

North London Reinforcement Project

Requirement 12: Stage 4a – Ecological Management Strategy

National Grid
Unit 6
The Grange Business Park
Wick Road
Hewish
Somerset
BS24 6RR

May 2026

Table of Contents

1	INTRODUCTION	3
1.1	This document.....	4
1.2	Overview of the Project	4
1.3	Stage 4a overview	4
1.4	Consultation	4
2	REQUIREMENTS CONTEXT	4
2.1	References to this document within existing DCO documents.....	4
	ECOLOGICAL MANAGEMENT STRATEGY	4
2.2	Purpose of this document	4
2.3	Background	4
2.4	Current Site Conditions	4
	The Site	4
	Bats.....	4
	Badger	4
	Breeding birds (including Schedule 1 bird species).....	4
	Great crested newts	4
	Dormouse	4
	Otter and water vole.....	4
	Reptiles.....	4
	Non-Native Invasive Species.....	4
2.5	Ecological Management Strategy	4

1 INTRODUCTION

1.1 This document

- 1.1.1 This document comprises an Ecological Management Strategy for Stage 4a of the authorised development as part of the North London Reinforcement Project ('the Project') as required by Schedule 2, Requirement 12 of The National Grid (North London Reinforcement) Development Consent Order 2014 ('the DCO').
- 1.1.2 Requirement 12 of the DCO is as follows:
- 1.1.3 *"(1) No stage of the authorised development shall commence until a written ecological management strategy applicable to that stage, reflecting the ecological measures included in the environmental measures document, has after consultation with the Environment Agency, Natural England and, where it refers to any land within the boundary of the Lee Valley Regional Park, Lee Valley Regional Park Authority, been submitted to and approved by the relevant planning authority.*
- (2) Each ecological management strategy prepared in accordance with requirement 12(1) shall include an implementation timetable and must be carried out as approved unless otherwise agreed with the relevant planning authority."*
- 1.1.4 Consultation with Environment Agency, Natural England, Lee Valley Regional Park Authority and the London Borough of Haringey was completed prior to the submission of this document.

1.2 Overview of the Project

- 1.2.1 The DCO was made by the Secretary of State for Energy and Climate Change for the Project on 16 April 2014, and came into force on 7 May 2014. The DCO provides powers to National Grid to carry out the Project, which comprises of the replacement of the existing 275kV overhead line (OHL) with a 400kV OHL from Waltham Cross substation in Epping Forest, through Enfield, and then to Tottenham substation in Haringey. The DCO also contains powers to carry out associated works to the substations at Waltham Cross, Brimsdown and Tottenham.
- 1.2.2 The Project falls within the administrative boundaries of, Epping Forest District Council, Enfield Council, the London Borough of Waltham Forest, and the London Borough of Haringey. The Project is also within the administrative boundaries of the Greater London Authority and Essex County Council, though these are not relevant planning authorities in relation to the Project.
- 1.2.3 The Project includes the following elements:
- Existing 275kV route uprating to 400kV for 14km from the Waltham Cross substation to Tottenham substation. This would comprise of:
 - The existing 275kV conductor cables (wires) to be removed and replaced (i.e. reconducted) with 400kV wires. This would use the existing pylons.

- An extension to the Waltham Cross substation to provide a new 400kV Gas Insulated Switchgear (GIS) substation and associated OHL entry modifications.
- The replacement of two 275/132 kV Super Grid Transformers (SGTs) at Brimsdown with two new 400/132kV SGTs, located both inside and partially outside the existing Brimsdown substation boundary, with underground cable connections between these new SGTs and the existing substation.
- Works to bypass Tottenham substation, including the construction of a new pylon (VC1R) and cable sealing end (CSE) compound south of the Tottenham substation, and the removal of the existing VC1 pylon.
- Associated works, for example, temporary access roads, highway works temporary construction compounds, scaffolds, work sites and ancillary works.

