



Immingham Green Energy Terminal

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Volume 6

6.8 Outline Woodland Compensation Strategy

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Immingham Green Energy Terminal

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6.8 Outline Woodland Compensation Strategy

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Executive Summary

This Outline Woodland Compensation Strategy has been prepared to set out the measures to be taken to compensate for tree loss from an area protected by a tree preservation order (“TPO”), associated with the construction of the Immingham Green Energy Terminal (IGET, ‘The Project’). The compensation for tree loss is secured by requirement in the **draft Development Consent Order [TR030008/APP/2.1]**.

The construction of the landside infrastructure associated with the Terminal, including the jetty access road and pipe-racks, pipelines and associated utilities which link the Terminal to the landside sites, will require the clearance of a strip of the Long Strip woodland. The Long Strip woodland is a linear band of woodland to the east of the Port, bisected by Laporte Road, which lies within ABP ownership and is subject to a tree preservation order. A total of 0.64 ha of woodland (comprising approximately 220 trees) is expected to be removed from the section of the TPO north of Laporte Road.

The Outline Woodland Compensation Strategy proposes two approaches to compensate for the loss of woodland, as follows:

- a. Management and enhancement of retained woodland in the north section of Long Strip woodland; and
- b. Creation and long-term management of replacement woodland in an area of land owned by ABP on the southern edge of the Port of Immingham.

In respect of the replacement woodland, the Strategy outlines the approach to establishing, managing and monitoring this woodland over a 25 year period, by which time, establishment is likely to have been secured.

1. Introduction

1.1 Background

- 1.1.1 This Outline Woodland Compensation Strategy has been prepared on behalf of Associated British Ports (“ABP”) (“The Applicant”) to compensate for tree loss from an area protected by a tree preservation order (“TPO”), associated with the construction of the Immingham Green Energy Terminal (IGET, ‘The Project’). The compensation for tree loss is secured by requirement in the **draft Development Consent Order [TR030008/APP/2.1]**.
- 1.1.2 The Project will comprise the construction, operation and maintenance of a multi-user liquid bulk terminal, which would be located on the eastern side of the Port of Immingham (“the Port”), as well as associated development (collectively termed “the Project”). The main element of the associated development comprises the construction and operation of a green hydrogen facility for the production of green hydrogen from imported ammonia on site by Air Products BR Ltd (“Air Products”).
- 1.1.3 The Project will be located within the ‘Site Boundary’ (as described below) and is the subject of an application for development consent order (“DCO”). The Project is described within **Chapter 2: The Project [TR030008/APP/6.2]**. This document forms an appendix to **Chapter 8: Terrestrial Ecology [TR030008/APP/6.2]**. The construction of the Project, and in particular the landside elements of Work No. 1 (which comprises the jetty and associated landside infrastructure (the “Terminal”), including jetty access ramps and pipeline connections) and Work No. 2 (**draft DCO [TR030008/APP/2.1]**) (which comprises the jetty access road and pipe-racks, pipelines and associated utilities to link the Terminal to the landside sites), will require the clearance of a strip of the Long Strip woodland. The Long Strip woodland is a linear band of woodland to the east of the Port, bisected by Laporte Road, which lies within ABP ownership.
- 1.1.4 The Long Strip woodland is subject to a tree preservation order which applies to the whole woodland block (including the area on the south side of Laporte Road, which is within the Site Boundary only for the purposes of restricting public access during construction and which is not otherwise directly affected by the proposed works). A total of 0.64 ha of woodland (comprising approximately 220 trees) is expected to be removed from the section of woodland north of Laporte Road to facilitate the construction of Work No. 1 and Work No. 2, the full details of which are contained within **Appendix 8.F [TR030008/APP/6.4]**.
- 1.1.5 The retained woodland north of Laporte Road will be subject to various management interventions to improve its structure and ecological function, which are set out in Section 3 of this document. The measures proposed are also designed to create conditions supporting the development of greater species diversity (see **Figure 1**).

- 1.1.6 The section of the Long Strip woodland which lies to the south of Laporte Road is already proposed for enhancements for the adjacent Immingham Eastern Ro-Ro Terminal (“IERRT”) DCO Scheme, which is currently going through examination by the Planning Inspectorate, and is therefore excluded from this Woodland Compensation Strategy.
- 1.1.7 The loss of woodland from the north section of Long Strip requires measures to be delivered to compensate for the loss of trees and biodiversity. This document has been prepared to set out the approach to the provision of appropriate compensation for that permanent and unavoidable woodland loss and to address Policy 41 (1D) of the North East Lincolnshire Local Plan 2018 (Ref 1-7) and paragraph 5.1.5 of the National Policy Statement for Ports 2012 (Ref 1-8) .
- 1.1.8 This Strategy is based on preliminary discussions between the Applicant and North East Lincolnshire Council (“NELC”) as relevant Local Planning Authority. Discussions are ongoing and a final Woodland Compensation Plan, according with this Strategy, will be submitted to NELC for approval prior to the commencement of tree clearance within Long Strip and in accordance with the Requirements contained in Schedule 2 of the draft DCO.
- 1.1.9 This Outline Woodland Compensation Strategy presents the following:
- a. Summary of baseline conditions within the north section of Long Strip woodland (refer to **Section 2**).
 - b. Management and enhancement of retained woodland in the north section of Long Strip woodland (refer to **Section 3**).
 - c. Outline plans for the creation and long-term management of replacement woodland (refer to **Section 4**).
 - d. Reporting requirements (refer to **Section 5**).

