parameters of its offshore substations (reducing the number of these to one) and wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). On 15 April 2021 DBEIS authorised this proposed change application and issued an Amendments Order.
 - In August 2021 EATL submitted a third non-material change application to DBEIS to amend the consent to remove the maximum generating capacity of 1,400MW and to amend the parameters of its wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). In September 2022 DBEIS authorised the proposed change application and issued an Amendments Order.
3. The onshore construction works associated with EA THREE will have a capacity of 1,400MW and transmission connection of 1,320MW. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the converter station at Bramford, passing the northern side of Ipswich. As a result of the strategic approach taken, the cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE Offshore Windfarm (EA ONE), thereby substantially reducing the impacts of connecting to the National Grid (NG) at the same location. The infrastructure to be installed for EA THREE, therefore, comprises:
 - The landfall site with one associated transition bay location with two transition bays containing the connection between the offshore and onshore cables;
 - Two onshore electrical cables (single core);
 - Up to 62 jointing bay locations each with up to two jointing bays;
 - One onshore converter station, adjacent to the EA ONE Substation;
 - Three cables to link the converter station to the National Grid Bramford Substation;
 - Up to three onshore fibre optic cables; and
 - Landscaping and tree planting around the onshore converter station location.
4. Since the granting of the DCO, the decision has been made that the electrical connection for EA THREE will comprise a high voltage direct current (HVDC) cable rather than a high voltage alternating current cable and, therefore, the type of substation that will be required is a HVDC converter station. The substation will, therefore, be referred to here as a 'converter station' and this amended terminology has been agreed with the relevant authorities on 15 October 2020. It has also been determined that only one converter station will be constructed rather than two and that the converter station will be installed in a single construction phase.
5. The EA THREE onshore works commenced development in July 2022, with works at the Converter Station, Paper Mill Lane, Playford Corner and Clappits.

1.2 Purpose and Scope

6. This Ecological Management Plan (EcoMP) sets out the standards and procedures for managing the ecology mitigation required for the Onshore Cable Works for the EA THREE Offshore Windfarm. This document has been produced to discharge DCO Requirement 21 (1) which states:

Ecological Management Plan

21.— (1) *No stage of the connection works may commence until for that stage a written ecological management plan (which accords with the outline landscape and ecological management strategy) reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement has been submitted to and approved by the relevant planning authority in consultation with Natural England.*

(2) The ecological management plan must include an implementation timetable and must be carried out as approved.

(3) Construction works between Ferry Road and the River Deben must be carried out in accordance with the embedded mitigation relating to onshore ornithology contained in Table 2 of the outline landscape and ecological management strategy, which must be incorporated into the ecological management plan.

7. The scope of this document relates to the onshore cable route that runs from the landfall location at Bawdsey to the Converter Station works located near Bramford, Suffolk. These works comprise Work Nos. 5B to 61 as defined in the EA THREE DCO. The Requirement Discharge Documents (RDDs) relating to the construction and installation of cable route infrastructure within the Clappits Works Stage (Work Nos. 21 to 24), Playford Corner Works Stage (Work Nos. 39 and 40), Paper Mill Lane Works Stage (Work Nos. 50 and 51) and Converter Station Stage (Work Nos. 62 to 69) have previously been discharged. For the sake of completeness and to provide a suite of comprehensive RDDs for use by the Principal Contractor for the cable route (NKT), the infrastructure and activities that fall within these areas and the associated management measures for these will also be addressed in this document. Nevertheless, this document seeks only to discharge this Requirement with respect to Works Nos. 5B to 20, 25-38, 41-49 and 52 -61.
8. A separate document entitled “European Protected Species Onshore Surveys Report” (EA3-LDC-CNS-REP-IBR-000094) has been prepared detailing the results of the species surveys that are being undertaken for the Onshore Cable Works in accordance with Requirement 29 of the DCO.
9. The purpose of the EcoMP is to ensure that measures will be implemented to minimise and avoid any adverse impacts to wildlife and to reduce or eliminate the risk of offences being committed under relevant wildlife legislation, namely:
 - The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
 - The Wildlife and Countryside Act 1981 (as amended) (W&CA); and
 - The Protection of Badgers Act 1992 (as amended).
10. This EcoMP includes Species Protection Plans (SPP) for European Protected Species¹ (EPS) and protected species in England which occur within, and in the vicinity of, the Onshore Cable Works Development Order Limits (DOL).
11. The known ecological constraints in relation to the DOL, as reported in the 2015 Environmental Statement (ES), are shown in the figures in Appendix 1 of this EcoMP. The Appendix 1 Ecological Constraints Plans have also been updated with information recorded from ongoing surveys during the EA ONE construction and post construction periods and via pre-construction surveys for EA THREE in 2021 and 2022. In addition, installed mitigation measures required by EA ONE are also shown on the plans at Appendix 1. All ecological constraints are identified by unique reference in Appendix 1.
12. This EcoMP provides details of the legal requirements, responsibilities of the Principal Contractor and their Ecological Clerk of Works (ECoW), baseline conditions and mitigation measures in relation to the EA THREE onshore cable route construction works.
13. The following documents have been used to inform this EcoMP from the previous surveys undertaken for the EA ONE and EA THREE developments:
 - RSK (2015). East Anglia Three Offshore Windfarm – Environmental Statement (ES) Volume 1 *Onshore Impacts – Chapter 23 Onshore Ecology*.

¹ The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the 2017 Regulations so that they continue to operate effectively with respect to ‘European species’, following the UK’s departure from the European Union. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

- East Anglia Three (November 2016) *Outline Landscape and Ecological Management Strategy* – Version 1
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-001887-East%20Anglia%20Three%20Limited%2044.pdf>
- RSK (2016). EA1-CON-F-IBR-021237 Ecological Management Plan Final for Discharge.
- ECoW documents spanning throughout the EA ONE construction works.
- Bowland Ecology (2022) EA3-GEN-ENV-REP-BOW-000020 2022 Survey Report
- Bowland Ecology (2021) EA3-GEN-ENV-REP-BOW-000010 2021 Survey Report
- Bowland Ecology (2020) EA3-GEN-ENV-REP-BOW-000001 Pre-construction Ecological Survey; Walkover.
- Bowland Ecology (2020) EA3-GEN-ENV-REP-BOW-000002 Pre-construction Ecological Survey Report; Great Crested Newts.
- Bowland Ecology (2020) EA3-GEN-ENV-REP-BOW-000003 Pre-construction Ecological Survey Report; Barn Owl.
- Bowland Ecology (2020) EA3-GEN-ENV-REP-BOW-000004 Pre-construction Ecological Survey Report; Wintering Birds

1.3 Structure of this Document

14. The Onshore Cable Works have been carefully designed to reduce the potential for significant adverse impacts on ecological receptors. As set out in the Landscape Management Scheme (EA3-LDC-CNS-REP-IBR-000077), the approach to the scheme design also minimises impacts on landscape features such as trees and hedgerows.
15. Habitat within the DOL associated with the Onshore Cable Works is predominantly arable land with hedgerows and adjacent broadleaved woodland, with significant habitats and protected sites within or near to the DOL including the River Deben and Martlesham Creek. Associated with this are the following potential EPS interests: Great Crested Newt (GCN), Bats and Otter.
16. In line with the Outline Landscape and Ecological Management Strategy (OLEMS), this EcoMP is structured by receptor and details the mitigation measures for each ecological receptor individually. Under the heading of each receptor, there is an overview of baseline information, followed by the mitigation measures to be implemented. For protected species emergency procedures are also included to identify the steps to be undertaken should they be encountered at previously unknown locations. The discussion of additional mitigation is structured chronologically to outline the mitigation measures which would apply at each stage of construction: Pre-construction; During construction; and Post construction.

2 ABBREVIATIONS

AC	Alternating Current
ACOW	Arboricultural Clerk of Works
AMS	Arboricultural Method Statement
CCS	Consolidated Construction Site
CoCP	Code of Construction Practice
DBEIS	Department of Business, Energy and Industrial Strategy
DC	Direct Current
DCO	Development Consent Order
DECC	Department for Energy and Climate Change
DLL	District Level Licensing
DOL	Development Order Limits
EA	Environment Agency
EA ONE	East Anglia ONE Offshore Windfarm
EA THREE	East Anglia THREE Offshore Windfarm
EATL	East Anglia THREE Limited
EcoMP	Ecological Management Plan
ECoW	Ecological Clerk of Works
EPS	European Protected Species

EPSL	European Protected Species Licence
ES	Environmental Statement
ESC	East Suffolk Council
FCS	Favourable Conservation Status
GCN	Great crested newt
HVDC	High Voltage Direct Current
LMS	Landscape Management Scheme
MSDC	Mid Suffolk District Council
MW	Megawatt
NE	Natural England
NERC	Natural Environment and Rural Communities Act 2006
NG	National Grid
OLEMS	Outline Landscape and Ecological Management Strategy
PSL	Protected Species Licence
RAMS	Reasonable Avoidance Measures
RPA	Root Protection Area
SCC	Suffolk County Council
SPP	Species Protection Plan
SPR	Scottish Power Renewables
W&CA	Wildlife & Countryside Act 1981 (as amended)

3 LOCAL COMMUNITY LIAISON

17. EATL is committed to providing clear communication to local residents and will manage public relations with local residents and businesses. Proactive community liaison will be maintained, keeping local residents informed of the type and timing of works involved. A combination of communication mechanisms such as posters, notices, exhibitions, letters, newsletters, website updates and parish council meetings will be employed to keep local residents and businesses informed.
18. A designated EA THREE Community Liaison Officer (CLO) will manage and respond to any public concerns, queries or complaints in a professional and diligent manner as set out in the Project Community Liaison and Public Relations Procedure contained within Appendix 8 of the Code of Construction Practice (CoCP) (EA3-LDC-CNS-REP-IBR-000084). The Complaints Procedure will be publicised and complaints will be directed to the EATL Community Liaison Officer. All enquiries will be logged, investigated and rectifying actions taken when deemed appropriate. Enquiries will be dealt with in an expedient and courteous manner. Details of complaints will be reported to Mid Suffolk District Council (MSDC), East Suffolk Council (ESC) and Suffolk County Council (SCC) within 48 hours.
19. Parish Councils, Town Councils, District Councillors and County Councillors, including Ward Members and Portfolio Holders in the area and the local liaison group will be contacted (in writing) in advance of the proposed works and ahead of key milestones in order to advise them of the ongoing works. The information provided will include a timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query.

4 LEGAL REQUIREMENTS

20. The species referred to in this plan are all protected by either national or international legislation. This section provides a summary of the relevant legislation for each of those species and licensing.

4.1 Legislation

21. Table 4-1 lists the relevant legislation, schedules, and offences under the stated legislation. The species that the legislation applies to have been identified within and in the vicinity of the DOL during the surveys to inform the ES and on-going surveys during the EA ONE construction period, EA ONE post construction monitoring and for pre-construction surveys for EA THREE.

Table 4-1 – Summary of Relevant Legislation

Relevant Legislation	Schedules and offences	Species
The Conservation of Habitats and Species Regulations 2017 (as amended)	Listed on Schedule 2 – subject to the provisions of Regulation 41. It is an offence to: <ul style="list-style-type: none"> • Deliberately capture, injure or kill any wild animal of a European protected species [Regulation 41 (1)(a)] • Deliberately disturb any wild animals of any such species [Regulation 41 (1)(b)] • Disturbance of animals includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young [Regulation 41 (2)(a)(i)] or in the case of animals hibernating or migratory species, to hibernate or migrate [Regulation 41 (2)(a)(ii)] or to affect significantly the local distribution or abundance of the species to which they belong. [Regulation 41 (2)(b)] • Deliberately take or destroy the eggs of such an animal [Regulation 41 (1)(c)] • Deliberately damage or destroy a breeding site or resting place of such an animal [Regulation 41 (1)(d)]. 	<u>European protected species i.e.:</u> <ul style="list-style-type: none"> • Great crested newts • Bats (all species) • Otter
Protection of Badgers Act 1992 (as amended)	It is an offence to: <ul style="list-style-type: none"> • Wilfully kill, injure, take or attempt to kill a Badger [Section 1 (1)]; • Possess a dead Badger or any part of a dead Badger [Section 1 (1)]; • Cruelly ill-treat a Badger [Section 2 (1)(a)]; • Use Badger tongs in the course of killing, taking or attempting to kill a Badger [Section 2 (1)(b)]; • Dig for a Badger [Section 2 (1)(b)]. It is also an offence to interfere with a Badger sett by intentionally or recklessly causing or allowing: <ul style="list-style-type: none"> • Damage to a sett or any part of it [Section 3 (a)]; • Destruction of it [Section 3 (b)]; • Sett access to be obstructed, or any entrance of it [Section 3 (c)]; • A dog to enter it [Section 3 (d)]; • Disturbance to a Badger when it is occupying it [Section 3 (e)]. It is also an offence to: <ul style="list-style-type: none"> • Possess, sell or offer for sale any live Badger [Section 4]; • Mark, tag or ring a Badger [Section 5]. A person attempting to commit an offence under the Act is guilty of that offence.	<ul style="list-style-type: none"> • Badgers
Wildlife and Countryside Act 1981 (as amended) Section 1	Under the Act it is an offence to: <ul style="list-style-type: none"> • Intentionally kill, injure or take any wild bird [Section 1(1)(a)]; • Intentionally take, damage, destroy the nest of a wild bird including in Schedule ZA1 [Section 1(1) (aa)]; • Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built [Section 1(1)(b)]; or • Intentionally take or destroy an egg of any wild bird [Section 1(1)(c)]; • Possess or control any live or dead bird or any part of, or anything derived from such a bird [Section 1(2)(a)]; • Possess or control an egg of a wild bird or any such part of an egg [Section 1(2)(b)]; • Intentionally or recklessly disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young [Section 1(5)(a)]; or • Intentionally or recklessly disturb dependent young of such a bird [Section 1(5)(b)]. 	<ul style="list-style-type: none"> • All bird species • Bird species included in Schedule 1

Relevant Legislation	Schedules and offences	Species
<p>The Wildlife and Countryside Act 1981 (as amended)</p> <p>Section 9 (Schedule 5 species)</p>	<p>Listed on Schedule 5 – subject to the provisions of Section 9.</p> <p>It is an offence to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Intentionally kill, injure or take any wild animal included in Schedule 5 [Section 9(1)] <input type="checkbox"/> Possess or control any live or dead wild animal included in Schedule 5 or any part of it, or anything derived from any such animal [Section 9(2)]; <input type="checkbox"/> Intentionally or recklessly - <ul style="list-style-type: none"> o damage or destroy any structure or place which any animal included in Schedule 5 used for shelter or protection [Section 9(4)(a)]; o disturb any such animal while it is occupying a structure or place which it uses for shelter or protection [Section 9(4)(b)]; or o obstruct access to any structure or place which any such animal uses for shelter or protection [Section 9(4)(c)]. • Sell, offer for sale, or has in his possession or transports for the purpose of sale any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, any such animal [Section 9(5)(a)], or <p>Publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things [Section 9(5)(b)].</p>	<ul style="list-style-type: none"> •Bats (all species) •Amphibians (GCN, common toad, smooth and palmate newt) •Reptiles (slow worm, common lizard, grass snake) <p>[Killing & injuring Section 9(1) (part); sale Section 9(5) only]</p>
<p>The Wildlife and Countryside Act 1981 (as amended)</p> <p>Section 11 (Schedule 6 species)</p>	<p>Listed in Schedule 6 – subject to the provisions of Sections 11.</p> <p>It is an offence to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Set in position any of the following articles, being an article, which is of such a nature and placed as to be calculated to cause bodily injury to any wild animal included in Schedule 6 which comes into contact therewith, that is to say, any trap or snare, any electrical device for killing or stunning or any poisonous, poisoned or stupefying substance [Section 11 (2)(a)]; <input type="checkbox"/> Use for the purposes of killing or taking any such wild animal any such article as aforesaid, whether or not of such a nature and so placed as aforesaid, or any net [Section 11 (2)(b)]; <input type="checkbox"/> Use for the purpose of killing or taking any such wild animal – <ul style="list-style-type: none"> o Any automatic or semi-automatic weapon [Section 11 (2)(c)(i)]; o Any device for illuminating a target or sighting device for night shooting [Section 11 (2)(c)(ii)]; o Any form of artificial light or any mirror or dazzling device [Section 11 (2)(c)(iii)]; or o Any gas or smoke falling in the parameters of Section 11 2(a) and 2(b) [Section 11 (2)(c)(iv)]; <input type="checkbox"/> Use as a decoy, for the purpose of killing or taking any such wild animal, any sound recording [Section 11 (2)(d)]; <input type="checkbox"/> Use any mechanically propelled vehicle in immediate pursuit of any such wild animal for the purpose of driving, killing or taking that animal [Section 11 (2)(e); or <input type="checkbox"/> Knowingly cause or permit or to be done an act which is mentioned in the foregoing provisions of this subsection [Section 11 (2)(f)]. <input type="checkbox"/> Set in position, or knowingly cause or permit to be set in position, any snare which is of such a nature and so placed as to be calculated in causing bodily injury to any wild animal coming into contact therewith [Section 11 (3)(a)]; and <input type="checkbox"/> While the snare remains in position fails, without reasonable excuse, to inspect it, or cause it to be inspected, at least once every day [Section 11 (3)(b)]. 	<ul style="list-style-type: none"> •Bats (all species) •Badger •Otter
<p>The Wildlife and Countryside Act 1981 (as amended)</p> <p>Section 14 (Schedule 9 species)</p>	<p>Listed in Schedule 9 – subject to the provisions of Section 14.</p> <p>It is an offence if:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Any person releases or allows to escape into the wild any animal which – <ul style="list-style-type: none"> o Is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state [Section 14 (1)(a)]; or o Is included in Part I of Schedule 9 [Section 14 (1)(b)]. <input type="checkbox"/> Any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9 [Section 14 (2)]. 	<p>Invasive species;</p> <ul style="list-style-type: none"> •Japanese knotweed •Himalayan balsam •Canadian waterweed

4.2 Licensing

22. Licences are available from Natural England (NE) for actions that would otherwise be illegal under the legislation listed in Table 4-1. Available licence types relevant to EA THREE are Class Licences and Individual Licences:

- Class Licences are for activities that require an individual to possess specific skills or experience in order to avoid risk to the conservation or welfare of protected species. The Class Licence holder is required to register with NE. Registration usually takes about 15 days.
- Individual Licences are required for activities that affect a protected species and which are not covered by a Class Licence. Individual Licences include mitigation licences for development which allow activities such as disturbing, trapping or handling protected species, or disturbing their habitats. It usually takes 30 working days to obtain an Individual Licence from NE.

4.3 The Wildlife and Countryside Act 1981 (as amended)

23. NE, under the Wildlife & Countryside Act 1981 (as amended) (W&CA), issue individual and class licences for actions that would otherwise be illegal. The following text provides licensing information on the species which have been identified within, and in the vicinity of the DOL, and are protected under the W&CA.

24. An amendment to Section 16 of the W&CA in 2022 means that for animals and plants domestically protected (only) under the WCA 1981 (e.g. water voles) a licence can be obtained under the WCA 1981 for the statutory purpose of "reasons of overriding public interest".

25. No licences are available for wild birds for development mitigation purposes, however licences may be obtained by suitable qualified individuals for surveying purposes such as ringing and nest recording.

4.4 The Protection of Badgers Act 1992 (as amended)

26. Individual mitigation licences to interfere with Badger setts for development purposes are available under the Protection of Badgers Act 1992 (as amended). This could be for example a licence for sett exclusion (closure) and/or for disturbance of setts not likely to be damaged but may be disturbed by works

27. Class licences (CL35) are also available for badger mitigation purposes, with mitigation undertaken utilising this type of licence determined by the licenced ecologist.

4.5 The Conservation of Habitats and Species Regulations 2017 (as amended)

28. European Protected Species Licences (EPSL) for mitigation are issued under the Conservation of Habitats and Species Regulations 2017 (as amended) only after three tests have been satisfied in relation to the proposed action, as follows:

- The proposed action must be for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences or primary importance for the environment; and for preventing serious damage to property;
- There is no satisfactory alternative to the proposed action; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a Favourable Conservation Status (FCS) in their natural range.

29. Individual mitigation licences for the purpose of development are available under the Conservation of Habitats and Species Regulations 2017 (as amended) for the following EPS: GCN, Bats, and Otters.

5 RESPONSIBILITIES

5.1 Principal Contractor

30. The responsibility for ensuring compliance with this EcoMP lies with the Principal Contractor and shall be adhered to by the appointed Principal Contractors and their subcontractors. The implementation and compliance of the EcoMP will be monitored by SPR and the appointed ECoW (see Section 5.2).

31. The overall responsibility for ensuring compliance with the DCO, and that the conditions of any EPSL granted are complied with, lies with the Principal Contractor (i.e. the Onshore Cable Works Principal Contractor).

5.2 Ecological Clerk of Works (ECoW)

32. An ECoW will be appointed by the Principal Contractor prior to the commencement of the works and who will maintain a regular presence throughout the works. An ecological consultant will also be separately appointed by EATL to provide an independent advisory role for SPR to ensure compliance throughout the works.

33. The ECoW duties will be to directly monitor the implementation of and compliance with the various ecological mitigation measures set out in the EcoMP, including Species Protection Plans (SPPs) and the Management Plans associated with the project. The ECoW will:

- Undertake pre-commencement site checks and maintain a regular presence during the works;
- Directly monitor all activities on the site to the extent that the ECoW considers this to be required and/or initiate/deliver training of nominated personnel to carry these out in a manner likely to minimise the potential for impact on the protected species;
- Deliver toolbox talks and issue briefing notes to site staff;
- Undertake independent monitoring of compliance with legislation and environmental protective measures throughout the duration of the works;
- Undertake regular reporting of compliance to EATL, their contractors and relevant regulators in an agreed format;
- Record surveys and any changes in the status of surveys or mitigation within ECoW reports;
- Maintain records of site checks throughout the duration of the works, including records of pre-works checks such as per an Ecological Permit to Work (Appendix 2);
- Undertake on-going protected species surveys; and
- Provide on-going advice in relation to species licencing and ad-hoc mitigation.

34. While the ECoW will have availability to provide a supporting role in enacting ecological mitigation and management plans when on site, their primary role will be to monitor and report on these activities and to assess compliance with all associated EcoMP requirements.

35. The ECoW shall have the authority to stop works from proceeding if, in their opinion, work activities are either not environmentally compliant or are not being delivered in accordance with the EcoMP (including immediate cessation of the relevant tasks/works/operations). The contractor would be given reasonable notice to react to the ECoW's instruction. Exceptions will be made in the case of an emergency.

6 SPECIES PROTECTION PLANS

36. Species Protection Plans (SPPs) will be implemented during construction of the EA THREE onshore construction works for EPS, in compliance with DCO Requirement 27 (2) and protected species requirements in England. The SPP in Sections 9 to 17 will act as a live document, to be maintained and referenced throughout the pre-construction, construction and post construction phases on the site, to ensure the protection of the species detailed below.

37. Previously installed ecological enhancement features, installed as part of the EA ONE cable construction works are shown in Appendix 1, and include bat hazel hurdles and hibernacula features.

38. EATL commissioned ecological surveys as part of the Environmental Impact Assessment process for the development. Together with updating preconstruction surveys, these confirm the presence of the protected and notable habitats and species within and in the vicinity of the EA THREE Onshore Cable DOL. SPPs for the above species and groups of species can be found in the following sections of this EcoMP:

- | | |
|------------------------------|----|
| • Habitats | 7 |
| • Overall Species Protection | 8 |
| • SPP: Badger | 9 |
| • SPP: Amphibians | 10 |
| • SPP: Bats | 11 |
| • SPP: Otter | 12 |

- SPP: Water Vole 13
- SPP: Reptiles 14
- SPP: Breeding Birds 15
- SPP: Wintering Birds 16
- SPP: Invertebrates 17
- Invasive Species Management Plan 18

39. In addition to the above, the East Anglia THREE Outline Landscape and Ecological Management Strategy (Deadline 6 / OLEMS V2/), Royal Haskoning DHV (November 2016) included recommendations for dormouse and fish. The OLEMS confirmed that mitigation is not required for dormouse, as such there is no further reference to this species in this document. The OLEMS included generic mitigation measures for fish, however as there is only one crossing of a main river (River Lark) which will be crossed via a bridge and smaller watercourses are considered to be low/no risk, further mitigation is not currently advised. This is supported by experience from EA ONE where impacts were much greater and specific fish mitigation measures were not required.

7 HABITATS

7.1 Baseline

40. Detailed baseline information relating to the habitats and flora present within the DOL, in the vicinity of the Onshore Cable Works, is included in the EA THREE ES (November 2015). Table 7-1 lists the habitats present, the relevant section of the ES and/or survey report (for pre-construction ecological surveys undertaken to date) that refers to those habitats, and a brief description of the habitat within the DOL for the Onshore Cable Works. The baseline is being kept up to date by supplementing the ES survey information via ongoing EA ONE survey information (construction and post construction information) and via preconstruction surveys for EA THREE undertaken in 2021 and 2022.

Table 7-1 – Habitats present, relevant section of the ES, updated survey results and description

Habitats	ES Section / Survey report	Description
Woodland, Scrub and Trees	<ul style="list-style-type: none"> • Volume 3 Section 24.5.2.6 • Appendix 24.2 (Phase 1 habitat report) • Volume 3, Section 29.5.1.3.6 (Landscape and visual impacts on trees and hedgerows) 	<p>There are a number of mature trees mainly associated with boundary features. Miller's Wood County Wildlife Site is present within the DOL however this has been avoided via Horizontal Directional Drill installed during the EA ONE construction works and will not be impacted by EA THREE. Other smaller areas of mixed deciduous woodland habitat, which is a Habitat of Principal Importance², occur outside of the DOL. EA ONE landscaping includes areas of woodland which fall within the EA THREE DOL, however these are not yet mature.</p>
Hedgerows	<ul style="list-style-type: none"> • Volume 3, Section 24.5.2.7 • Figure 24.1 (Botanically important hedgerows) • Appendix 24.2 (Phase 1 habitat report) 	<p>Native-species hedgerows qualify as Habitats of Principal Importance (HPI).</p> <p>Schedule C of the DCO outlines hedgerows identified as "Important" under the Hedgerow Regulations criteria. Following submission of the DCO application an amended list of important hedgerows has been developed and agreed with the Local Planning Authorities.</p> <p>Surveys were undertaken in 2021 and confirm the current status of hedgerows that will be potentially impacted by works associated with the Onshore Cable Works. There are approximately 21 hedges in areas that maybe affected by the cable construction works, of these the following are considered to be Important in respect of the Hedgerow Regulations: 5, 6, 8, 19, 20, 24, 25 & 26.</p>

² Section 41 (41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st October 2006, requires the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England.

Habitats	ES Section / Survey report	Description
Grasslands	<ul style="list-style-type: none"> Volume 3, Section 24.5.2.8 Appendix 24.2 (Phase 1 habitat report) 	<p>Examples of agricultural grassland are present which are of negligible ecological value.</p> <p>An area of acid grassland which was reinstated for EA ONE post-construction works falls within the EA THREE DOL however, this is outside of any cable works area.</p> <p>Marshy grassland habitat is identified in Chapter 23 Terrestrial Ecology at Target Notes 344 (Chapter 23 Figure 23.3e) and Target Note 375 (Chapter 23 Figure 23.3d).</p>
Coastal Habitats	<ul style="list-style-type: none"> 23.5.3 of Chapter 23 Terrestrial Ecology of the ES. Appendices 23.1, 23.2 and 23.5 of the ES 	<p>Coastal vegetated shingle and maritime cliffs and slopes are a Habitat of Principal Importance and Suffolk Priority Habitat, and therefore of national value however only small areas of these habitats are present at the landfall location.</p> <p>Coastal saltmarsh is a HPI and Suffolk Priority Habitat, however only a small strip is present within the DOL either side of the River Deben and Martlesham Creek, outside of the direct work areas.</p>
Watercourses and Ponds	<ul style="list-style-type: none"> Volume 3, Section 24.5.2.10 Appendix 24.2 (Phase 1 habitat report) 	<p>The River Deben and Martlesham Creek are considered to be of international importance due to the Deben Estuary Special Protection Area (SPA) designation for bird populations.</p> <p>River Gipping County Wildlife Site (sections) and the Mill River County Wildlife Site are of county importance with the smaller streams having local value only.</p> <p>Ditches along the DOL support abundant vegetation and some are of local value.</p> <p>Ponds meeting certain criteria qualify as HPI and Suffolk Priority Habitat, however no impacts on ponds are anticipated.</p>
Other habitats	<ul style="list-style-type: none"> Volume 3, Section 24.5.2.11 Appendix 24.2 (Phase 1 habitat report) 	<p>Arable Field Margins meeting certain criteria qualify as HPI and Suffolk Priority Habitat, however only low value examples are present and these do not qualify according to UKBAP criteria.</p> <p>Field margins have also been reinstated as part of EA ONE landscaping with an amenity grassland mix which fall within the EA THREE DOL.</p>
Notable Plants	<ul style="list-style-type: none"> Volume 3, Section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES Appendices 23.1, 23.2 and 23.5 of the ES 	<p>Chapter 23 Terrestrial Ecology of the ES identifies three 'Nationally Scarce' species: Mossy Stonecrop <i>Crassula tillaea</i> at several locations around Woodbridge; Perennial Glasswort <i>Sarcocornia perennis</i> in areas of saltmarsh along the River Deben; and Suffocated Clover <i>Trifolium suffocatum</i> at one location outside of the DOL.</p> <p>None of the above species have been recorded within the DOL or during the construction phase of EA ONE. The only notable species encountered during works was Jersey Cudweed <i>Laphangium luteoalbum</i> (listed on Schedule 8 of the Wildlife* Countryside Act) located in arable land close to the landfall location.</p>
Invasive Species	<ul style="list-style-type: none"> Volume 3, Section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES Appendices 23.1, 23.2 and 23.5 of the ES 	<p>Invasive species have been identified within, or close to, the DOL including:</p> <ul style="list-style-type: none"> Japanese knotweed (<i>Fallopia japonica</i>) within Tuddenham landfill site, Himalayan balsam (<i>Impatiens glandulifera</i>) along the River Fynn, and Canadian waterweed (<i>Elodea canadensis</i>) within watercourses near to Somersham, Kirton Creek and Queens Fleet.