1.3 Stage 4a overview

- 1.3.1 A written scheme of stages (required by schedule 2, Requirement 3 of the DCO) was submitted to the following authorities:
- London Borough of Haringey
 - Epping Forest District Council
 - Enfield Council
 - London Borough of Waltham Forest
- 1.3.2 The written scheme of stages sets out the works that form part of stage 4a.
- 1.3.3 The proposed works at this stage of the Project are limited to:
- 1.3.4 The establishment off an access track off Watermead Way:
- Between AC71 and AC72 (shown on Sheet 10 of the Access/Rights of Way Plans – **Appendix A**) a temporary access will be provided to accommodate construction vehicles for works to pylons VC1 and VC1R.
 - The access will comprise of an extended dropped kerb and appropriate safety measures to guide pedestrians and cyclists to crossing facilities that will be introduced to allow them to safely cross the access. The operation of the access will be incorporated into the existing Watermead Way / Marigold Road signal junction arrangement.
 - Beyond the access, a temporary track will be provided leading to works area for pylons VC1 and VC1R.
 - Access to Lee Valley Regional Park will be maintained via a temporary route running parallel to the temporary construction access.
 - Appropriate traffic management will be provided during the access establishment and whilst in operation.
- 1.3.5 The proposed works for stage 4a are within the administrative boundary of the London Borough of Haringey, therefore this Ecological Management Strategy will be submitted to them as the relevant authority.

- 1.3.6 The proposed works outlined above are contained within the Development Consent Order (DCO) boundary limits hereafter referred to as the 'Site'.
- 1.3.7 DCO Work Plans and associated Access/Rights of Way Plans have also been provided as part of this application.
- 1.3.8 Early vegetation clearance associated with Stage 4a will commence in Q1 2026 and will be completed Q3 2026.

1.4 Consultation

- 1.4.1 All comments received on the draft version of the document, including how these have been taken into consideration are set out in Table 1.

Table 1: Comments received from the relevant planning authorities on the draft document

Comment Theme	Comment	National Grid Response
Consultation with Lee Valley Regional Park (LVRP)	Comments attached for formal submission to the LPA.	Comments noted.
Consultation with Natural England	Natural England consulted on 24/12/24. No comment from Natural England.	Noted.
Consultation with Environment Agency	Environment Agency consulted on 24/12/25. No comment from EA	Noted.

2 REQUIREMENTS CONTEXT

2.1 References to this document within existing DCO documents

- 2.1.1 The Ecological Measures included in the Environmental Measures document (National Grid, 2013) for DCO requirement 12 which are relevant to Stage 4a are provided in Table 2 below.

Table 2: Ecological measures to be included in this Ecological Management Strategy

Ecological measures from the Environmental Measures document for DCO Requirement 12	Relevant to Stage 4a
Restoration of semi-improved grassland within Tottenham Marshes by seeding of the disturbed soil with a pollen and nectar rich seed mix.	All grassland within Tottenham Marshes will be restored on completion of the proposed works. All planting will be agreed with in consultation with LVRPA when preparing the landscaping plan which will be submitted as part of Stage 4c (as outlined in the staging plan approved on the 21 November 2025, planning ref: HGY/2025/2787).
Within the Lee Valley Country Park (around the proposed laydown area) and within the works area at Tottenham Marshes, free-draining, south-facing earth banks will be created to benefit invertebrates and reptiles. These banks will be seeded with native grasses and herbaceous species.	All proposed planting and landscaping will be agreed with in consultation with LVRPA when preparing the landscaping plan which will be submitted as part of Stage 4c (as outlined in the staging plan approved on the 21 November 2025, planning ref: HGY/2025/2787).
Control of invasive species, e.g. Japanese knotweed, Himalayan balsam and giant hogweed (within and up to 50m outside working areas).	No invasive species have been identified during site walkovers of the proposed site associated with Stage 4a works. Removals will be undertaken by manual removal like digging or chemical treatment via stem injection. A manual biosecurity wash station shall be installed at the site access. This shall consist of a handheld water pump and biosecurity kit including brushes and hoof picks to remove material from footwear treads, to allow all PPE, footwear and tools to be washed down before egressing site to any public access areas.

