HORIZON NUCLEAR POWER

WYLFA NEWYDD

ENERGY WORKING FOR BRITAIN

Wylfa Newydd Project

8.16 Landscape and Habitat Management Strategy Part 1 of 2 and Part 2 of 2

PINS Reference Number: EN010007

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Planning Act 2008
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HORIZON NUCLEAR POWER

WYLFA NEWYDD

ENERGY WORKING FOR BRITAIN

Landscape and Habitat Management Strategy

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PART A: CONTEXT AND PRINCIPLES

1 INTRODUCTION

Introduction

1.1 OVERVIEW

1.1.1 The Landscape and Habitat Management Strategy ("LHMS") applies to the Wylfa Newydd Development Area ("WNDA") and will be a certified document under the Development Consent Order ("DCO"). Landscape and habitat principles are set out in Chapter 4 of this document and subsequent landscape and habitat details for the WNDA will need to be designed in accordance with these principles, as secured by DCO Requirement.

1.1.2 Construction will need to be undertaken in accordance with the Power Station Site: Construction Parameter Plan (WN0902-HZDCO-MSP-DRG-00008) and the parameters set out in the DCO.

1.1.3 These parameters secure the locations, maximum heights Above Ordnance Datum ("AOD") and maximum gradients of landforms during construction. It is necessary to adopt a parameters-based approach for the construction landforms as the detailed design cannot be confirmed until excavation work for the Power Station is progressed and further detail is known about the quality and quantity of earthwork fill that is available for re-use in the landforms.

1.1.4 The requirements in Schedule 3 of the Development Consent Order (Application Reference Number: 3.1) state that landscape and habitat management schemes for the WNDA must be submitted to and approved by the relevant planning authority and the management schemes must be prepared in accordance with the management principles in Chapter 7 of this document.

1.1.5 The LHMS principles set out how key landscape and habitat elements within the WNDA will be safeguarded or created and managed in order to help mitigate adverse effects identified in the Environmental Statement.

1.1.6 The LHMS also sets out illustrative landscape and habitat design and management proposals that will demonstrate how the landscape and habitats could be delivered in accordance with the principles.

1.2 GEOGRAPHIC SCOPE OF THIS DOCUMENT

1.2.1 This document applies to the WNDA, with the following exceptions.

- The Power Station Site during the operational period only of the Power Station is excluded, as this is covered in volume 2 of the Design and Access Statement (DAS) (Application Reference Number: 8.2.2). This document includes proposed development up to and including the outer security fence, the 10m clear zone beyond the fence and the stock fencing (or similar) that demarcates the edge of the zone.
- The Site Campus during the construction and operational periods of the Site Campus is excluded, as this is covered in volume 3 of the DAS (Application Reference Number: 8.2.3). The decommissioning and restoration phases of the Site Campus site are included as part of this document.

1.2.2 This approach has been taken to ensure that the design of the Site Campus and Power Station are considered holistically.

1.2.3 The layout of the Power Station has to be based on nuclear safety, which seeks to control access and minimise adverse interactions in the handling of radioactive materials and the potential effects of incidents. There are also many functional, operational, construction and security requirements between plant within the Power Station and the environment that influence the design and the location of buildings and infrastructure. A key influencing factor for the wider landscape design are the security requirements which require buffer offsets between fencing and new areas of planting. These are set out within Design and Access Statement: Volume 2.

1.3 ECOLOGICAL MITIGATION AND COMPENSATION SITES

ECOLOGICAL MITIGATION SITES

1.3.1 The management of ecological mitigation sites and structures identified within volume D, chapter 9 of the Environmental Statement (Application Reference Number: 6.4.9) is provided for under this document. These comprise.

- The notable wildlife enhancement site – 15ha of land at Pen Carreg, within the western part of the WNDA, which has been leased by Horizon (until 2032) and enhanced to provide alternative habitats for a variety of notable species which would be displaced during Site Preparation and Clearance for the duration of the construction period and facilitate their dispersal into the wider landscape.
- The reptile receptor site – 5ha of land at Mynydd Ithel, within the south west of the WNDA, which has been leased by Horizon (until 2032) and where habitats have been enhanced to provide capacity for reptiles which would be displaced and translocated during Site Preparation and Clearance for the duration of the construction period.
- The great crested newt (Triturus cristatus) release area – a zone within Cae Gwyn SSSI which will be within Horizon's ownership, adjacent to the WNDA and within 250m of known great crested newt breeding ponds, where any great crested newts captured during Site Preparation and Clearance would be released.
- Three bat barns, a wildlife tower, a barn owl (Tyto alba) barn and associated buffer habitat planting.

1.3.2 Management schemes for these sites must be submitted in accordance with the management principles in Chapter 7 of this document.

ECOLOGICAL COMPENSATION SITES

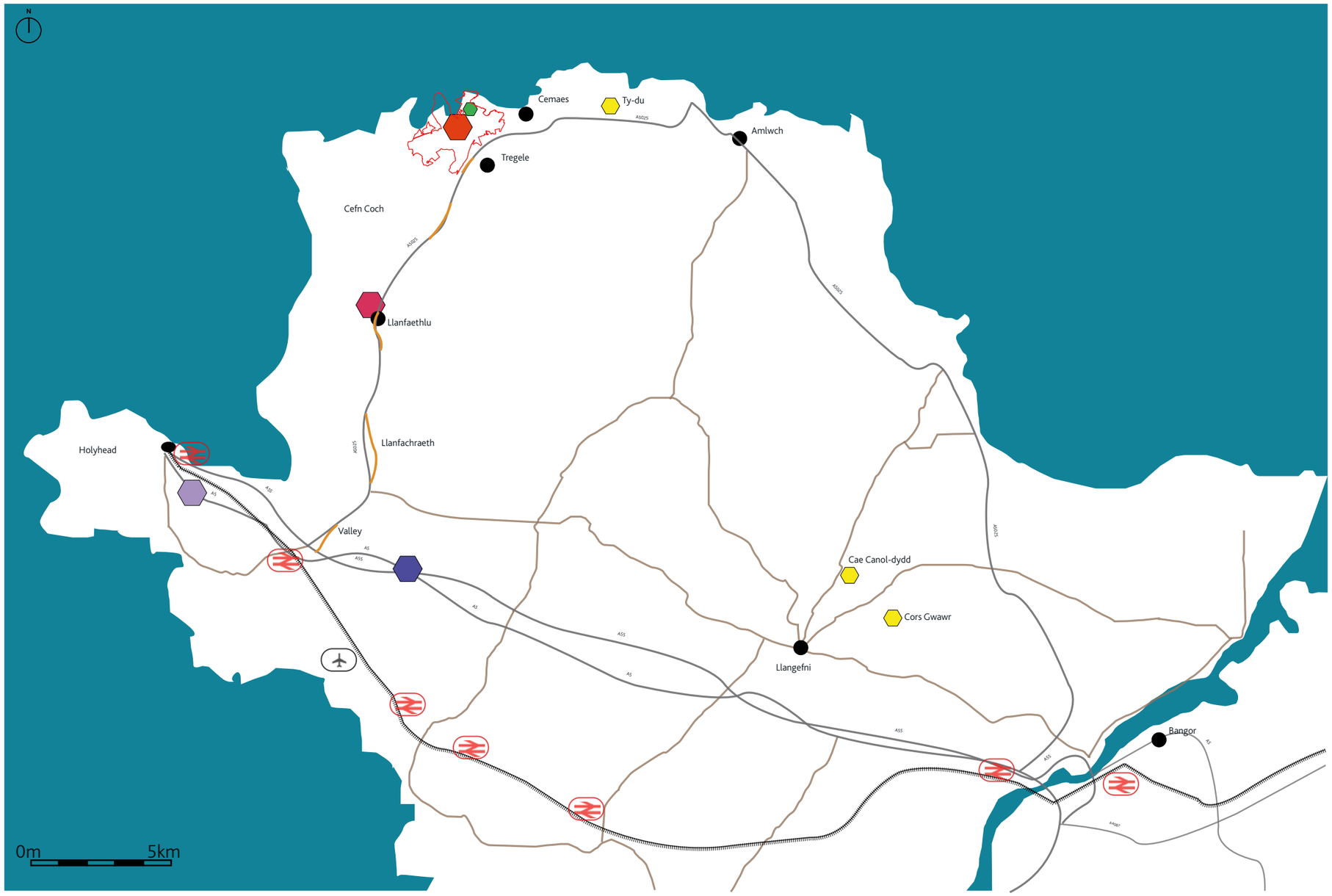
1.3.3 Although outside of the WNDA, this document also covers the Ecological Compensation Sites identified in appendices D9-23 and D9-24 of the Environmental Statement (Application Reference Numbers: 6.4.56 and 6.4.57). The compensation package comprises three sites where habitat creation and enhancement works are proposed to offset potential adverse effects of Tre'r Gof SSSI.

- Cae Canol-dydd – 20.9ha site adjacent to and containing part of Caeau Talwrn SSSI (part of Anglesey Fens SAC), with the potential for 7.7ha of rich fen habitat creation and a further 4.8ha of rich fen habitat enhancement (refer to figure 1-3).
- Cors Gwawr – 20.5ha site located between Cors Bodeilio SSSI (part of Anglesey Fens SAC) and Caeau Talwrn SSSI, with the potential for 6.1ha of rich fen habitat creation and a further 8.2ha of rich fen habitat enhancement (refer to figure 1-4)
- Ty Du – 8.1ha site with the potential for 7ha of mire habitat enhancement (refer to figure 1-5).

1.3.4 Detailed designs for these sites must be submitted in accordance with the landscape and habitat principles in Chapter 4 of this document. Management schemes for the sites must be submitted in accordance with the management principles in Chapter 7 of this document.