7.2 Pre-construction

7.2.1 Woodland, Scrub and Trees

41. Woodland will not be affected by works associated with construction of the Onshore Cable Works. It is considered that most trees that need to be lost in the vicinity of the Onshore Cable Works would have been felled during the construction of EA ONE, and therefore minimal tree removal is required. Any tree removal required is anticipated to be limited to singular trees and/or small sections of reinstated hedgerow required for drainage or access roads not previously used for EA ONE (see Section 7.2.2 below).
42. A walkover survey has been undertaken by the EATL Arboricultural Clerk of Works (ACoW), ECoW and an engineer to assist in micro-siting of access points and haul roads/trackway. The surveys and assessments were undertaken pre-construction to provide the Principal Contractor with baseline construction information. The surveys show position of trees, their condition and value, and indicate the extent of root protection zones and all features of bat roost potential if present.
43. The walkover survey and arboriculture assessment has identified the extent of tree and hedgerow protection measures (as shown on the TPP). The assessment confirms the need to remove two trees only (T51a and T51b) for the installation of Access Point AP24, these are both semi-mature (Category C – poor) specimens. T51a is a young wych elm and T51b is a young oak, both lack suitable features for bat roosting habitat. No veteran trees will be impacted.
44. The ECoW will record and outline any ecological mitigation measures required. The ACoW has defined the specific mitigation measures and has produced:
- Drawings showing typical trench sections and some of the situations where micro-siting of the haul road can avoid trees including canopy and roots;
 - Arboricultural Implications Assessments (AIA)³;
 - Arboricultural Method Statement (AMS);
 - Tree Protection Plans (TPP); and
45. These have been produced to meet the British Standard (BS) 5837:2012 or its updates. These will be issued to, and agreed with, MSDC, ESC and SCC.
46. The AMS at Appendix 1 of the LMS (EA3-LDC-CNS-REP-IBR-000077) details the tree protection required throughout the onshore cable route, primarily at each hedge crossing, such as fencing (as per the Fencing and Enclosure Plan (EA3-GRD-CNS-REP-IBR-000011) or ground protection. This information would assist the contractor with the ACoW to micro site access points and haul road/trackway and to manage the storage of materials and movement of vehicles to provide optimum embedded mitigation against tree loss or damage.

7.2.2 Hedgerows

47. In a similar manner for the majority of the onshore cable route, sections of hedgerows would already have been removed for EA ONE and reinstated. Works for the proposed EA THREE project would only affect short sections of young hedgerow replaced following the completion of EA ONE works or removals/coppicing required for new access points and highway visibility. Cable crossing sections will be limited to 5m for the haul road/trackway.
48. An AMS will be developed where each hedge will be given a unique crossing number (and mapped accordingly). The species composition of each hedge will be stated, any species considerations (such as protected species) and the proposed species replanting mix stated. This would be undertaken in association with the project landscape architects.
49. Prior to removal, a photographic survey will be undertaken by the Principal Contractor to confirm the hedgerow condition, bank/ditch and to inform reinstatement techniques.

³ The AIA is effectively the AMS and TPP given that there are no significant tree impacts related to the scheme.

50. The AMS will detail each hedgerow potentially affected by the Onshore Cable Works. Table 7.2 below indicates hedgerows with ecological importance that may be affected as identified during updating baseline surveys in 2021 and 2022. For each hedgerow, it lists the current ID number following update surveys in 2021 (Appendix 1). In addition to these references, the schedule below also indicates:

- The engineering works proposed at each hedgerow;
- Whether the hedgerow is within an area of landscape designation;
- Whether the hedgerow is noted for having greater than 200 bat passes and / or greater than 5 passes by a Barbastelle bat.

Table 7-2 – Hedgerow Schedule

Hedge ID	Phase 1 code and category	Status	Potential Impact	Landscape Designation	>200 bat passes, > 5 barbastelle passes
H6	J2.1 Broadleaved intact hedge – recently replanted	Important	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	Yes – Hazel Hurdles deployed
H7	J2.1 Broadleaved intact hedge – recently replanted	Important	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	Yes – Hazel Hurdles deployed
H18	J2.1 Broadleaved intact hedge – recently replanted	None	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	No
H16	J2.1 Broadleaved intact hedge – recently replanted	None	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	No
H15	J2.1 Broadleaved intact hedge – recently replanted	None	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	No
H14	J2.1 Broadleaved intact hedge – recently replanted	None	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	No
H19	J2.1 Broadleaved intact hedge – recently replanted	Important	Approx. 5m breach for access (note this will be removal of recently replanted hedgerow as part of reinstatement of EA ONE).	None	Yes – Hazel Hurdles deployed

51. Impacts will therefore be limited to removal of short sections of hedgerows that have been replanted as a result of the EA ONE project. Given the limited nature of impacts associated with the cable works, further surveys undertaken in 2021 focused upon previously installed hazel hurdle mitigation (barbastelle locations).

52. Hazel hurdles were deployed as temporary mitigation in respect of impacts to hedgerows (bat foraging and commuting habitat) during the EA ONE construction works. Transect surveys recorded common pipistrelle, soprano pipistrelle, myotis, brown long eared, noctule and serotine. All bat species, except brown long eared, were found on transect routes. No barbastelle activity was recorded on transect surveys but activity was confirmed at all hazel hurdles from static detector locations across multiple nights (< 5 barbastelle passes at each location). All hazel hurdle locations along hedgerows and replanted hedges are therefore still considered important and in use by barbastelle bats, these are summarised below with Hedgerow reference number, construction reference and Hazel Hurdle reference (see Appendix 2 for locations). Hazel hurdle locations potentially affected by the cable works are:

- H6 and H7 (HH1) potentially impacted at CP01; and
- H18, 16, 15, 14, 19 (HH2), by the haul road between Access Point AP11 and Jointing Bay JB 7/8.

53. Given the small gaps required (5m) for the haul road it is considered that hazel hurdles or other temporary mitigation measures are not required for hedgerows or replanted hedgerows. All hedgerows will be replanted and managed following construction according to the Landscape Management Scheme (EA3-LDC-CNS-REP-IBR-000077).

7.2.3 Grasslands

54. As stated in the ES, no pre-construction mitigation is required with respect to grasslands. Examples of agricultural grassland are present which are of negligible ecological value.

55. An area of acid grassland, near to Woodbridge, was reinstated as part of the EA ONE post-construction works and falls within the EA THREE DOL, however, this is outside of any cable works area. There will be no impact to this acid grassland thus no further mitigation is required for this area.

56. Marshy grassland habitat is identified in the OLEMS and ES at Target Notes 344 (ES Chapter 23 Figure 23.3e) and Target Note 375 (ES Chapter 23 Figure 23.3d). TN344 is greater than 200m from Jointing Bays JB 8/9 and JB 9/10 and is an area of sedge swap habitat on the eastern side of HDD 06 River Fynn. This area will be used for access to the HDD and as a result could lead to temporary damage of this habitat.

57. TN375 is an area of fen/swamp associated with watercourse 35 between JB 12/13-13/14 (>200m from each) and to the north of the haul road and will not be affected by construction activity. Both of these areas were avoided during the construction of EA ONE and will again be avoided during construction of EA THREE. No further mitigation is required for marshy grassland at TN375.

7.2.4 Coastal Habitats

58. As stated in the OLEMS, the cable will be installed within pre-installed ducts at the landfall location and this will avoid coastal habitat loss. The onshore cable route avoids the vegetated shingle area adjacent to the landfall.

59. There would be no direct impact on the areas of saltmarsh either side of the River Deben from the cabling works, as the cable would be installed within pre-installed ducts which go beneath the habitat.

7.2.5 Watercourses and Ponds

60. No ponds will be affected by works. No pre-construction mitigation is required with respect to ponds.

61. Where smaller watercourses are to be crossed by the Onshore Cable Works these will be subject to specific mitigation depending on the presence of protected or notable species, namely otter and/or water vole. Detail for this is included in the relevant sections of this EcoMP.

7.2.6 Other Habitats

62. As stated in the ES, no pre-construction mitigation is required with respect to other habitats.

7.2.7 Notable Species

63. Jersey cudweed was noted during EA ONE works at the landfall site. A Schedule 8 licence was granted by NE to permit translocation of the plant out of the works area and into a receptor site to the easternmost area of the field near to Bawdsey Cliff top.
64. Should Jersey cudweed be found within the EA THREE works area a licence may be required to remove the plant following discussion with NE.
65. Update walkover surveys, and pre-commencement surveys by the ECoW will be undertaken to ascertain whether any notable plant species are present within areas that will potentially be affected by the proposed works.

7.2.8 Invasive Species

66. No works are anticipated to be in direct contact with invasive species. However invasive species noted across the Onshore Cable DOL include Japanese knotweed, Himalayan balsam and Canadian waterweed. Update walkover surveys, and pre-commencement surveys by the ECoW will be undertaken to ascertain whether these species have spread.

7.3 Construction Phase

7.3.1 Scrub and Trees

67. The typical mitigation measures that will be employed during construction to minimise the impacts upon trees and scrub are as follows:
- Facilitation pruning may be recommended where tree crowns are at risk from impact by machinery or high sided vehicles.
 - Where possible removal of vegetation would be timed to avoid the bird breeding season (February to September inclusive). Where tree or scrub removal during the breeding season is unavoidable, a check by the ECoW would be undertaken immediately prior to the habitat removal to confirm that there are no occupied nests. Should any occupied nests be identified, an appropriate buffer zone (determined on the basis of the species concerned and the location of the nest in context of the surrounding vegetation, but no less than 5m) would be implemented until the chicks have fledged.
 - For trees which are identified as having bat roost potential, then the measures set out in section 11 will be followed.
 - No materials or vehicles, whether temporary or otherwise, shall be stored under crown spreads of trees.

7.3.2 Hedgerows

68. Prior to removal of any hedgerow, or section of hedgerow, a detailed assessment will be undertaken by the ACoW of the sections to be removed and replanted to identify the composition of the shrub layer. Reference will be made to the Botanical Surveys undertaken as part of the environmental impact assessment for the project and, where hedgerows planted for EA ONE are to be removed, to the EA ONE planting scheme. The replacement planting, as far as is reasonably practicable, will reflect the findings of these surveys.
69. The AMS and replanting scheme for each hedgerow crossing is included in the Landscape Management Scheme (LMS)(EA3-LDC-CNS-REP-IBR-000077) and agreed with ESC or MSDC, as applicable, prior to commencement of work at each hedgerow crossing. For hedgerows where there are no protected species issues (e.g. they are not used as important commuting / foraging routes by bats, etc.), the hedgerow does not qualify as an important hedgerow under the Hedgerow Regulations 1997, and removal of the hedgerow is not anticipated to have significant residual visual impacts, the following measures will be followed:
70. The mitigation measures for important hedgerows, or those qualifying as important under the Hedgerow Regulations 1997 where viable, will include the following measures:
- The minimisation of the construction width, by coppicing the hedge plants and protection of the coppice stools, with a temporary roadway, wherever practicable and appropriate;
 - The coppicing and removal of hedge plants (shrubs) along the onshore cable route will include translocation of removed plants where possible and feasible to a location where they can be maintained and subsequently replaced into the boundary;
 - Vegetation would first be strimmed to ground level;
 - Where possible, geotextiles may be used for the hard standing areas to reduce the amount of topsoil being stripped (this would aid reinstatement of vegetation);
 - The topsoil (including any bank) from beneath the hedgerow would be stripped and stored separately;
 - Vegetation and topsoil from any associated ditch would be stripped and stored separately; and

- Soil storage areas would be clearly signed and demarcated to prevent any mixing of soils.

71. Where hedgerows provide habitat for protected species, specific mitigation measures are addressed under the relevant protected species section of this document.

72. With regard to the potential impact on hedgerows these will be coppiced and managed throughout the project duration in order to provide a sufficient visibility splay without full removal of the hedgerow. If these measures are insufficient, traffic management measures would be proposed to ensure safety of access, e.g. use of banksmen, in consultation with ESC or MSDC.

7.3.3 Grasslands

73. In all grassland, topsoil will be stripped, stored and replaced to retain the seed bank. Topsoil stored for longer durations will be seeded with an appropriate seed mix to minimise any 'weed' growth and retain soil quality prior to reinstatement. This will also reduce any runoff potential from earth bunds.

74. Reinstatement of improved grassland areas may be supplemented by seeding at the discretion of the landowner. In neutral grassland areas natural regeneration is preferred with no supplementary seeding.

75. Marshy grassland at TN344 is located within the access route to HDD6 East and as a result could lead to temporary damage to the habitat. To protect and minimise disturbance to this habitat during construction, protective matting will be used for machine access. All works during construction and reinstatement will be supervised by the ECOW to ensure there is no long term damage to this habitat.

7.3.4 Coastal Habitats

76. The works will be 180m from the cliff edge and thus coastal habitats including shingle will be avoided. Further details on the works to be undertaken at the landfall and the associated control measures are detailed in the Landfall Method Statement (EA3-LDC-CNS-REP-IBR-000078).

7.3.5 Watercourses and Ponds

77. No ponds will be affected by works. No pre-construction mitigation is required with respect to ponds.

78. Where smaller watercourses are to be crossed by the Onshore Cable Works, these will be subject to specific mitigation depending on the presence of protected or notable species, namely otter and/or water vole. Detail for this is included in the relevant sections of this EcoMP.

79. Watercourses bank-side vegetation will be retained, with trees and shrubs coppiced rather than grubbed out where practicable. Any aquatic vegetation removed during the construction process will be retained on the adjacent banks for 24 hours to allow the aquatic fauna to return to the water.

80. Bank and bed material from watercourses will be retained in situ to prevent further impact. If a situation arises where this may need be removed, it will be stored locally during construction to aid reinstatement, however, this is not currently anticipated.

81. Measures to minimise impacts due to sediment release or pollution as a result of construction works will be implemented. Flumes and bridges will be in place for the duration of the construction period. Further details on watercourse crossings and surface water control measures are provided the Watercourse Crossing Method Statement (EA3-LDC-CNS-REP-IBR-000075).

7.3.6 Other Habitats

82. Topsoil will be stripped and stored separately from subsoil to aid reinstatement efforts. Topsoil stored for longer durations will be seeded with an appropriate seed mix to minimise any 'weed' growth and retain soil quality prior to reinstatement.

7.3.7 Notable Species

83. If required, a licence will be applied for from NE to legally permit the removal of Jersey Cudweed from the work area. A receptor site will be allocated and plants, seeds and/or soil will be carefully removed from the works area and translocated to the receptor site. Where needed, watering will be undertaken to ensure uptake of the plant. All works will be supervised by the appointed and suitable licenced ecologist/agent.

7.3.8 Invasive Species

84. Full details for management of these species, should this be required during works, is included in Section 18 of this EcoMP. The management outlined will be adapted and implemented onsite as required and as advised by the ECoW. The only potential impacts relating to invasive species are in respect of the proposed crossings of the River Fynn (Watercourse WC43) where Himalayan balsam has been recorded.

7.4 Post Construction

7.4.1 Trees

85. The arboricultural assessment confirms that two semi-mature trees will be removed to enable access. Replacement individual tree planting will be on a 2 for 1 basis and where possible a like for like species.
86. Details of tree planting and after care are provided in the LMS (EA3-LDC-CNS-REP-IBR-000077). Where compliant with landscape objectives, replanting will be with native species, preferably of local origin.

7.4.2 Hedgerows

87. Details of hedgerow reinstatement and after care are provided in the LMS (EA3-LDC-CNS-REP-IBR-000077). Post construction the following measures will be taken:
- Banks and ditches will be reformed to similar profiles as before, ensuring the impacted section sufficiently ties into the existing banks.
 - Topsoil will be replaced after works in the reverse order that it was excavated to distinguish its difference from other stored topsoil.
 - Replanting of hedgerows will take place in the first available planting season following construction and will aim to enhance baseline conditions i.e. through improved species diversity.
 - Planting will be with shrubs of the same species and in the same general proportions as existed pre-construction (native, preferably of local origin). The replanting mix and pattern will be established on the basis of a survey in accordance with the Hedgerow Regulations 1997. A schedule of species composition for reinstatement would be provided.
 - A detailed scheme of hedge planting aftercare will be provided, to be agreed with MSDC, ESC and SCC. This will include details of soil restoration and ground preparation, species choice, stock size, spacing and a program of weed control and aftercare to cover a period of five years.
 - To aid establishment of replanted trees and shrubs, appropriate protection will be installed, this will be inclusive of tree guards and/or shelters etc and where appropriate either stock-proof and/or rabbit proof fencing.
 - A scheme of protection will be developed to demonstrate how new tree and hedge planting will be protected against deer, rabbits / hares etc. The scheme would also include a variety of access gates for use by Badgers or other creatures that may have, for instance, established routes through the restored hedge.
 - To ensure development to a satisfactory standard, there will be an agreed procedure for joint annual inspection of all planting areas by representatives of the MSDC, ESC and EATL at the end of each growing season and for each year of the aftercare period. Areas found not to be thriving will be treated to such additional works as are required to rectify the situation within the next growing season.
 - Any tree or shrub planted as part of the LMS that, within the first five years of the aftercare period, is removed, dies or becomes, in the opinion of MSDC/ESC, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise agreed in writing by MSDC/ESC.
 - Suspension of the aftercare period for any part of the scheme may occur in the event that in the opinion of MSDC/ESC there is a significant failure of the planting scheme that could not be satisfactorily remedied in the following planting season, or part of the planting scheme was failing to progress to the extent that it would not achieve the objectives of the scheme within the specified aftercare period.

7.4.3 Grasslands

88. Grass re-seeding will be undertaken to reinstate disturbed areas, using either a species rich mix, or general-purpose amenity mix for verges and embankments, depending upon the location and in accordance with the details set out in the LMS (EA3-LDC-CNS-REP-IBR-000077).

7.4.4 Watercourses and Ponds

89. There are no post-construction requirements for ponds.
90. Watercourse banks and bed material will be retained in-situ at each crossing point, however where this may have required removal, the materials will be replaced in the watercourses in the reverse order in which they were removed, to promote the re-establishment of appropriate habitat. If additionally required, such as due to failure of natural establishment of bankside vegetation, plug planting of native aquatic/semi-aquatic species is to be undertaken as advised by the ecologist.
91. Trees and shrubs will be replanted and the reinstated areas will be fenced off/protected as required to prevent damage.
92. Coir matting or similar reinforcement materials will be used, wherever necessary, to reinforce banks of watercourses during reinstatement works and to encourage regrowth.

7.4.5 Other Habitats

93. On completion of works, all arable fields will be returned to agricultural practice and would regenerate naturally.

7.4.6 Invasive Species

94. As required, post construction monitoring will take place in areas where invasive species have been treated/removed to ensure that invasive species have not been spread.

7.4.7 Reinstatement Monitoring

95. Monitoring of planting and seedlings will be undertaken five years after the completion of the works. As set out within Chapter 29 Seascape, Landscape and Visual Impact Assessment of the ES, any new planting would be subject to maintenance and a replacement-planting programme to ensure successful establishment. Areas will be resown after the completion of the construction works as described in the LMS (EA3-LDC-CNS-REP-IBR-000077) and a programme of maintenance visits will apply for the first five years of establishment as detailed in the LMS.

8 OVERALL SPECIES PROTECTION

8.1 General Mitigation Measures

96. The following general mitigation measures will be applied to protect all species across the DOL. Specific mitigation measures relating to protected species are included in the individual SPP for each species or group of species as set out in Sections 9 to 17 of this document. The Onshore Cable Works European Protected Species Onshore Surveys Report (EA3-LDC-CNS-REP-IBR-000094) has been prepared detailing the results of the species surveys and review of mitigation measures in accordance with Requirement 29 of the DCO; this information has been used to aid preparation of the SPP for GCN, bats and otter provided in this document.
97. The following general mitigation measures will be applied to all works:
- The Principal Contractor's ECoW will provide an ecology induction Toolbox Talk for all site staff. Briefing notes containing this information will also be available at the site offices.
 - Ideally all excavations will be backfilled each day. Any excavations left exposed overnight will be provided with mammal exit ramps e.g., wooden planks or earth ramps when contractors are off site.
 - Where relevant (e.g. for legally protected species), an emergency procedure (as detailed in the SPP) will be implemented by site workers if a protected species and/or their shelters are unexpectedly encountered or suspected.
 - Should any other wildlife be encountered within work areas, whether trapped, in distress or at risk of harm, works will cease and the contractor's site supervisor will seek further guidance from the Principal Contractor's ECoW. All contractor management plans are to include emergency contacts and/or rescue facility details.
 - Surface and ground water resources must be protected.
98. Unless otherwise agreed with MSDC/ESC as per Requirement 25 of the DCO and the CoCP (EA3-LDC-CNS-REP-IBR-000084), working hours will be restricted to 0700 -1900 hours Monday to Saturday, with no working on Sundays or bank holidays. Therefore, nighttime working will generally be avoided and limited to the permitted night time working set out in the CoCP.

99. Measures relating to artificial lighting are included in Appendix 3 of the CoCP (EA3-LDC-CNS-REP-IBR-000084). As a measure of good practice light spill should be minimised and the following will be implemented:

- LED luminaires will be used where possible;
- Metal halide, fluorescent sources will not be used;
- Column heights will be carefully considered to minimise light spill;
- Narrow spectrum light sources will be used to lower the range of species affected by lighting;
- Light sources that emit minimal ultra-violet light will be selected;
- Lights will peak in wavelength higher than 550nm;
- White and blue wavelengths of the light spectrum will be avoided to reduce insect attraction and where white light sources are required in order to manage the blue short-wave length content, they will be of a warm / neutral colour temperature, ideally <2700Kelvin;
- Only luminaires with an upward light ratio of 0% and with good optical control will be used
- External security lighting will be set on motion-sensors with short (1 minute) timers; and
- Directional beams and non-reflective surfaces will be used to ensure light spill and nuisance does not encroach onto adjacent areas.
- Directional beams and non-reflective surfaces will be used to ensure light spill and nuisance does not encroach onto adjacent areas including:
 - Woodland, so as not to disturb emerging or foraging bats, badgers or other nocturnal species (birds, otters, hedgehogs).
 - Watercourses so as not to disturb species such as otter, water vole or amphibians
 - Flood lighting will be directed away from any potential roost identified and 30m disturbance zone around badger setts.
 - Other high value foraging habitats and potential flight paths, such as connecting hedgerows and trees.

FOR DISCHARGE

9 SPP: BADGER - CONFIDENTIAL

100. The habitats in the vicinity of the Onshore Cable Works provide good opportunities for Badger (*Meles meles*). Arable fields offer foraging habitats, while the field boundary hedgerows and interspersed areas of woodland and scrub habitat along the corridor provide good sett locations.
101. The Badger breeding season is generally acknowledged to run between 1st December and 30th June with cubs born in February.

9.1 Baseline

102. Detailed baseline relating to Badger is provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Records of Badger were identified during the background data search within 100m of the DOL. Badger information and figures are included in the confidential Appendix 23.4 of the ES. Badger monitoring was undertaken periodically during EA ONE construction to update survey data, with all setts requiring closure for EA ONE works undertaken prior to commencement of construction, or where required during construction, under licence 2016-25438-SPM-NSIP1, thus many of the remaining setts are now located outside the EA THREE DOL.
103. A site-wide walkover survey was undertaken in 2020 by Bowland Ecology, including additional sett monitoring during 2021 and 2022; the details of which are provided in Table 9-1. To note, pre-construction surveys will continue to be undertaken to maintain up to date information in relation to badger setts (see Section 9.2).
104. Appendix 1 shows the **confidential** locations of setts associated with the Onshore Cable DOL. Active setts identified as currently relevant are set out in Table 9.1 along with the mitigation measures that may require licensing.
105. A licence to mitigate for the setts outlined in Table 9.1 for closure has been applied for and approved by Natural England (2023-001344-SPM-LIC). As such the proceeding sections outline both general measures to be implemented ahead of works, such as update sett surveys and review of additional licence requirements, inclusive of outline licence conditions for the setts licensed for closure in the applicable season.

Table 9-1 – Badger Sett Mitigation Approach - CONFIDENTIAL

Sett ID	Classification	Mitigation Approach
25	Active – possible main sett (multiple holes)	Disturbance only: outside of DOL but circa 30 m to edge of haul road associated with Jointing Bay JB 1/2 and HDD-1
121	Active outlier	Disturbance only: within DOL and within 30 m to haul road associated with Jointing Bay JB 20/21
82e	Active outlier	Temporary Closure: 12-15m from the proposed haul road and soil bunds. The badger tunnel direction appears to lead south-west and not towards the works, therefore, the hole will be temporarily closed for the duration of the works.
82c	Active outlier	Closure: An annex (sett 82b) and outlier hole (sett 82c) are situated within 30m of the proposed works at this location. The tunnel of the outlier sett (82c) which is c.12 m north of the annex (82b) appears to head north towards the works. It is unlikely that the annex sett and outlier hole are connected underground. The outlier is currently 10m south from nearest works which consist of a haul road and soil storage areas. These works are likely to damage the outlier hole and as such this hole will be destroyed. Any badgers using the hole will be able to relocate to the annex or main sett.
56g	Active outlier	Temporary Closure: This outlier hole is located within an embankment along an existing access track which will be used to access HDD-20. The direction of the tunnel heads west into the bank and away from the track therefore, the hole will be temporarily closed for the duration of the works.
56h	Active outlier	Temporary Closure: This outlier hole is located within an embankment along an existing access track which will be used to access HDD-20. The direction of the tunnel heads west into the bank and away from the track therefore, the hole will be temporarily closed for the duration of the works.
15b	Active main	Disturbance/Temporary Closure: Active outlier holes recorded during the updated badger survey in May 2023 (sett 15b and 15c) are likely to be used by the same badger group. A 10m wide works area will be built up with soil across the embankment to provide a level surface for the haul road to be built. Sett 15 is over 30m from the proposed works; however, Sett 15b is c.15m south of the nearest works. As such, sett 15b may be temporarily closed.

Sett ID	Classification	Mitigation Approach
15c	Active main	Disturbance/Temporary Closure: Active outlier holes recorded during the updated badger survey in May 2023 (sett 15b and 15c) are likely to be used by the same badger group. A 10m wide works area will be built up with soil across the embankment to provide a level surface for the haul road to be built. Sett 15 is over 30m from the proposed works and Sett 15c is c.26m north of the works. The works in this location are being revised to ensure a minimum of 30m distance is maintained from the main sett. Therefore, works may encroach closer to this hole and as such, sett 15c

9.2 Pre-Construction

106. Badgers are highly mobile species and can occupy their setts at different times over a number of years and seasons. Due to the length of time before construction commences and level of badger activity in the area, the footprint of the works plus a minimum 30 m buffer will be subject to pre-construction walkover re-surveys in order to assess the status and current use of previously identified setts and identify any new setts excavated. Following these surveys, the requirement for a mitigation licence will to be determined.
107. Where damage to an active sett is unavoidable, a licence is required to close the sett prior to construction. A licence application has been submitted to NE to undertake a controlled exclusion to ensure that no Badgers remain in the sett at the time of construction. The approach to exclusion included in the licence application involves the following:
- Following vegetation management (non-licensed), the ground surface surrounding the sett entrances will be covered with a steel chain-link mesh (minimum 2.5 mm gauge and 50 mm mesh size) that will be fixed to the ground using short wooden or steel stakes at the same time that the one-way gates are installed. This will prevent badgers gaining access to the sett by excavation of new tunnels.
 - One-way badger gates will be installed on each active sett entrance and initially tied open for a minimum of 24 hours to encourage badgers to use the gates. These will then be left in the one-way position for a minimum period of 21 days. It can be counter-productive to close the gates immediately (whether set to one-way or two-way operation) as there is a risk that badgers may dig under the mesh rather than exit via the closed gate, so allowing an access route back into the sett. Installing gates set to two-way operation can 'train' badgers that they can gain access to a sett via a closed gate, so increasing the risk of attempts to dig back in.
 - Entrances which are disused will be securely blocked with chain-link mesh. Suitably sized access points (i.e. <150 mm) will be incorporated into exclusion materials on setts showing signs of use by rabbits, to ensure that rabbits do not become trapped in chain-link mesh or excavate new entrances beneath the edge of the mesh that could be enlarged by badgers.
 - Once the gates have been installed, activity at each gate shall be monitored at intervals of no more than three days using a combination of sticks inside the tunnel, a cable tie or strand of vegetation stuck in the ground in front of closed gate, or sand pads deployed outside of the sett entrances to detect badger paw prints. In addition, remote monitoring cameras will be installed if monitoring proves ambiguous or there is repeated badger activity at the sett.
 - If at any time during monitoring there is evidence of badger activity within the sett (including evidence of a badger leaving the sett), the monitoring period will re-start until a 21-day period with no badger activity has been identified.
 - If badgers excavate new entrances into the sett during the exclusion process (either from within the sett outwards, or back into the sett from outside the wire mesh), then additional one-way gates and more wire mesh will be installed as required and the 21-day monitoring period restarted.
 - Following a minimum 21-day period with no badger activity, setts 82c and 15b shall either be destroyed immediately or where this is not possible for programming or engineering reasons, then the sett shall be securely blocked by bolting one-way gates shut or securing with additional wire mesh.
 - The tunnel system of each sett shall be carefully dug out to its full extent, by a combination of hand and mechanical excavator under the supervision of the licensed ecologist or their accredited agent.
 - If it is not possible to fully excavate the sett for engineering or other reasons, then the footprint of the sett plus a buffer of at least two metres around it will be secured against re-excavation by attaching chain-link mesh to the ground until the works commence.
 - Secure blocking of excluded setts to be retained following 21 days of no activity
 - Active outlier setts including 82e, 56g, 56h and 15c are recorded close enough to works that badgers could be subject to disturbance and / or works could result in damages to part of the sett. To avoid risks to badgers and potential breeches in legislation, these setts will be excluded (as described above), but following exclusion, the setts will be securely blocked with chain-link mesh attached to the ground (i.e., temporary closure). These setts will be monitored to confirm that badgers have not regained access to them.

108. Licences for sett exclusion are normally only issued to allow works to be undertaken in respect of the setts for the period 1st July – 30th November, and any deviation from this period would need to be discussed and agreed with NE in advance of submitting the licence application.