2. Long Strip Woodland (Baseline) Legal Framework

- 2.1.1 The woodland to be lost is subject to Tree Preservation Order No. 107 made by NELC in 2002, referred to as the 'TPO'. The TPO covers the linear band of woodland spanning Laporte Road which is referred to within the TPO as "Long Wood, Laporte Road, Stallingborough". A plan of the extent of the TPO is shown in **Annex A**. The northern section is referenced as 'W.1' and the southern section as 'W.2'. Only the W.1 section will be directly impacted by the Project (referred to as 'the northern section').
- 2.1.2 Interrogation of freely available historic maps indicates that "Long Wood" woodland was present on the 1889 Ordnance Survey Map where it was a continuous strip of woodland (Laporte Road having not been constructed at that time). It is therefore likely that this area has been wooded from at least the middle of the 19th century.
- 2.1.3 Long Strip is not covered by any statutory or non-statutory nature conservation designations, nor is it listed on the Natural England's Ancient Woodland Inventory ("AWI"). It is listed on Natural England's Priority Habitat Inventory as 'Deciduous Woodland'. It meets the criteria for 'Long Established Woodland', which is woodland that has been present since at least 1893 and in respect of which guidance states that "...*While not ancient, these woodlands are still very important. They have had many decades to develop rich biodiversity and they often contain important old-growth features and deliver a range of ecosystem services.*" (Ref 1-1).

2.2 Habitats

- 2.2.1 An extended Phase 1 Habitat survey of the woodland was undertaken by AECOM in spring 2022, with a further woodland ground flora survey, protected species and terrestrial invertebrate habitat appraisal taking place in spring/summer 2022 and spring/summer 2023. The survey results are presented in **Appendix 8.B [TR030008/APP/6.4]** and the Phase 1 Habitat map is provided as **Figure 2** in this document. In addition, a tree survey of all trees within the TPO has been undertaken by a qualified arboriculturalist, the results of which are presented in **Appendix 8.F [TR030008/APP/6.4]**.
- 2.2.2 The northern section of Long Strip woodland is dominated by a closed canopy of mature pedunculate oak (*Quercus robur*) with some ash (*Fraxinus excelsior*), semi-mature hawthorn (*Crataegus monogyna*) and wych elm (*Ulmus glabra*), and a scrubby understorey of bramble (*Rubus fruticosus* agg) and elder (*Sambucus nigra*) that is dense in parts. At the time of survey, the cover of ground flora was generally sparse due to shading by the dense tree canopy cover, with some stands of common nettle (*Urtica dioica*), cleavers (*Galium aparine*), broad-leaved dock (*Rumex obtusifolius*), wood avens (*Geum urbanum*), cow parsley (*Anthriscus sylvestris*) and ground elder (*Aegopodium podagraria*).
- 2.2.3 There were some areas of new tree whip planting (still in tree guards) evident as part of relatively recent volunteer activity, although only a few of the specimens appear to have successfully established.

- 2.2.4 All of the woodland within the TPO designation was previously reviewed (c.10 years ago) by NELC against the Greater Lincolnshire Nature Partnership's Local Wildlife Site ("LWS") selection guidelines third edition published in 2013 (Ref 1-2) and was found not to meet the site selection criteria. The northern section of woodland was reviewed against the LWS woodland site selection criteria by AECOM, following habitat surveys undertaken in 2022/ 23 for the Project, and found to again not meet the LWS site selection criteria for woodland habitats.
- 2.2.5 The northern section of Long Strip woodland is publicly accessible; a Public Right of Way (bridleway) runs through the woodland connecting Laporte Road with the bridleway that runs parallel to the estuary along the top of the flood embankment.

2.3 Fauna

- 2.3.1 Ecological surveys undertaken for the Project included an appraisal of habitats within the northern section of woodland for their potential to support protected or notable species; a summary of which is provided below:
- a. No evidence of badger (*Meles meles*) was found within the woodland and the species was concluded absent.
 - b. A dry ditch running along the northern boundary of the woodland was found not to include suitable habitat for otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) and no evidence of these species was recorded.
 - c. Some of the mature trees within the woodland were identified as having potential to support roosting bats, and transect surveys identified foraging/ commuting activity by single or low numbers of common pipistrelle (*Pipistrellus pipistrellus*) within the woodland habitats.
 - d. The woodland provides ecological niches for terrestrial invertebrates although lacks a range of tree age classes and habitat diversity to support any rare or notable assemblages; desk study evidence indicates the presence of white-letter hairstreak butterfly (*Satyrrium w-album*) which is listed as a Section 41 Species of Principal Importance in the Natural Environment and Rural Communities Act 2006.
 - e. No evidence of invasive non-native plant species was identified within the woodland e.g. Japanese knotweed (*Fallopia japonica*).

3. Management and Enhancement of Retained Woodland Purpose and Objectives

- 3.1.1 The purpose of the measures set out in this part of the strategy is to improve the structure and function of the woodland which will be retained within the northern section of Long Strip woodland (see **Figure 1**), to deliver measurable ecological enhancements through targeted management interventions.
- 3.1.2 This section of the strategy sets out how the following objectives in respect of the retained part of the woodland within the northern section will be met:
- Reduction in understorey canopy cover to create open 'glades' to encourage the development of woodland ground flora, which is currently inhibited due to shading.
 - Creation of more ecological niches for terrestrial invertebrates and amphibians.
 - Increase nesting opportunities for breeding birds.
 - Increase opportunities for roosting bats.