Ecological measures from the Environmental Measures document for DCO Requirement 12	Relevant to Stage 4a
Removal of vegetation from working areas to be undertaken in the winter period (outside of the bird breeding season (mid-March to end-July)). Where this is not possible, a nesting bird check will be undertaken by a suitably qualified ecologist no more than 24-48 hours prior to vegetation removal. If any active nests are found within the vegetation to be cleared, clearance works will be delayed until the young have fledged.	An Ecological Clerk of Works will be present on site during the vegetation clearance to undertake a nesting bird check prior to the clearance.
Further targeted surveys will be completed prior to the works for bats, badger, otter and water vole, together with surveys of birds breeding on pylons.	Relevant surveys for Stage 4a have been undertaken across the 2024 survey season, including a ground level tree assessment for bat roosts, badger walkover for presence of setts, searches for signs and evidence of otter and water vole and the presence of invasive species. In addition, ongoing breeding bird monitoring has been undertaken to inform advice on mitigation and licencing, if required.
Biodiversity enhancements will be provided elsewhere in the Local Wildlife Site (LWS) and LVRP which will increase the quality of the site for visitors (see above and chapter 9 of the Environmental Statement).	Any ecological enhancements may include habitat creation, improved management, and increased ecological connectivity, all designed to benefit local wildlife and public amenity. All measures will be agreed with the LVRPA.
Biodiversity enhancements will be provided elsewhere in the Site of Metropolitan Importance for Nature Conservation (SMINC) will increase the quality of the site for visitors	Any ecological enhancements may include habitat creation, improved management, and increased ecological connectivity, all

Ecological measures from the Environmental Measures document for DCO Requirement 12	Relevant to Stage 4a
(see chapter 9 of the Environmental Statement).	designed to benefit local wildlife and public amenity. All measures will be agreed with the LVRPA.
The majority of the Site of Borough Importance for Nature Conservation (SBINC) will be restored once construction is complete (see above and chapter 9 of the Environmental Statement)	Yes – the Site is located within the Tottenham Marshes Site of Borough Importance for Nature Conservation (SBINC), which will be restored following the proposed works. All measures will be agreed with the LVRPA.

ECOLOGICAL MANAGEMENT STRATEGY

2.2 Purpose of this document

- 2.2.1 This document has been prepared to discharge requirement 12 of the DCO in respect of Stage 4a of the Project. It sets out the findings of surveys undertaken across spring and summer in 2023 and a subsequent updated site walkover visit on Wednesday 6th November 2024.

2.3 Background

- 2.3.1 An Environmental Statement (ES) and a Habitat Regulations Assessment (HRA) was produced for the DCO application and should be referred to alongside this Ecological Management Strategy (EMS).
- 2.3.2 The ES produced detailed results from an Extended Phase 1 habitat, badger *Meles meles*, invasive species, breeding bird, bat presence/absence roost, bat activity, reptile and National Vegetation Classification surveys at Tottenham substation from 2011 and 2012 (AMEC Environment and Infrastructure UK Ltd, 2012a).
- 2.3.3 Desk based assessments and protected species surveys relating to Tottenham Substation, the VC overhead line and the ZBC / ZBD overhead lines were completed between April 2022 and November 2023 (Wood, 2022¹; WSP, 2023²).

2.4 Current Site Conditions

- 2.4.1 A site visit relating to Stage 4a was completed in November 2024, comprising an updated Site walkover to identify additional potential ecological constraints on 6th November 2024 by a suitably experienced ecologist.