109. Licences allowing works to proceed close to active Badger setts where full closure is not required but there would be risk of disturbance as defined by NE, would be acquired. A disturbance licence accounts for the potential for disturbance of badgers that may be occupying setts close to works. This can allow works to legally proceed near to an active sett at any time of year provided there is no risk of damage.

9.3 During Construction

110. Mitigation during construction, if required, would be detailed in the Method Statement submitted to NE as part of any licence application. This is likely to state that any excavations left open overnight would have a 'ramp' installed; a scaffold plank or similar would be suitable. This is to allow Badgers or other mammals a means to escape in the unlikely event they fall into any open excavation. In addition, if required (based on the updated survey), Badger fencing may be required to fully exclude Badgers from working areas.

111. The Toolbox Talks given to site staff would include information on recognising signs of Badgers and their setts. Briefing notes containing this information would also be available at the site offices. As a general rule, the use of noisy plant and machinery will not be permitted within a 30m disturbance zone around active setts. The ECoW may reduce the buffer where it is considered the works will not result in obstruction or disturbance.

112. Where night-time works are required, lighting would be directional to avoid unnecessary lighting on woodland or boundary features, so as not to disturb emerging or foraging Badgers; this will also be directed away from the 30m buffer zone around active setts.

113. Chemicals will be stored away from active setts and Badger paths, including a minimum of 30m from active setts and a minimum of 10m from Badger paths.

114. Trenches deeper than 1m must be covered at the end of each working day or include a means of escape for any animal falling in (Badgers would continue to use established paths across a site even when construction work has started).

115. Any temporarily exposed open ducts will be capped in such a way as to prevent Badgers gaining access when contractors are off site.

116. The ECoW will monitor the area during construction for new Badger setts.

9.4 Post Construction

117. Any setts that are subject to a NE Licence, including those not directly affected by works, will be revisited when all works have been completed. The results of this visit would form part of the licence return reports. The survey timing would be subject to the licence return dates.

9.5 Emergency Procedures

118. In the event that new holes which may potentially be used by Badgers or new setts are identified in areas where works are planned or underway, then all works will cease near the sett entrance until the ECoW or an appropriately qualified ecologist has been contacted, who will be able to make an assessment of the situation and advise accordingly as to whether:

- Works can re-commence where it is possible to work around the area where the Badger sett is located, in a manner that will avoid disturbance and with negligible risk of causing harm /or damage to the sett; or
- The works in the vicinity of the Badger sett have to cease until such time as a new licence or a revision to an existing licence can be applied for from NE and the required mitigation undertaken.

10 SPP: AMPHIBIANS

10.1 Baseline

119. The detailed baseline relating to amphibians is provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. There are background records of Great Crested Newt (GCN) (*Triturus cristatus*) records within the DOL and a 2km buffer of the DOL.
120. Ponds where GCN were confirmed present during surveys are identified on Figure 23.8a – 23.8g in the ES and are shown on the constraints plans in Appendix 1.
121. Updating baseline surveys has been undertaken of all ponds in the vicinity of the Onshore Cable DOL by means of environmental DNA (eDNA) sampling and population assessment surveys in between 2021-2023. Twelve ponds are within 250m of the cable route DOL which have recorded presence of GCN (See Table 10-1 and Appendix 1). Table 10-1 provides an overview of the ponds, their locations and impacts.

Table 10-1 – Great Crested Newt Pond Populations

Pond ID	Location	Population	Impacts
81	Jointing Bay JB 1/2 and Bullen Lane CCS	Small	Low/negligible – within 200-250m of Jointing Bay JB 1/2 which is situated within arable habitat (suboptimal for GCN); and c. 80m from Bullen Lane CCS with containers, a skip and soil mounds also located within arable land.
69	Jointing Bay JB 3/4	Small	Works with suitable habitats for GCN.
70i,j,n & 110	Jointing Bay JB 3/4	Small	Works with suitable habitats for GCN.
58	Jointing Bay JB 6/7	Unconfirmed	Low/negligible due to distance from works (circa 200m+ from Jointing Bay JB 6/7 and haul road – located within arable land).
53	Jointing Bay JB 6/7	Small	Jointing Bay JB 6/7 and the haul road route; all located within arable land which is suboptimal for GCN.
46 & 46a	Jointing Bay JB 7/8	Medium	Low/negligible due to distance from works – circa 200m from Jointing Bay JB7/8 and the haul road route; all located within arable land which is suboptimal for GCN.
34a	Jointing Bay JB 12/13	Unconfirmed	Low/negligible due to distance from works – circa 200m from Jointing Bay JB12/13 and the haul road route; all located within arable land which is suboptimal for GCN.
03	Transition Jointing Bay TJB 1-2/AP-31	Small	No impact.

122. Surveys also confirmed the presence of common amphibian species including common toad (*Bufo bufo*), common frog (*Rana temporaria*), common/smooth newt (*Lissotriton vulgaris*) and palmate newt (*Lissotriton helveticus*).
123. Further information relating to GCN populations and baseline surveys is provided in the Requirement 29 European Protected Species Onshore Surveys Report (EA3-LDC-CNS-REP-IBR-000094).
124. The majority of the Onshore Cable Works will be within suboptimal habitats for GCN such as large arable fields with no aquatic habitat that could attract amphibians. Suboptimal terrestrial habitats that are to be crossed by the Onshore Cable Works include small field ditches/watercourses and hedgerows. The majority of these are young hedgerows replaced following the EA ONE works and, as such, provide lower value habitat than established hedgerows. On this basis, it is considered that the potential risk of impacts to GCN are likely to be low.
125. The only exceptions to this are at Pond 81 and Ponds 69, 70i,j,n and 110.

126. Pond P81 is situated within woodland which is considered to be optimal habitat for GCN. Generally cable works will be distant from this pond (200-300m⁴) and therefore impacts to the local GCN population are considered unlikely. Consideration does need to be given to the proposed location of the Bullen Lane CCS with containers, a skip and soil mounds which are located in arable land within c. 80m of Pond P81.
127. Jointing Bay JB3/4 which is within 250m of Ponds 69, 70i,j,n & 110. These ponds are associated with a meta-population of GCN that will potentially utilise terrestrial habitats associated with Jointing Bay JB 3/4. Ponds 70i, j and n are no longer present but are part of extensive series of water bodies that remain, and it is assumed that GCN are still present and using remaining waterbodies as potential breeding sites. Pond 69 occurs to the north of the jointing bay location, whilst the pond cluster 70 and pond 110 occur to the south of the jointing bay. Therefore, there is a high likelihood that GCN migration will occur across the DOL/construction works site. Figure 10-1 illustrates the context of the ponds with Jointing Bay JB 3/4, woody habitats (G364 on Figure 10-1) provide a linked corridor for amphibian refuge and dispersal, running to the east of Jointing Bay JB ¾. While this feature will not be impacted by the proposed works, there is a risk that GCN will utilise habitats associated with haul road to the jointing bay location and the jointing bay location itself.

Figure 10-1 – Jointing Bay JB 3/4 and context with GCN ponds



⁴ At distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. Creswell, W & Whitworth R (2004).

10.2 Pre-Construction

128. An application for a District Level Licence (DLL) has been approved by NE (DLL-ENQ-NOSU-00182). The DLL provides means of offsite compensation to be undertaken by a third party (NE appointed contractors) which correlates to the level of impacts of the works. Upon approval of the DLL, works can commence onsite without the need for traditional mitigation to be undertaken, such as exclusion fencing however good practice measures are still recognised for works onsite as detailed below.
129. In order to minimise any potential incidental impacts to GCN, or other amphibians, that may still be present within the Onshore Cable DOL, good practice measures will be undertaken onsite prior to works commencement, including:
- Pre-commencement checks and hand searches to be undertaken of all terrestrial habitat within the works area by the ECoW;
 - Where clearance of scrub or shrub layer is required, a two-stage cut will be undertaken, under the supervision of the ECoW. The first cut will remove the habitat to ground level (where possible undertaken between October-early February outside of the bird nesting season) with stumps left in the ground. Stump removal would be carried out under supervision of the ECoW during the active season for amphibians (March-October). Should vegetation be removed within bird nesting season (February - September appropriate measures will be employed for the protection of nesting birds as detailed within this EcoMP, inclusive of pre-works checks and implemented of buffers around any active nests.
 - All vegetation within any working areas will be cut using hand held machinery (i.e., strimmer or brush cutter) to a height of no less than 150mm. Arisings will be removed from site unless installed in a suitable location to create habitat piles/refugia.
 - Cut areas must then be left for a minimum of 48 hours to allow any amphibians that may be present to move out of the immediate area. A fingertip search will then be undertaken by the ECoW prior to a second cut using hand held machinery (i.e., strimmer or brush cutter) to a height of 50mm; once the second cut is complete, fingertip searches of the cleared areas will be undertaken by the ECoW immediately prior to works.
 - Areas of unmanaged non-woody habitat (e.g., coarse grassland, tall herbs) will be strimmed to 150mm prior to construction commencing. Following strimming, the ECoW will undertake a check to ensure that the area is free of amphibians. These areas will be maintained as short vegetation throughout the construction and reinstatement period.
 - These processes will be undertaken under a watching brief by a suitably qualified ecologist and any amphibians found would be transported to suitable receptor sites away from the works as defined by the ECoW and subject to landowner permission where required.

10.3 During Construction

130. The good practice measures as outlined in section 10.2 above will be implemented by the ECoW as and when required onsite throughout the construction phase:
- The ECoW will provide an amphibian ecology induction Toolbox Talk for site staff, including information on recognising common British amphibians. Briefing notes containing this information would also be available at the site offices.
 - The ECoW will be present during works close to or within areas of suitable amphibian habitat.
 - Excavations deeper than 1m must be covered at the end of each working day, or include a means of escape for any animal falling in.
 - Stockpiling of materials will be guided by the ECoW to reduce potential for providing suitable amphibian habitat e.g. located as far from known GCN presence as feasible, raised off the ground where possible

10.4 Post Construction

131. As required, post construction monitoring may be implemented to monitor GCN populations; this will consist of an eDNA survey to confirm the continued presence of GCN. The surveys would take place between mid-April and June. Currently no post-construction surveys are considered necessary. Further, post construction mitigation will not be required should a DLL route be secured for any potentially licensable impacts to GCN.

10.5 Emergency Procedures

132. In the event that GCN or other amphibians are found, the following procedures shall be followed:

- All activities and actions at the site and within the immediate vicinity of where any individual or group of amphibians are found shall stop immediately.
- The ECoW or an appropriately qualified ecologist shall be contacted at the earliest possible opportunity to make an assessment of the situation, in consultation with NE if required, and advise as to whether:
 - Works can re-commence where it is possible to work around the area where an individual GCN or group of GCN or other amphibian species are found, in a manner that will avoid disturbance and with negligible risk of causing harm (killing or injury) to any animals.
 - Activities and / or works can proceed with extreme caution, due diligence and ecological supervision where it is assessed that the risk of disturbance or harm of animals is assessed as negligible.
 - The individual or group of amphibians are relocated out of the working area into pre-determined receptor sites by the ECoW.

11 SPP: BATS

133. Bats (*Chiroptera*) and their roosts are protected by law because all species have declined, and some are threatened or endangered. There are 17 species of bat in the UK. They use a wide variety of roosts including buildings, trees and underground places. Many bat roosts are used seasonally as bats have different roosting requirements throughout the year.

11.1 Baseline

134. Detailed baseline relating to Bats is provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Bats are listed as EPS in the Conservation (Natural habitats, &c.) Regulations 2017 (as amended). No tree roosts were identified within the DOL, although high levels of bat activity were recorded at four boundary features (i.e. greater than 200 bat passes). No hedgerows recorded greater than five barbastelle passes during surveys associated with the Onshore Cable DOL.

135. Further surveys for bats have been undertaken in 2021 and 2022 including categorisation of potential tree roosts and activity transect surveys.

136. With regards to the cable route works, 15 trees subject to updated bat roost potential surveys with confirmed bat roost potential are considered to be of relevance. Of these, 4 trees were assessed as having high potential to support roosting bats, 2 trees offered moderate potential to support roosting bats, and 9 trees offered low potential to support roosting bats (see Table 11-1).

Table 11-1 – Bat Trees

Tree ID	Location	Roost Potential
294	Access Point AP-02	Low
293	Access Point AP-02	Low
375	Access Point AP-14	High
376	Access Point AP-14	Moderate
294	Access Point AP - 17	Low
323	Access Point AP - 21	High
295	Access Point AP-18	Low
296	Access Point AP-18	Low
297	Access Point AP-18	Low
377	Access Point AP - 15	High
302	Water Crossing 21/ Jointing Bay JB16/17	Moderate
326	Jointing Bay JB15/16	Low
323	Access Point AP - 21	High
338	Access Point AP-08	Low

Tree ID	Location	Roost Potential
362	Access Point AP-29	Low

137. Transect surveys recorded common pipistrelle, soprano pipistrelle, myotis, brown long eared, noctule and serotine. All bat species except brown long eared were found on transect routes. No barbastelle activity was recorded on transect surveys but activity was confirmed at all hazel hurdles from static detector locations across multiple nights (< 5 barbastelle passes at each location). All hazel hurdle locations along hedgerows and replanted hedges are therefore still considered important and in use by barbastelle bats. Those that are potential affected by the cable works are:

- H6 and H7 potentially impacted at Crossing Point CP01/02
- H18, 16, 15, 14 and 19 potentially impacted by haul road between Access Point AP12 and Jointing Bays JB6/7, JB7/8 and JB/8/9

138. The surveys have been undertaken using the same methodology as the baseline surveys with the ES.

139. Further information is provided in the European Protected Species Onshore Surveys Report (EA3-LDC-CNS-REP-IBR-000094). In summary, potential bat roost trees that are considered relevant to the proposed works are shown in Table 11-1.

11.2 Pre-Construction

140. Loss of trees has been avoided through careful selection of the Onshore Cable route and site locations. Access routes have been selected to have the least impact on trees and hedges, including utilising EA ONE replacement hedgerow sections for haul road/trackway crossing points. Main impacts associated for the Onshore Cable Works are removal of small sections of young replacement hedgerow following EA ONE works for haul road access (5.m width) and visibility required at new access points not utilised for EA ONE, including two trees at a field access point (AP-24).

141. Hazel hurdles (see para. 91) were deployed as temporary mitigation in respect of impacts to hedgerows (bat foraging and commuting habitat) during the construction of EA ONE. This was to mitigate for extensive hedgerow removal (35-50m). Given the small gap required (5m) for the haul road/trackway it is considered that hazel hurdles are not required.

142. The activities which may require temporary external artificial lighting at night are:

- Continuous works, such as concrete pouring or testing and commissioning;
- Security purposes at the temporary laydown and Converter Station sites;
- Delivery of abnormal loads;
- Potential emergency works; and
- Cable pulling in at the landfall;
- Dewatering of excavations (if tankering is required);
- Equipment such as stockpiles and emplacement areas, which will be carefully sited to ensure no light spillage.

143. A Construction Artificial Lighting Emissions Management Plan (CALEMP) (EA3-LDC-CNS-REP-IBR-000085) has been developed. Measures to be implemented are detailed in Section 8.1.

11.3 During Construction

144. The good practice measures as outlined in Sections 8.1 and 11.2 will be implemented by the ECoW as and when required onsite throughout the construction phase:

- The ECoW will provide a bat Toolbox Talk for site staff including emergency response should a bat be found or suspected onsite.
- The ECoW will be present during works to ensure controls measures are being adhered to, such as ensuring lighting control measures and exclusion barriers (tree protection fencing for example) are in place as required.

11.4 Post Construction

145. Further surveys for bats will be undertaken post construction in order to assess whether the mitigation implemented has been successful. This would include reinstated hedgerow sections. Three surveys would take place following the same methodology as the baseline surveys. These would take place in May, July and September and in years one, three and five post construction.

11.5 Emergency Procedures

146. In the event that bats are found at any time during the construction works, the following procedures shall be followed:

- All activities and actions at the site and within the immediate vicinity of where any individual or group of bats is/are found shall stop immediately.
- The ECoW or an appropriately qualified ecologist shall be contacted at the earliest possible opportunity, to make an assessment of the situation and advise as to whether:
 - works can re-commence where it is possible to work around the area where an individual or group of bats is/are found in a manner that will avoid disturbance and with negligible risk of causing harm (killing or injury) to any animals; or
 - activities and/or works can be modified to reduce the risks to any individual animal until such time as an animal naturally migrates out of the working area, or:
 - works are to remain ceased until such time a licence is obtained from NE for any required mitigation works.

12 SPP: OTTER

147. Otters (*Lutra lutra*) are carnivorous and forage on watercourses and water bodies. Their diet consists of fish, amphibians, crustaceans, small mammals and wildfowl. Otters are active throughout the year and can breed at any time. Otters use many different sites for shelter, such as holts and couches, depending on availability. Holts can be a hole in a riverbank, under tree roots, within rocks and caves, under manmade structures, or excavated out of soft ground such as sand dunes.

148. Otters are a European Protected Species (EPS). Otters and their resting sites/shelters are protected in the UK under The Conservation of Habitats and Species Regulations 2017 (as amended).

12.1 Baseline

149. Baseline survey results for otters are provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Updating baseline surveys were undertaken in 2021 and 2022 in which all watercourses with potential to support otters have been surveyed. A total of 26 watercourses were surveyed in 2022 for presence of otter with 7 sites recording presence (Watercourses 45, 27a/b, 20, 31, 5, 43 and River Gipping).

150. Otters were recorded at River Fynn, River Lark and Queens Fleet, however no holts or resting places have been found within 50m of the DOL. It is considered that impacts to otter can be avoided. Potential considerations of otter present need to be maintained for watercourse 43 (proposed watercourse crossing WC43, near Jointing Bay JB 8/9), watercourse 31 (proposed bridge watercourse crossing WC31, (near Jointing Bay JB 12/13) and watercourse 20 (proposed watercourse crossing WC20, near Jointing Bay JB 17/18), all of which have confirmed presence for otter (assumed to be commuting only in these watercourses).

12.2 Pre-Construction

151. Monitoring of watercourses with previously recorded otter presence, or suitability to support otters, will be undertaken prior to works and continue throughout the construction phase.

152. No mitigation is currently considered necessary, however should further evidence of otters be recorded and risk of damage/disturbance to otters and their resting places be considered likely, then an EPS mitigation licence may be required from NE.

12.3 During Construction

153. ECoW pre-works surveys and ongoing monitoring will be undertaken throughout works.

154. Control measures will be in place for all works near to waterbodies with confirmed/potential to support otters, including:

- Toolbox talks will be given to site staff and would include information on recognising holts and signs of otters. Briefing notes containing this information would also be available at the site offices.
- Pollution control measures to be in place for all watercourse crossing to prevent silt or other pollution to the watercourse.
- Watercourse crossings required will be of a nature to ensure no restrictive to movement along the watercourses.
- A ramp/means of escape will be provided for any excavations that may be close to a watercourse.
- Night-time works near to watercourses will be avoided or else minimised as far as possible.
 - Any night-time lighting required will be designed to avoid light spill onto the watercourse and surrounding banks.

12.4 Post Construction

155. No specific post-construction requirements are currently deemed necessary.

156. Watercourses are to be reinstated to pre-construction condition allowing for natural regeneration of the habitat.

12.5 Emergency Procedures

157. In the event that any otters, or evidence of otter, are found at any time during the construction works, the following procedures shall be followed:

- All activities and actions at the site and within the immediate vicinity of where any otter, or signs of otter, are found shall stop immediately.
- The ECoW or an appropriately qualified ecologist shall be contacted at the earliest possible opportunity, to make an assessment of the situation and advise as to whether:
 - works can re-commence where it is possible to work around the area where an otter is/are found in a manner that will avoid disturbance and with negligible risk of causing harm (killing or injury) to any animals; or
 - activities and/or works can be modified to reduce the risks to any individual animal until such time as an animal naturally migrates out of the working area.
 - works are to remain ceased until such time a licence is obtained from NE for any required mitigation works.

13 SPP: WATER VOLE

158. Water vole (*Arvicola amphibius*) are found in slow-flowing rivers, streams, ditches and around lakes, reed-beds, marshes and ponds with steep banks and plenty of vegetation. They tend to be more active during the day. Field signs are mostly found within two to three metres of the water's edge and include burrows, pathways, piles of chewed up plants and latrines. Water voles are active all year, but the animals and their signs are less likely to be seen in winter.

159. Water voles utilise the network of watercourses present along the cable route corridor.

13.1 Baseline

160. Baseline survey results for water vole are provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Updating baseline surveys have been undertaken in 2021 and 2022 in which all watercourses with potential to support water vole, and which were previously displaced as part of the EA ONE works, have been surveyed.

161. The most recent survey in 2022 assessed a total of 26 watercourses for presence of water vole with 5 sites recording water vole presence (Watercourses 27a/b, 27, 20, 31 and 43), and 2 recording possible water vole presence (Watercourses 45 and 15a).

162. Potential impacts to water vole will largely be avoided due to construction methods (use of previously installed cable ducts). Consideration needs to be given to potential impacts arising from construction works in the vicinity of watercourse 31 (Watercourse crossing WC31 near Jointing Bay JB 12/13) and watercourse 20 (watercourse crossing WC20 near Jointing Bay JB 17/18).

13.2 Pre-Construction

163. Monitoring of watercourses with previously recorded water vole presence, or suitability to support water voles, will be undertaken prior to works and continue throughout the construction phase.

164. Prior to construction, displacement will be undertaken on watercourses potentially affected by the cable works (see para. 161) where water vole are confirmed as present. Displacement of the required working width, i.e. the crossing point and a 5m exclusion buffer at either side, will be undertaken under a CL31 Water Vole displacement class licence which permits vegetation clearances over a distance of 50m on each bank of the watercourse during the period 15th February – 15th April or 15 September – 31 October inclusive.

165. Prior to vegetation removal, the watercourse will be resurveyed for evidence of water vole presence and burrows, and their location identified. Vegetation removal is to be undertaken under supervision of the CL31 licence holder to remove bankside vegetation to ground, and instream vegetation as far as reasonably practicable. Vegetation is to be removed from the work area. If required, destructive searches of burrows will be undertaken 5 – 10 days following vegetation removal.

166. Vegetation management is to be undertaken regularly throughout the remainder of the year prior to commencement of works to maintain the displaced area. This is to be undertaken with ECoW supervision following pre-works checks.

167. In the event that the CL31 licence conditions cannot be met i.e. sections greater than 50m require clearing and / or there is less than 500m of suitable habitat between crossings, it may be deemed appropriate by the ECoW and supporting ecologist to apply for an AP11 mitigation licence to NE.

13.3 During Construction

168. Vegetation management is to be undertaken throughout the construction period (once per month or minimum twice a month depending on season) to ensure the displaced area is kept free of vegetation. Vegetation arisings are to be removed from the watercourse banks and instream.

169. Good practice measures will also be in place for all works near to watercourses with confirmed/potential to support water vole, including:

- Pollution control measures to be in place for all watercourse crossing to prevent silt or other pollution to the watercourse.
- Watercourse crossings required will be of a nature to ensure no restrictive to movement along the watercourses.
- A ramp/means of escape will be provided for any excavations that may be close to a watercourse.
- Night-time works near to watercourses will be avoided or else minimised as far as possible.
 - Any night-time lighting required will be designed to avoid light spill onto the watercourse and surrounding banks.

13.4 Post Construction

170. Post-monitoring surveys are to be undertaken in Year 1 post-construction to confirm presence/absence on watercourses where water voles were displaced as part of the works. This will follow the same methodology as the baseline surveys.

171. Watercourses are to be reinstated to pre-construction condition allowing for natural regeneration of the habitat. Should natural emergent vegetation fail to establish then the need for plug planting should be assessed by the ecologist.

13.5 Emergency Procedures

172. In the event that any water vole, or evidence of water vole, are found/suspected at any time during the construction works, the following procedures shall be followed:

- All activities and actions at the site and within the immediate vicinity of where any water vole, or signs of water vole, are found shall stop immediately.
- The ECoW or an appropriately qualified ecologist shall be contacted at the earliest possible opportunity, to make an assessment of the situation and advise as to whether:
 - works can re-commence where it is possible to work around the area where a water vole is/are found in a manner that will avoid disturbance and with negligible risk of causing harm (killing or injury) to any animals; or
 - activities and/or works can be modified to reduce the risks to any individual animal until such time as an animal naturally migrates out of the working area.

14 SPP: REPTILES

173. Three of the UK's four common reptile species, i.e. slow-worm (*Anguis fragilis*) common or viviparous lizard (*Lacerta vivipara*) and grass snake (*Natrix natrix*) are the only native reptile species recorded and likely to be found along the DOL.

14.1 Baseline

174. Detailed baseline relating to reptiles is provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Updating baseline surveys were undertaken in 2021 and 2022. Surveys confirmed the presence of low, moderate and high reptile populations (common species) in three confirmed locations that have potential to be affected by the proposed cable works as shown in Appendix 1 and in Table 14-1. A further 13 locations that have potential to be affected by the proposed cable works are considered to have potential for reptile presence, although to date presence has not been confirmed.

Table 14-1 – Reptile Populations

Reptile Area ID	Location	Population
71	Haul road and HDD4E nr Crossing Point CP-05	Moderate
73	Haul road nr Access Point AP-15	Potential
58	Crossing Point CP-18	Low
49	Haul road nr Jointing Bay JB 14/15	Low
57	Haul road nr Jointing Bay JB 11/12	Potential
74	Haul road and HDD 8 nr Crossing Point CP-25	High
75	HDD nr Access Point AP-21	Potential
80	Crossing Point CP28	Potential
33	Haul road nr Jointing Bay JB 20/21	Potential
20	Haul road nr Jointing Bay JB 25/26	Potential
57, 80, 20, 12, 48, 8, 6, 4, 3	Watercourse crossings for access (WC57, 80, 20, 76, 77, 14, 12, 4 & 3)	Potential

14.2 Pre-Construction

175. Proposed works avoid any significant works within areas with reptile populations, therefore trapping and relocation is not currently recommended.

176. To minimise any potential impact to reptiles:

- The ECoW will undertake a pre-works check before any vegetation removal within potential reptile habitats.
- Pre-works vegetation management may be required in respect of terrestrial habitats, these will be confirmed by the ECoW in advance of works commencing. This would involve localised strimming of vegetation (to 150 mm) a minimum of 48 hours prior to works commencing, to deter reptiles from the working areas. Currently it is considered that this likely to only apply to areas of coarse vegetation within four confirmed locations. The need and extent of pre-works vegetation management would be subject to confirmation by the ECoW.
- Any features with potential to provide suitable hibernacula/refugia will also be removed prior to works as guided by the ECoW. This will be undertaken in the active season (April – September) when reptiles are active and can naturally disperse or be relocated to a suitable location outside of the works by the ECoW.

14.3 During Construction

177. The good practice measures as outlined in section 14.2 above will be implemented by the ECoW as and when required onsite throughout the construction phase:

- The ECoW will provide a reptile ecology induction Toolbox Talk for site staff including information on recognising common British reptiles. Briefing notes containing this information would also be available at the site offices.

- The ECoW will be present during works close to or within areas of suitable reptile habitat.
- Excavations deeper than 1m must be covered at the end of each working day, or include a means of escape for any animal falling in.
- Stockpiling of materials will be guided by the ECoW to reduce potential for providing suitable hibernacula/refugia habitat e.g. located as far from known or suitable reptile habitat as feasible and raised off the ground where possible.

14.4 Post Construction

178. No post-construction monitoring is required for reptiles.

14.5 Emergency Procedures

179. In the event that reptiles are found at any time during the construction works, the following procedures shall be followed:

- All activities and actions at the site and within the immediate vicinity of where any individual or group of reptiles is/are found shall stop immediately.
- The ECoW or an appropriately qualified ecologist shall be contacted at the earliest possible opportunity, to make an assessment of the situation and advise as to whether:
 - works can re-commence where it is possible to work around the area where an individual or group of reptiles is/are found in a manner that will avoid risk of causing harm (killing or injury) to any animals; or
 - activities and/or works can be modified to reduce the risks to any individual animal until such time as an animal naturally migrates out of the working area.

15 SPP: BREEDING BIRDS

180. All birds, their nest and eggs are protected under the W&CA. Certain species listed on Schedule 1 of the W&CA are afforded extra protection against disturbance during the nesting period.

15.1 Baseline

181. Breeding bird surveys across the DOL were undertaken across the EA THREE DOL in 2012 with 94 species recorded. 72 of these were confirmed, probable or possible breeders across the DOL, and 53 are birds of conservation concern. Detailed baseline relating to birds is provided in Chapter 24 Onshore Ornithology section 24.5.2 of the ES. Key legislation relating to birds is the W&CA. Potential impacts are temporary and can be mitigated for all species. Important Bird Areas are identified on Figure 24.1 of the ES. Further information and figures relating to the survey are included in Appendix 24.1 of the ES. Breeding bird habitat is not included on the constraints plans at Appendix 1 as potential habitat is available throughout the DOL.

182. Key findings across the DOL throughout the 2021 and 2022 surveys include:

- No significant breeding bird concentrations (i.e. 1% or more of the national breeding population) or nationally rare breeding bird species (i.e. between 1 and 1,000 breeding pairs) were recorded during the surveys.
- The route and surrounding area have presence of confirmed breeding Schedule 41 (S41) species of Principal Importance. Skylark (*Alauda arvensis*) was the most commonly occurring S41 species, and was regularly encountered in suitable habitat throughout the DOL. Skylark nest in arable farmland and open grassland areas throughout the route. Other S41 confirmed breeding species recorded within or close to the DOL included linnet (*Carduelis cannabina*), yellow hammer (*Emberiza citrinella*), nightingale (*Luscinia megarhynchos*) (associated with dense scrub to the north of the A12) and lapwing (*Vanellus vanellus*).
- Breeding W&CA Schedule 1 species noted during surveys comprised: Marsh Harrier (*Circus aeruginosus*) associated with reedbeds/scrub for nesting and foraging over open grasslands adjacent to the River Deben; Cetti's Warbler (*Cettia cetti*) in vegetation alongside Kirton Creek; and barn owl (*Tyto alba*) that are associated with farm buildings or tree cavities (outside of the DOL).