THE FOLLOWING TERMS ARE USED WHEN DESCRIBING THE GEOGRAPHICAL AREAS RELATED TO THE PROJECT:

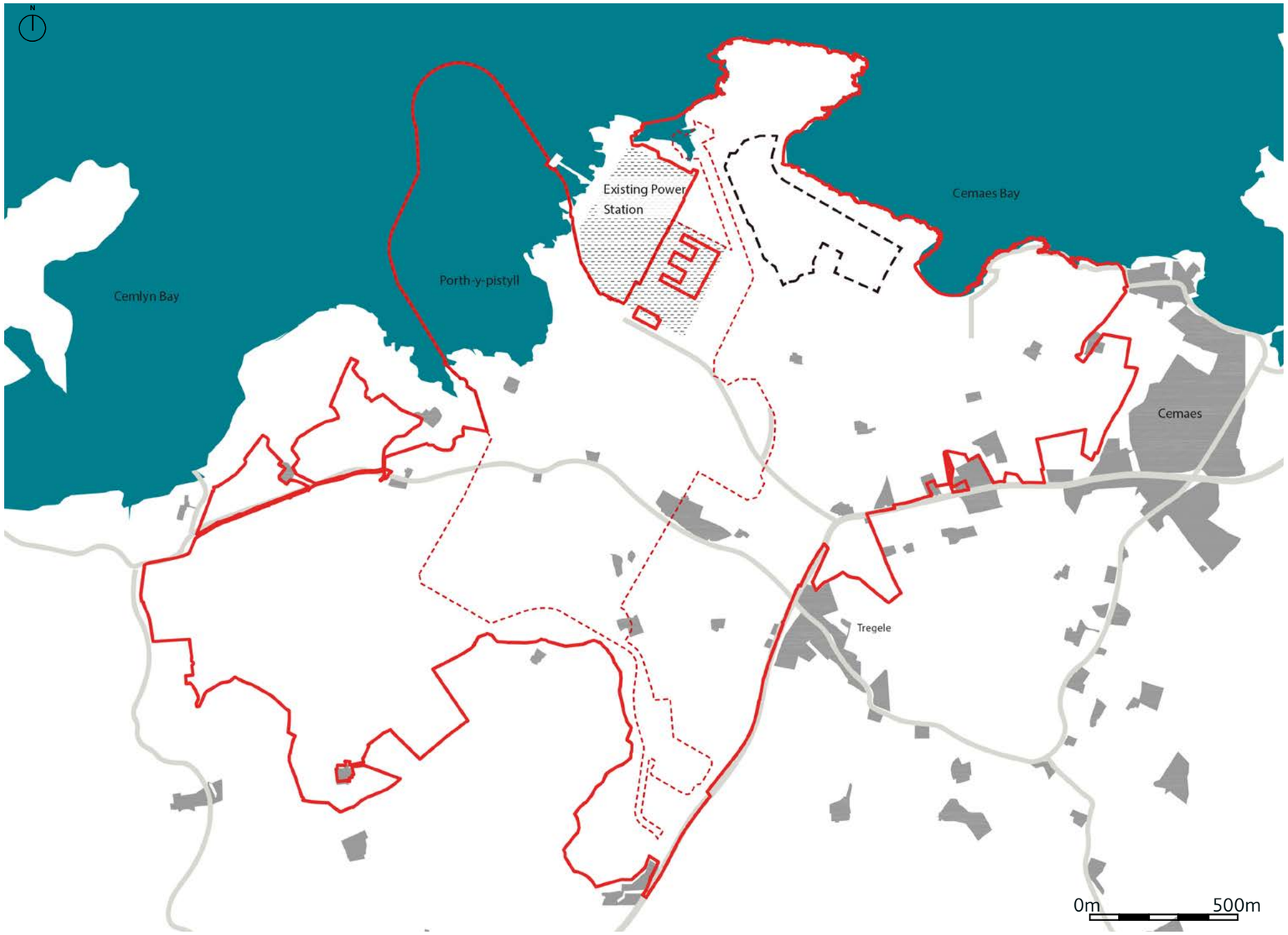
- Power Station Site: The indicative areas of land and sea within which the majority of the permanent Power Station, Marine Works and other on-site development would be situated, as illustrated on Figure 1-2.
- Wylfa Newydd Development Area: The indicative areas of land and sea including the Power Station Site and the surrounding areas that would be used for the construction and operation of the WNDA Development, as illustrated on Figure 1-2.
- WNDA Development: The term used to describe the elements of the Wylfa Newydd DCO Project that are located within the Wylfa Newydd Development Area, namely the Power Station, other on-site development, the Marine Works and the Site Campus.



Legend

Wylfa Newydd Development Area	Power Station Site
Railway Line	Parc Cybi Logistics Centre
Railway Station	Off-site Power Station Facilities
Airport	Dalar Hir Park and Ride facilities
A5025 Off-line Highway Improvements	Site Campus
	Ecological Compensation Sites

Figure 1-1 Location plan – County



Legend

- Wylfa Newydd Development Area
- Settlements
- Power Station Site
- Site Campus boundary