3.2 Management

- 3.2.1 The method by which each of the objectives identified above will be met is set out in **Table 1**, along with seasonal timings as appropriate for each management intervention. A ten-year programme of management is also set out. This management strategy follows a similar programme of woodland enhancement and management of the south section of Long Strip woodland (section W.2 of the TPO) that was developed and agreed with NELC to provide ecological enhancements in connection with the adjacent IERRT scheme. The measures agreed for the IERRT scheme involved removal of localised areas of dense scrub to open up the canopy and encourage the natural development of a more diverse woodland ground flora.
- 3.2.2 It is anticipated that management of the retained woodland habitats will commence alongside the DCO construction programme. The commencement of management will be timed (where possible) to coincide with woodland clearance works required for Work No.1 and Work No. 2 so that felled material can be retained and reused within the woodland to create habitat log piles.
- 3.2.3 Prior to commencement of management and subsequent monitoring works (as detailed in **Table 2**), a detailed habitat survey of the woodland will be undertaken in the spring survey season (April/ May). to establish a robust baseline against which the progress of the planned management towards the objectives can thereafter be measured. This will include the following elements:
- Woodland ground flora survey and woodland National Vegetation Classification assessment, including detailed mapping of habitats.
 - Identification and marking up of semi-mature trees to be selectively felled and areas of scrub to be cleared.
 - Survey for evidence of ash die-back disease.

- d. Identification and marking up of trees suitable for the installation of bird and bat boxes.

3.2.4 The following management principles will be adopted:

- a. Selective felling/scrub clearance; semi-mature trees/shrubs to be cleared will be <20cm diameter at breast height (“DBH”).
- b. No mature tree specimens within retained part of northern section will be felled (unless subsequent surveys identify evidence of ash die-back disease, in which case removal of diseased specimens will be agreed with NELC prior to felling).
- c. The areas for selective semi-mature tree/shrub clearance will be chosen to allow the surrounding mature specimen trees to remain in place, and where opportunities to open up the canopy are considered most appropriate and potentially beneficial.

3.2.5 Compliance with the final Woodland Compensation Plan (including completion of the above works) is secured by way of a Requirement included within the draft DCO.

3.3 Enhancement

3.3.1 In addition to the management interventions set out above, which aim to enhance the condition, structure and function of the woodland, the following enhancements will also be delivered:

- a. Creation of log pile refuges and brash piles for amphibians and terrestrial invertebrates using material from felled trees.
- b. Installation of bird nest boxes on suitable mature trees to increase nesting opportunities for a range of breeding species.
- c. Installation of bat roost boxes on suitable mature trees to increase roosting opportunities for species of bats.

Table 1: Woodland Management Interventions and Proposed Timetable

Management Intervention	Delivery	Comments	Timing	Year 1	Year 2	Year 3	Year 4	Years 5-10
Selective felling of semi-mature trees	Small number of semi-mature hawthorn and elder trees to be felled to create open glades within existing woodland.	<p>Felled material will be used to create log pile refuges within the woodland.</p> <p>Felling will be undertaken outside the nesting bird season (March to August inclusive) where possible. If this is not possible, pre-felling checks for nesting birds will be undertaken by an ecologist.</p>	September to February	✓	×	×	×	×
Removal of ash showing evidence of ash die-back disease	Any trees showing evidence of significant ash die-back disease that could pose a danger to right of way users to be felled (to be agreed with the NELC Tree Officer prior to felling and trees to be clearly marked on a plan).	<p>Trees to be checked for bat roost potential by an ecologist prior to felling and measures to ensure legislative compliance adopted as necessary (e.g. Natural England licence or soft-felling under ecological watching brief).</p> <p>Felled material will be used to create log pile refuges within the woodland.</p> <p>Some standing dead wood may be retained.</p>	September to February	✓	✓	✓	✓	✓

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Management Intervention	Delivery	Comments	Timing	Year 1	Year 2	Year 3	Year 4	Years 5-10
		No felling will be undertaken in the nesting bird season (March to August inclusive).						
Selective removal of encroaching scrub	Localised areas of dense bramble scrub clearance to support objectives for creation of open glades within existing woodland.	Cut in late winter/early spring so berries provide feeding resource for winter birds. No scrub removal will be undertaken in the nesting bird season (March to August inclusive).	December – February	✓	x	x	x	x
		Where necessary, thin scrub areas further in years 2 – 10 and use felled material to establish log pile refuges within the woodland.	December – February	x	✓	✓	✓	✓
Creation of log pile refuges and brash piles	Log and brash piles to be created using material from on-site tree felling and scrub clearance.	Felled material (trees, branches, brash etc.) from tree/scrub removal to be used to establish log piles within the woodland.	September – February	✓	x	x	x	x
	Increase availability of refuges for terrestrial invertebrates and amphibians	Replenish log piles by adding additional felled material (e.g. trees, scrub, branches) where it becomes available.	September – February	x	✓	✓	✓	✓

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Management Intervention	Delivery	Comments	Timing	Year 1	Year 2	Year 3	Year 4	Years 5-10
Install 20 No. bird nest boxes	Increase nesting opportunities for breeding birds	Installation in autumn/winter so they are available for use the following spring/summer.	September/October	✓	✗	✗	✗	✗
		Maintenance repair where damage/loss occurs.	October – February	✗	✓	✓	✓	✓
Install 20 No. bat roost boxes	Increase roosting opportunities for bats	Installation in autumn/winter so they are available for use the following spring/summer.	September/October	✓	✗	✗	✗	✗
		Maintenance/repair where damage/loss occurs.	October – February	✗	✓	✓	✓	✓

3.4 Monitoring and Triggers for Remedial Action

- 3.4.1 The woodland will be subject to a walkover survey in May/June every year throughout the ten-year management plan period to monitor progress against the objectives set out in this document, starting at Year 2 (with Year 1 being the year when the management interventions as set out in **Table 1** commence).
- 3.4.2 A summary of the monitoring that will be undertaken, and the triggers for remedial action, is provided in **Table 2** below.