183. Monitoring of these species has also been extensively undertaken throughout the EA ONE construction period, allowing for historic understanding of nest sites.

184. As agreed during the examination, additional mitigation is to be implemented for skylark due to the potential effects on this species throughout construction (see below).

Skylark Plots

185. Additional mitigation has been implemented for skylark due to the potential effects on this species throughout the route and as identified during the examination process. This involves creating two breeding plots for this species in winter crop within farmland to create fallow plots. These are to be managed for a period of 10 years. The delivery of this element of mitigation has been secured via agreement between SCC and a landowner and falls outside of the DOL however reference has been provided within this EcoMP for completeness. No further mitigation is required with respect to skylark outside of general mitigation measures as defined in section 15.2 and 15.3 below.

15.2 Pre-Construction

186. Pre-construction surveys will be carried out during the breeding season (February-September) to identify the presence or likely presence of nesting birds including key Schedule 1 bird species noted across the DOL (marsh harrier, Cetti's warbler and barn owl) which may require additional mitigation measures.
187. Measures will be undertaken to minimise the likelihood of disturbance, injury or mortality of nesting birds, their eggs and chicks. Wherever possible, vegetation which would be directly impacted by construction and that could be used by nesting birds would be removed outside of the February-September bird nesting season (particularly sections of hedgerow, scrub, tree lines and woodland).
188. Should any occupied nests be identified, an appropriate exclusion buffer zone (determined on the basis of the species concerned and the location of the nest in the context of the surrounding vegetation, but no less than 5m dependent on species) will be maintained. If an active nest is identified during the works, it must be protected until the young have fledged. Works in the area will halt and a suitably qualified ecologist or ECoW will be contacted to advise on appropriate mitigation. It is not possible to give specific distances per species, as this is site specific. For example, a ground nesting species would require a greater exclusion due to having less cover.
189. Where works are likely to occur in the nesting period, pre-construction surveys will be undertaken prior to all works.

15.3 During Construction

190. If an active nest is identified during the works, it must be protected until the young have fledged. Works in the area will halt and a suitably qualified ecologist or ECoW will be contacted to advise on appropriate mitigation. This might involve retaining an exclusion buffer zone around the nest of a minimum of 5m, as required depending on the species involved and the location of the nest. It is not possible to give specific distances per species, as this is site specific.

Marsh Harrier - Confidential

191. Monitoring is to be undertaken throughout the construction period for previously confirmed nest location MR1, and other potential nest locations in proximity to works such as, but not limited to, MR2.
192. If a nest site is encountered, mitigation would constitute an exclusion area for specified activities around the nest of between 100m and 400m radius, with that radius dependent on the stage of nesting activity that the marsh harrier has reached under the guidance of the ornithologist. The mitigation will apply the following criteria:
- Activities that only involve the movement of vehicles past the nest location are able to continue where that is occurring beyond a distance of 100m during nest building; incubation of the eggs; and • 100m during rearing of the chicks to fledging.
 - Activities that involve people outside of vehicles and construction activities such as excavations are able to continue where that is occurring beyond a distance of 400m during nest building; incubation of the eggs; and; rearing of the chicks to fledging.
193. Where applicable and depending on the site conditions and specific situation for each nest, additional mitigation measures may be deployed to allow for small-scale localised works and/or continuation of works already in progress, such as, but not limited to, the use of visual and acoustic screening at key locations to create additional noise and visual buffers between the works corridor and the nest location.

Cetti's Warbler - Confidential

194. Monitoring is to be regularly undertaken throughout the construction period for previously confirmed nest location CW1, and other potential nest locations in proximity to works.

195. If a nest or territorial male is encountered, a minimum 25m exclusion buffer is to be implemented. This is to remain in place until such time the ECoW/ornithologist has confirmed nesting has ceased i.e. fledging, nest failure, no activity.

Barn Owl - Confidential

196. No targeted mitigation measures are currently required for barn owl, however should a new nest location been noted by the ornithologist, mitigation measures may include an exclusion buffer for specified activities around the nest of between 50m and 100m.

15.4 Post Construction

197. On completion of construction, areas will be reinstated as farmland and returned to agricultural practice; other areas will be reinstated in accordance with provisions in this EcoMP or and LMS.

15.5 Emergency procedures

198. Should any occupied nests be identified during construction, an appropriate buffer zone (determined on the basis of the species concerned and the location of the nest in the context of the surrounding vegetation, but no less than 5m) will be retained until it can be ascertained that the chicks have fledged.

199. If an active nest of a Schedule 1 species is identified in the vicinity of the works, and a suitably qualified ornithologist advises that there is the potential for disturbance to that nest, then works in the area will halt temporarily while the ornithologist, ECoW and other relevant staff develop, in consultation with NE as required, and implement the specific mitigation measures required for the species, as also outlined in Section 15.3 above.

16 SPP: WINTERING BIRDS

200. The Deben Estuary Special Protection Area (SPA) has been classified for two non-breeding bird species: Dark bellied Brent Goose (*Branta bernicla bernicla*) and Avocet (*Recurvirostra avosetta*).

201. An impact on the SPA would include the permanent loss or degradation of habitat on which the interest feature birds depend or the disturbance of those birds to the extent that there is a significant, permanent reduction in the population supported by the SPA.

16.1 Baseline

202. Wintering bird surveys across the DOL were undertaken in 2021 and 2022 in addition to pre-construction and construction surveys undertaken for the EA ONE works. Detailed baseline relating to wintering birds is provided in Chapter 24 Onshore Ornithology section 24.5.2 of the ES.

203. Surveys conducted in 2021 and 2022 cover the River Deben (Bawdsey and Falkenham Marshes) and Martlesham Creek, the surveys confirmed the following:

- Dark-bellied Brent Geese were recorded at the River Deben (Bawdsey Marshes and Falkenham Marshes). During the winter 2021-2022, Dark-bellied Brent Goose numbers were notably slower to build than the previous winter with no birds present until December compared to October in 2020. February saw the arrival of the main wintering flock that numbered 831 birds, a decrease from 948 in 2021;
- Avocet were recorded on the River Deben between October to December 2021 with a maximum count of 48. At Martlesham Creek, Avocet were recorded throughout all the counts, generally between two and four individuals with a noticeable increase to 14 birds in November.
- Other species recorded at these sites included: Wigeon; Black-tailed godwit; Redshank; Dunlin; Curlew, Canada goose, Grey Heron, Lapwing, Black-tailed Godwit, Little Egret, Mute Swan, Teal, Shelduck, Snipe, Golden Plover, Shelduck, Bar-tailed Godwit, Grey Plover, Oystercatcher, Turnstone and Knot.

204. Minimal numbers of wintering roost sites were noted within the area between the River Deben and Bawdsey. The surveys to date and monitoring throughout the full EA ONE construction period, have evidenced that habitats ordinarily sought by large numbers of wintering bird species are predominantly >500m to the south of the DOL and >1km to the north of the DOL. The main feeding areas for Dark-Bellied Geese depend upon annual crop rotation and farming activity. The closest areas where geese have been recorded are >500-600 m to the south of the DOL but generally is found further away during the winter period. There have been no records of Dark-Bellied Geese on the north side of the River Deben, where high river banks would block visual disturbance.

205. As stated in the OLEMS works will be restricted to specific activities between the period of 1 November to 28/29 February, however as outlined above, impacts to Dark Bellied Geese, Avocet and other wintering birds are not currently anticipated therefore no further detailed mitigation proposals are provided at this stage. However, this will be kept under review and informed by ongoing preconstruction surveys.

16.2 Pre-Construction

203. Currently due to low levels of winter bird activity and limited impacts of the EA THREE cable works it is considered that pre-construction mitigation is not required. Pre-construction surveys will be carried out during the winter season (October to February) to identify the presence of wintering birds species, notably Brent Geese and Avocet, throughout the area of the River Deben near to the DOL.

204. Should pre-construction surveys identify any significant changes in winter bird activity then where absolutely necessary, as advised by the ornithologist, additional measures are to be implemented around key locations of works such as jointing bays and CCS to reduce any visual or acoustic impacts to birds utilising the River Deben throughout the winter period (November to February). Acoustic barriers may be installed in suitable locations to create an acoustic, and also visual screen between the works and the river. This will be monitored by the ECoW.

205. No other targeted mitigation measures are to be implemented.

16.3 During Construction

206. Due to the limited nature of winter bird interest associated with the cable works it is considered that monitoring would be limited and directed by an ornithologist.

207. Monitoring surveys will be undertaken throughout the winter period in accordance with the programme of works between the River Deben and Bawdsey.

16.3 Post Construction

208. No further monitoring required post-construction.

16.4 Emergency procedures

209. Should any wintering birds be noted within close proximity to works, works will cease until the ECoW/ornithologist has provided advice for works. This may include ceasing of works entirely until following the winter roosting season, or implementation of mitigation as detailed above.

17 SPP: INVERTEBRATES

17.1 Baseline

210. Detailed baseline relating to Terrestrial Invertebrates is provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES (Appendix 23.2 – Terrestrial Invertebrate Technical Report and Appendix 23.2 - Aquatic Invertebrate Technical Report for full details.)

211. Overall, the majority of the onshore cable route comprises arable fields of low/ negligible invertebrate interest. Thirteen sites were identified as having potentially higher ecological value, of which five locations including the landfall had further detailed survey undertaken.

212. Targeted post construction surveys have been undertaken in 2021 and 2023 as part of the EAONE project, this included specific searches for stag beetle (Invertebrate Area G, Appendix 1). The surveys did not find the presence of stag beetle and concluded that there was very limited deadwood available and hence presence was unlikely.

213. Given the nature of the cable works it is considered that impacts to invertebrates will not be significant and general good practice measures are advised, particularly in respect of aquatic habitats and associated fauna.

17.2 Pre-Construction

214. No pre-construction mitigation required for terrestrial or aquatic invertebrates.

17.3 During Construction

215. Measures will be undertaken to minimise impacts on terrestrial invertebrates by aiming to reduce habitat damage by ensuring that a minimum 5m buffer is maintained from boundary features in order to minimise habitat damage. On completion of the works all habitat loss would be re-instated to preconstruction condition.

216. Mitigation during construction for aquatic invertebrates primarily relates to reducing pollution incidents and sediment run-off entering the watercourse during construction as detailed in the CoCP (EA3-LDC-CNS-REP-IBR-000084).

17.4 Post Construction

217. No further monitoring is required post-construction for terrestrial or aquatic invertebrates due to limited impacts across the onshore cable route on key invertebrate areas, including the acid grassland habitat at invertebrate area G. Post construction monitoring of this area as part of the EAONE project confirmed that invertebrate interest in this area, particularly for stag beetle, was generally limited due to an absence of deadwood.

17.5 Emergency procedures

218. Should any significant species/or numbers of invertebrates be noted within close proximity to works, works will cease until the ECoW has provided advice.

18 INVASIVE SPECIES MANAGEMENT PLAN

219. The W&CA provides the primary legislation on the release of invasive plant species into the wild in Great Britain. Under Section 14(2) of the Act, it is an offence to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, part II, as is the case for all three species listed within Table 7-1. It is the landowner or land manager's responsibility to prevent the spread, either recklessly or intentionally, of any invasive plant out-with its native range. Management of these species at a site level is therefore imperative to prevent any risk of causing an offence.

220. This Section is the Invasive Species Management Plan to be adopted pre-construction and during construction to avoid the introduction, movement and spread of Invasive plant species on and off site.

18.1 Baseline

221. Baseline surveys relating to Notable Plant species are provided in section 23.5.4 of Chapter 23 Terrestrial Ecology of the ES. Four non-native invasive species have been identified on the Onshore Cable Route that are listed in the W&CA Schedule 9. These comprise Hottentot fig *Carpobrotus edulis*, Canadian waterweed *Elodea canadensis*, Himalayan balsam *Impatiens glandulifera* and Japanese Rose *Rosa rugosa*. Species information is included in Appendices 23.1, 23.2 and 23.5 of the ES. However, update walkover surveys in 2021 and 2022 have confirmed the presence of only three invasive species within proximity to the DOL:

- Japanese knotweed within the historic Tuddenham landfill site,
- Himalayan balsam along the River Fynn (watercourse WC43 near Jointing Bay JB 8/9) near Tuddenham, and
- Canadian waterweed at Queens Fleet.

222. No works are to be undertaken within proximity of Tuddenham landfill site and there will be no crossing of Queens Fleet. Consideration needs to be given to management of Himalayan balsam during in respect of crossings at the River Fynn (Watercourse WC43, near Jointing Bay JB 8/9).

18.2 Pre-Construction

223. The Environmental Advisor and/or EcoW will complete pre-construction checks of the working area for invasive plant species in case there has been additional spread of previously identified species, or if there are any previously unidentified invasive plant species in the vicinity. The Environmental Advisor and/or EcoW will familiarise themselves with the known locations of invasive plant species and the proposed construction activities within each vicinity in order to develop their management. An assessment will be made in respect of phasing of works in order to allow time to deal with the presence and/or risk of spread of invasive plant species.
224. Invasive plant species and locations will be incorporated within all relevant site method statements where appropriate. A copy of the Ecological Management Plan is to be held in key site compound areas and be easily accessible to site employees.
225. A tool box talk will be delivered by the Environmental Advisor and/or EcoW to all staff working in proximity to the invasive plant species. The tool box talk will cover what the species looks like, how the works interact with the species and any issues associated with it.
226. Areas shown to be contaminated with invasive plant species are to be isolated with fencing and restricted access signs installed to warn personnel of infestation/contamination area. In the case of Japanese knotweed, this fencing is to extend to at least 7m radius from the main stand of the plant if this exclusion zone encroaches into the cable route corridor.

18.3 During Construction

203. The following general measures will be in place:

- Personnel working on or between sites will ensure their clothing and footwear are cleaned where appropriate to prevent spread.
- Tracked vehicles should not be used within the area/s of infestation. All vehicles leaving the infested area and/or transporting infested soil/materials must be thoroughly pressure washed in a designated wash down area before being used for other works.
- Material/water left after vehicles have been pressure-washed must be contained, collected and disposed of appropriately.
- All wash facilities, including wastewater from washing vehicles, equipment or personnel should be managed in a responsible way so as not to cause harm to the environment.
- Where cross contamination between sites is possible, designated vehicles or machinery to specific sites could be considered where possible to prevent spread.
- All chemicals used for the control of invasive plant species will be stored and used in a responsible manner or as per the guidance stipulated on the relevant chemical data sheet.

18.3.1 Avoidance of spreading Himalayan Balsam

204. The introduction of an invasive plant species both onto and off a site is most likely to happen in the through movement of contaminated topsoil, use, movement or crossings of water and via contamination of vehicles or machinery.
205. If soil containing, or suspected, of containing invasive plant species roots or plant matter is to be re-used on site, it must first be treated until it is free from all evidence of invasive plant species contamination. In order to determine conclusively for the presence of invasive plant species within soil, soil samples should be sent to a laboratory, as some remnants of invasive plant species may not be easily identifiable by the naked eye.
206. Re-use of treated soils should be done in a localised and restricted area and not throughout the site. Any re-use of treated soils should be recorded in a dynamic management plan on site and inspected/treated accordingly. If soil containing invasive plant species roots or plant matter is to be taken off site, it is to be disposed of in a licenced landfill as controlled waste. Only certain landfill sites can accept Japanese knotweed or Japanese knotweed containing soils and require notification prior to delivery to the landfill site.
207. Any water to be utilised for construction purposes of for vehicle/equipment wash purposes is to be taken from a clean source and not one demonstrating contamination by invasive plant species (i.e. River Fynn). Disposal of contaminated wash water, including all silt and other solids (including plant fragments) must be dealt with appropriately in order to avoid pollution and prevent spread of invasive plant species.

208. Where invasive plant species are located within the cable route corridor, care should be taken not to facilitate the transportation of plant seeds or fragments on machinery, vehicles or by foot between sites. An exclusion zone (see para 226) will be established to create an adequate buffer between construction works/access and the invasive plant species.
209. Designated machinery/equipment should be used on identified sites to prevent cross-contamination between sites. Wash facilities will be provided suitable for the specific machinery/vehicles present on site. This can include a drive through bath for larger vehicles. If accessing an invasive plant area, all vehicles must be cleaned, particularly the wheels, prior to moving off site. Tracked vehicles are not to be used in the vicinity of areas known to have invasive plant species present. If construction works do not allow for exclusion of tracked vehicles in invasive plant species locations, then wash facilities must be used and the steps described above to be implemented.
210. General monitoring surveys/ECoW checks will be undertaken throughout the construction period to monitor for invasive species presence. As required vegetation management will be regularly undertaken to maintain exclusion of Himalayan balsam plants.

18.3.2 Treatment/Disposal

211. The most effective means of managing invasive plant species is to ensure the species and the surrounding soils are not disturbed by any development activity or vehicle movements. Avoidance of invasive plant species and associated soils should be the first method adopted throughout the cable route corridor. Where this is not possible, the sections below will detail the methods that can be adopted to manage invasive plant species on site.
212. The treatment and disposal of invasive plant species should be carried out under the supervision or guidance of the Environmental Advisor and/or EcoW. The Environment Agency must be contacted for specific advice before any removal/disposal of invasive plant species is carried out.
213. Removal of Himalayan balsam can be undertaken by strimming or spraying of herbicides. Any machinery utilised for management is to ensure wash-down and biosecurity measures are implemented as outlined above following works. Herbicides cannot be utilised in or near (<10m) watercourses without prior consultation and agreement with the Environment Agency. The Contractor must obtain consent from the Environment Agency to use herbicides in or near water. Chemical control near water can be carried out with herbicides containing glyphosate or 2,4-D amine. Advice must be obtained from the Environment Agency on the most appropriate herbicide to use, dependent on the invasive plant species. Use only proprietary brands of herbicide and note that certain brands should only be handled by a licensed professional. Manufacturer's instructions on the label should be followed prior to and during use. In addition, the herbicide handler must be aware of the Control of Substances Hazardous to Health Regulations (COSHH). Note that herbicides are most effective at the start of the growing season (Himalayan balsam – June).
214. Invasive plant material is considered a 'controlled waste' and must be disposed of in accordance with, an environmental permit issued under, the Environmental Permitting (England and Wales) Regulations 2007. Invasive plant waste must only be disposed of in a licenced landfill. The Environment Agency must be contacted for specific advice before any disposal activities are carried out.
215. No burning of invasive plant waste is permitted.

18.4 Post-Construction

216. No further monitoring required post-construction.

18.5 Emergency Procedures

217. Should any invasive species be noted or suspected within close proximity to works, works will cease until the EcoW has provided advice.

18 IMPLEMENTATION TIMETABLE

218. Table 19-1 sets out an implementation timetable for species mitigation and pre-construction surveys. Seasonal restrictions apply to specific survey windows such as GCN/amphibian breeding survey, breeding bird survey and wintering bird survey. Timings will be subject to site conditions, licence restrictions and EcoW checks. Seasonal restrictions apply to mitigation actions such as badger sett closure and habitat manipulation to discourage GCN, reptiles and water vole.

219. Due to seasonal restrictions for some mitigation requirements works maybe carried out prior to submission and agreement of the final Ecological Management Plan. Any such works will be fully discussed with the relevant authorities prior to activities starting.

Table 19-1 – Seasonal restriction for mitigation and pre-construction surveys for EA THREE Cable works. (Grey represents when surveys may be carried out, green indicates when exclusion / habitat modification mitigation would be carried out). Timings will be subject to site conditions, licence restrictions and ECoW checks.

Receptor and Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badger survey												
Badger exclusion												
GCN survey												
GCN and reptile vegetation management												
Bat roost survey												
Bat roost removal (dependent on roost type)												
Otter and water vole survey												
Water vole displacement												
Breeding bird survey (full breeding window)												
Breeding bird - vegetation clearance (optimal window)												
Wintering bird survey												
Invasive species survey and management												
Jersey cudweed translocation												

19 MONITORING

220. Following completion of construction works, monitoring surveys will be discussed and agreed with the relevant authorities for specific habitats and species. Given the more localised and smaller-scale nature of impacts from EA THREE in comparison to EA ONE, it is considered that monitoring for the Onshore Cable Works will be focused on: the requirements of protected species license monitoring.

20 LICENCE REQUIREMENTS

221. All reasonable precautions will be adopted to protect protected species from disturbance, injury and death and to protect any structure or place that any such species uses for breeding, resting, shelter or protection. Currently it is considered that a GCN District Level Licence is the most appropriate mitigation approach for GCN across the onshore cable route, providing greater conservation benefit to that of traditional mitigation. Badger will also be assessed for the requirement for relevant mitigation licences; this will be determined following further pre-construction surveys and will be based upon badger activity at that time. The Principal Contractor will ensure that the relevant licences are obtained from NE and that appropriate class licences are used in line with licence conditions and overseen by the licence holder.

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Holling, M. and the Rare Breeding Birds Panel (2011) *Rare breeding birds in the United Kingdom in 2009*. British Birds 104: 476–537.

Musgrove, A., Aebischer, M., Eaton, M., Hearn, R., Newson, S., Noble, D., Parsons, M., Risely K., & Stroud, D. (2013) *Population estimates of birds in Great Britain and the United Kingdom*. British Birds 106, February 2013, 64–100.

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RSK (2015) East Anglia Three Offshore Windfarm – Environmental Statement (ES) Volume 1 *Onshore Impacts – Chapter 23 Onshore Ecology*.

RSK (2016) EA1-CON-F-IBR-021237 Ecological Management Plan Final for Discharge.

Strachan, R. and Moorhouse T. (2011) *Water Vole Conservation Handbook*, third edition. Wildlife Conservation Research Unit.

www.gov.uk: Policy paper, Changes to the Habitats Regulations 2017 Published 1 January 2021

Unpublished reports:

ECoW documents spanning throughout the EA ONE construction works.

EA3-GEN-ENV-REP-BOW-000020 2022 Survey Report

EA3-GEN-ENV-REP-BOW-000010 2021 Survey Report

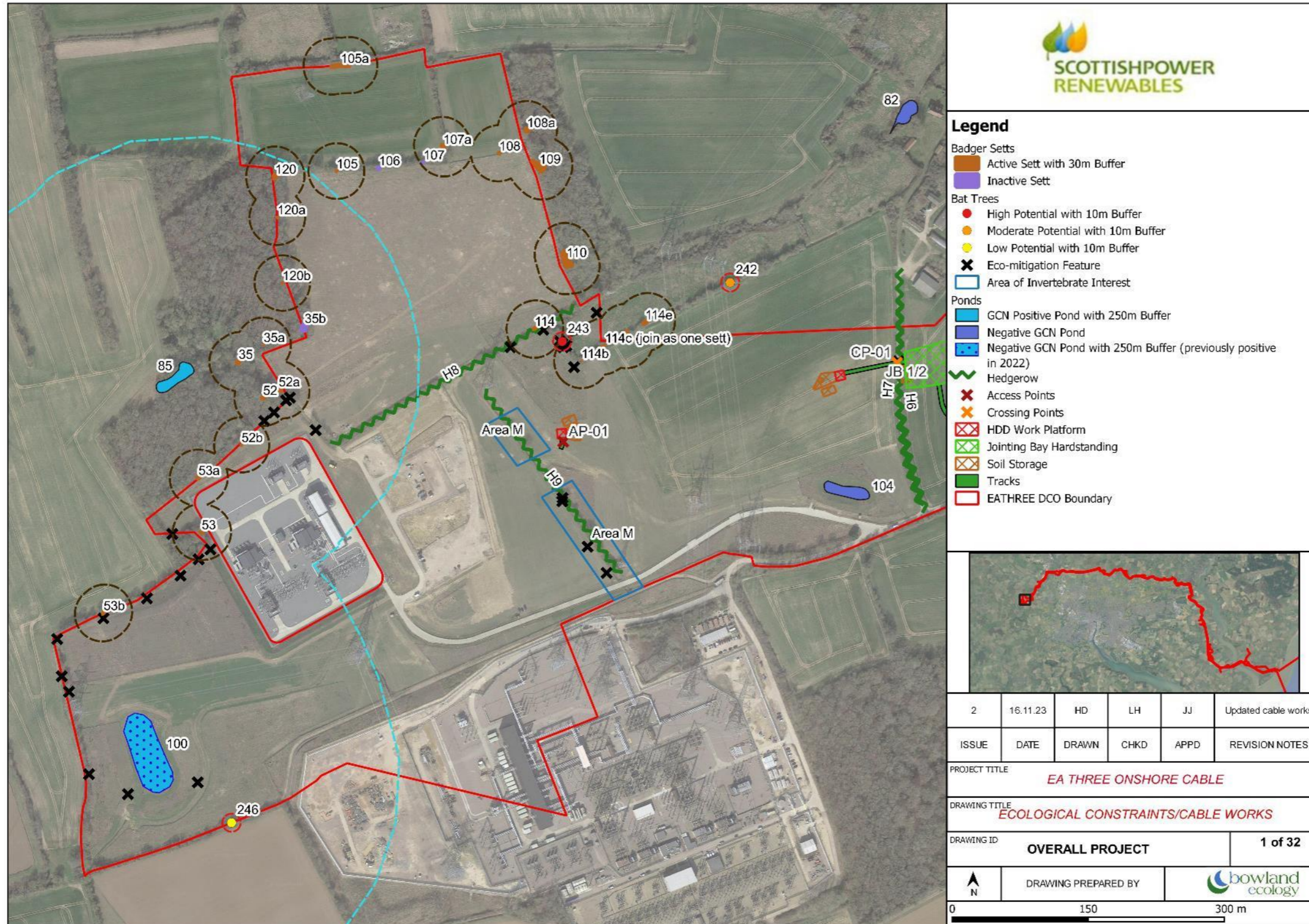
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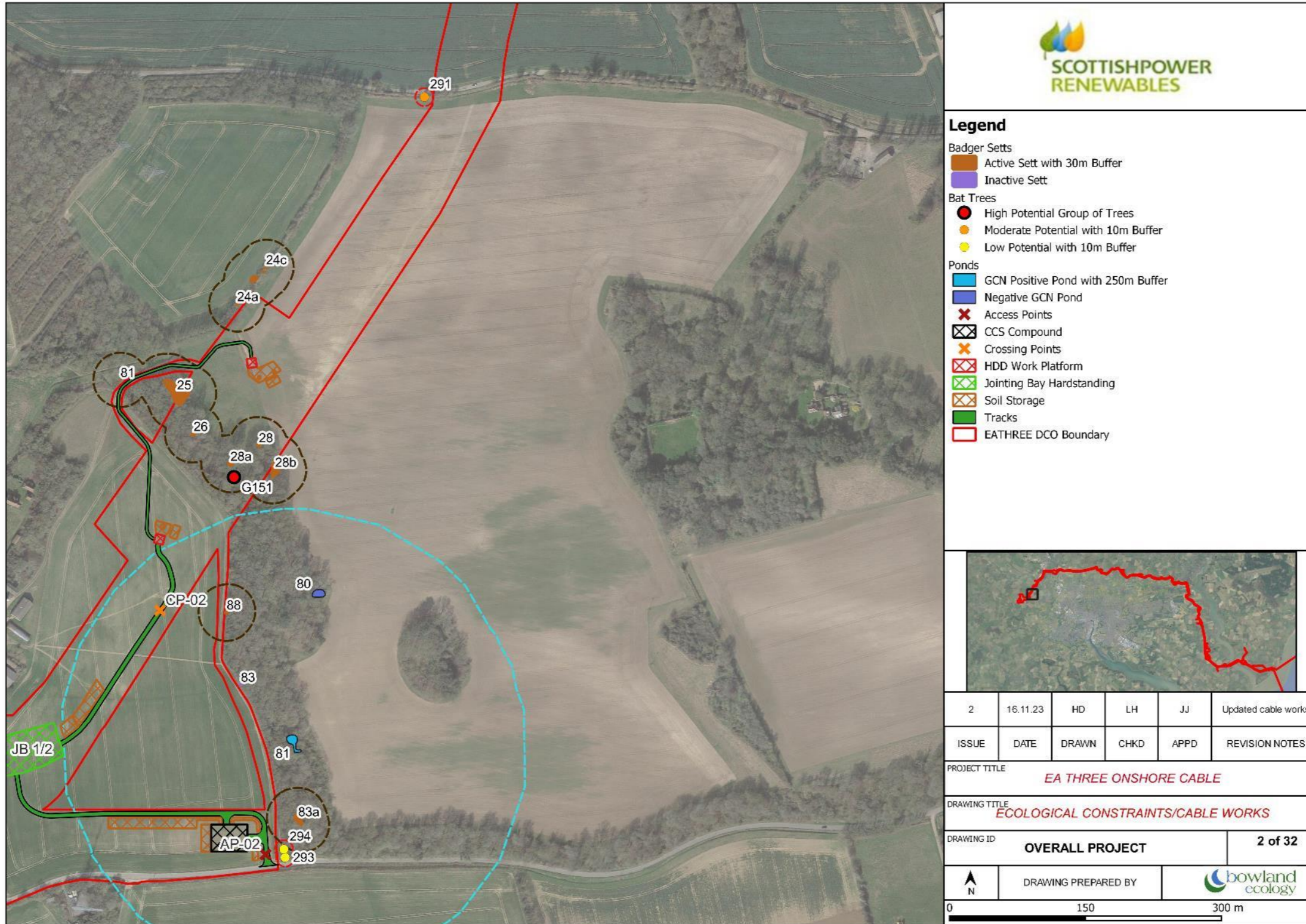
EA3-GEN-ENV-REP-BOW-000002 Pre-construction Ecological Survey Report; Great Crested Newts.

EA3-GEN-ENV-REP-BOW-000003 Pre-construction Ecological Survey Report; Barn Owl.