Figure 1-2 Location Plan - Local

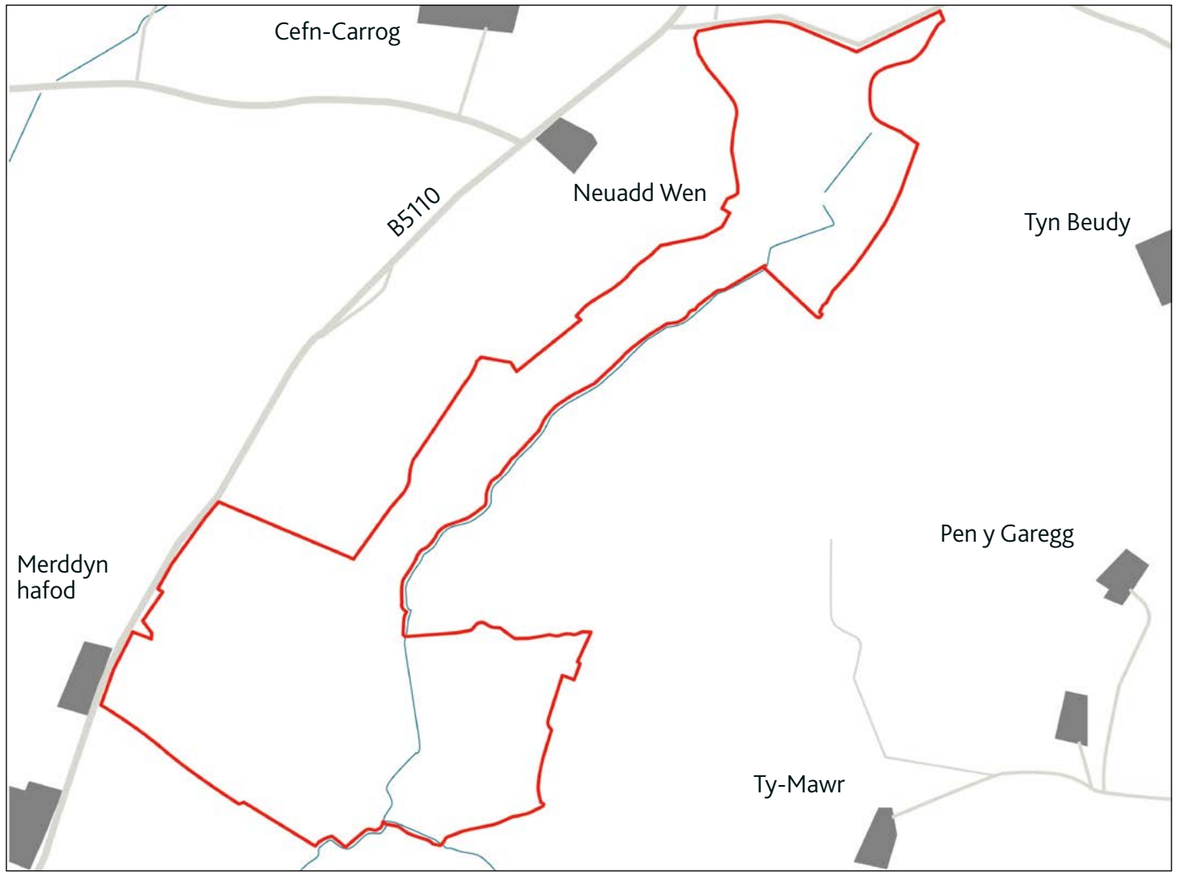


Figure 1-3 Location Plan - Cae Canol-Cydd Ecological Compensation Site

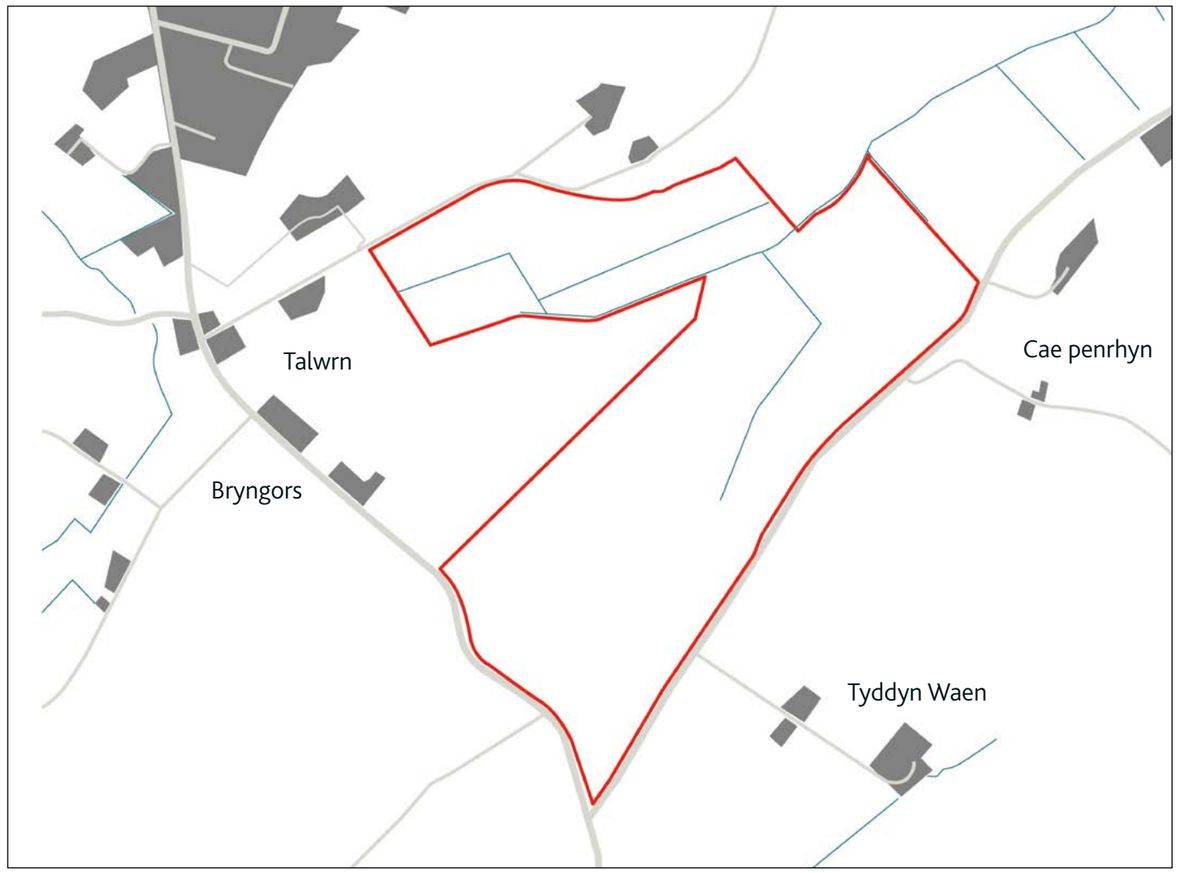


Figure 1-4 Location Plan - Cors Gwawr Ecological Compensation Site

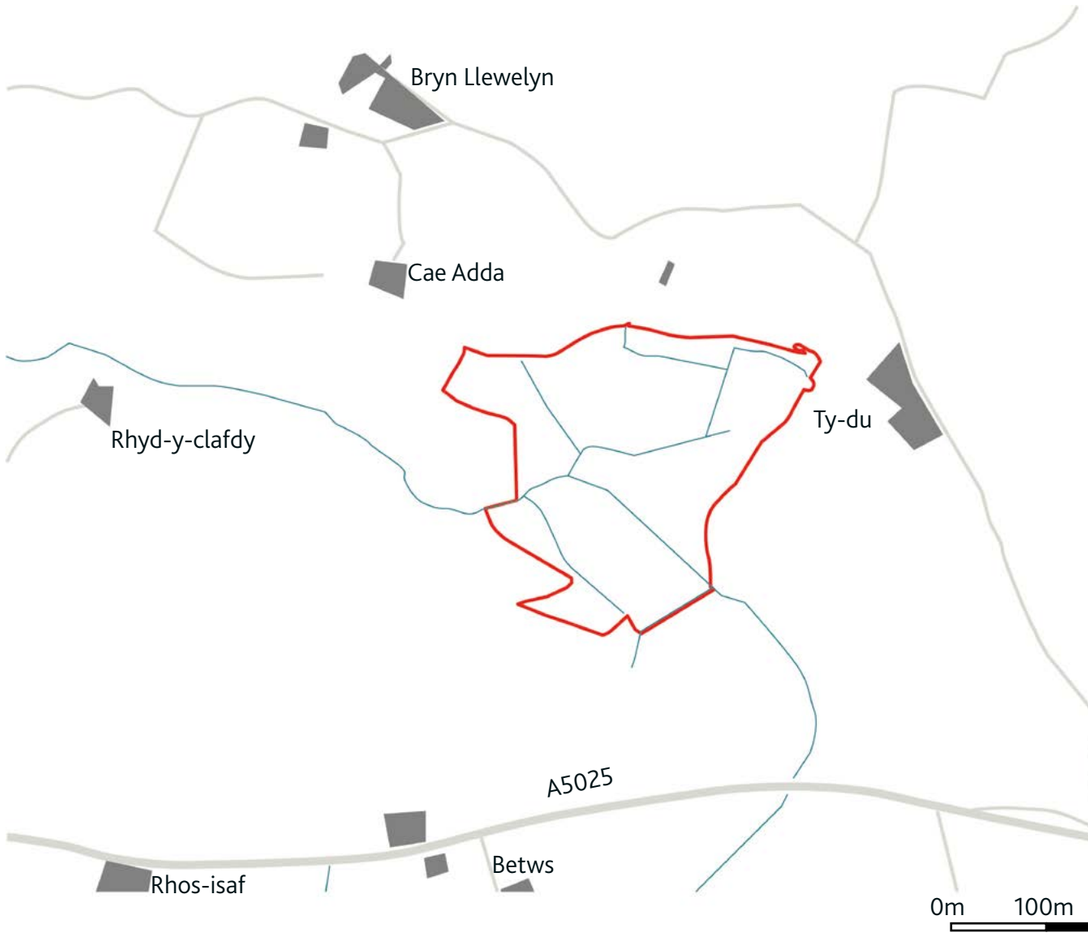


Figure 1-5 Location Plan - Ty Du Ecological Compensation Site

1.4 STRUCTURE OF THIS DOCUMENT

1.4.1 This document is structured as follows:

Part A: Context and principles

- Chapter 1: introduces the development within the Wylfa Newydd Development Area and the purpose of this document, for contextual purposes;
- Chapter 2: provides a baseline description of the Wylfa Newydd Development Area, for contextual purposes;
- Chapter 3: defines how the existing context has shaped the design evolution and development of the principles, for contextual purposes; and
- Chapter 4: defines the landscape and habitat principles that Horizon will adhere to. Relevant detailed design, management and implementation will need to be in accordance with the principles set out in this chapter, as secured by the Development Consent Order (Application Reference Number: 3.1).

Part B: Illustrative design and management proposals

- Chapter 5: illustrates how the principles could be delivered during the construction stage of the Power Station, for indicative purposes only; and
- Chapter 6: illustrates how the principles could be delivered during the operation stage of the Power Station, for indicative purposes only.

Part C: Implementation and long-term management

- Chapter 7: defines the strategic approach to landscape and habitat management and implementation schemes that Horizon will need to be in accordance with, as secured by the Development Consent Order (Application Reference Number: 3.1).

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2 CONTEXTUAL ASSESSMENT

Contextual Assessment

2.1 BASELINE CONDITIONS

2.1.1 This chapter describes the key features of the WNDA and surrounding context that have the potential to inform the landscape design of the WNDA. A more detailed description can be found in volume D, chapter 10 of the Environmental Statement (Application Reference Number: 6.4.10).

ISLE OF ANGLESEY

2.1.2 The Power Station is proposed to be located on the Isle of Anglesey, to the west of Cemaes and south-west of the Existing Power Station, as shown on Figure 1-1.

2.1.3 The main road to the Wylfa Newydd Development Area is the A5025, which connects to Valley (located on the A5) and the A55, approximately 18km to the south. To the east, the A5025 runs to Cemaes and other settlements on the northern and eastern coasts of Anglesey. Outside the settlements, this road passes through areas that are predominantly rural in nature.

2.1.4 The North Wales Coast Railway Line serves Anglesey. It links the railway stations on the west side of the island between Holyhead and the mainland and onwards along the north Wales coast towards Chester, including occasional direct trains from Holyhead to London and connections to other destinations on the UK network. The nearest station to the WNDA for passengers is at Valley.

2.1.5 The principal port on Anglesey is Holyhead, which handles large volumes of freight and passenger traffic. The closest airport is at Valley (Anglesey Airport), which is used by a small number of scheduled and charter flights and is an operational base for the Royal Air Force (RAF Valley).

2.1.6 The location of Associated Development and Off-site Power Station Facilities in relation to the Power Station is shown on Figure 1-1. Landscape considerations for these sites are included in Design and Access Statement - Volume 3 - Associated Developments and Off-Site Power Station Facilities (Application Reference Number: 8.2.3).

WYLFA NEWYDD DEVELOPMENT AREA

2.1.7 The WNDA stretches over 3km from west to east. From the coast, it extends southwards up to 3km from Wylfa Head, occupying an undulating lowland landform ranging from sea level at Porth-y-pistyll, up to approximately 42m Above Ordnance Datum (AOD) south of Cemlyn Road. The extent of the area is shown on Figure 1-2.

2.1.8 The Existing Power Station bordering the WNDA to the north, along with the associated overhead lines and pylons, comprise an important component of the existing local landscape context.

2.1.9 To the north, the WNDA adjoins the Existing Power Station on three sides and encompasses Wylfa Head and the coastal cliffs that extend eastwards towards Cemaes, which define part of the northern boundary of the WNDA. South-west of the Existing Power Station, the northern boundary of the WNDA adjoins the small bay at Porth-y-pistyll. At Porth-y-pistyll, part of the WNDA boundary extends inland, and west alongside Cemlyn Road.

2.1.10 To the east of the WNDA lies the village of Cemaes, separated from it by a narrow band of agricultural land. The A5025 follows much of the boundary of the WNDA to the south-east, except where interspersed by residential properties between the Existing Power Station access road and Cemaes. The small settlement of Tregele lies on the east side of the A5025 adjoining the WNDA. The south-western boundary of the WNDA adjoins agricultural land and Cae Gwyn SSSI.

2.1.11 Wylfa Head is a rocky area of headland which forms the northern extent of the WNDA. This area is rural in nature and provides views of the Irish Sea and views across the headland towards Llanbadrig Point.

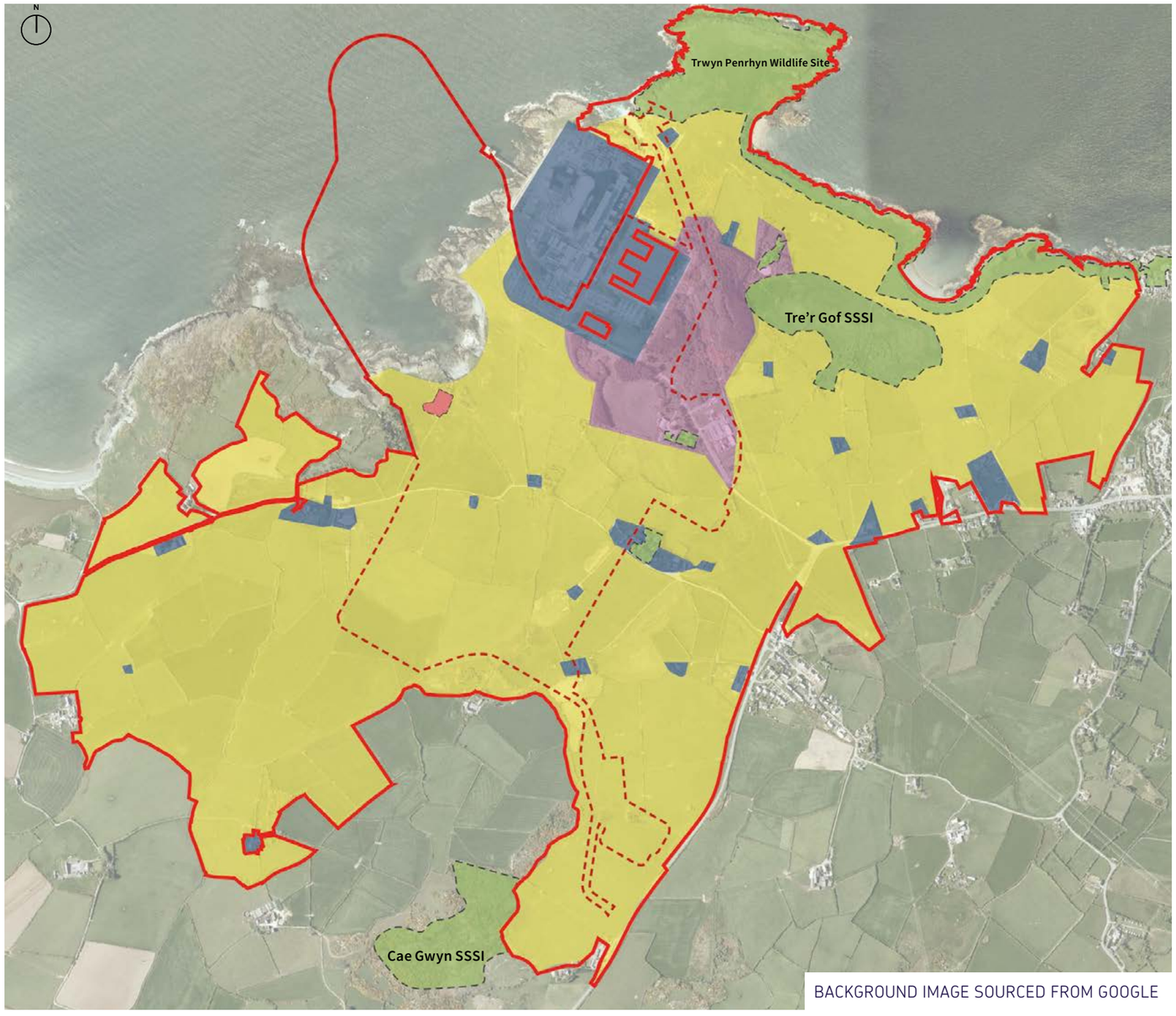
2.1.12 The WNDA can be accessed from the A5025 via the Existing Power Station access road, Cemlyn Road or Nanner Road.