The Site

- 2.4.2 The Site predominantly comprises buildings and hardstanding associated with Tottenham substation. Habitats adjacent to the south and east comprise scrub and grassland, as well as areas of trees, shrubs, and a watercourse (Pymmes Brook). The Site is located within the Tottenham Marshes SBINC managed by the Lee Valley Regional Park Authority. Habitats recorded within the Site boundary are shown on **Figure 1**. The proposed vegetation clearance areas are shown in **Figure 2**.
- 2.4.3 An assessment was also made of the Site to support legally protected species, as detailed below:
- #### Bats
- 2.4.4 The trees and scrub habitats on Site have potential to support commuting and foraging bats, as do the grassland and ruderal habitats.
- 2.4.5 No potential roosting features (i.e. on either trees or buildings) were identified during the Site walkover. Two trees on Site have been identified for removal (see

¹ Wood (2022) ZBC/ZBD/VC Overhead Line Refurbishment. Level 1 – 2 Ecology Report. Document reference: 807720-Wood-XX-XX-RP-OE-00001_P01

² WSP (2023) North London Reinforcement Project – 4ZM, ZBC & ZBD Overhead Lines: Level 3 Ecology Report. Document reference: 70103988-OHL

paragraph 2.4.1), but neither of these trees possess features that are deemed suitable to support roosting bats and have therefore been assessed as 'negligible' from previous Ground Level Tree Assessments (GLTA).

Badger

- 2.4.6 The habitats recorded on Site have potential to support badgers, including sett creation, commuting and foraging.
- 2.4.7 No signs or evidence of badgers were identified during the updated site walkover, and no badger setts were identified within the Site boundary.

Breeding birds (including Schedule 1 bird species)

- 2.4.8 The scrub and tree habitats have the potential to support breeding bird species (including Schedule 1 bird species³). However, construction works are planned during a period which sits outside of the breeding bird season (March – September, inclusive) and therefore offences relating to Schedule 1 birds are not considered to be a constraint.
- 2.4.9 No active nests were observed during the updated site walkover completed in November 2024.

Great crested newts

- 2.4.10 No water bodies were identified as being within the Site boundary during the updated Site walkover in November 2024.
- 2.4.11 A watercourse (Pymmes Brook) is located adjacent to the Site boundary, however this type of habitat is deemed unsuitable for use by great crested newts, owing to its steep concrete sides and base, and rate of water-flow.
- 2.4.12 As such, it is considered that great crested newts are unlikely to be present on Site. However, if any unexpected find of great crested newt occur during works, all works must cease and an ecologist must be sought for advice.

Dormouse

- 2.4.13 The tree and scrub habitats present on Site are considered to offer limited potential to support dormice, due to connectivity to other suitable habitat in the wider area. Dormice are considered absent from the Site based on historic desk study data (Wood, 2022¹) and a more recent Site walkover (November 2024). As such, this species is not considered further in this report.

Otter and water vole

- 2.4.14 The watercourse (Pymmes Brook) on Site is a deeply canalised watercourse with steep concrete sides and base, which makes it largely unsuitable for use by otter and water vole.
- 2.4.15 The terrestrial habitats present on Site are of some limited suitability to support commuting and resting otter in the form of tree and scrub habitats, however no evidence has been recorded to date on any previous site visits.

³ All birds are protected in some form, but some species (i.e. those listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)) have additional protection during the breeding season as do their nests, eggs and dependent young. To disturb these, you must obtain a special licence in advance.

- 2.4.16 As such, it is considered that otter and water vole are absent from the Site.

Reptiles

- 2.4.17 The grassland, tall ruderal habitats and tree and scrub habitats on Site are considered to have potential to support common and widespread reptile species, including common lizard, slow worm and grass snake.
- 2.4.18 However, no reptiles were recorded during the presence / absence surveys that took place across the Site in the spring and summer months of 2023, or the updated Site visit in November 2024.