EA3-GEN-ENV-REP-BOW-000004 Pre-construction Ecological Survey Report; Wintering Birds

APPENDIX 1 - ECOLOGICAL CONSTRAINTS PLANS – CONFIDENTIAL





Legend

- Badger Setts**
- Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees**
- High Potential Group of Trees
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
- Ponds**
- GCN Positive Pond with 250m Buffer
 - Negative GCN Pond
- Access Points
 - CCS Compound
 - Crossing Points
 - HDD Work Platform
 - Jointing Bay Hardstanding
 - Soil Storage
 - Tracks
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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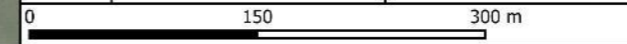
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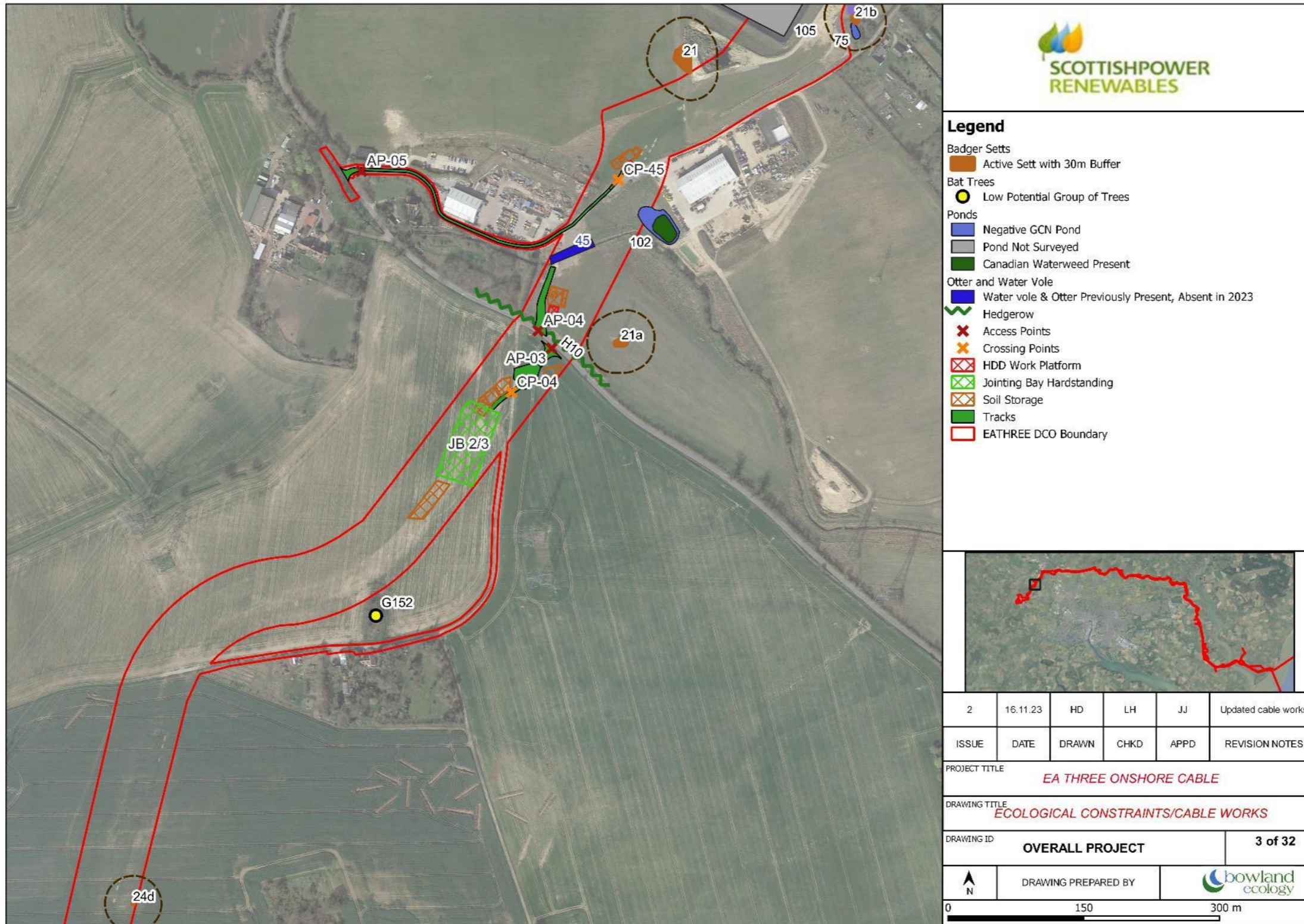
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EA THREE ONSHORE CABLE

DRAWING TITLE
ECOLOGICAL CONSTRAINTS/CABLE WORKS

DRAWING ID
OVERALL PROJECT **2 of 32**

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Legend

- Badger Setts
 - Active Sett with 30m Buffer
- Bat Trees
 - Low Potential Group of Trees
- Ponds
 - Negative GCN Pond
 - Pond Not Surveyed
 - Canadian Waterweed Present
- Otter and Water Vole
 - Water vole & Otter Previously Present, Absent in 2023
- Hedgerow
- Access Points
- Crossing Points
- HDD Work Platform
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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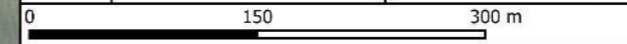
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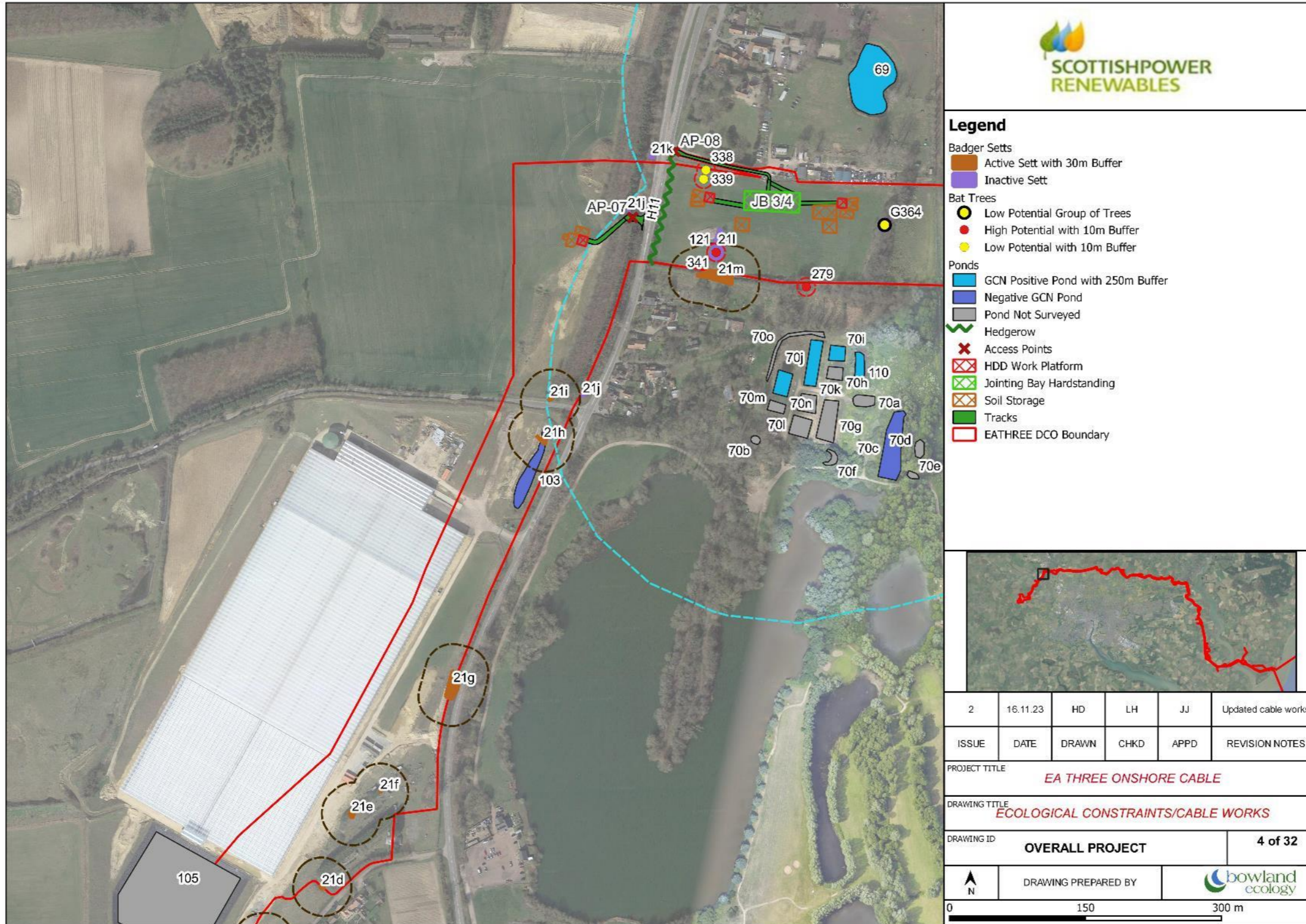
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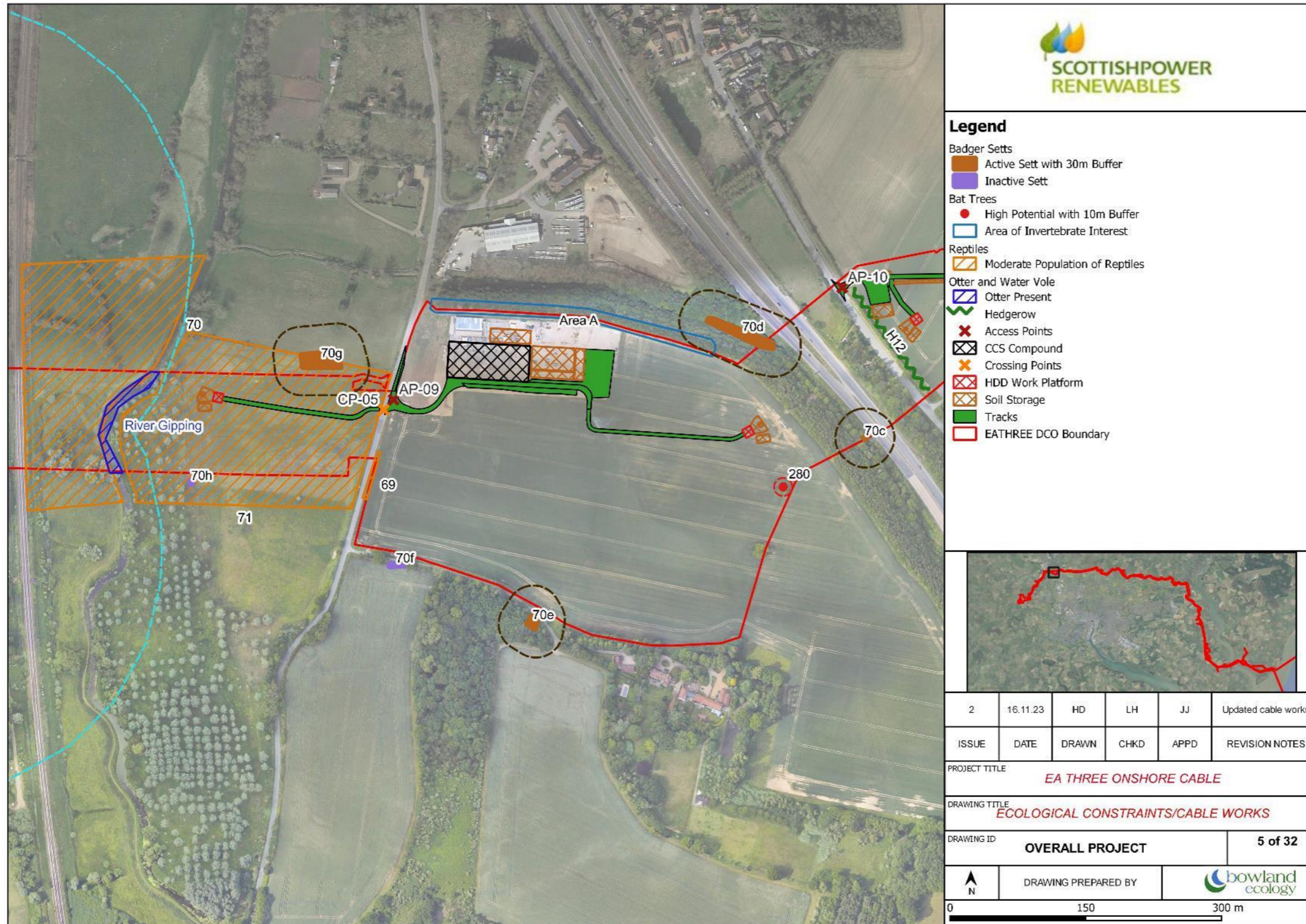


Legend

- Badger Setts**
 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees**
 - Low Potential Group of Trees
 - High Potential with 10m Buffer
 - Low Potential with 10m Buffer
- Ponds**
 - GCN Positive Pond with 250m Buffer
 - Negative GCN Pond
 - Pond Not Surveyed
- Hedgerow
- Access Points
- HDD Work Platform
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES
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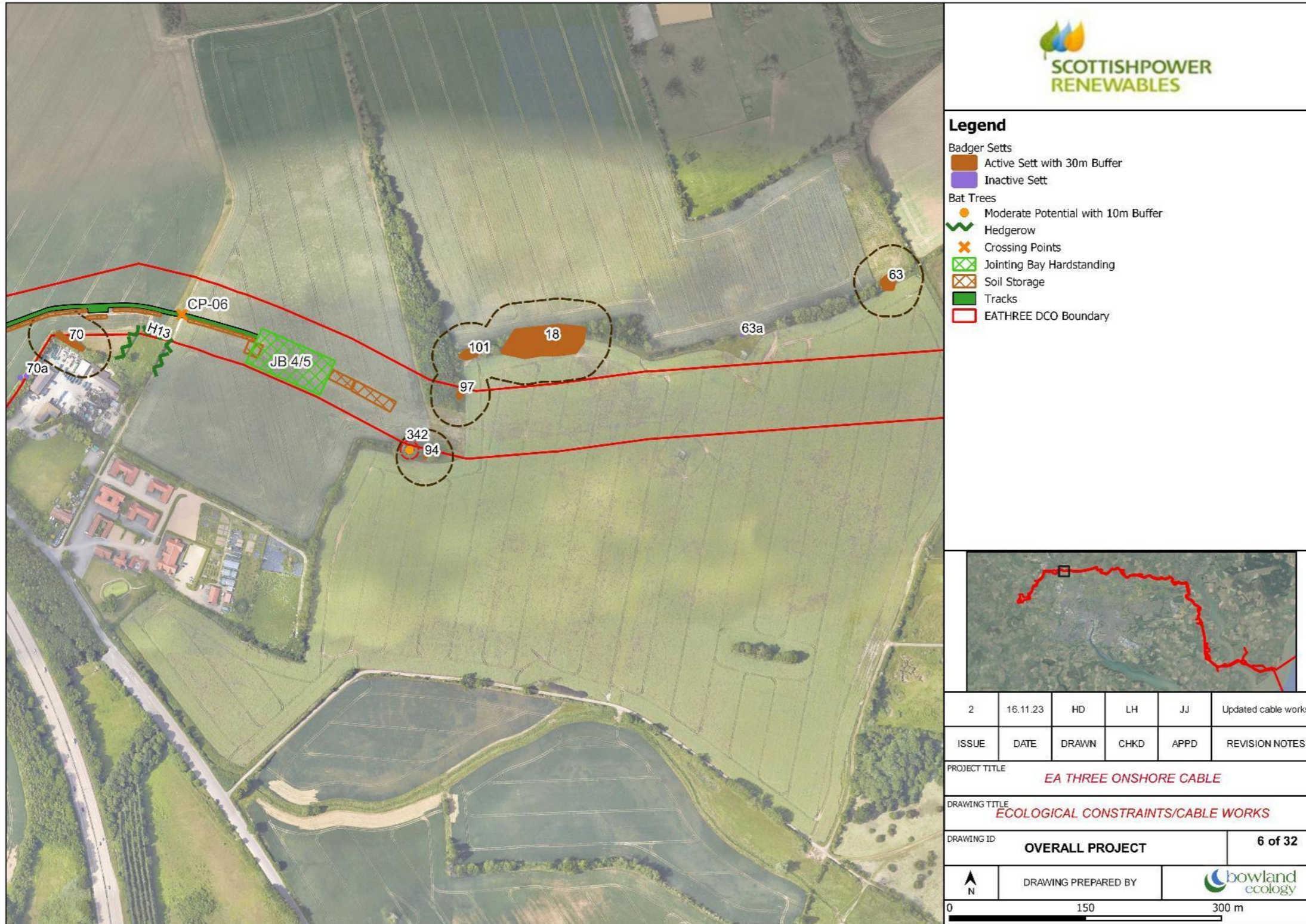


Legend

- Badger Setts**
 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees**
 - High Potential with 10m Buffer
 - Area of Invertebrate Interest
- Reptiles**
 - Moderate Population of Reptiles
- Otter and Water Vole**
 - Otter Present
 - Hedgerow
- Access Points**
- CCS Compound**
- Crossing Points**
- HDD Work Platform**
- Soil Storage**
- Tracks**
- EATHREE DCO Boundary**



2	16.11.23	HD	LH	JJ	Updated cable works
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PROJECT TITLE EA THREE ONSHORE CABLE					
DRAWING TITLE ECOLOGICAL CONSTRAINTS/CABLE WORKS					
DRAWING ID OVERALL PROJECT				5 of 32	
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SCOTTISHPOWER RENEWABLES

Legend

Badger Setts

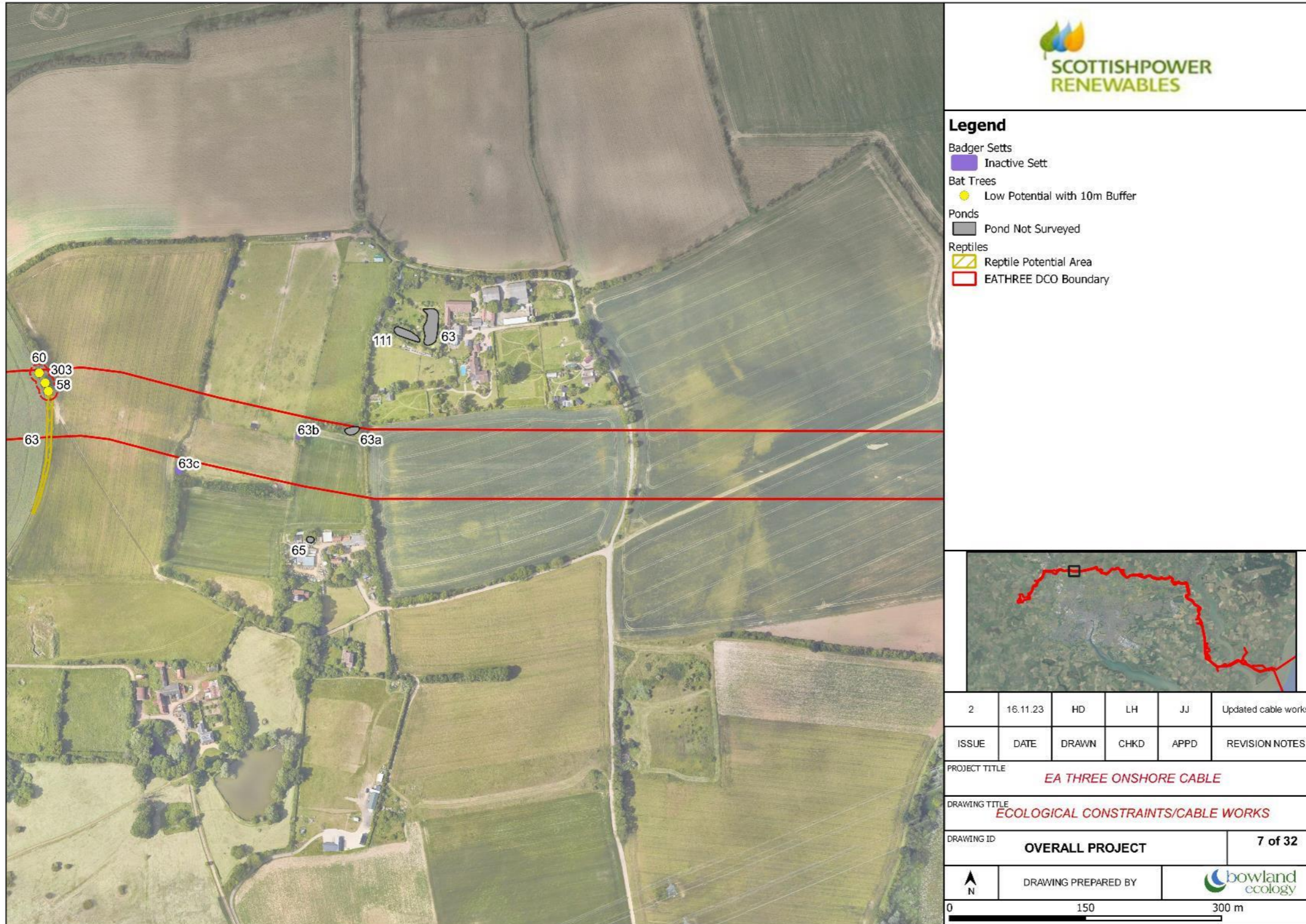
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- Inactive Sett

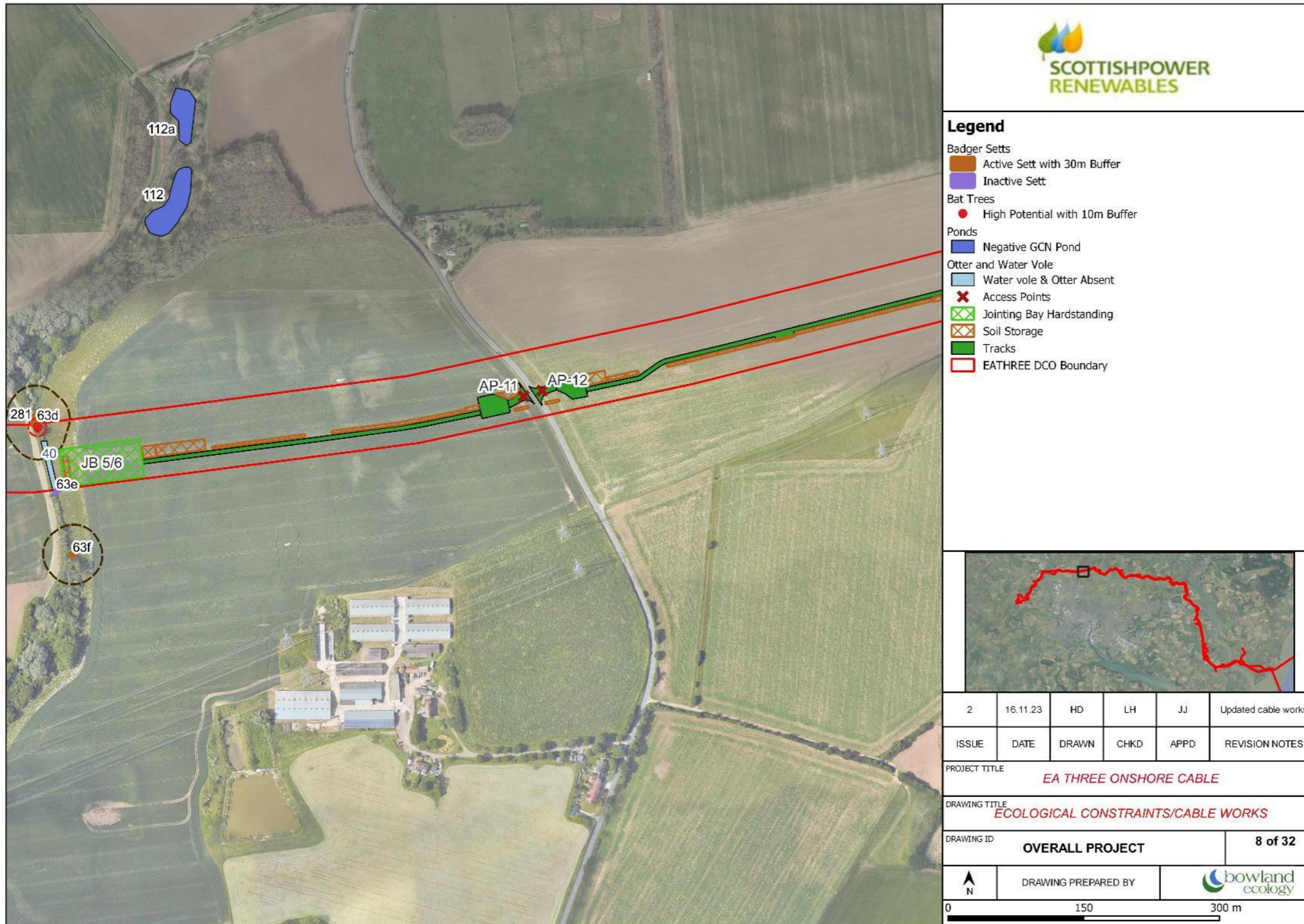
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- Moderate Potential with 10m Buffer
- Hedgerow
- Crossing Points
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