LAND USE AND LOCAL CHARACTER

2.1.13 The existing land use of the WNDA is predominantly agricultural as shown on Figure 2-1, being given over to pasture grazed by sheep and cattle. The irregular field pattern is sub-divided by a variety of hedgerows, traditional cloddiau (a stone-faced earth bank) or dry stone walls, and post and wire fencing. Field boundaries are in variable condition, with a concentration of dry stone walls in the western part of the WNDA, hedgerows in the central part and cloddiau in the eastern part, possibly reflecting past differences in land ownership or micro-climate.

2.1.14 The WNDA encompasses the bases of a number of former properties, with a concentration along Cemlyn Road. Many of these properties, which were vacant for a number of years, have recently been demolished for health and safety reasons. The existing Horizon site offices and Wylfa Sports and Social Club are located a short distance from the Existing Power Station, to the south-east.

2.1.15 Figures 2-2 and 2-3 show the character of the WNDA from a variety of local viewpoints.



BACKGROUND IMAGE SOURCED FROM GOOGLE

Legend

Wylfa Newydd Development Area	Existing Power Station setting
Power Station Site	Land managed for agricultural use
Existing power station	**Protected habitat**
Built Areas : houses and gardens	**Kitchen Garden**

Figure 2-1 Existing land use

Figure 2-2 a. View from the north east of the Wylfa Newydd Development Area overlooking Tre`r Gof SSSI towards the Existing Power Station

Figure 2-2 b. Typical local slope profile and horizon between Cemaes and Tregele looking east

Figure 2.-2 c. View towards the WNDA from the south west showing the Existing Power Station within the drumlin landscape

Figure 2-2 d. Typical landscape to the west of Cemaes, rising ground and sparse vegetation

Figure 2-3 a. The WNDA is dominated by its proximity to the coast and its seascape setting

Figure 2-3 b. Approach to Cemlyn Bay and landscape setting

Figure 2-3 c. Typical landform and sporadic vegetation within the AONB by Cemlyn Bay

Figure 2-3 d. Typical drumlin landscape within the WNDA

EXISTING POWER STATION

2.1.16 The Existing Power Station is a major land use within the WNDA and is a prominent feature.

LANDSCAPE DESIGN STRATEGY

2.1.17 The landscape design for the Existing Power Station was led by Dame Sylvia Crowe, an eminent landscape architect, author and pioneer in the field of large scale landscape planning. The design sought to minimise the effects of the Existing Power Station on the surrounding landscape and to provide a sympathetic transition between the Existing Power Station and the landscape. Key principles of the original landscape design included the use of large scale mounding and tree planting to soften views of the Existing Power Station and maintain a natural landscape setting as close to the Existing Power Station as possible.

Legend

Dame Sylvia Crowe Landscaping

Figure 2-4 Existing Power Station landscape design

EXISTING POWER STATION: LANDSCAPE MOUNDS APPROACH

2.1.20 Two mounds were designed to the east of the Existing Power Station using excavated material from the site in order to conceal the substation and to help integrate the Existing Power Station, as shown on Figure 2-4. The wooded mounds also made provision for recreational use, through incorporation of a nature trail and viewing platform. In order to achieve the recommended design height, steeper slope gradients than typically seen in the locality were required. However, the steeper gradients were mainly concealed, especially in more distant views, by mass tree planting.

EXISTING POWER STATION: PLANTING APPROACH

2.1.21 The planting strategy involved returning the Existing Power Station construction site as closely as possible to its natural state. The mounds were planted with trees to increase the apparent height of the mounds and to link the Existing Power Station to the surrounding landscape.

2.1.22 The planting design utilised a mixture of non-native and native species, balancing the need to respond to the local coastal conditions with the need to provide an effective visual screen. Species included pine and sycamore with the addition of Leyland cypress, alder, hawthorn, blackthorn and willow.

2.1.23 The Dame Sylvia Crowe woodland today provides a valuable visual screen to the Existing Power Station however it is in relatively poor condition. It is split into two blocks comprising a block of mixed pine species to the north, which has been surveyed as being in poor structural condition with no understorey and largely absent ground flora due to dense canopy cover and close planting spaces. To the south of this is a block of mixed broadleaved woodland comprising ash and sycamore with an understory of hawthorn and gorse. There are some small sections of recently felled trees in both blocks. The broadleaved woodland is in better condition than the coniferous plantation however the ground flora was found to be species poor. Some potential for wind throw was identified along recently felled sections in both blocks.

EXISTING POWER STATION: PUBLIC ACCESS AND RECREATION APPROACH

2.1.24 Public access and recreation were considered, acknowledging the nearby Wylfa Head as an important and frequented viewpoint. Signposted grassy paths including the current Wales Coast Path alignment and a nature trail cross the slopes of the mounds, offering a route from dense woodland to more open glades with occasional glimpses of the surrounding landscape. The circular viewing platform at the top of the northern mound offers a vantage point from which to look over the Existing Power Station and out to sea.

EXISTING POWER STATION: VISUAL MITIGATION APPROACH

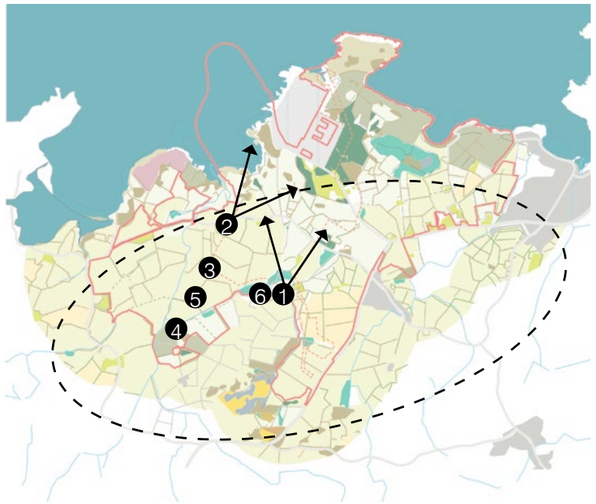
2.1.25 In distant views, the Existing Power Station is seen within the context of the broader landscape. Being of such significant scale, the form of the Existing Power Station interplays with similarly scaled objects, such as the skyline and other massed elements, such as woodland. Tall woodland planting is used adjacent to larger buildings and structures to balance horizontal weight and screen ancillary buildings. This approach is based on the rationale that a large building with a broken silhouette fades into the background more readily than a similar structure with an unbroken outline. The intention was not to disguise the buildings, but to offset their scale against similarly scaled natural elements, and use strategic massed planting to break the angular forms, which are traditionally associated with man-made structures, thereby maintaining the flow and rhythm of the skyline.

2.1.26 In local views, the detail of the structures themselves become apparent and the perception of the scale of the Existing Power Station is unavoidable. The focus therefore shifts towards use of planting to soften the transition between the industrial and agricultural landscapes.