Table 2: Monitoring and Triggers for Remedial Action

Target	Monitoring	Timing	Trigger for Remedial Action	Remedial Action	Year									
					1	2	3	4	5	6	7	8	9	10
Creation of open glades within woodland to improve diversity of ground flora	Habitat walkover survey	May/ June	>20% cover of bramble in open glade areas.	Removal of encroaching bramble scrub	x	✓	x	✓	x	✓	x	✓	x	✓
			Presence of invasive non-native species e.g. rhododendron, snowberry	Remove invasive species material in September/ October after nesting bird season. Arisings to be removed from site to prevent further spread.	x	✓	x	✓	x	✓	x	✓	x	✓
			Evidence of fly tipping	Remove fly tipped rubbish and improve measures to limit access for vehicles to limit potential for further fly-tipping	x	✓	x	✓	x	✓	x	✓	x	✓
Monitoring for ash die-back	Habitat walkover survey	May/ June	Evidence of ash die-back disease	Removal of trees showing evidence of ash die-back disease with ≥ 50% dead canopy ¹ .	x	✓	x	✓	x	✓	x	✓	x	✓
Creation of more ecological niches for terrestrial invertebrates and amphibians	Walkover survey	May/ June	Log pile refuges missing/ significantly reduced in size/ damaged	Replacement/add replacement material to replenish	x	✓	x	✓	x	✓	x	✓	x	✓

¹ This is to ensure that any trees showing some resistance to ash die-back disease are retained. Removal of diseased specimens will be agreed with NELC prior to felling, and clearly marked on a plan.

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Target	Monitoring	Timing	Trigger for Remedial Action	Remedial Action	Year									
					1	2	3	4	5	6	7	8	9	10
Increase nesting opportunities for breeding birds	Walkover survey	May/ June	Missing/ damaged boxes	Replacement/ repair	x	✓	x	✓	x	✓	x	✓	x	✓
			No evidence of uptake by nesting birds	Consider relocation of boxes	x	x	✓	x	x	✓	x	x	x	✓
Increase nesting opportunities for roosting bats	Walkover survey	May/ June	Missing/damaged boxes	Replacement/repair	x	✓	x	✓	x	✓	x	✓	x	✓
	Inspection by licensed bat ecologist	October/ November	No evidence of uptake by roosting bats	Consider relocation of boxes	x	x	✓	x	x	✓	x	x	x	✓

4. New Woodland Creation Purpose and Objectives

- 4.1.1 The purpose of the measures set out in this part of the Strategy is to create woodland habitat that provides appropriate compensation (in the medium to long-term) for that part of the woodland that is to be removed within Long Strip woodland as a result of the construction of the Project.
- 4.1.2 New woodland habitat will be created in accordance with UK Forestry Standard Requirement 18 (Ref 1-3) which states that “*new forests and woodlands should be located and designed to maintain or enhance the visual, cultural and ecological value and character of the landscape*”.
- 4.1.3 This document sets out the following objectives for woodland habitat creation:
- Creation of woodland within the identified areas of land at the Port of Immingham, within the applicant’s ownership (see **Figure 1**).
 - Planting of native species of appropriate provenance.
 - Planting whips at an appropriate density to encourage the establishment of a successful woodland canopy.
 - Creation and management to ensure resilience to climate change.
 - Long-term management and monitoring to ensure successful establishment.

4.2 Location

- 4.2.1 The proposed location for woodland planting is a large, narrow band of unused land between Manby Road and the freight rail line, on the south side of the Port; this land is within the Applicant’s ownership boundary. The land comprises a linear mound of earth rising to approximately 5m above the road level, with a flat level top, and was created in c. 2009 following the relocation of construction arisings from another area of the Port.
- 4.2.2 Tall rank neutral grassland dominated by false oat-grass (*Arrhenatherum elatius*) has become established on the mound, along with tall ruderal species such as creeping thistle (*Cirsium arvensis*), rosebay willowherb (*Chamaenerion angustifolium*), oxeye daisy (*Leucanthemum vulgare*) and dense stands of bramble (*Rubus fruticosus* agg.). Some tree planting was undertaken on the mound at around the same time as it was created, which was intended (once matured) to provide dust suppression from operational areas. The tree planting mix included hawthorn (*Crataegus monogyna*), silver birch (*Betula pendula*), sycamore (*Acer pseudoplatanus*) and oak (*Quercus* sp.), some of which have established successfully, and there appears to have been some self-seeded establishment evident in the presence of younger trees and saplings in parts.

- 4.2.3 It is considered that this area is suitable for woodland planting, to provide appropriate compensation for woodland lost within Long Strip woodland, on the basis of the following:
- As the mound was created using excavated soils, and there has already been some successful tree establishment, it is considered likely that woodland planting would successfully establish within this area.
 - Tree planting will be limited to the top of the mound and not on the slope, and the slopes will be kept grassed – given the steep topography of the embankment it is not considered a suitable location for tree planting, or for grassland management (mowing).
 - The total area on the top of the mound available for woodland replanting is c. 2 ha. It is estimated that approximately 10% of the area is already occupied by tree planting (due to the previous tree planting scheme), this leaves c. 1.8 ha for accommodating replacement woodland planting for the Project.
 - If trees are planted at the Woodland Trust recommended density for a native, mixed woodland of 1,100 (3m centres) to 1,600 trees (2.5m centres) per hectare, this area could accommodate 1,980 - 2,880 trees.
 - The existing trees/ scrub habitat are likely to support nesting birds in the breeding season (March to August); there are no other protected species constraints associated with this area.