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Legend

- Badger Setts
 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees
 - High Potential with 10m Buffer
- Ponds
 - Negative GCN Pond
- Otter and Water Vole
 - Water vole & Otter Absent
- Access Points
 - X Access Points
- Jointing Bay Hardstanding
 - Jointing Bay Hardstanding
- Soil Storage
 - Soil Storage
- Tracks
 - Tracks
- EATHREE DCO Boundary
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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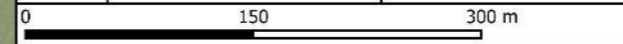
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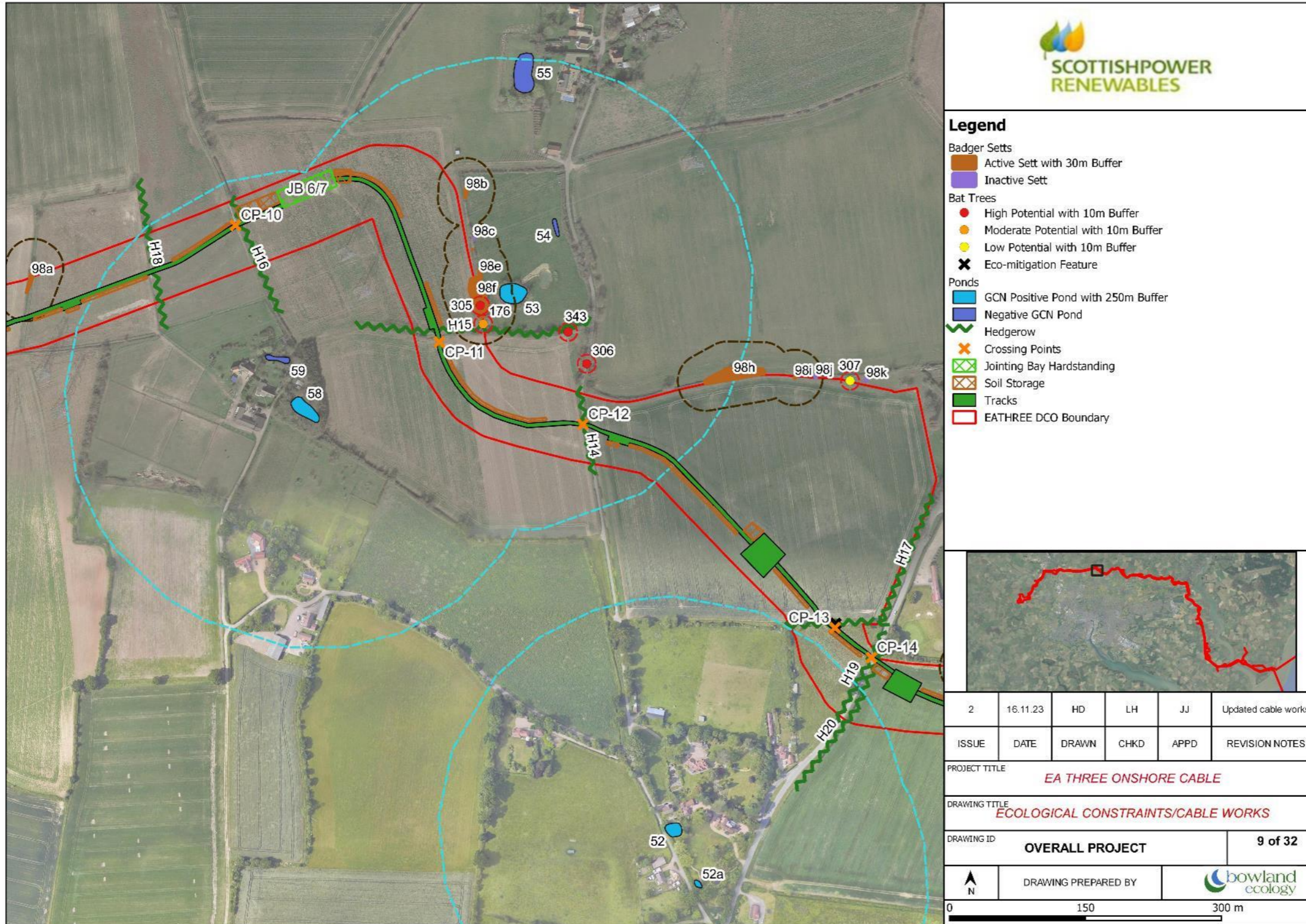
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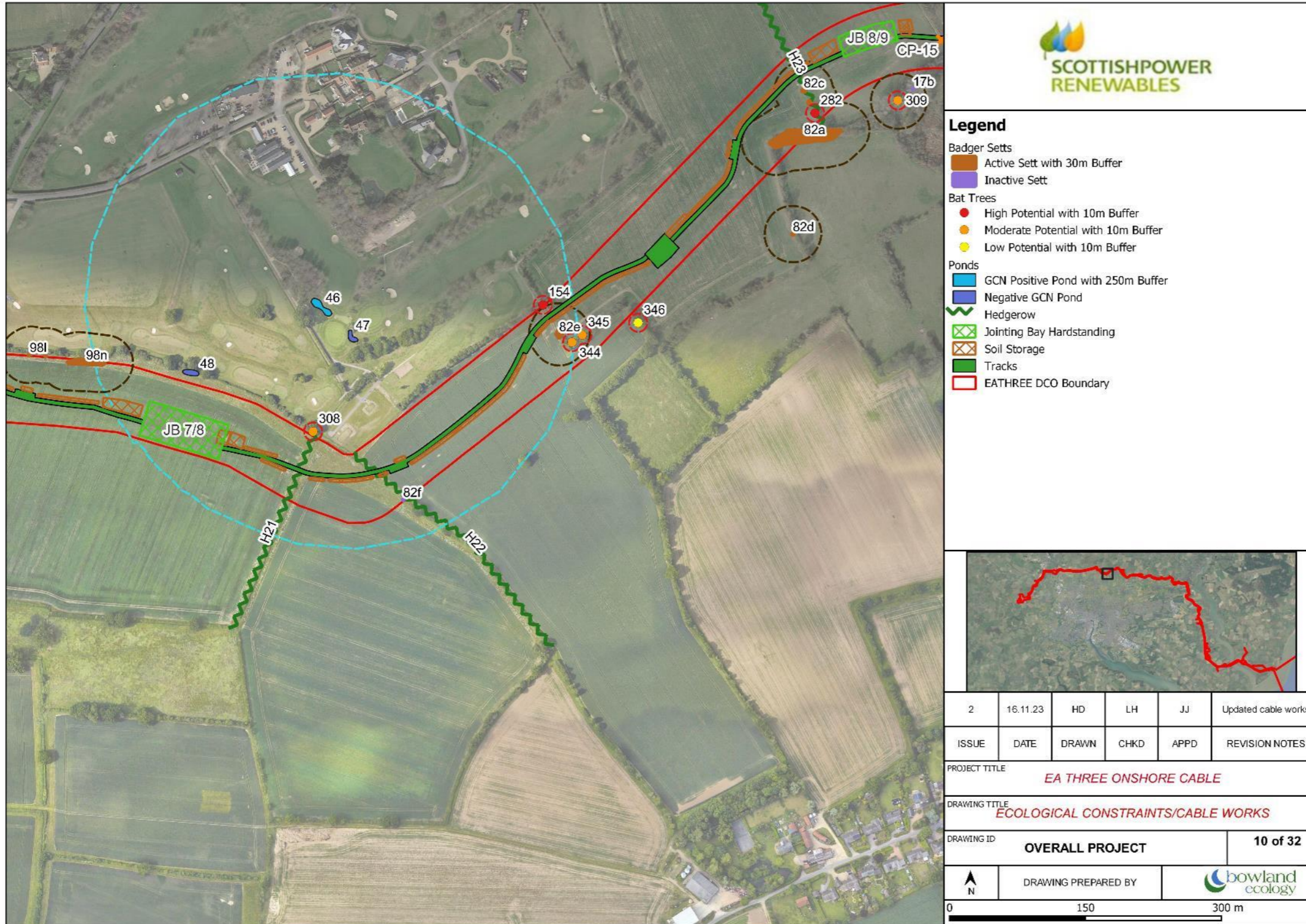
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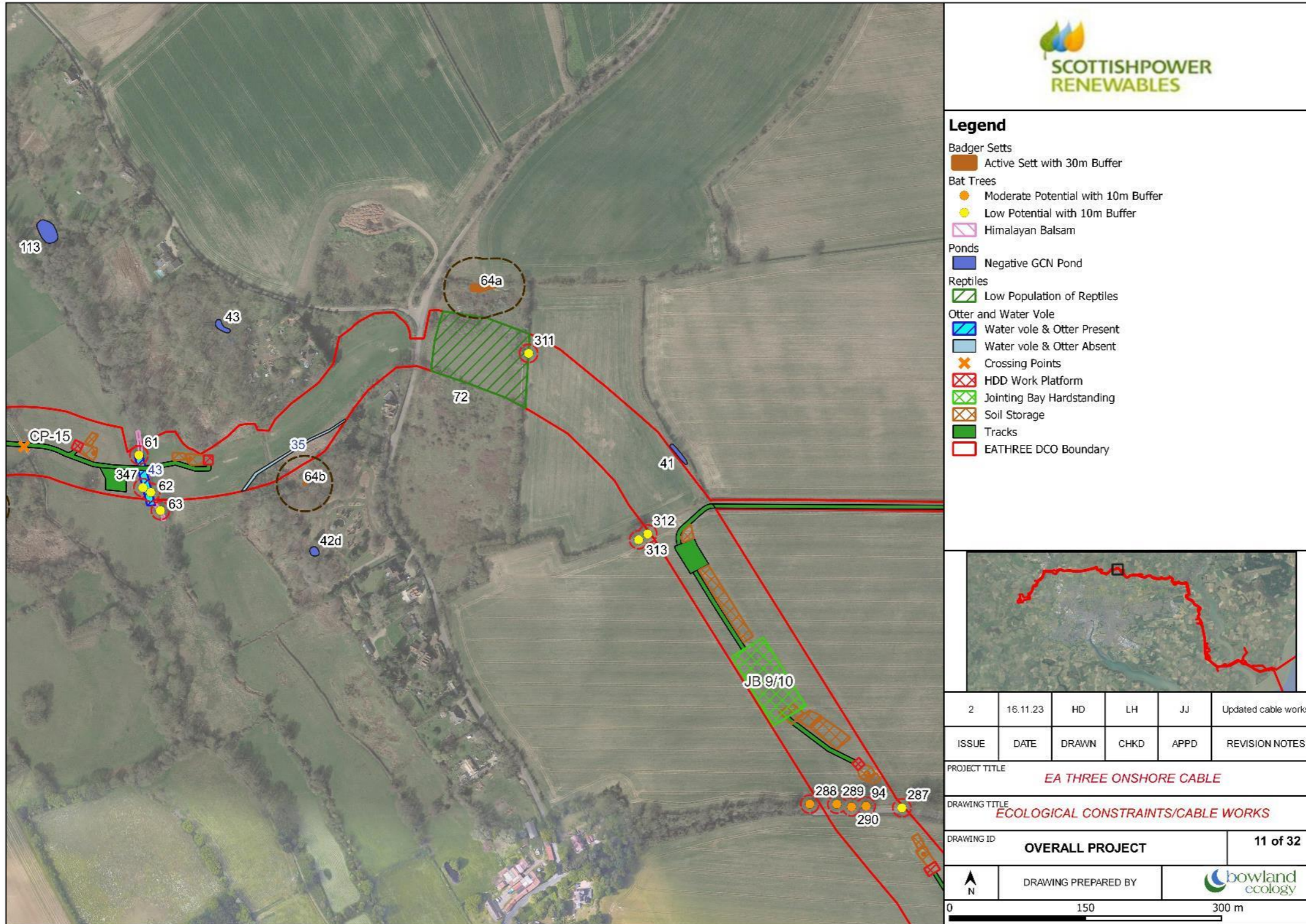
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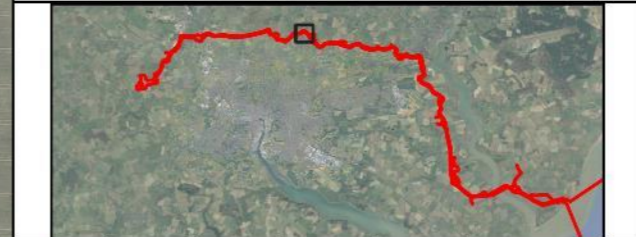




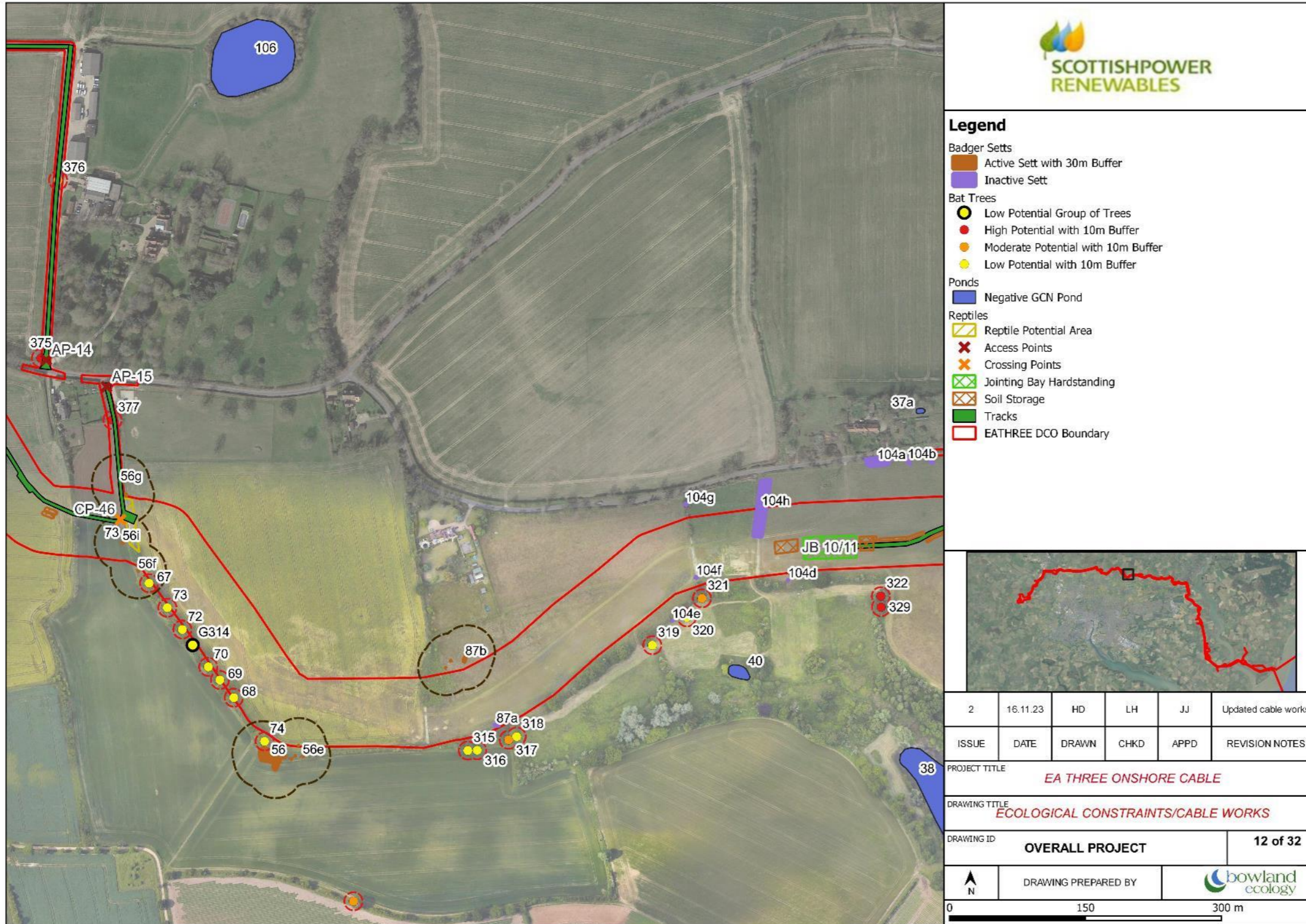




- Legend**
- Badger Setts
 - Active Sett with 30m Buffer
 - Bat Trees
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
 - Himalayan Balsam
 - Ponds
 - Negative GCN Pond
 - Reptiles
 - Low Population of Reptiles
 - Otter and Water Vole
 - Water vole & Otter Present
 - Water vole & Otter Absent
 - Crossing Points
 - HDD Work Platform
 - Jointing Bay Hardstanding
 - Soil Storage
 - Tracks
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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PROJECT TITLE EA THREE ONSHORE CABLE					
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DRAWING ID OVERALL PROJECT				11 of 32	
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Legend

Badger Setts

- Active Sett with 30m Buffer
- Inactive Sett

Bat Trees

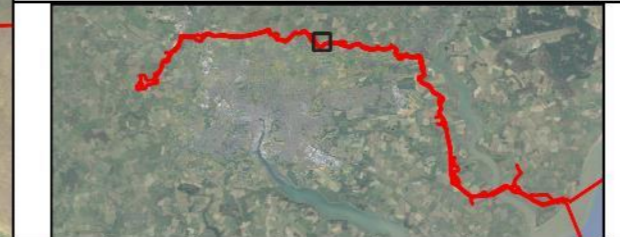
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- High Potential with 10m Buffer
- Moderate Potential with 10m Buffer
- Low Potential with 10m Buffer

Ponds

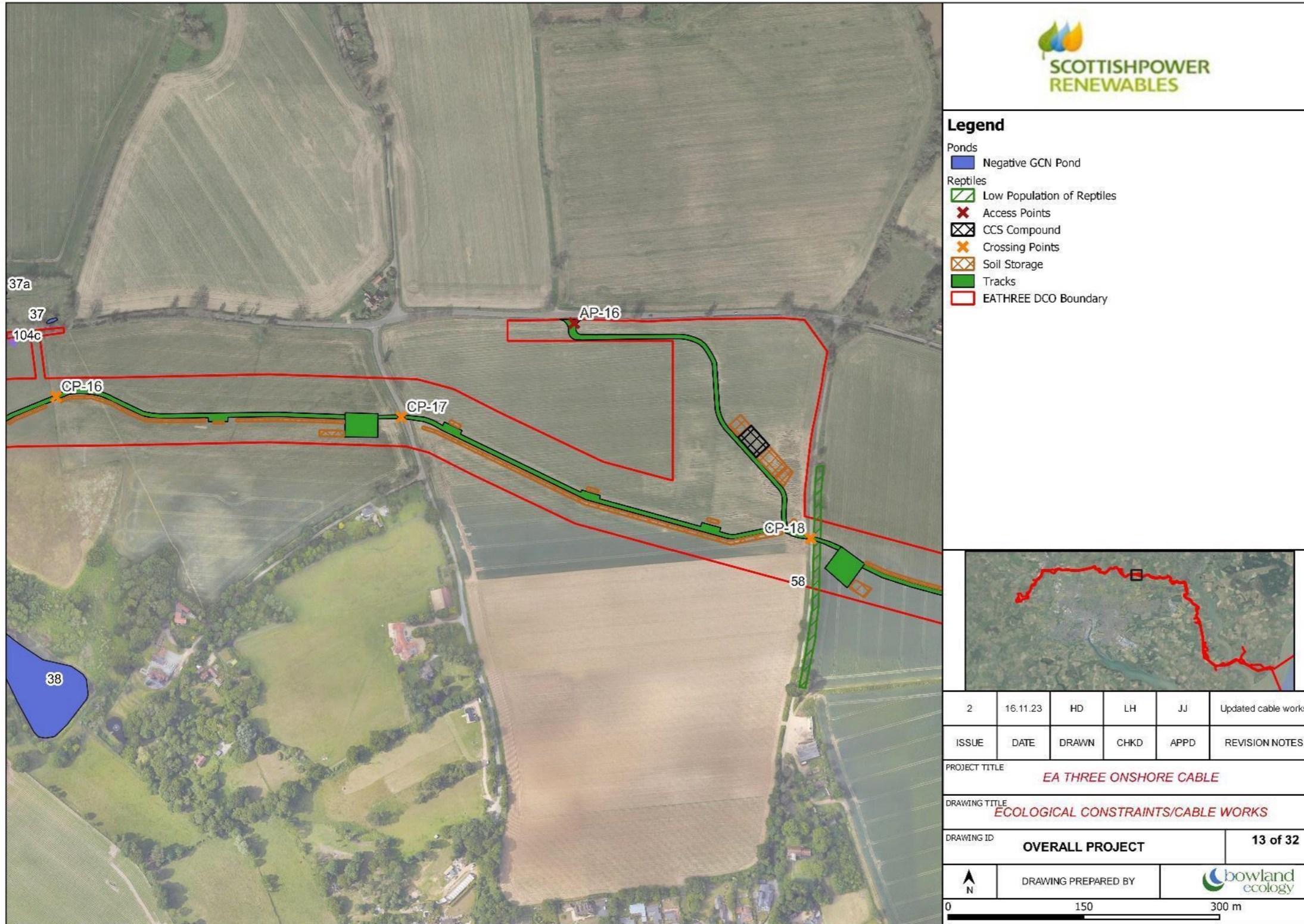
- Negative GCN Pond

Reptiles

- Reptile Potential Area
- Access Points
- Crossing Points
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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PROJECT TITLE EA THREE ONSHORE CABLE					
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Legend

- Ponds
 - Negative GCN Pond
- Reptiles
 - Low Population of Reptiles
 - ✕ Access Points
 - CCS Compound
 - ✕ Crossing Points
 - Soil Storage
 - Tracks
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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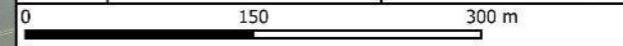
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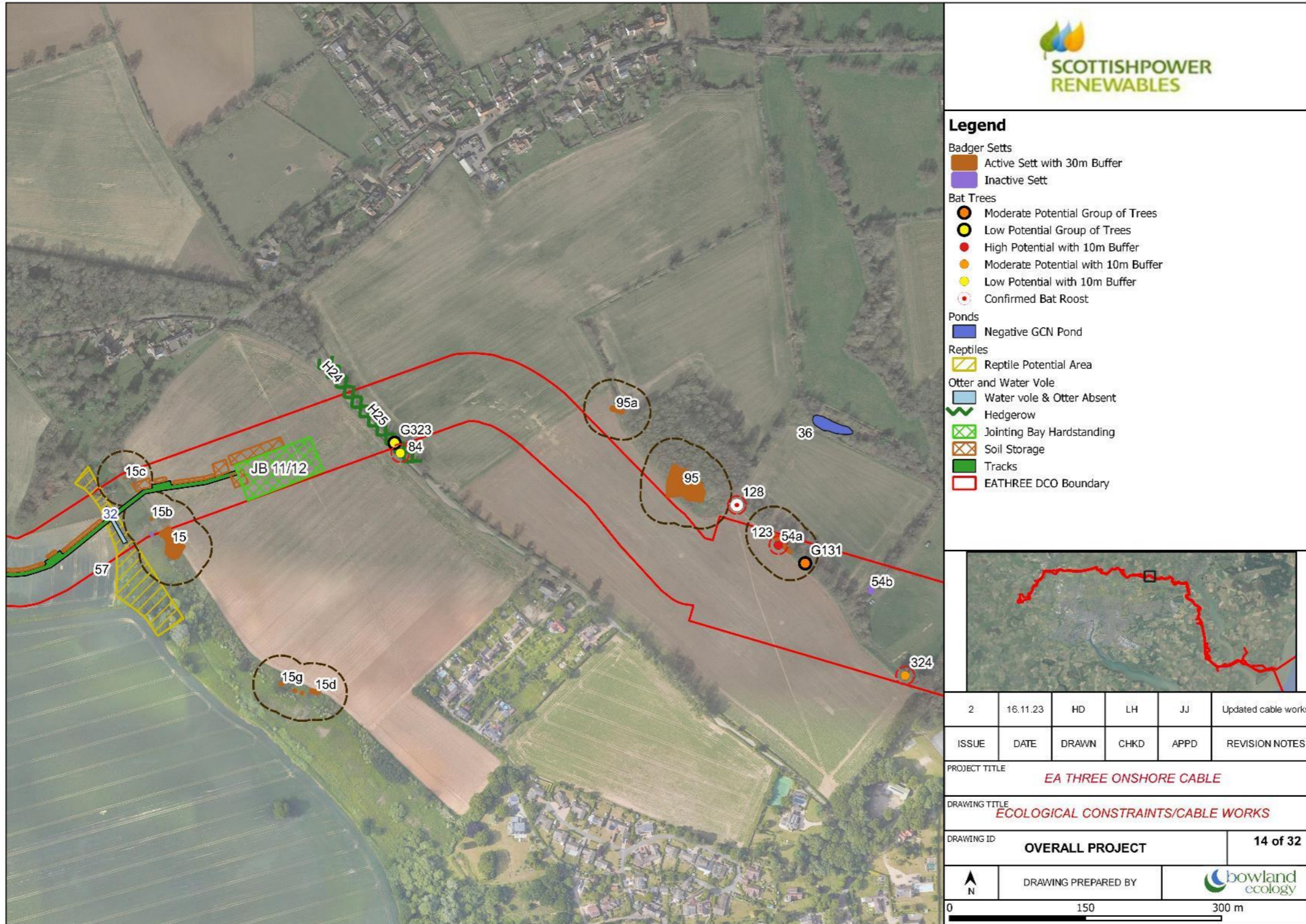
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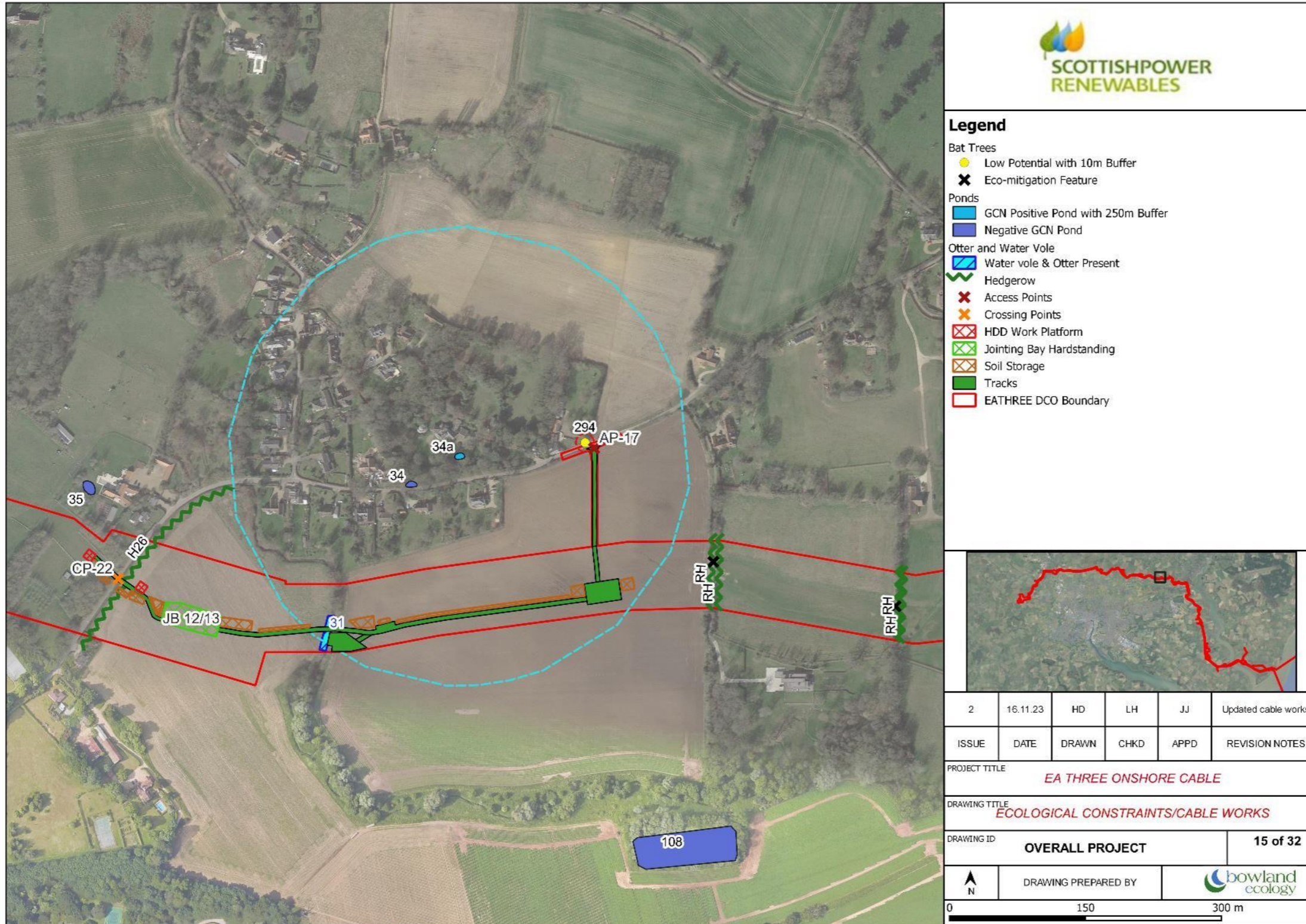


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 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees
 - Moderate Potential Group of Trees
 - Low Potential Group of Trees
 - High Potential with 10m Buffer
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
 - Confirmed Bat Roost
- Ponds
 - Negative GCN Pond
- Reptiles
 - Reptile Potential Area
- Otter and Water Vole
 - Water vole & Otter Absent
- Hedgerow
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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Legend