LANDSCAPE CHARACTERISTICS

2.1.27 Photographs illustrating the current landscape are shown on Figures 2-5 to 2-8.

❶ Panorama over the drumlin landscape

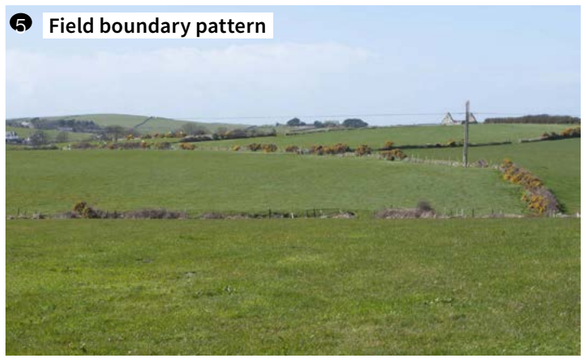


❷ Panorama over the drumlin landscape

❸ Field boundary pattern

❹ Hedgerow

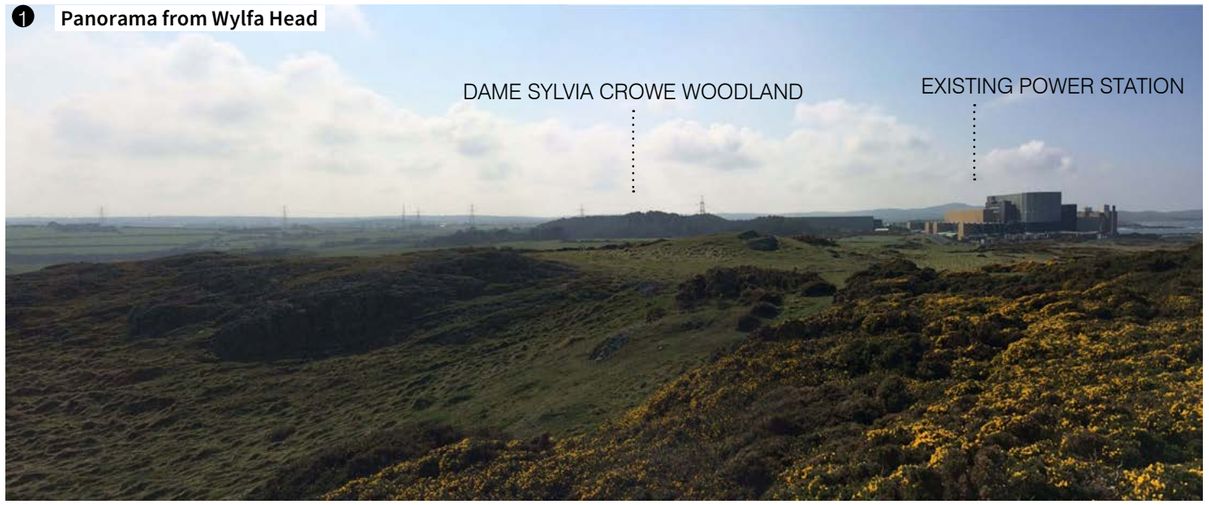
❺ Field boundary pattern



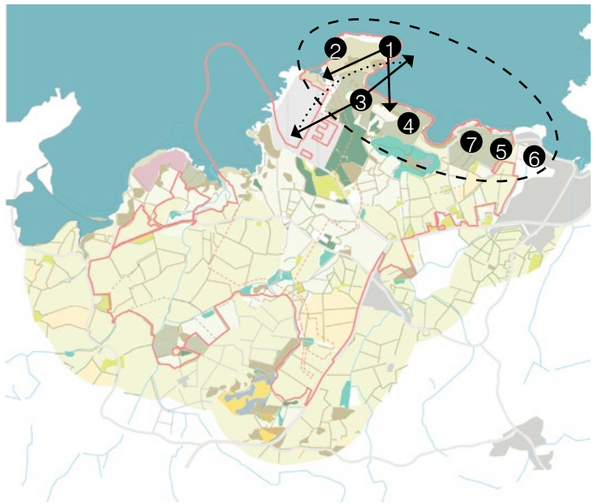
6 Untrimmed hedgerow

Figure 2-5 Current landscape setting 1 of 4

❶ **Panorama from Wylfa Head**



❷ **Rocky cliffs at Wylfa Head**



❸ **Panorama from the Wales Coast Path**

❹ **Cloddiau colonised with gorse**

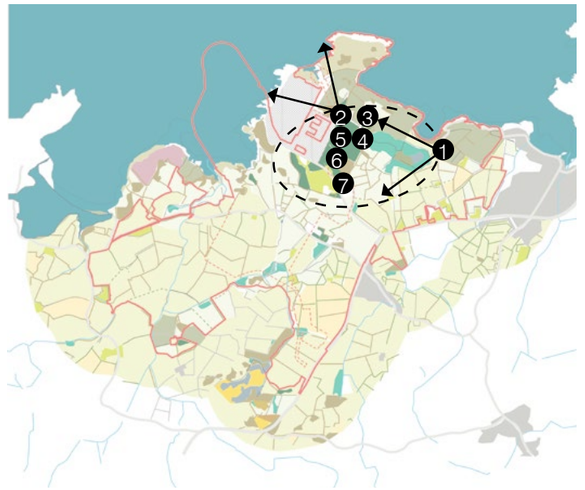
❺ **Post and wire fence**

❻ **Dry stone with supplementary post and wire fence**

❼ **Low dry stone wall**

Figure 2-6 Current landscape setting 2 of 4

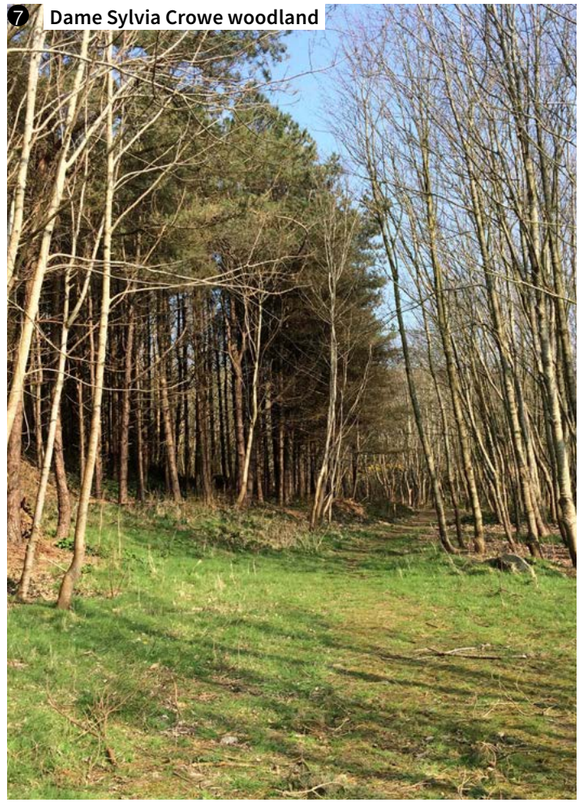
❶ **Panorama from Porth Wylfa**



❷ **View from the visitor viewpoint**

❸ **Ancient woodland**

❼ **Dame Sylvia Crowe woodland**



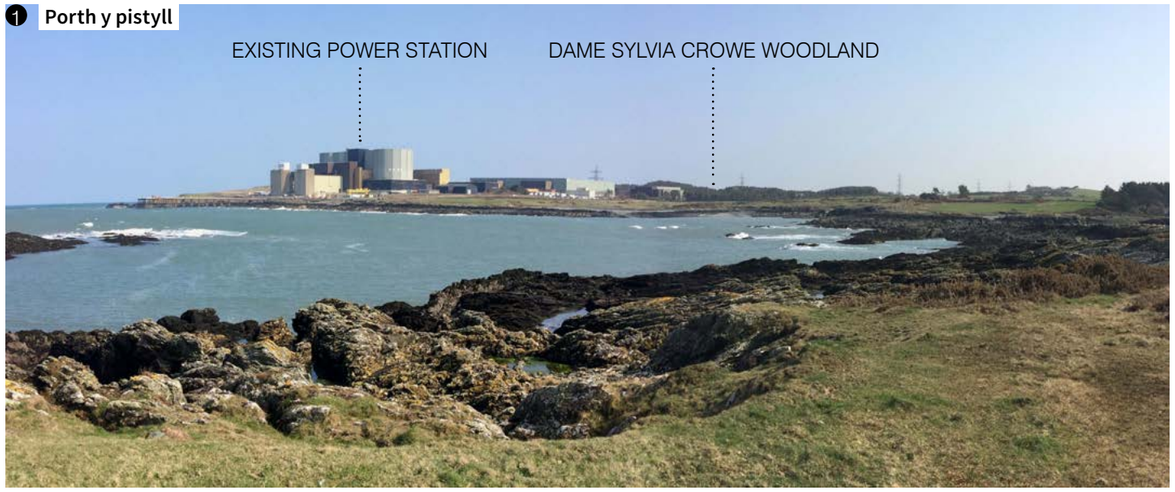
4 **Access to Wylfa head from the Fisherman's car park**

❺ **Dame Sylvia Crowe woodland**

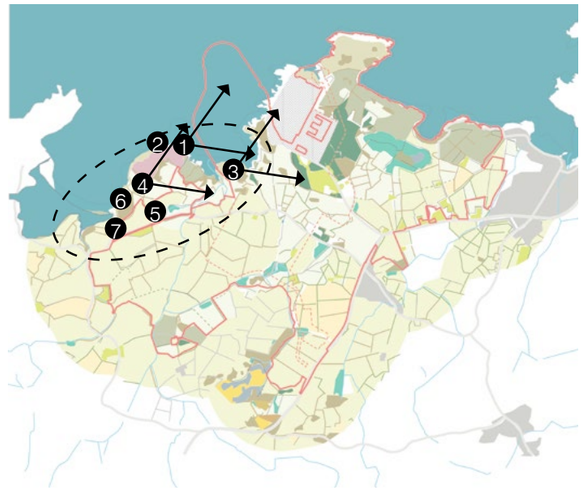
❻ **Dame Sylvia Crowe woodland**

Figure 2-7 Current landscape setting 3 of 4

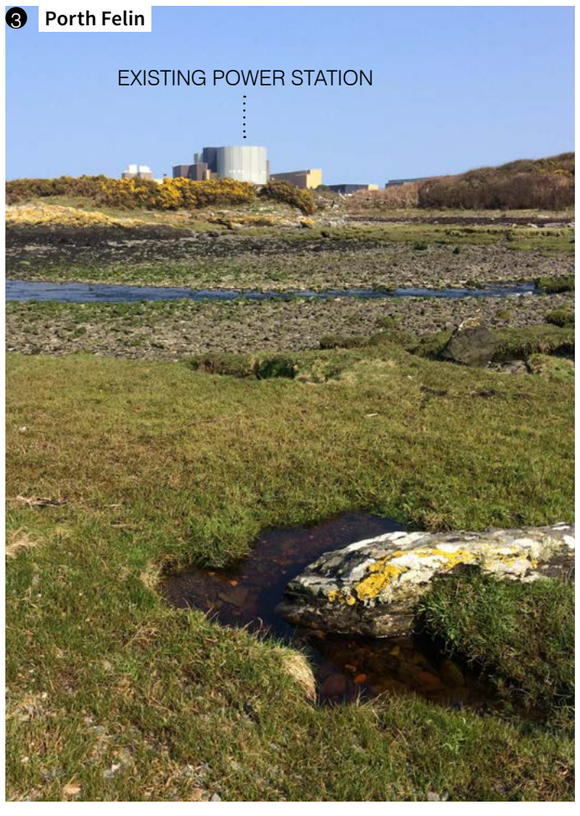
❶ Porth y pistyll



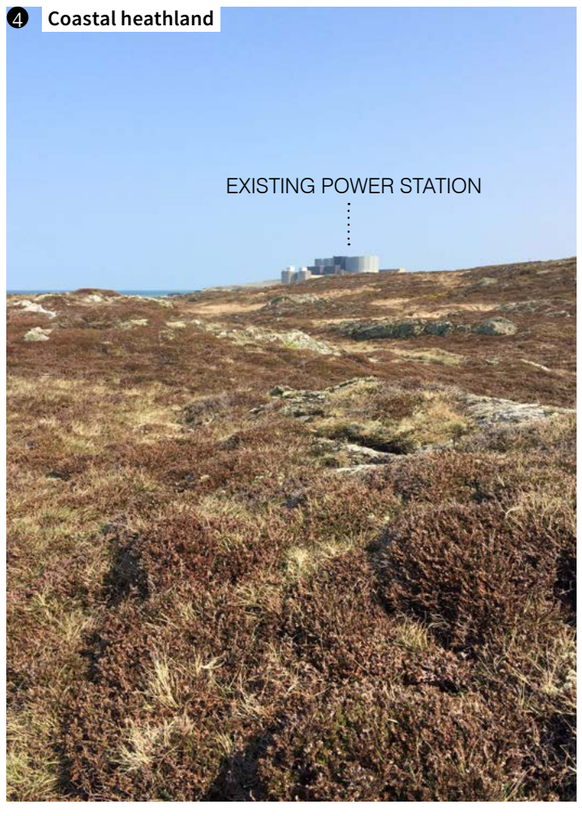
❷ Pink coastal stone



❸ Porth Felin



❹ Coastal heathland



❺ Coastal heathland

❻ Cloddiau with supplementary post and wire fence

❼ Dry stone wall in poor condition

Figure 2-8 Current landscape setting 4 of 4

ANGLESEY AREA OF OUTSTANDING NATURAL BEAUTY

2.1.28 The WNDA largely lies outside of the Anglesey Area of Outstanding Natural Beauty (AONB), with the exception of its western margin. The AONB abuts coastline that is designated as part of the North Anglesey Heritage Coast, which comprises the coastal setting of the AONB. Landscape designations are shown on Figure 2-9.