4.3 Habitat Creation

- 4.3.1 Requirement 11 – woodland compensation plan of the **draft Development Consent Order [TR030008/APP/2.1]** requires that a woodland compensation plan must be approved by NELC in consultation with Natural England and that the plan must accord with the outline woodland compensation strategy (“WCS”). The woodland compensation plan will set out the programme for woodland creation. NELC would therefore be able to approve the programme for woodland creation by way of approval of the final plan.
- 4.3.2 In an appropriate survey season, prior to commencement of planting, a detailed vegetation survey of the existing habitats will be undertaken to establish a robust baseline for the refinement and development of the woodland planting plan. This will include mapping of existing trees and shrubs to be retained, to identify locations for new tree planting that are sympathetic to the existing baseline.
- 4.3.3 A diverse tree species mix will be planted (see **Table 3**), which will be dominated by oak to reflect the character of the woodland to be lost within Long Strip woodland. However, due to the likely future spread of ash dieback disease and thus the vulnerability of any specimens of this species, no ash will be included within the planting mix.
- 4.3.4 The Greater Lincolnshire Nature Partnership’s (“GLNP”) tree planting guidance (Ref 1-4) has been examined to enable the principles of planting and a county-specific woodland planting mix to be developed. This will be subject to further consultation with relevant stakeholders prior to the Woodland Compensation Plan being finalised. Greater Lincolnshire has one of the lowest figures for woodland cover in England, and it is estimated that the current distribution is 5,465 ha of

lowland mixed deciduous woodland amongst the farmed landscape (Ref 1-5). The GLNP Local Wildlife Site woodland management plan advice states that *“The majority of Greater Lincolnshire’s woodlands are dominated by oak and ash but there is an important small-leaved lime component found in central Lincolnshire, being the northern most native limit for this species”*. Ash has been excluded from the planting mix due to the risk of ash dieback disease, but a small proportion of small-leaved lime (*Tilia cordata*) has been included. Although the planting will occur in the northern part of the county area and thus more northerly than the current distribution of small-leaved lime, it is considered that suitable climatic conditions for this species will become present within this part of the county as the woodland becomes established over the next 25 years.

- 4.3.5 This Woodland Compensation Strategy assumes that there will be a 25 year period of management of the developing woodland. By the end of this period, it is expected that the woodland will be sufficiently well-established to not require the full extent of the management prescriptions set-out in this document. The timeframes are covered further in **Section 4.9**.
- 4.3.6 The following principles will be adopted from the GLNP’s tree planting guidance:
- a. In habitat creation schemes, use stock of local origin where possible, but consider a proportion of plants from more southerly counties of the UK, to allow for climate change adaptation (see **Section 4.4**).
 - b. In built areas, plant locally native species, but more ornamental species of high biodiversity value may also be included.
 - c. Existing/old trees should be retained as part of the development where safe and practical.
 - d. Aim to plant a variety of species, varieties and geotypes to provide greater resistance to pests and diseases (see **Section 4.6**).
 - e. In new woodland planting, include at least three canopy species with no one species greater than 35 – 50%.
 - f. Species should be appropriate to the soil type/ texture of the site.
 - g. Maintain biosecurity when purchasing stock (see **Section 4.6**).
 - h. Ensure that suppliers are peat free.
 - i. Apply the UK Forestry Standard for sustainable woodland management.
- 4.3.7 Tree planting will also take into account the emerging NELC Tree Strategy, which is expected to be adopted in late 2023 (Ref 1-8). The Tree Strategy provides *“...a strategic framework for the management of the local tree population to achieve agreed aims and objectives....[and] helps the council deliver its obligations under the Natural Environment and Rural Communities Act 2006....deliver aims contained in the Government’s 25 year Environment Plan 2018...and to comply with the National Planning Policy Framework”*.

Table 3: Indicative Tree Planting Mix

English Name	Latin Name	Proportion
Pedunculate oak	<i>Quercus robur</i>	50%
Field maple	<i>Acer campestre</i>	10%
Rowan	<i>Sorbus aucuparia</i>	10%
Crack willow	<i>Salix fragilis</i>	10%
Holly	<i>Ilex aquifolium</i>	5%
Wild cherry	<i>Prunus avium</i>	5%
Crab apple	<i>Malus sylvestris</i>	5%
Hornbeam	<i>Carpinus Betula</i>	4%
Small-leaved lime	<i>Tilia cordata</i>	1%

4.4 Replacement Tree Numbers

4.4.1 A total of 220 No. individual trees will be lost from within the Long Strip Woodland TPO. The number of replacement trees identified to meet the 2023 NELC Tree Strategy replacement tree guidelines has been calculated as 717 (See **Table 4**). This will be accommodated within the identified off-site tree planting area shown on **Figure 1**). Furthermore, additional tree planting in this area to create native mixed woodland at the planting density recommended by the Woodland Trust (see **Section 4.2**) will result in a significant uplift in this number. If the minimum planting density of 1,100 trees per hectare is adopted, this would result in 1,980 trees being planted, which is over double the number of trees required under the NELC policy. The final planting density will be determined following the detailed survey of the off-site area to confirm the locations/ areas for new trees; however, the area identified can clearly accommodate enough trees to meet and significantly exceed the tree replacement numbers stated in the NELC policy.

Table 4: Replacement Tree Numbers

Trunk diameter of tree felled (cm)	Number of replacement trees	Number of trees removed from TPO woodland	Number of replacement trees required
<15	1	32	32
15 – 19.9	2	37	74
20 – 20.9	3	56	168
30 – 39.9	4	42	168

Trunk diameter of tree felled (cm)	Number of replacement trees	Number of trees removed from TPO woodland	Number of replacement trees required
40 – 40.9	5	43	215
50 – 50.9	6	10	60
60 – 69.9	7	0	0
70 – 79.9	8	0	0
80+	9	0	0
Total		220	717

4.5 Climate Change Resilience

4.5.1 Forestry England has prepared guidance in its ‘diverse forests for future climate’ note, in response to climate change predictions that summer temperatures could rise by up to 10°C in parts of England by the end of this century, acknowledging that diverse forests are more resilient to climate change (Ref 1-6). For this reason, up to 25% of the tree specimens of provenance from more southern counties in England will be sourced to allow for climate change adaptation. Tree specimens will be sourced from nurseries 2 to 5 degrees latitude south of the planting site (as recommended by Forestry England) as genetic differences may enable them to better cope with a warming climate than specimens of local provenance.