- Bat Trees
 - Low Potential with 10m Buffer
 - ✕ Eco-mitigation Feature
- Ponds
 - GCN Positive Pond with 250m Buffer
 - Negative GCN Pond
- Otter and Water Vole
 - ▨ Water vole & Otter Present
 - ▨ Hedgerow
- Access Points
 - ✕ Access Points
 - ✕ Crossing Points
- HDD Work Platform
 - ▨ HDD Work Platform
 - ▨ Jointing Bay Hardstanding
 - ▨ Soil Storage
 - ▨ Tracks
- EATHREE DCO Boundary
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2	16.11.23	HD	LH	JJ	Updated cable works
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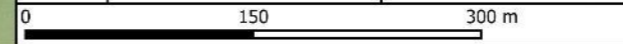
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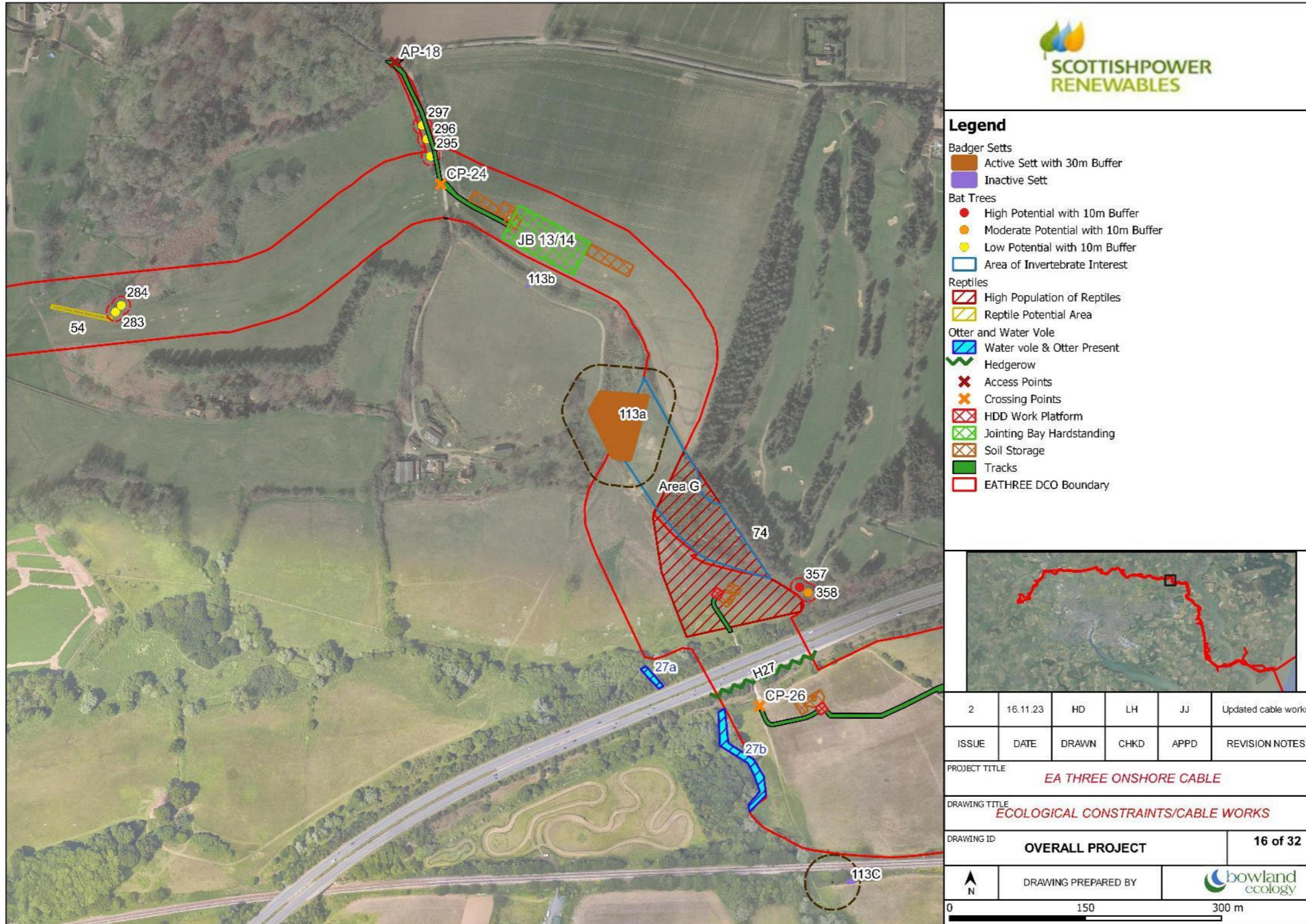
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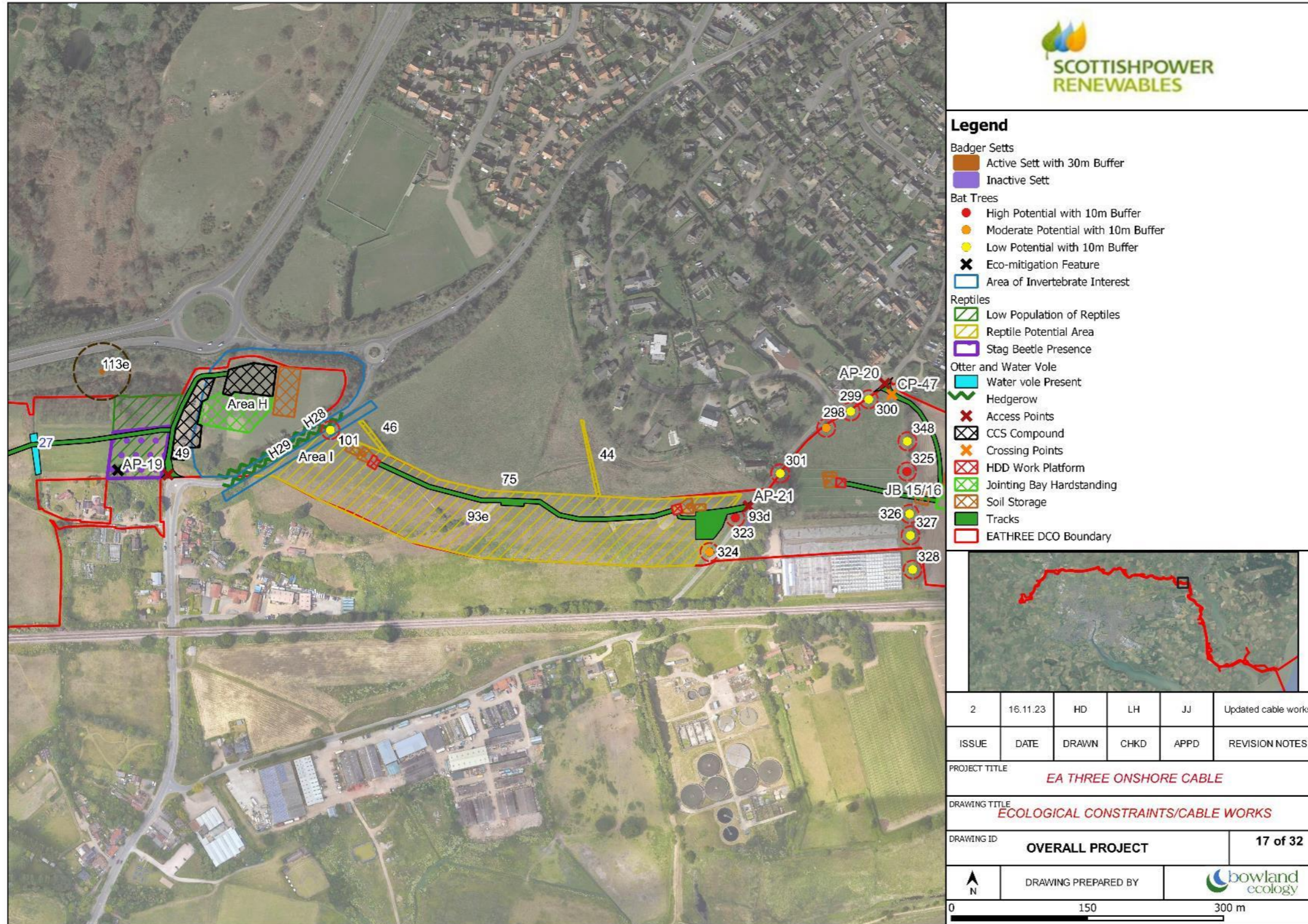
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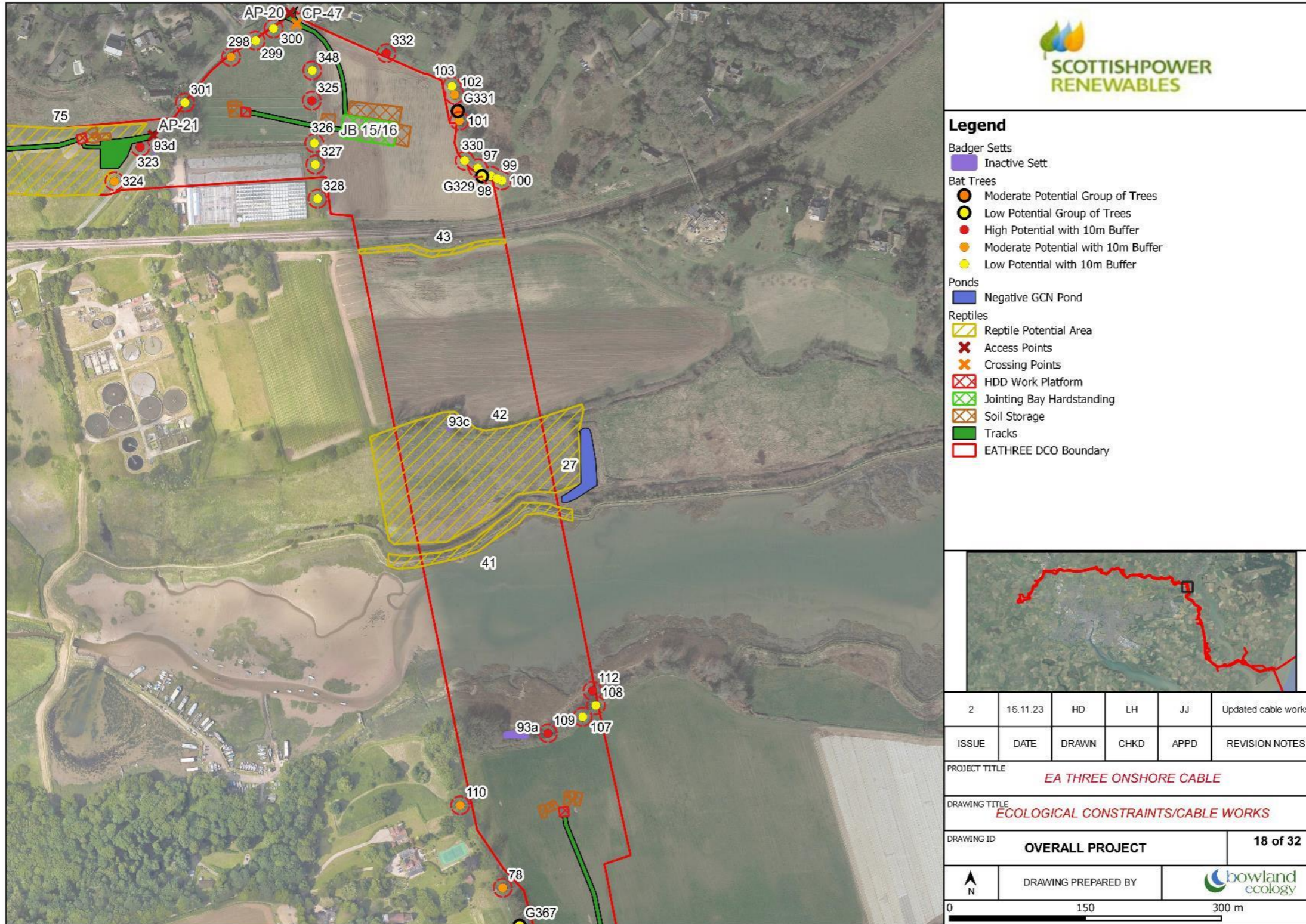
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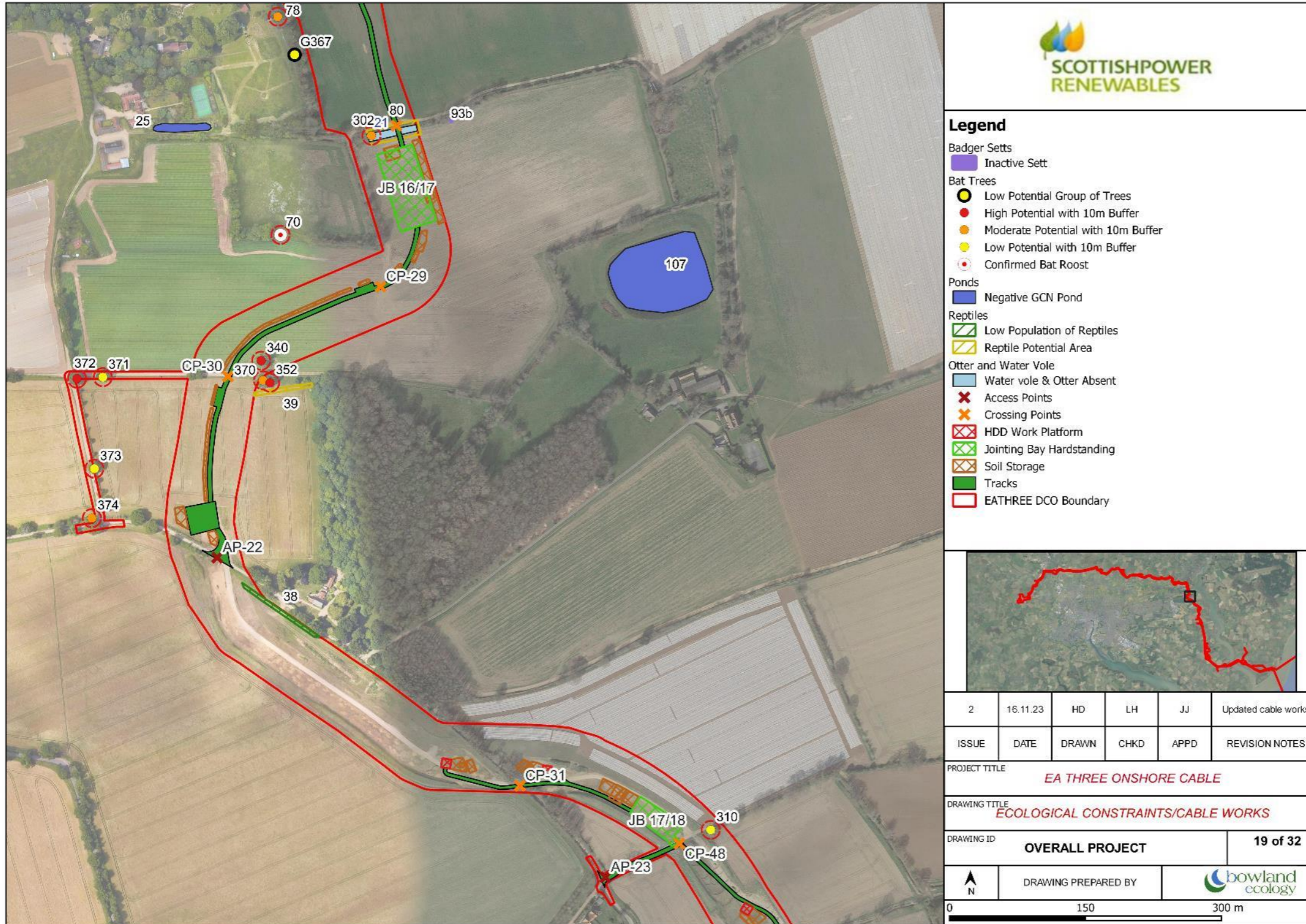
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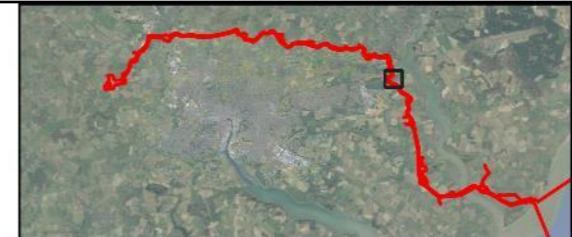




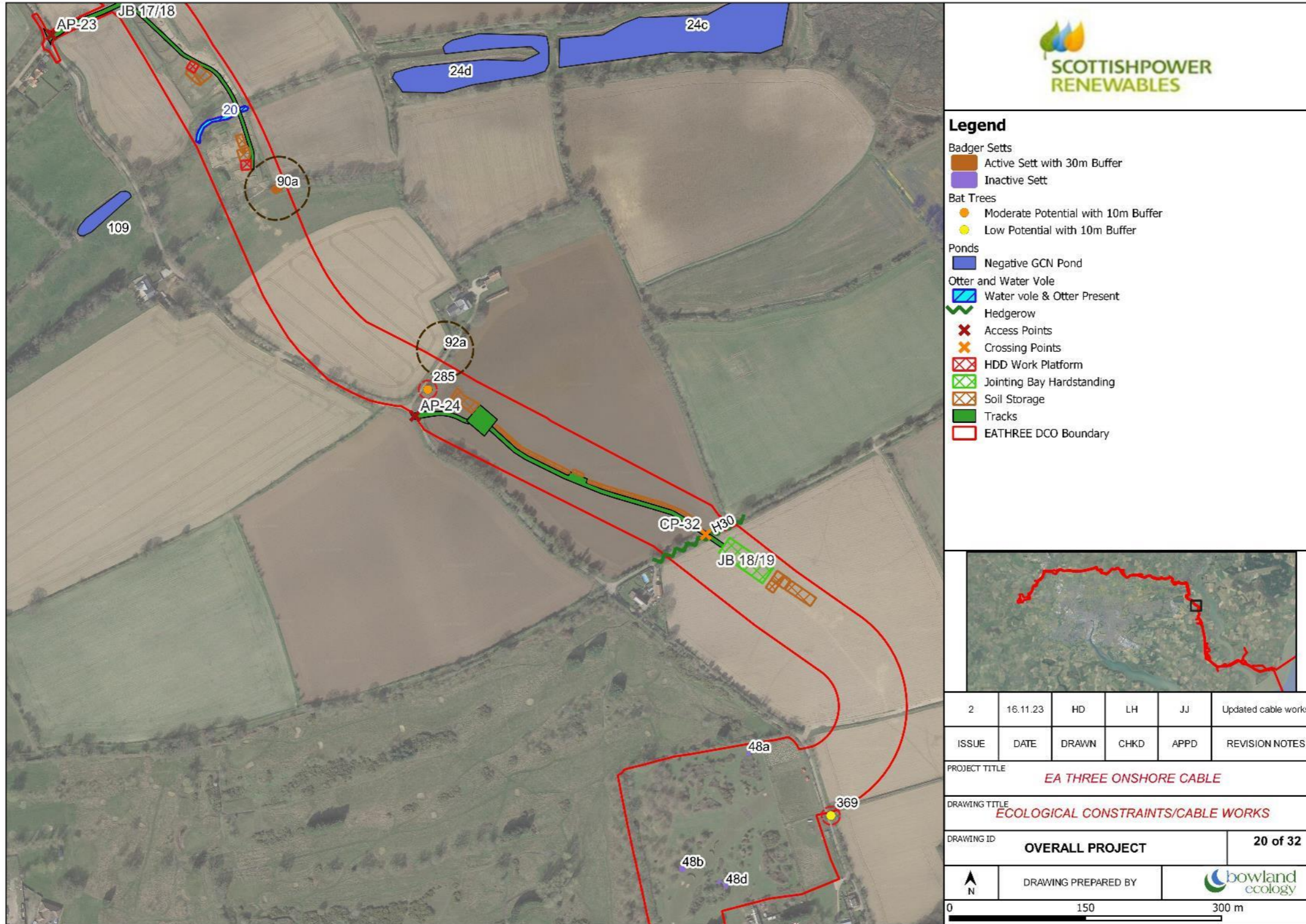


Legend

- Badger Setts**
- Inactive Sett
- Bat Trees**
- Low Potential Group of Trees
- High Potential with 10m Buffer
- Moderate Potential with 10m Buffer
- Low Potential with 10m Buffer
- Confirmed Bat Roost
- Ponds**
- Negative GCN Pond
- Reptiles**
- Low Population of Reptiles
- Reptile Potential Area
- Otter and Water Vole**
- Water vole & Otter Absent
- X Access Points
- X Crossing Points
- X HDD Work Platform
- X Jointing Bay Hardstanding
- X Soil Storage
- Tracks
- EATHREE DCO Boundary

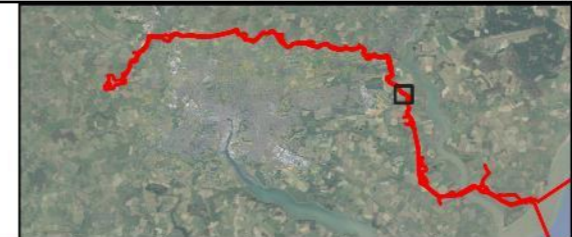


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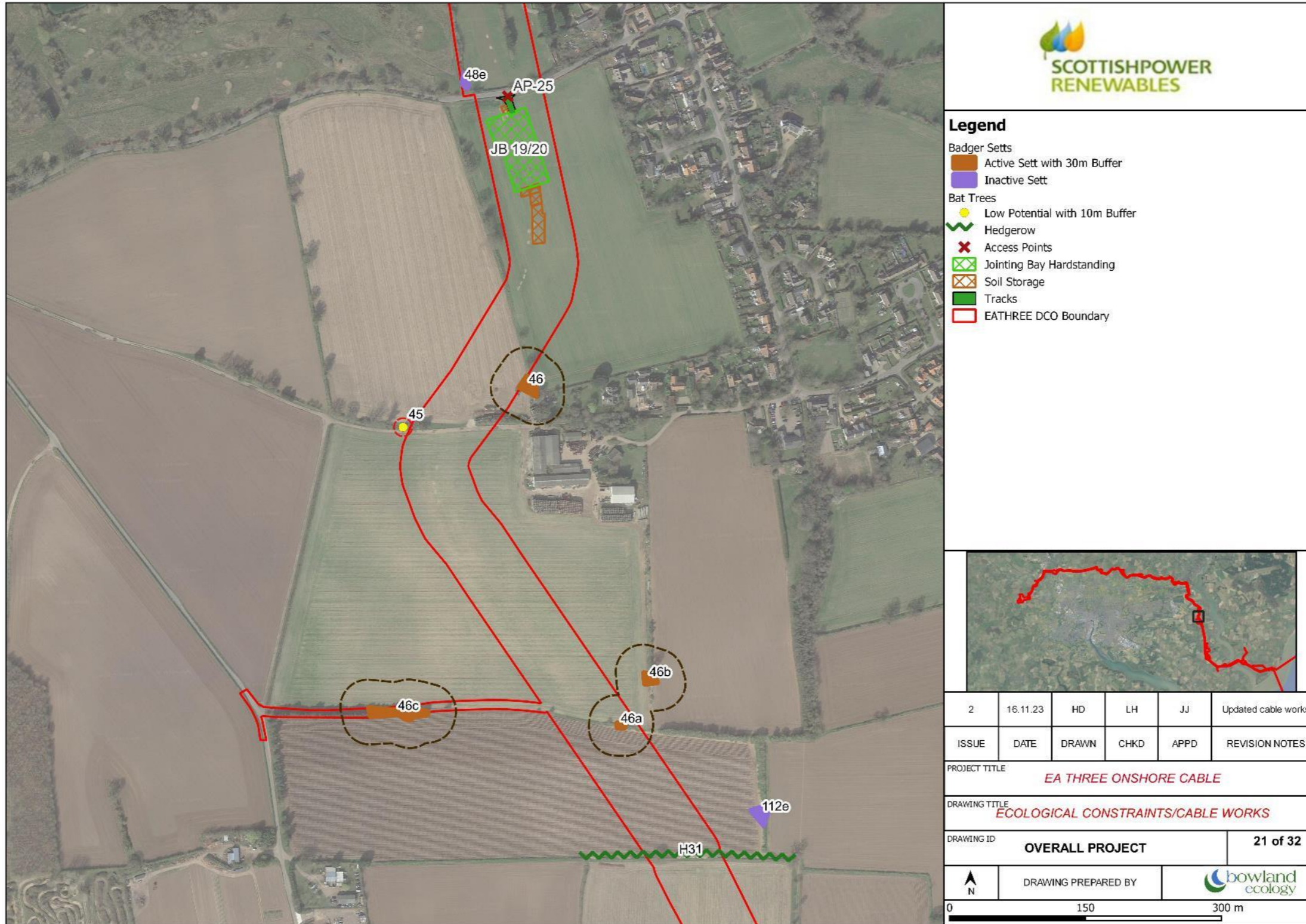


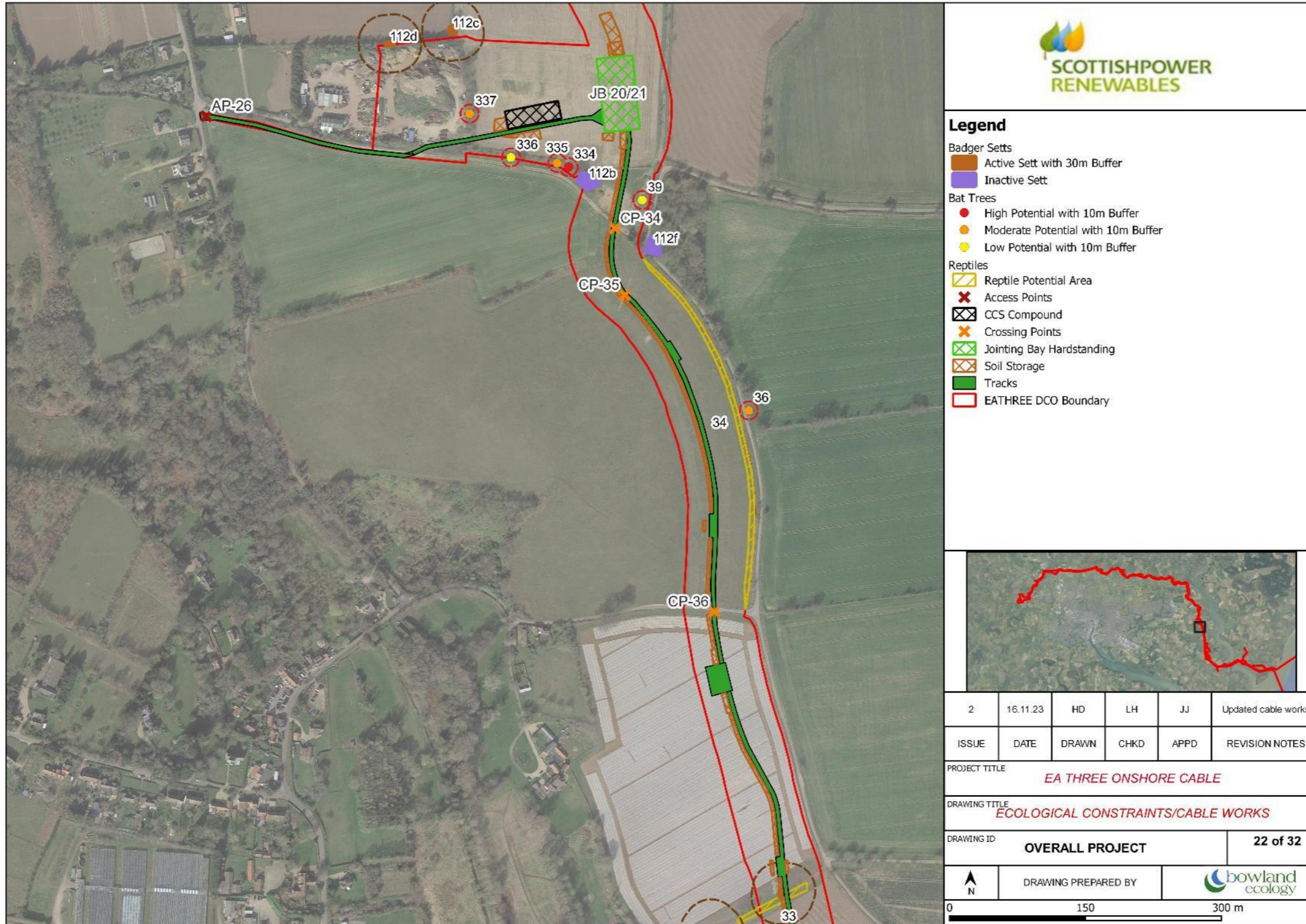
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 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
- Ponds
 - Negative GCN Pond
- Otter and Water Vole
 - Water vole & Otter Present
- Hedgerow
- Access Points
- Crossing Points
- HDD Work Platform
- Jointing Bay Hardstanding
- Soil Storage
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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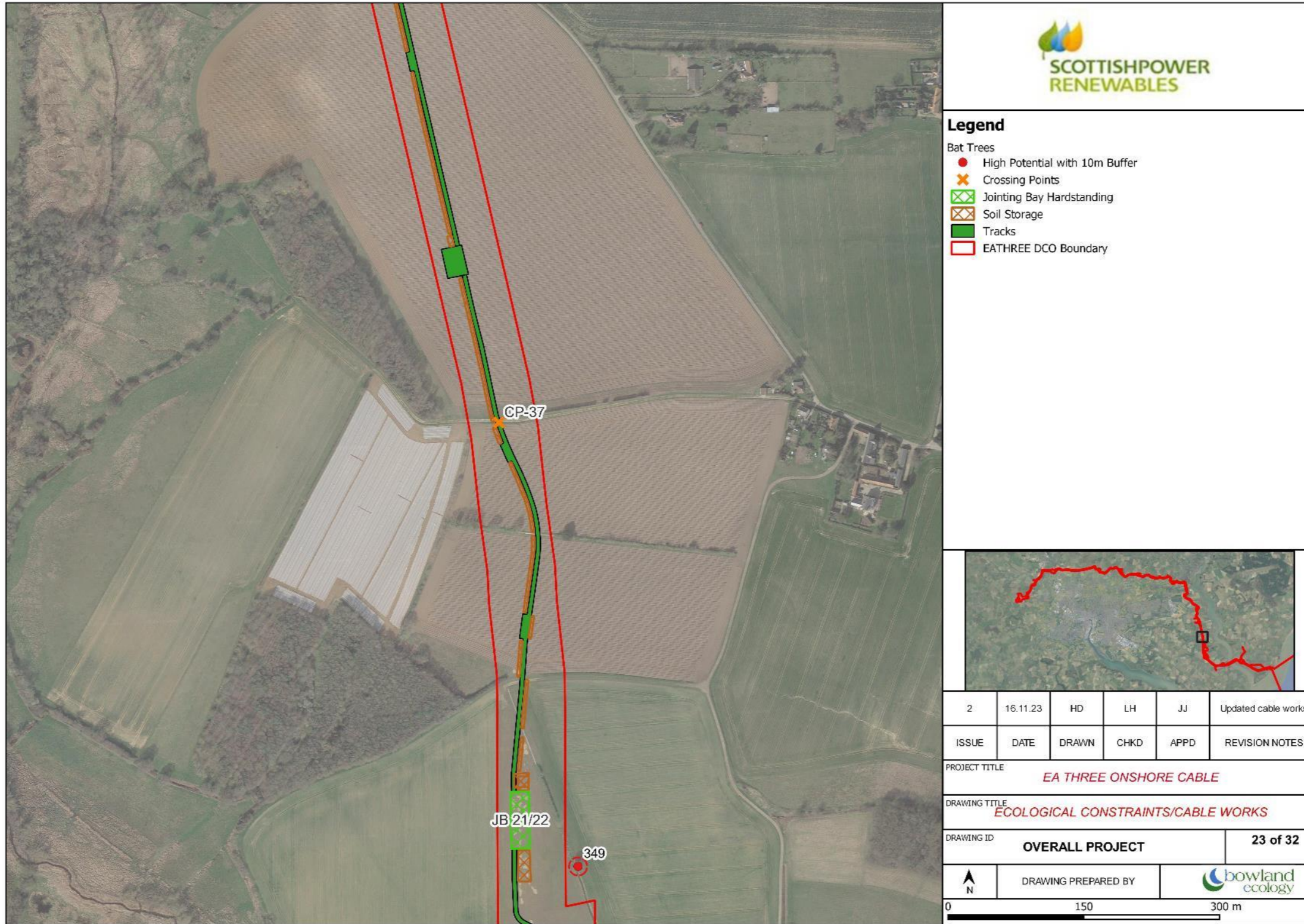


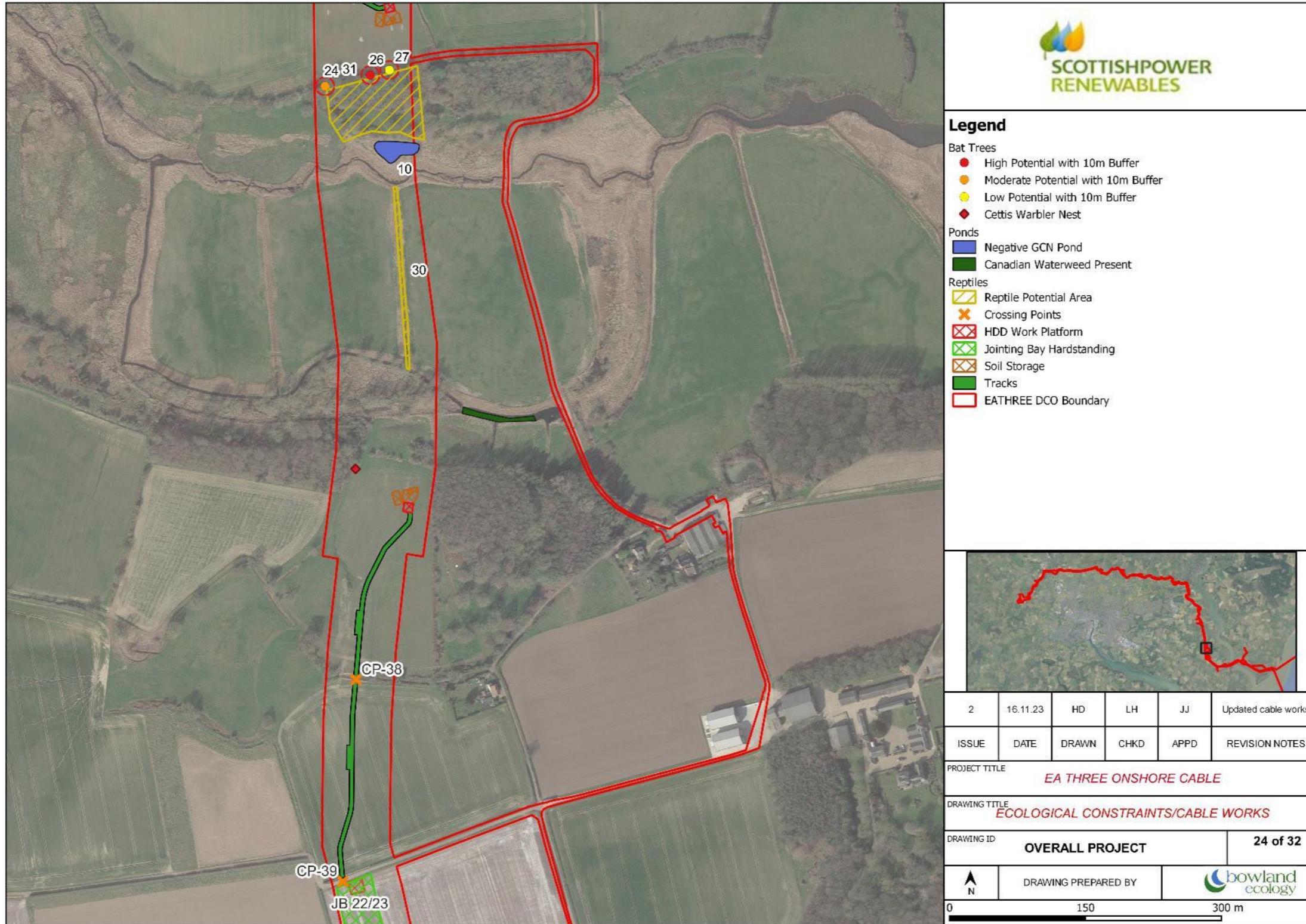


- Legend**
- Badger Setts**
 - Active Sett with 30m Buffer
 - Inactive Sett
 - Bat Trees**
 - High Potential with 10m Buffer
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
 - Reptiles**
 - Reptile Potential Area
 - Access Points
 - CCS Compound
 - Crossing Points
 - Jointing Bay Hardstanding
 - Soil Storage
 - Tracks
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES
PROJECT TITLE EA THREE ONSHORE CABLE					
DRAWING TITLE ECOLOGICAL CONSTRAINTS/CABLE WORKS					
DRAWING ID OVERALL PROJECT				22 of 32	
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Legend