2.1.29 The AONB Management Plan [RD12]describes the AONB at section 3 (page 6) in the following terms:

"The coastline of Anglesey, many stretches of which are isolated, contributes much to the island's appeal. Rugged cliffs, sandy bays, marshes, dunes... give great variety of scene." The coastline is considered in the AONB Management Plan to be a defining feature of the AONB, with agriculture comprising the main land use". However, it is recognised that the character of the landscape has been influenced by centuries of farming, as well as traditional industries such as quarrying."

2.1.30 The AONB Management Plan defines the special qualities of the AONB, all of which are present in the locality of the WNDA, as follows:

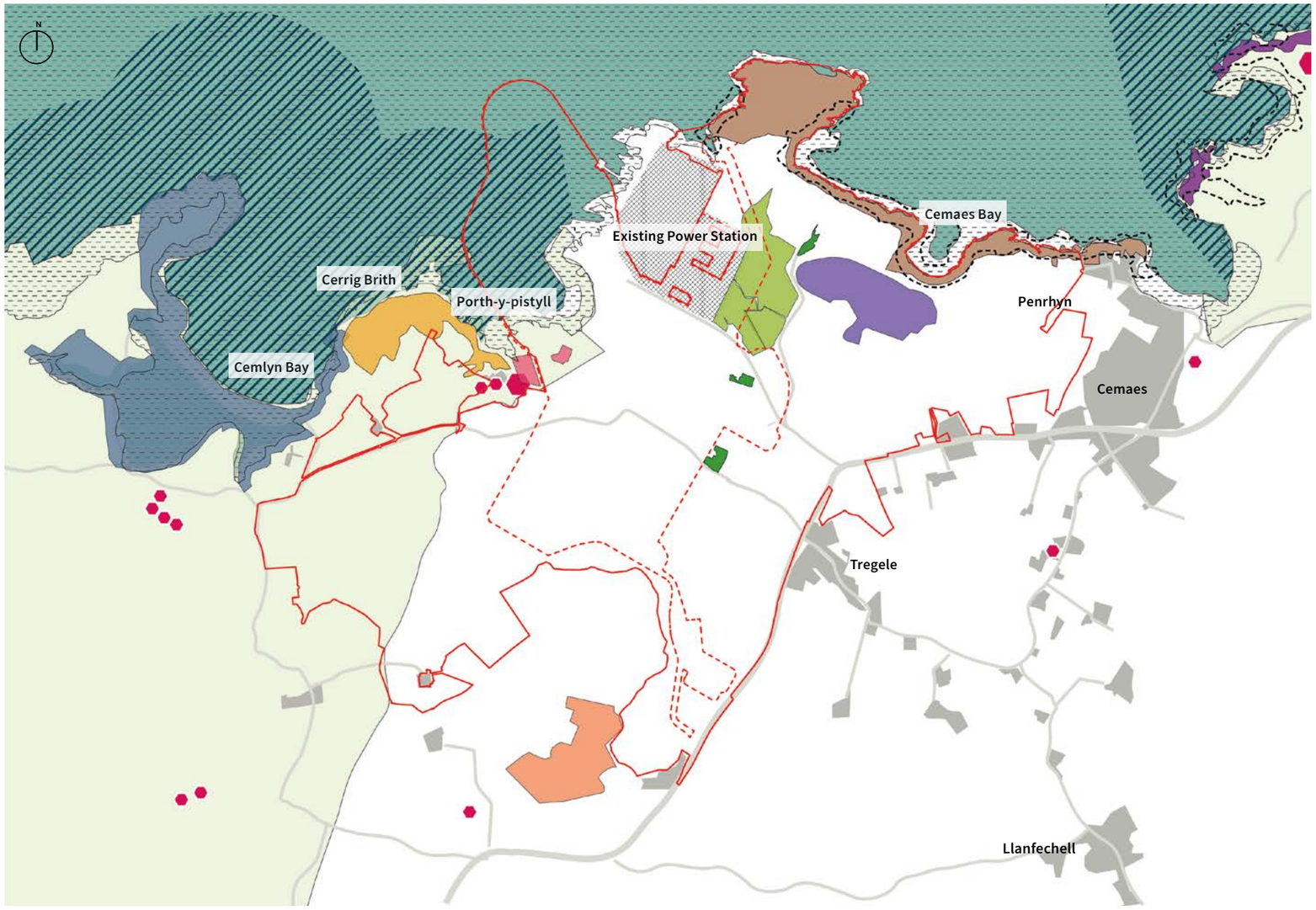
- coastal landscape/seascape features;
- traditional agricultural landscape features;
- expansive views/seascapes;
- peace and tranquillity;
- geological and geomorphological features;
- islands around Anglesey;
- broadleaved woodlands;
- lowland coastal heath;
- species-rich roadside verges;
- ecologically important coastal and wetland habitats (including rocky shores, mudflats and estuaries, saltmarshes, beaches and dunes);
- built environment including Conservation Areas and Listed Buildings;
- archaeology and ancient monuments/historic landscapes, parks and gardens;
- rural agricultural communities;
- Welsh language;
- soil, air and water quality;
- PRoW network; and
- accessible land and water.

2.1.31 The State of the AONB Report for Anglesey [RD12] recognises that industrial activity, including the Existing Power Station, at Cemaes Bay has "a dramatic visual influence on the AONB, and will continue to do so in the future".

LOCAL LANDSCAPE CHARACTER

2.1.32 The most relevant published source on landscape character is provided in the Anglesey Landscape Strategy Update [RD12], which defines two areas encompassing the AONB as shown on Figure 2-10; the North West Coast and the north-west Anglesey landscape character areas as follows:

- LCA 4, North West Coast: Rocky and convoluted coast but with a sandy beach and brackish lagoon at Cemlyn Bay. The area is quiet, but accessed by the Wales Coast Path and contains evidence of man-made activity such as (the existing) Wylfa Power Station; and
- LCA 5, North West Anglesey: Described as having an extensive drumlin field, shown on Figure 2-11g, resulting in a "classic basket of eggs" description for the landscape. The hillocks run south-west to north-east and the majority have a land cover of improved grassland. There are also areas of marsh, scrub and rocky outcrops. Wind farms form a distinctive feature in the landscape.



Legend

- Wylfa Newydd Development Area
- Power Station Site Boundary
- Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site
- Trwyn Pencarreg Wildlife Site
- Cae Gwyn SSSI
- Cestyll Gardens Registered Historic Park & Garden
- Anglesey AONB
- Ancient Woodland
- North Anglesey Marine SAC
- Anglesey Terns SPA
- Tre'r Gof SSSI
- Cemlyn Bay SAC & SSSI
- Llanbadrig- Dinas Gynfor SSSI
- Grade II* listed building
- Grade II listed building
- North Anglesey Heritage Coast
- Regionally Important Geodiversity Site (RIGS)
- Dame Sylvia Crowe Woodland
- Settlements
- Existing Power Station