Non-Native Invasive Species

- 2.4.19 Japanese Knotweed (*Reynoutria japonica*) has been identified within the Site boundary. Photos have been made available from a walkover conducted in October 2024 by Gavia Environmental Ltd. Furthermore, this species has been recorded historically, specifically associated with the compound at the base of Tower VC2.
- 2.4.20 Japanese Knotweed is a highly invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It spreads very easily and therefore controls must in place to stop it from spreading. This species is classed as 'controlled waste' and as such must be disposed of safely.

2.5 Ecological Management Strategy

- 2.5.1 The Ecological Management Strategy below is applicable to Stage 4. This reflects specific ecological measures included in the wider environmental measures document to mitigate effects of the proposed works on the ecological features on Site.

Mitigation of effects

Habitats adjacent to the Site

- 2.5.2 The Site boundary must be clearly de-lineated from the adjacent habitats and the contractors must be fully aware of the Site boundary, ensuring that all works are contained within the development footprint. Under no circumstances will the surrounding habitats be disturbed or impacted by the works to prevent a contravention of the legislation.
- 2.5.3 All vehicles/machines must be stored within the agreed works area.

Bats

- 2.5.4 No trees with potential to support roosting bats have been identified on Site. Two trees on Site require removal (see paragraph 2.4.1) as part of the Stage 4 works, but neither of these trees support features deemed suitable for roosting bats. If the scope of works changes, and results in additional trees (with features considered suitable to support roosting bats) that require removal, topping, siding or trimming, then further assessment, mitigation and / or licencing may be required before the proposed works can be undertaken.
- 2.5.5 However, habitats within the Site boundary, and adjacent to the Site boundary are identified as having potential to support foraging and commuting bats. No

works are to be undertaken between the hours of sunset and sunrise to avoid direct impacts to bats during the course of the works.

- 2.5.6 Should security lighting be required on Site overnight during the construction and operational phases of the proposed yard, a sensitive lighting strategy will be designed by a lighting specialist to take into account nocturnal species, including bats, taking into account principals as outlined in Guidance Note 8 Bats and Artificial Lighting⁴.

Badger

- 2.5.7 No surveys to date have confirmed the presence of badgers or their setts on Site.

Breeding birds

- 2.5.8 Habitats considered suitable to support common and widespread breeding bird species were identified on Site during protected species surveys in 2023 and the updated walkover in November 2024.
- 2.5.9 In addition, habitats in the surrounding area are also considered suitable to support common and widespread breeding bird species. As outlined in paragraphs 3.4.2 to 3.4.3, these habitats will be retained and protected, and no works will encroach into these areas, beyond the boundary of the works area.
- 2.5.10 Should any additional areas of woodland / scrub be required, this will be completed as far as possible outside the breeding bird season (March – August (inclusive)). If this is not possible, any areas of habitat requiring clearance will be subject to a pre-works check by a suitably qualified ecologist. If a nest is identified, it will be subject to a period of monitoring to determine if it is active. If deemed active, the supervising ecologist will implement a minimum of a 2m buffer around the nest to ensure it is retained in-situ until any eggs have hatched and any young have fledged, or until such time as the nest is deemed to have failed, as assessed by a qualified ecologist.

Otter and water vole

- 2.5.11 The Pymmes Brook watercourse is located adjacent to the Site boundary. However, this aquatic habitat is not suitable to support otter and water vole, due to the heavily canalised and modified appearance of this water course i.e. steep concrete sides and base and lack of vegetation cover. As such, no mitigation measures are proposed for otter or water vole.

Reptiles and great crested newts

- 2.5.12 Although no reptiles have been recorded to date through surveys conducted by WSP, the habitats on Site remain suitable for reptiles, as do the surrounding habitats i.e. allotments adjacent to Tower VC02.
- 2.5.13 As such, it is recommended that a two-stage vegetation clearance is undertaken following a Precautionary Method of Working (PMoW), following measures outlined below:
- The contractors must be fully aware of the Site boundary, ensuring that all works are contained within the areas as shown on plans. Works will be

⁴ Bat Conservation Trust and the Institute of Lighting Professionals (2023) Guidance Note GN08/23 Bats and Artificial Lighting at Night. ILP, Warwickshire

restricted to the minimum possible footprint so as to avoid unnecessary disturbance of wildlife.