- Bat Trees**
- High Potential with 10m Buffer
 - Moderate Potential with 10m Buffer
 - Low Potential with 10m Buffer
 - ◆ Cettis Warbler Nest
- Ponds**
- Negative GCN Pond
 - Canadian Waterweed Present
- Reptiles**
- ▨ Reptile Potential Area
 - ✕ Crossing Points
 - ▣ HDD Work Platform
 - ▣ Jointing Bay Hardstanding
 - ▣ Soil Storage
 - Tracks
 - ▭ EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES
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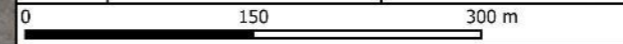
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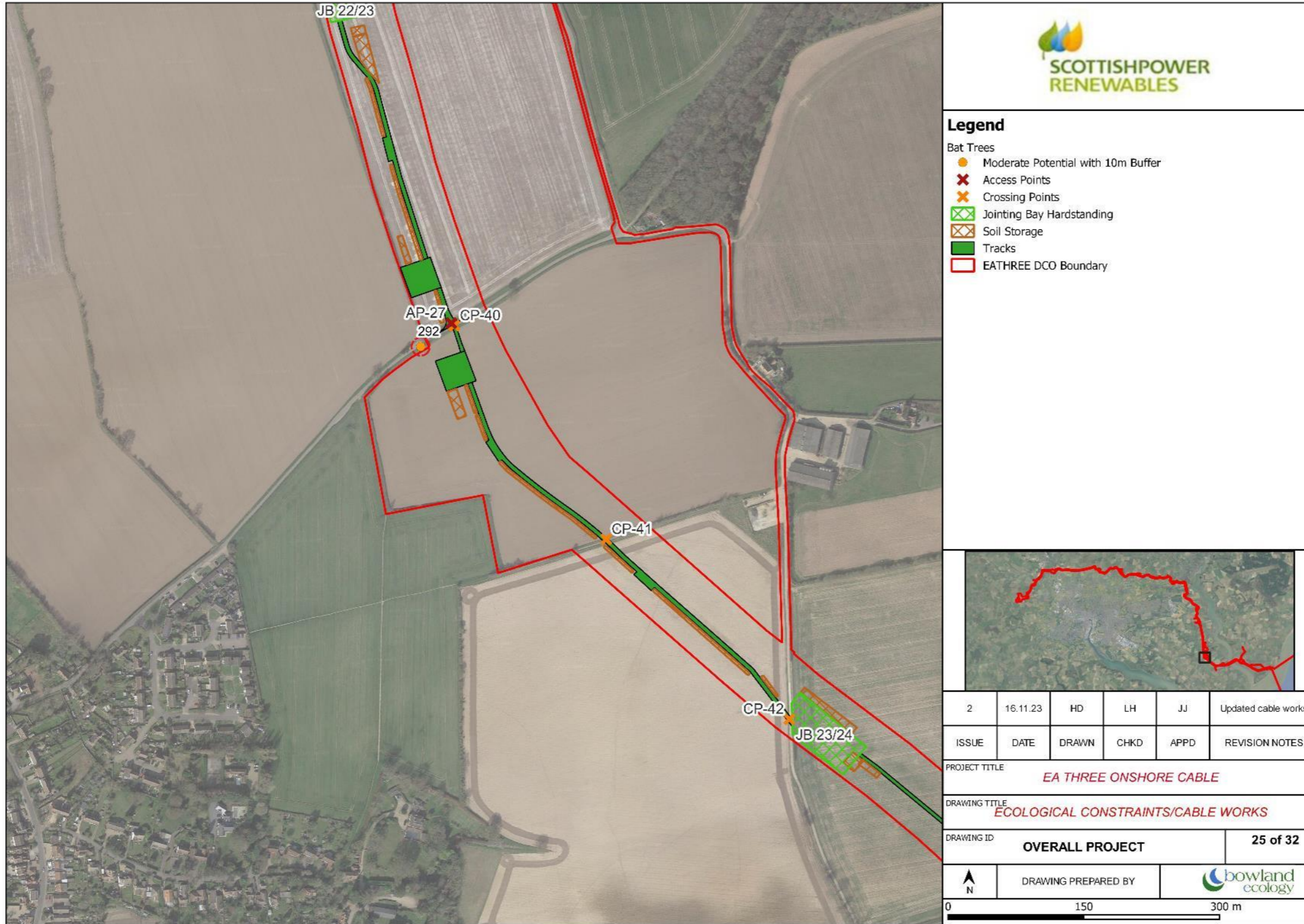
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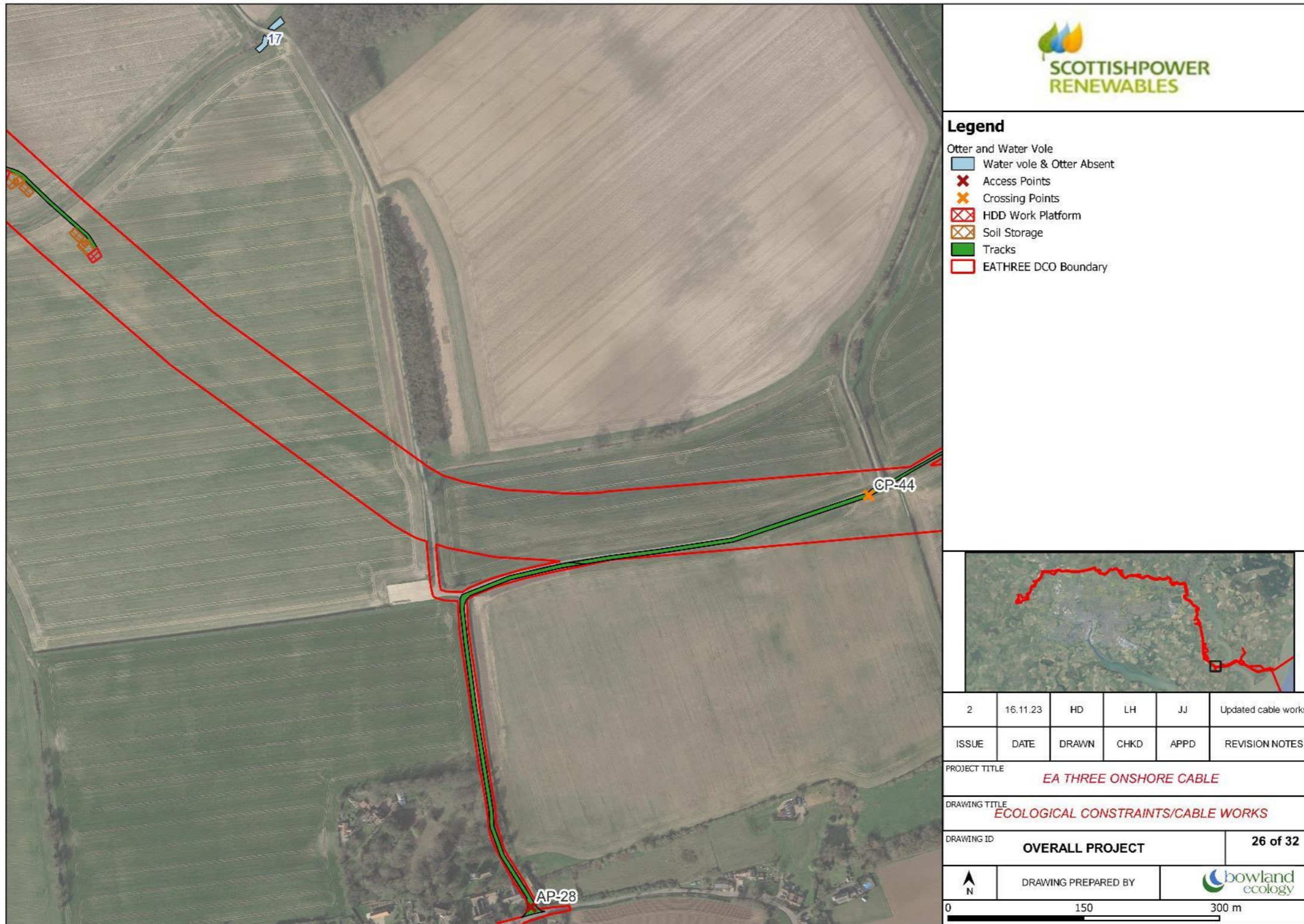
DRAWING ID **OVERALL PROJECT** **24 of 32**

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- Legend**
- Water vole & Otter Absent
 - Access Points
 - Crossing Points
 - HDD Work Platform
 - Soil Storage
 - Tracks
 - EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
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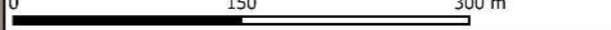
ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES
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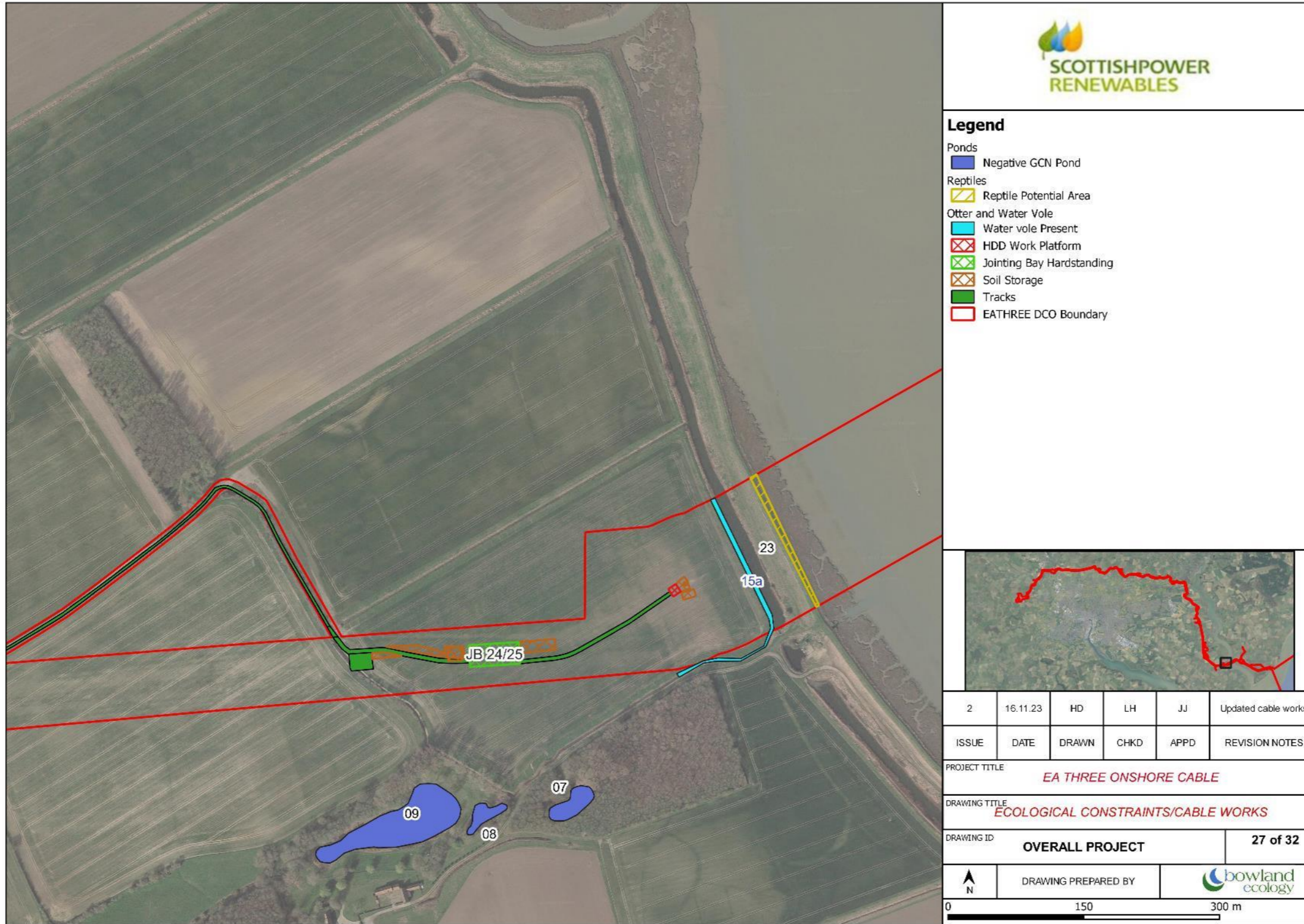
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EA THREE ONSHORE CABLE

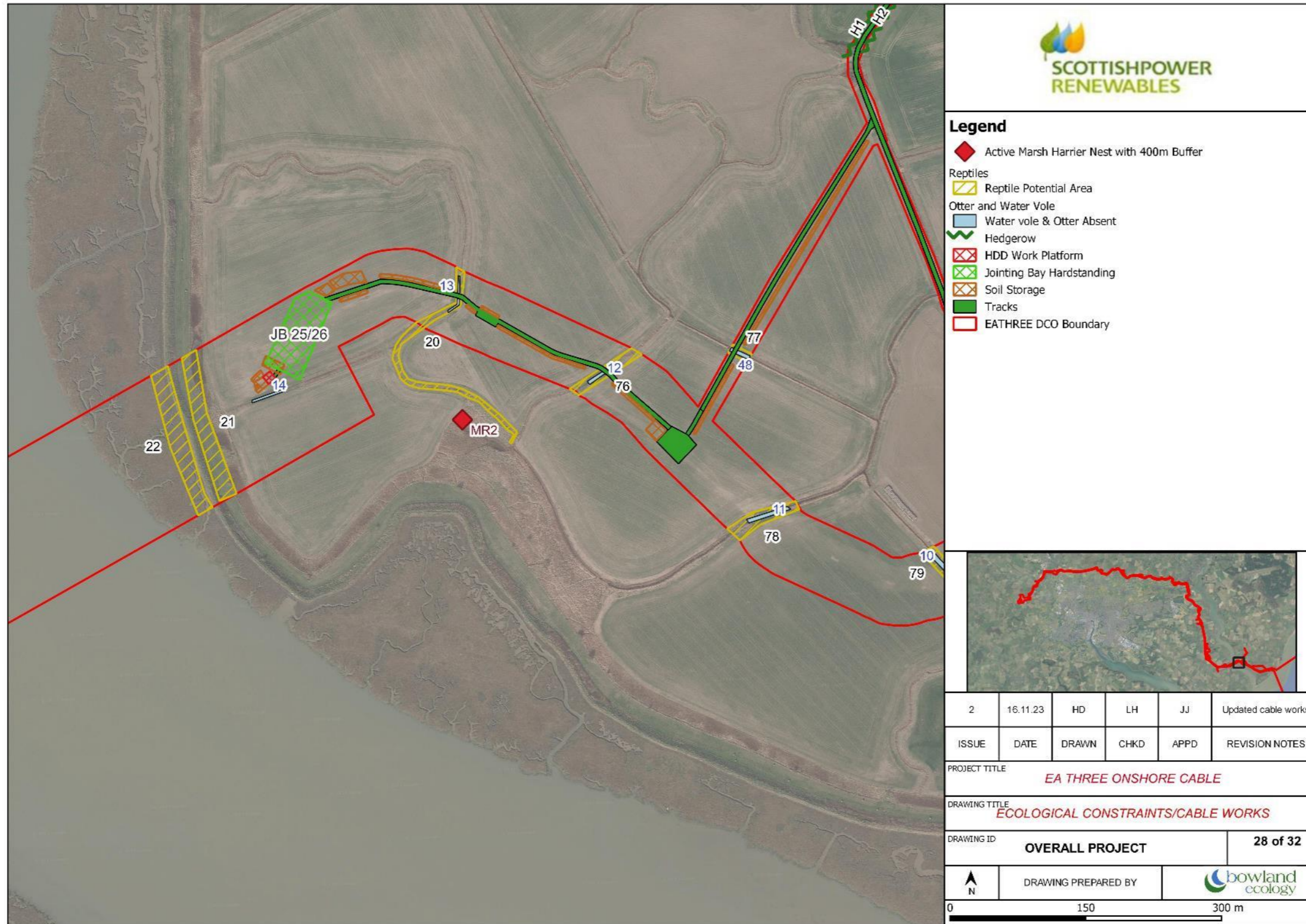
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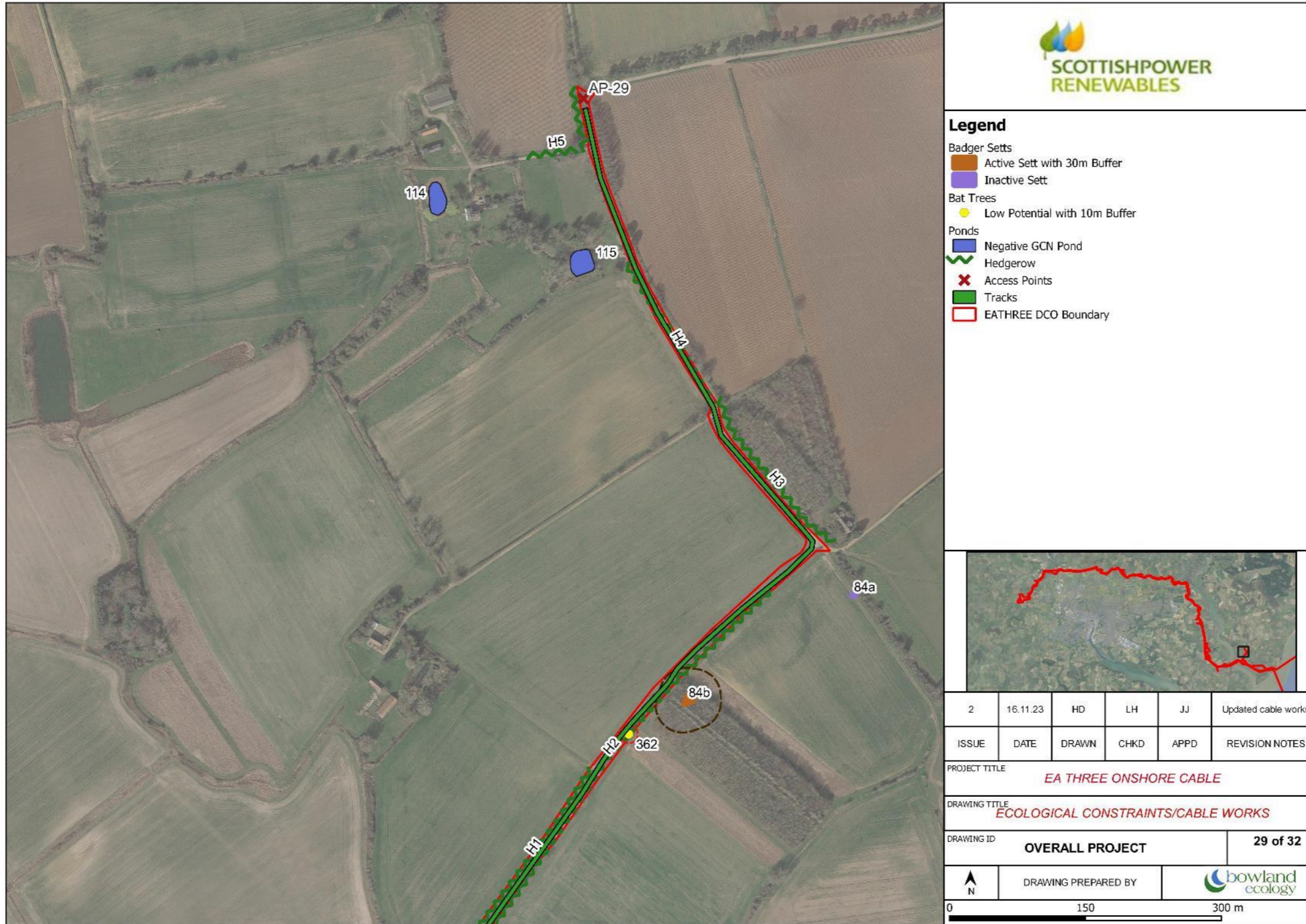
DRAWING ID
OVERALL PROJECT **26 of 32**

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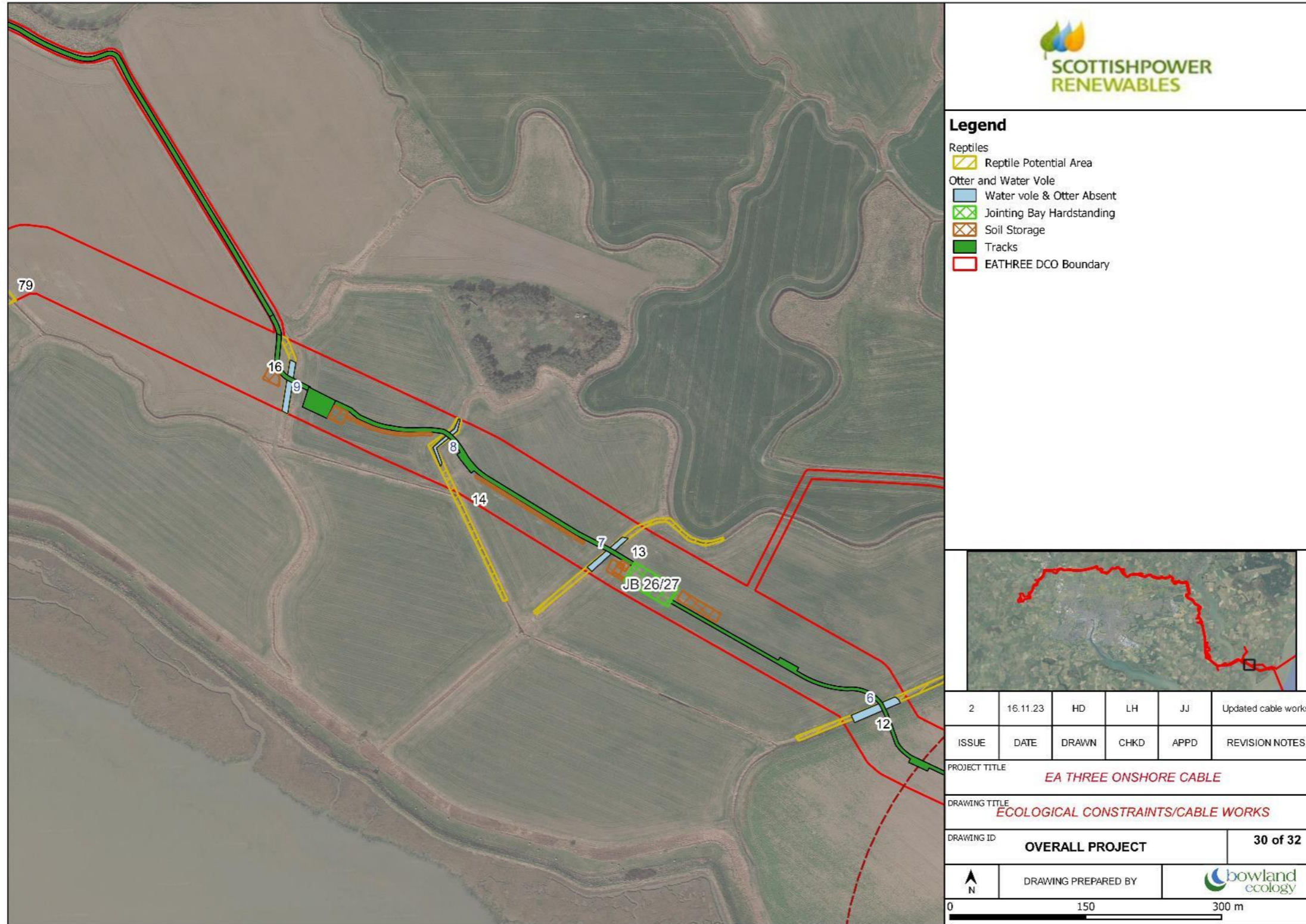


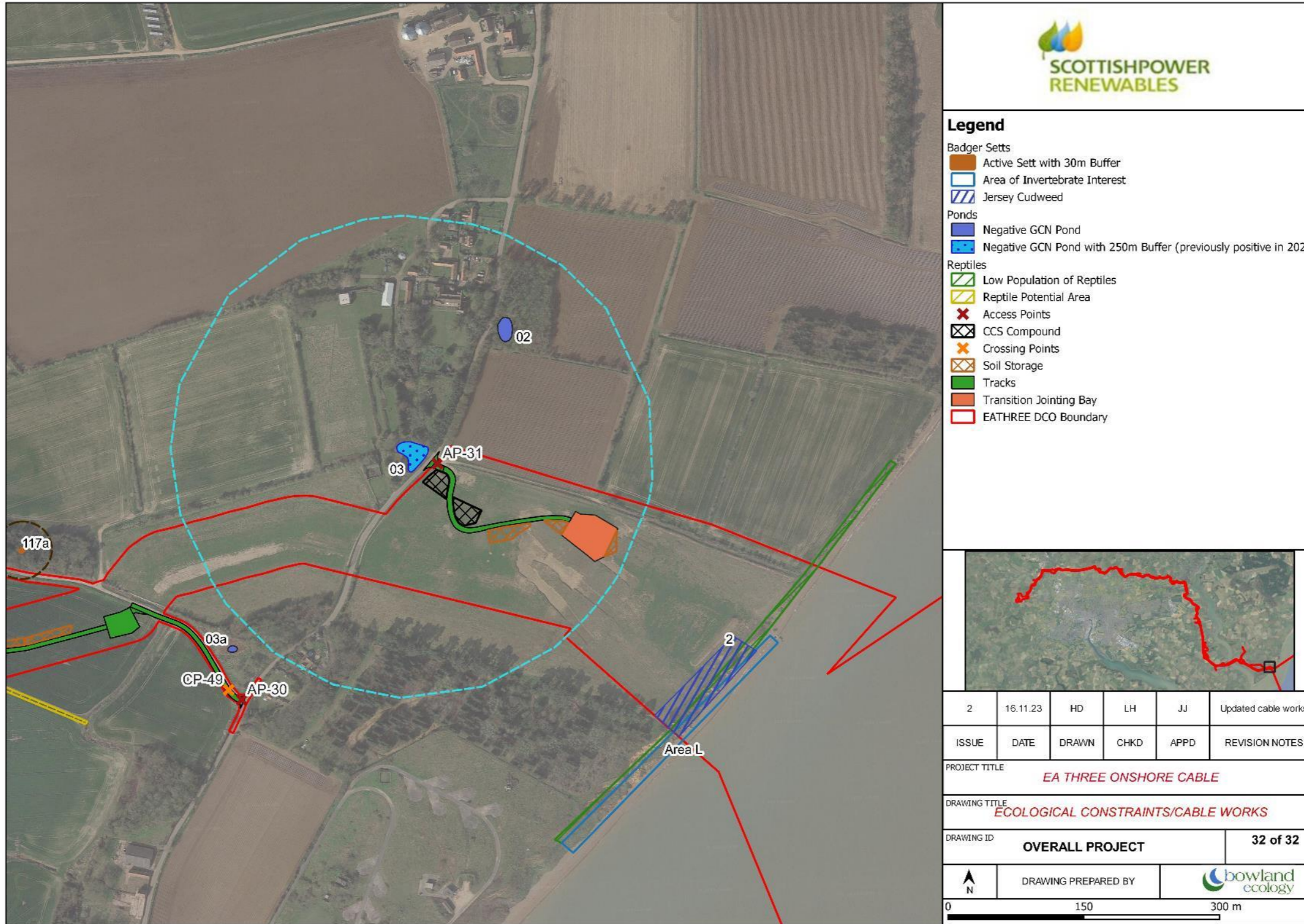
Legend

- Badger Setts
 - Active Sett with 30m Buffer
 - Inactive Sett
- Bat Trees
 - Low Potential with 10m Buffer
- Ponds
 - Negative GCN Pond
- Hedgerow
- Access Points
- Tracks
- EATHREE DCO Boundary



2	16.11.23	HD	LH	JJ	Updated cable works
ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES
PROJECT TITLE EA THREE ONSHORE CABLE					
DRAWING TITLE ECOLOGICAL CONSTRAINTS/CABLE WORKS					
DRAWING ID OVERALL PROJECT				29 of 32	
N	DRAWING PREPARED BY				
<div style="display: flex; justify-content: space-between; width: 100%;"> 0 150 300 m </div>					





- Legend**
- Badger Setts**
 - Active Sett with 30m Buffer
 - Area of Invertebrate Interest
 - Jersey Cudweed
 - Ponds**
 - Negative GCN Pond
 - Negative GCN Pond with 250m Buffer (previously positive in 2021)
 - Reptiles**
 - Low Population of Reptiles
 - Reptile Potential Area
 - Access Points
 - CCS Compound
 - Crossing Points
 - Soil Storage
 - Tracks
 - Transition Jointing Bay
 - EATHREE DCO Boundary



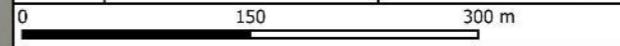
2	16.11.23	HD	LH	JJ	Updated cable works
ISSUE	DATE	DRAWN	CHKD	APPD	REVISION NOTES

PROJECT TITLE
EA THREE ONSHORE CABLE

DRAWING TITLE
ECOLOGICAL CONSTRAINTS/CABLE WORKS

DRAWING ID
OVERALL PROJECT **32 of 32**

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APPENDIX 2 - ECOLOGICAL PERMIT TO WORK

Date*	
Project	
Location (Field Reference/Other)	
Contractor	
Works to be undertaken	
ECoW in attendance	

Checks Undertaken Detail survey undertaken, specific locations/ works etc.	
Ecological Constraints present Detail constraint and any restrictions and mitigation including specific work locations restricted if applicable	
Works Ok to Proceed ? Yes / NO Further Requirements? Yes / NO <i>Detail any further requirements below</i>	
ECoW to sign for completion of permit Signed by: Date:	Contractor to sign for acceptance of permit Signed by: Date:

***Permit is only valid for a maximum 48hrs, if no works proceed within this timeframe**