Figure 2-9 Environment, landscape and heritage designations

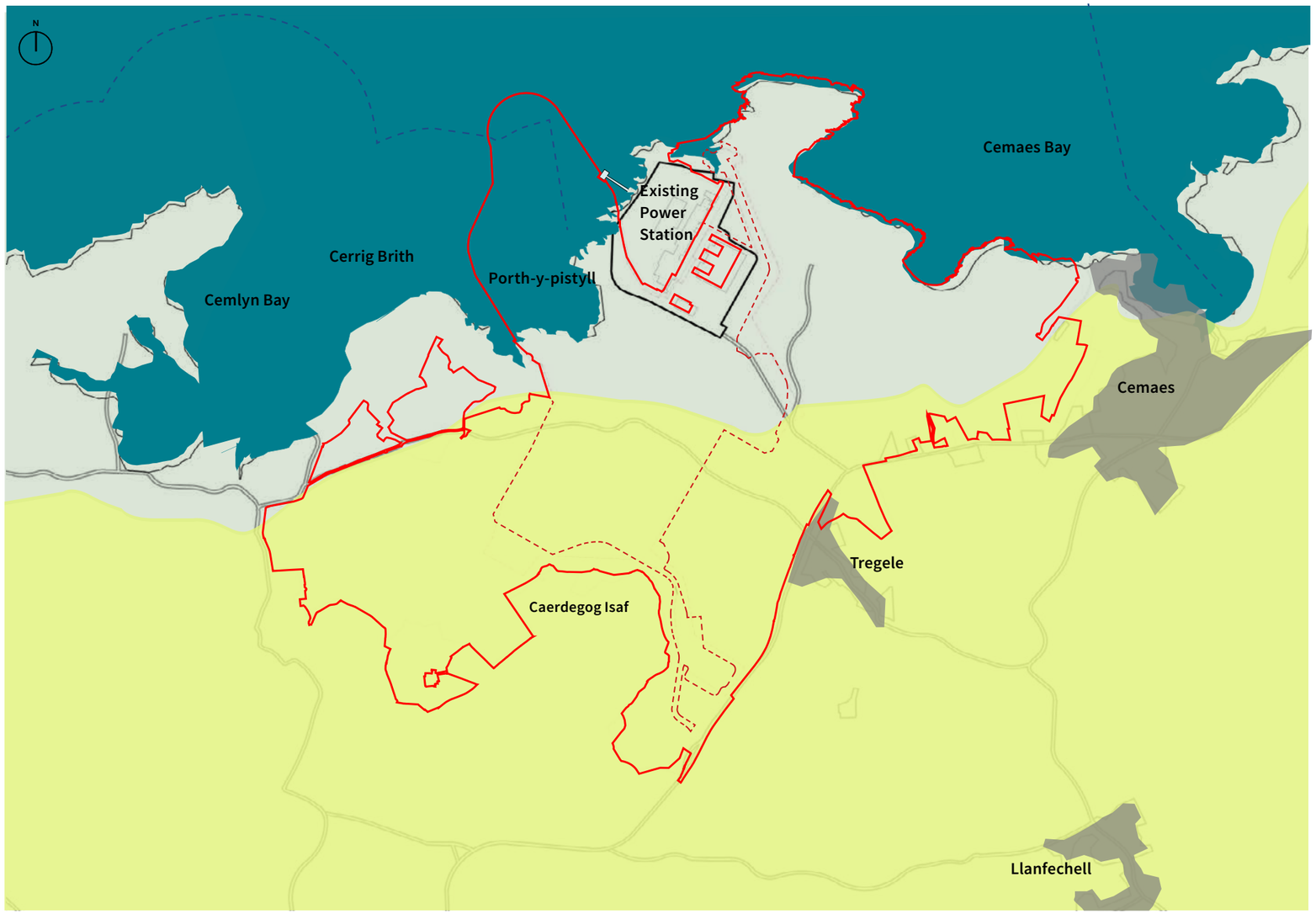


Figure 2-10 Landscape character assessment

Figure 2-11a Satellite IMAGE SOURCED FROM GOOGLE

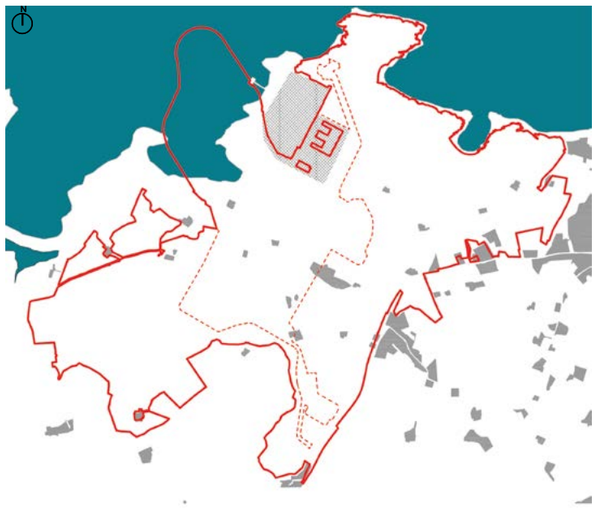


Figure 2-11b Settlements & Built Development

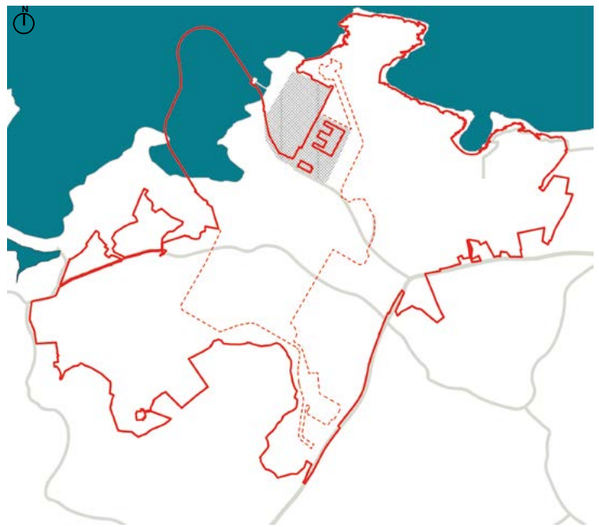


Figure 2-11c Road Network

Legend

- Wylfa Newydd Development Area
- Power Station Site Boundary
- Settlements
- Roads
- Water course
- Hedges
- Walls
- Fences
- Riparian vegetation
- Woodland
- Scrub
- Drumlin patterns

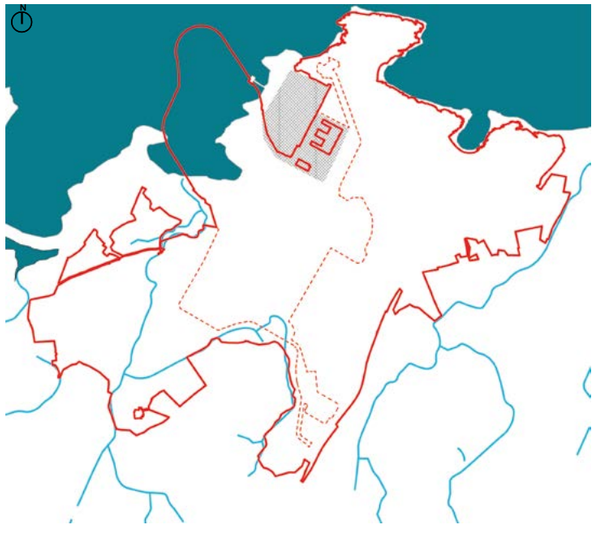


Figure 2-11d Rivers and Coast

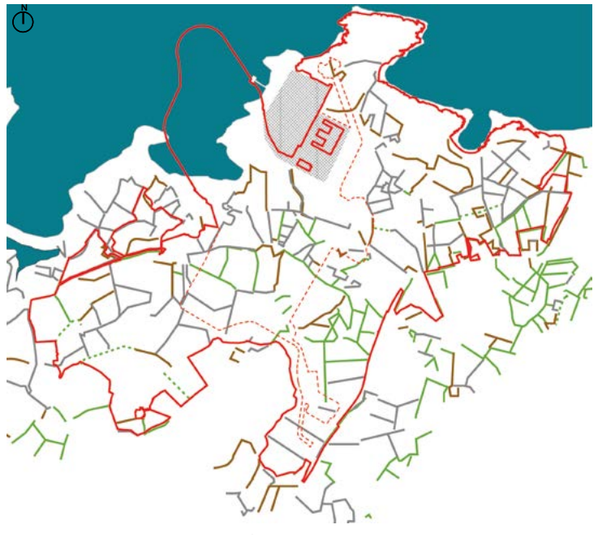


Figure 2-11e Field Boundaries

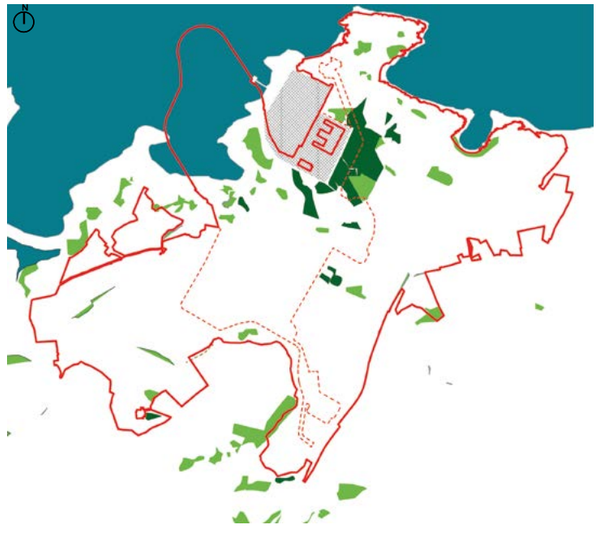


Figure 2-11f Woodland and Scrub

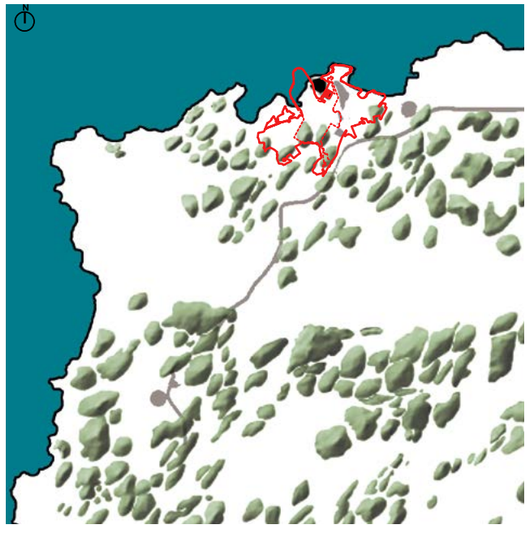


Figure 2-11g North Anglesey — Drumlin Patterns

Figure 2-11 Landscape character assessment

CULTURAL HERITAGE

2.1.44 There are no listed buildings within the WNDA. Part of Cestyll Gardens, which is a Grade II registered historic park and garden, is within the WNDA.

2.1.45 Felin Cafnan Corn Mill (Porth-y-Felin) is a Grade II* Listed Building located immediately to the west of the Wylfa Newydd Development Area. It is adjoined by an associated corn drying house and mill house, which are both Grade II listed buildings. They are themselves adjoined by Cestyll Gardens, which is mentioned above. The cluster was originally associated with Cestyll House, however the main house was demolished in 1991. Cafnan House and outbuildings is a Grade II listed building that is located opposite to Felin Cafnan and is therefore also close to the proposed development. Heritage designations are shown on Figure 2-9.

2.1.46 Cestyll Garden is a Registered Historic Park and Garden made up of three main elements:

- a former walled kitchen garden dating from the mid-late 19th century, which sits within the Proposed Power Station Site;
- the valley garden immediately adjacent to the western boundary of the Power Station Site which was a later development being predominantly designed and created by the Hon. Violet Vivian from the 1920s; and
- a plot of land where Cestyll House formerly stood (demolished in 1991).

2.1.47 The designation includes the valley garden, as well as the kitchen garden, the house plot, the site of the Gardener's cottage and garage, and the wider landscape which forms its Essential Setting.

2.1.48 The valley garden is situated in a small valley running north to the sea, sheltered from the east from the most damaging strong, cold winds by a shelter belt of conifers. The garden is described as an "unusual, small and intimate 1920s garden informally planted with tender plants, well suited to its rocky seaside site, which is of great natural beauty" (Cadw 1998). It is also culturally important for its historical associations with Violet Vivian and the Vivian family who had close associations with the royal family of the Edwardian era and were major innovators of garden design and the drive to introduce exotic plants in the late 19th and early 20th century. The garden contains a very wide range of plants, concentrating on shrubs and waterside plants. There are also many ornamental trees, mostly smaller varieties which can flourish within the sheltered valley.

2.1.49 The coniferous shelter belt to the east of the garden continues along the south side to include a small compound in which there is a well and pump house. The shelter belt consists mostly of pines, many of which are modern replacements and immediately adjoins the western boundary of the Power Station Site. A few large trees along the west boundary help to break the warmer wind from this direction.

2.1.50 The kitchen garden was established to serve the house during the 19th century. Now much overgrown and partially demolished, the kitchen garden retains little evidence for original features and structures. A total of 12 remaining fruit trees have been identified within the garden, including a specimen of the Lady's Finger of Lancaster apple which is an unusual heritage variety. The kitchen garden is primarily of value due to its association with, and contribution to the setting of, the valley garden.

Figure 2-12 a. View towards Cestyll Gardens from Porth-y-Pistyll

Figure 2-12 b. View from Cestyll gardens towards Porth-y-Pistyll

Figure 2-12 Existing view of Cestyll Gardens

PUBLIC ACCESS

2.1.51 As shown on Figure 2-13, a total of 37 local PROWs plus permissive paths provide over 10km of trails across the WNDA, most of which are located adjacent to Cemaes.

2.1.52 The Wales Coast Path (WCP) provides access along the northern margin of the WNDA from Cemaes to a loop at Wylfa Head. At Wylfa Head, the WCP heads inland to skirt the Existing Power Station, before re-joining the coast at Porth-y-pistyll on the western boundary of the WNDA. The WCP within the WNDA is unsurfaced for much of its length and primarily made up of connected local PRoWs.