4.6 Disease Resilience

4.6.1 The Applicant will commit to sourcing trees from suppliers who are either certified under the Plant Healthy Certification Scheme or who have passed a ‘Ready to Plant’ assessment provided by Fera Science Ltd. This will ensure that the specimens have met the necessary biosecurity requirements to minimise the risk of introducing pests and diseases.

4.6.2 Ash, although common throughout the landscape in the county and a key component of Long Strip woodland, will be excluded from the planting mix due to the risk of vulnerability to ash dieback disease.

4.7 Establishment Maintenance

4.7.1 The woodland compensation plan will include a detailed schedule for the establishment and management of the new woodland for the five year establishment maintenance period.

4.7.2 The aim of establishment maintenance over the first five years will be to support the early stages of growth to encourage busy growth and the canopy to close, reducing future management requirements to address competition from weeds.

- 4.7.3 Establishment maintenance will be based on the following principles and outline prescriptions:
- a. Maintain a 1m weed-free circle around trees and shrubs through mechanical control.
 - b. Water new plants to minimise failures in periods of drought.
 - c. Remove litter, rubbish, and debris from planted areas throughout the year.
 - d. Re-firm soil around roots to ensure plants are supported and upright in Spring.
 - e. Inspect and adjust guards, ties and stakes in Spring and Autumn and after strong wind events.
 - f. Check and record failed or defective plants in September annually.
 - g. Replace failed or defective plants with matching species of the same size during the next planting season after failure.
 - h. Undertake quarterly check of plants to record their growth and condition.

4.8 Management Principles

- 4.8.1 The longer term management of the establishing new woodland, over the 5-25 year period, will focus on the following interventions:
- a. All woodland and shrub planting plots will undergo an annual condition assessment and an appropriate programme of works developed to address changes in condition and site requirements.
 - b. From year five onwards, guards, ties and stakes will be removed from plants.
 - c. Between years seven and ten, planted areas will be reviewed and thinned out as necessary to remove any poor or weak specimens, which will facilitate other specimens to flourish and provide space for trees and shrubs to further establish.
 - d. The understorey of woodland will be coppiced in stages to minimise disturbance to wildlife, as required, as part of good woodland management.
 - e. Arisings from thinning or other woodland management functions will be retained on site in the form of dedicated brash and wood piles or wind-rows, for the benefit for fungi, lichen, and invertebrates.
 - f. Where necessary, arisings from woodland management will be chipped and spread to a depth no greater than 75mm in woodland areas.

4.9 Timescales

- 4.9.1 A preliminary timetable for the planting works is set out in **Table 5**:, although this will be further developed in the woodland compensation plan:

Table 5: Woodland Creation Timetable

Task	Comments	Timing	Y1	Y2	Y3	Y4 - Y25
Habitat and protected species survey	Phase 1 habitat survey of area to identify baseline conditions and any evidence of protected species. Existing areas of vegetation will be mapped for retention.	June/ July	Q2/ Q3	-	-	-
Topographical survey	Survey of mound area to inform woodland planting plan.	Any	Q1	-	-	-
Arboricultural survey	Survey of all existing trees within proposed planting area to identify which (if any) require removal due to evidence of damage/disease/ decay.	Any	Q1	-	-	-
Finalise woodland planting plan	Confirm location, number and specimens to be planted. Woodland Planting Plan to be finalised in consultation with relevant stakeholders and approved by NELC.	-	Q3	-	-	-
Tree planting	Tree planting season is November to March.	November	Q4	Q1	-	-
Monitoring of tree planting during establishment	Quarterly inspection checks to monitor establishment and remove failed specimens for first five years of establishment.	Quarterly	-	Q3	Q3	Q3 (to Y8)
	Replacement of dead, dying or diseased specimens within first five years.	November	-	-	Q4	Q4 (to Y8)
	Annual checks to monitor establishment and remove failed specimens.	September				Q4 (Y9 – Y25)

Immingham Green Energy Terminal
Outline Woodland Compensation Strategy

Task	Comments	Timing	Y1	Y2	Y3	Y4 - Y25
Woodland management	Management to be undertaken in the autumn/ winter to avoid the nesting bird season.	September - March	-	Q3/ Q3	Q3/ Q4	Q3/ Q4

5. Reporting

- 5.1.1 A woodland monitoring report will be prepared every two years for the period of the woodland compensation plan with separate sections for management/enhancement of retained woodland and new woodland creation as follows:
- a. Section 1: Report on Management and Enhancement of Retained Woodland:
 - i. Reports will be prepared in Y2, Y4, Y6, Y8 and Y10.
 - ii. Reports will include dates, scope and results of monitoring surveys of the retained/enhanced woodland in the north section of Long Strip woodland.
 - iii. Reports will include management interventions undertaken (listed in Table 1).
 - iv. Reports will include evaluation of progress towards achieving the targets within Long Strip Woodland for habitats and species listed in **Table 2**.
 - v. Reports will include details of remedial action undertaken (if any).
 - vi. Reports will include recommendations for following years in terms of alterations to type or frequency of management required to meet targets.
 - b. Section 2: Report on New Woodland Creation
 - i. Reports will be prepared in Y2, Y4, Y6, Y8, Y10, Y12, Y14, Y16, Y18, Y20, Y22 with a final report in Y25.
 - ii. Reports will include dates and results of inspection surveys of newly planted trees and confirmation of any replacement specimens for dead, dying or diseased trees in Y2 – Y8.
 - iii. Reports will include dates and results of inspection surveys of newly planted trees in Y8 – Y25.
 - iv. Reports will include management interventions undertaken as the trees become established.