- Site clearance works in habitats considered suitable to support reptiles must be undertaken during the reptile active season (considered to be between March and September). However, in the London area, if weather conditions are deemed suitable by the Project Ecologist, this may extend to February – October.
- Prior to any site clearance, the Ecological Clerk of Works (ECoW) will undertake a walkover with site contractors to identify any additional ecological constraints which may be present, and to micro-site locations of access and working areas where appropriate to avoid ecological habitats/features of interest.
- If any reptiles are observed within the area proposed for vegetation clearance or the surrounding habitats, work will stop immediately, and the Project Ecologist notified, who, who will provide advice on how best to progress with the works. Although these measures are necessary specifically in relation to protected species, contractors will treat any animals with similar due care and attention.

2.5.14 Prior to any sections of the Site being cleared or any works that will cause disturbance to the ground, the area will be searched for wildlife. This will also be undertaken immediately prior to each "shift" of work on an area (e.g. after a lunch break and at the start of each day).

- Vegetation clearance will be carried out using hand tools (e.g. strimmers and brush cutters). The use of machinery for vegetation clearance (e.g. roboflail) may only be used upon agreement with the on-site ECoW and will be assessed on a case-by-case basis, depending on the type of habitat present, density of vegetation and presence / potential presence of protected species and / or habitats.
- Immediately prior to site clearance, hand searching (as required) of suitable habitats will be undertaken by the ECoW prior to the first stage cut to ~15-20cm. Works will not commence unless confirmed by the ECoW that the Site has either been subject to hand searching and/or the works are to be directly supervised by the ECoW. Any vegetation that requires removal within the working area will be cut to a short sward/stump (~15cm-20cm in height), this initial cut may be conducted without supervision if agreed with the ECoW.

2.5.15 All cut vegetation will immediately (before sunset on the same day) be cleared out of the working area (for example, blown or raked) and disposed of at a location (stored outside of the working area agreed by both the ecologist and MGroup, or chipped and spread thinly. Stored chipping and arisings can provide refuge for wildlife.) The location of habitat piles and any redistribution of cut material on site will be agreed with LVRPA in advance.

2.5.16 During the active season for reptiles (generally considered to be March to October), the ECoW will undertake another hand search of the working area immediately prior to the vegetation being cut to ground.

2.5.17 If a reptile is found at any stage of the works, the works must stop immediately, and the Project Ecologist contacted. Any reptiles will be able to be relocated by the ECoW to an area of suitable habitat outside the works area.

2.5.18 Prior to any construction works commencing, the Site must be re-assessed to review if the habitats within the Site boundary have become suitable for reptiles through re-growth of vegetation. If assessed as suitable, a further programme of vegetation clearance must be undertaken under direct ecological supervision, in line with the method statement outlined above to encourage any reptiles potentially present to move into the wider, retained habitats.

Non-native Invasive Species

2.5.19 It is illegal to cause an invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to grow or live in the wild.

2.5.20 It is strongly recommended that an invasive species specialist is consulted in relation to the removal of any Japanese Knotweed, as simple vegetation removal practices could potentially lead to the spread of this species, resulting in a breach of biosecurity. The vegetated area underneath tower VC2 should be checked for invasive species prior to any proposed works.

2.5.21 Biosecurity measures and a robust sediment management plan should be implemented during any construction works on Site or near to the watercourse (Pymmes Brook) adjacent to Site. The Site should be checked for any invasive plant species prior to construction works, and any found should be disposed of appropriately.

2.5.22 All site contractors should be made aware of how to spot Japanese Knotweed through toolbox talks prior to works being undertaken, if Japanese Knotweed is found all works must cease until a suitably qualified ecologist has been contacted.