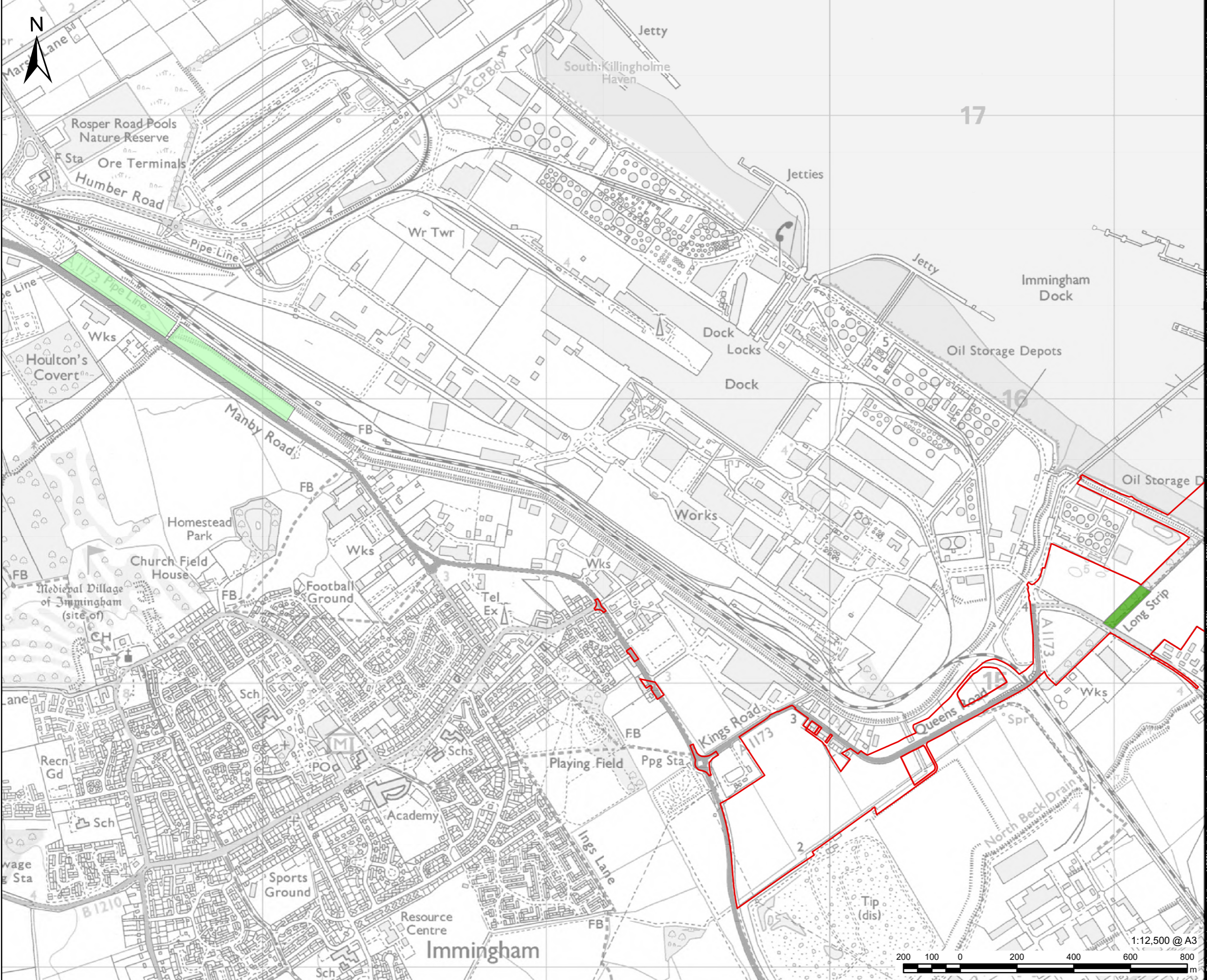
6. Roles and Responsibilities

- 6.1.1 The management of the woodland is the responsibility of ABP, who will appoint a suitably qualified landscape maintenance contractor to undertake the work.
- 6.1.2 The monitoring of the habitats on the site, and the preparation and submission of the monitoring report is the responsibility of ABP, who will appoint a suitably qualified ecologist to undertake the work.
- 6.1.3 If any mature trees require felling within retained woodland in Long Strip (e.g. ash showing signs of ash die-back disease with >50 % dead canopy), any necessary consent for works to trees within the TPO will be obtained from NELC prior to works commencing.

7. References

- Ref 1-1 Department for Environment, Food and Rural Affairs (2022). Keepers of time: ancient and native woodland and trees policy in England.
- Ref 1-2 Greater Lincoln Nature Partnership (2013). Local Wildlife Site Guidelines for Greater Lincolnshire 3rd Edition.
- Ref 1-3 Forestry Commission (2017). The UK Forestry Standard. The government's approach to sustainable forestry. Fourth Edition. Forestry Commission, Edinburgh.
- Ref 1-4 Greater Lincolnshire Nature Partnership (2021). Nature strategy: Guidance for tree planting.
- Ref 1-5 Greater Lincolnshire Nature Partnership (n.d.). Lowland mixed deciduous woodland. A guide to management.
- Ref 1-6 Forestry England (n.d.). Diverse forests in a changing climate.
- Ref 1-7 North East Lincolnshire Council (2018) Local Plan 2013 to 2032 (Adopted 2018).
- Ref 1-8 Department for Transport (2012) National Policy Statement for Ports.
- Ref 1-9 North East Lincolnshire Council and EQUANS (2023) *North East Lincolnshire Tree Strategy* [not yet adopted]

Figure 1: Location of Woodland Enhancements and New Woodland Creation



PROJECT
Immingham Green Energy Terminal

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Associated British Ports
Air Products (BR) Limited

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LEGEND

- Site Boundary
- Woodland Replanting Area
- Woodland Enhancement Area

NOTES
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ISSUE PURPOSE
Environmental Statement

PROJECT NUMBER
60673509

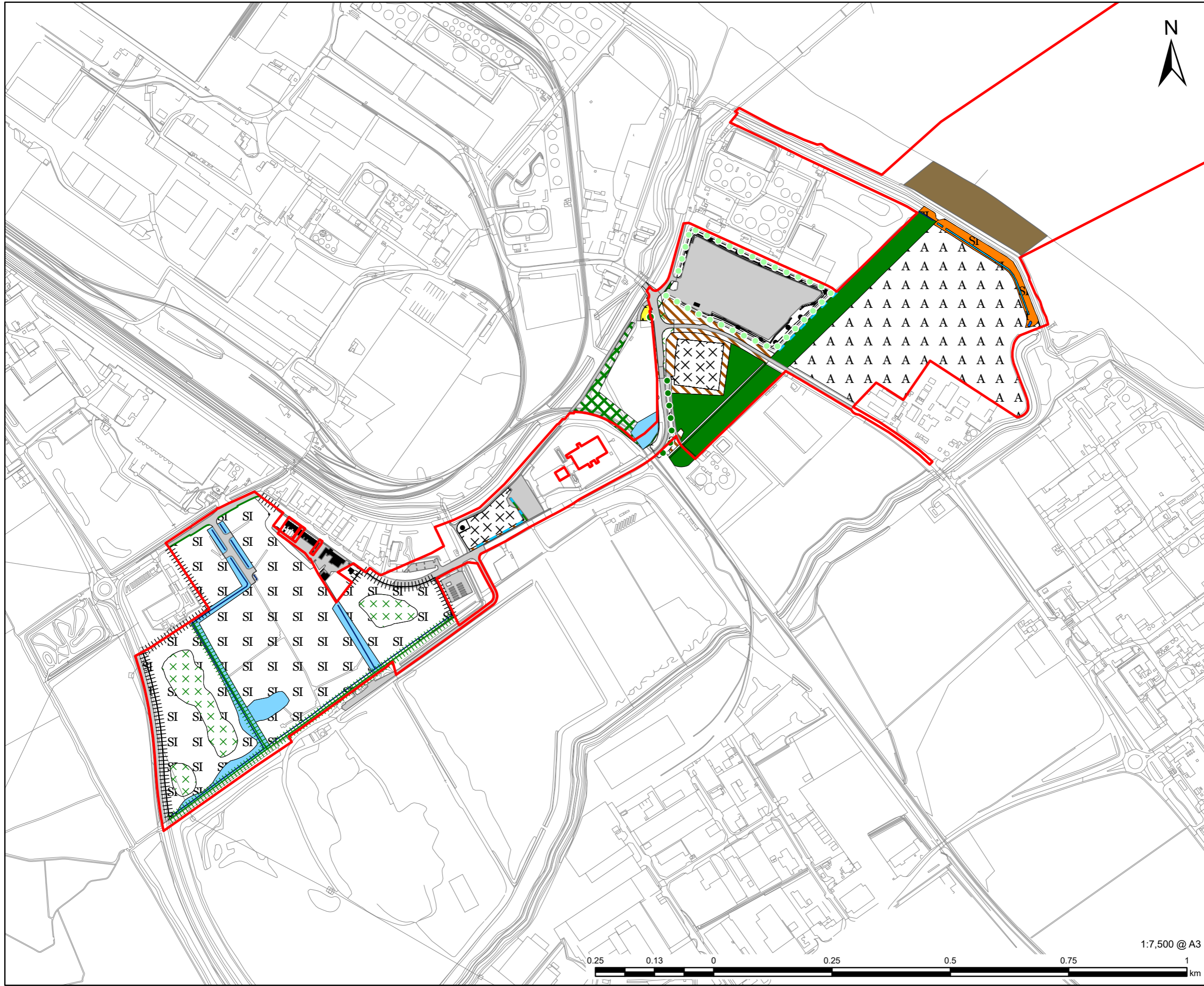
DEVELOPMENT CONSENT ORDER NO
TR030008

FIGURE TITLE
Proposed Woodland Enhancement and Woodland Replacement Planting

FIGURE NUMBER
Figure 1

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Figure 2 Phase 1 Habitat Survey Plan (Long Strip)_



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LEGEND

- Site Boundary
- Broadleaved Parkland/scattered trees (individual)
- Broadleaved Parkland/scattered trees (line)
- Coniferous Parkland/scattered trees
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Hedge with trees - species-poor
- Fence
- Dry ditch
- Ditch
- Broadleaved woodland - semi-natural
- Scrub - dense/continuous
- Scrub - Scattered
- Neutral grassland - semi-improved
- Poor semi-improved grassland
- Other tall herb and fern - ruderal
- Swamp
- Standing water
- Running water
- A Cultivated/disturbed land - arable
- A Cultivated/disturbed land - amenity grassland
- X Cultivated/disturbed land - ephemeral/short perennial
- Buildings
- Bare ground
- Intertidal - Mud/Cobbles
- Hardstanding

NOTES

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ISSUE PURPOSE
 Environmental Statement

PROJECT NUMBER
 60673509

DEVELOPMENT CONSENT ORDER NO
 TR030008

FIGURE TITLE
 Phase 1 Habitat Map

FIGURE NUMBER
 Figure 2

1:7,500 @ A3

0.25 0.13 0 0.25 0.5 0.75 1 km

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Annex A: Tree Preservation Order Plan

Plan extracted from TPO document