2.1.53 The Copper Trail/ National Cycle Network Route 566 is routed north-westwards across the WNDA from Tregele along Cemlyn Road, which continues eastwards beyond Cestyll Gardens to Cemlyn Bay.

2.1.54 The Existing Power Station access road provides access to the former Magnox visitor centre and associated car park, outdoor café and picnic and play area. There are playing fields to the south of the Existing Power Station, within the WNDA.

TOPOGRAPHY AND LANDFORM

2.1.56 The pronounced undulating landform of the WNDA reflects the drumlin landform of the surrounding area, as shown on Figure 2-14. It comprises a series of five main drumlins, ranging in height from 25m AOD to 42m AOD, with gradients of approximately 1:8 to 1:10. The drumlin landforms are predominantly oriented to the north-east. A sixth drumlin landform up to 40m AOD was created for the Existing Power Station. To the north the drumlin landscape drops to a rocky coastal shore line.

2.1.57 The A5025, which borders the WNDA to the south-east, follows two ridgelines: one descending from 40m AOD in the south-west to Tregele at 25m AOD; and the other at 35m AOD at its highest point to the north-east of Tregele before descending to Cemaes at 20m AOD. The two highest drumlins on the WNDA are located near its centre at the site of The Firs Hotel (now demolished) (40m AOD), and south of Pennant, a former residential property (now demolished) to the west (42m AOD). The east ridgeline, along which the A5025 runs, turns northwards just before reaching Cemaes, separating low ground on the western edge of Cemaes from low ground on the WNDA to the west, including Tre'r Gof SSSI at around 10m AOD.

2.1.58 The main topographical and landform features comprising the landscape setting therefore are:

- the rocky coastal shoreline to the north;
- the artificial wooded drumlins associated with the Existing Power Station; and
- the natural drumlin landscape, supporting the undulating agricultural fields that typify much of the WNDA beyond the immediate vicinity of the Existing Power Station.

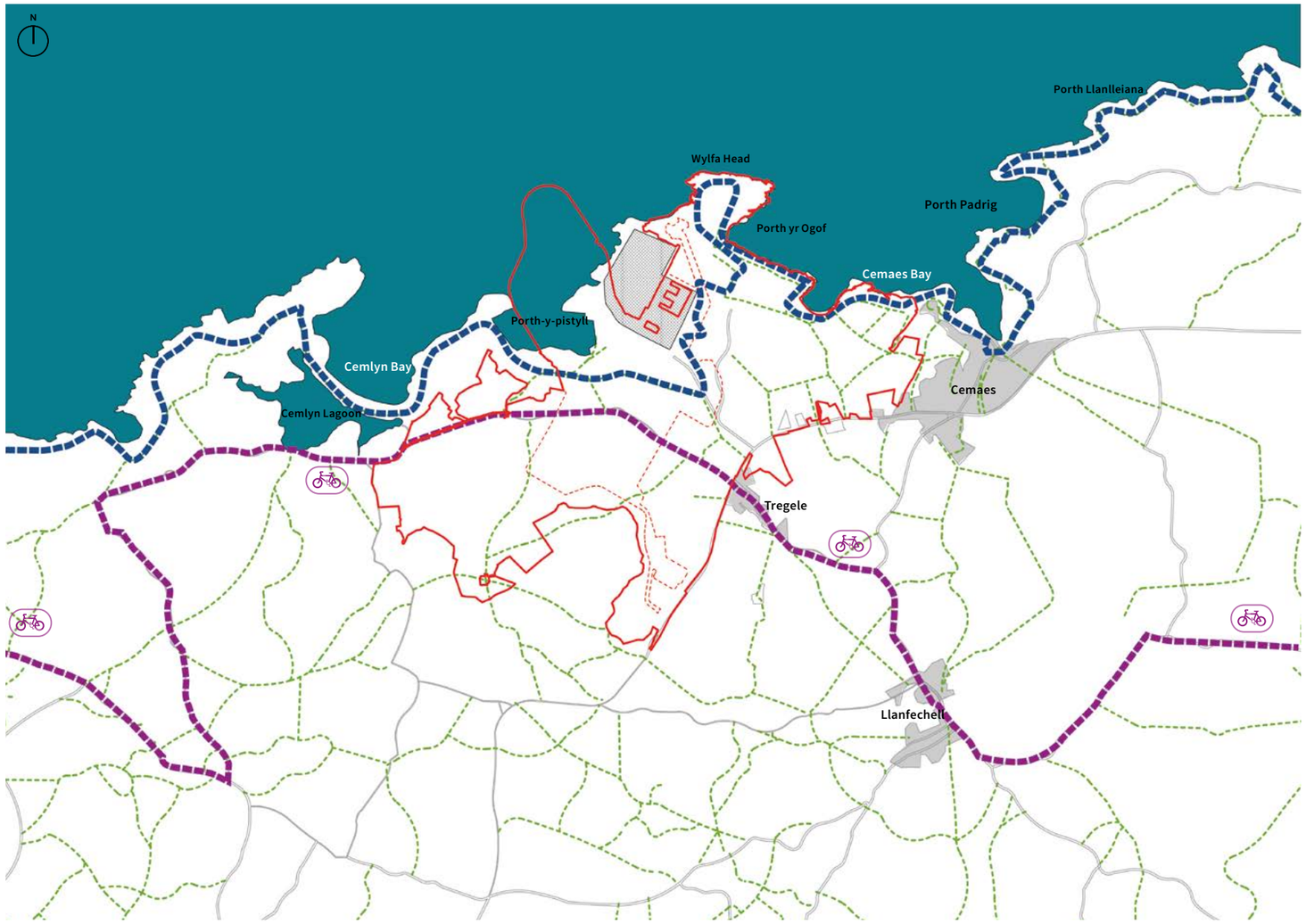


Figure 2-13 Public Access

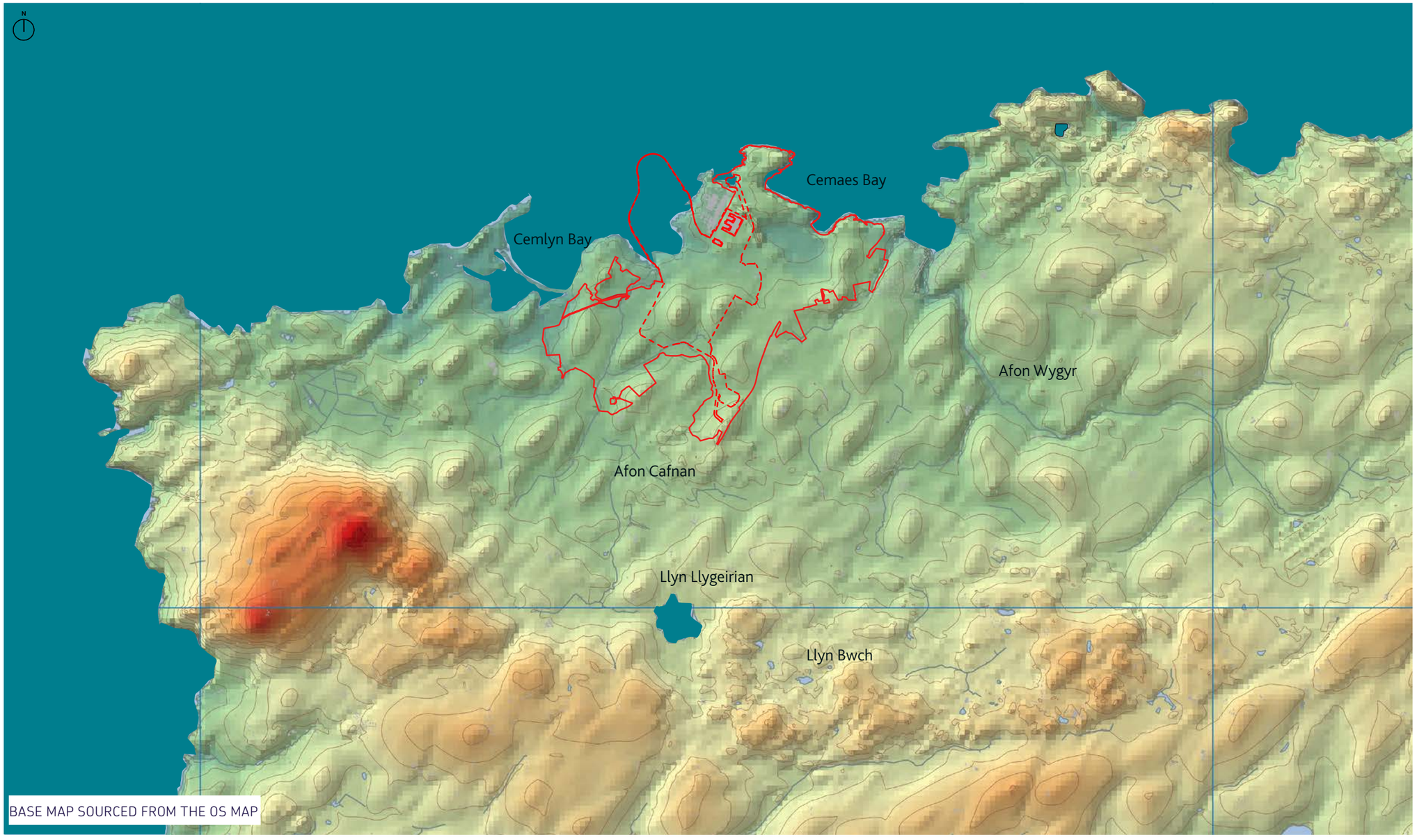


Figure 2-14 Local topography

SOILS AND GEOLOGY

2.1.59 The Agricultural Land Classification (ALC) of land within the WNDA compared with Anglesey as a whole is set out in Table 2-1 and shown on Figure 2-15.

2.1.60 There are three Regionally Important Geodiversity Sites (RIGS) within the WNDA as shown on Figure 2-9: Porth Wnal Dolerite RIGS; Porth Wnal Granite RIGS; and, Cemaes Bay RIGS.

Grade/ Subgrade	Description	Wylfa Newydd Development Area		Anglesey	
		Area (ha)	Percentage (%)	Area (ha)	Percentage (%)
1	Excellent quality	0	0	0	0
2	Very good quality	6.5	2.0	1,117	1.6
3	Moderate quality	18.0	5.6	27,559	38.6
4	Poor quality	224.3	69.5		
5	Very poor quality	0.1	<0.1	27,214	38.1
-	Non-agricultural	35.8	11.1	5,073	7.1

SURFACE WATER AND GROUNDWATER

2.1.61 As shown on Figure 2-16, a meandering watercourse initially flowing northwards (from Cae Gwyn SSSI) borders part of the southern WNDA boundary, eventually flowing into the Afon Cafnan, a waterbody designated under the Water Framework Directive. The Afon Cafnan flows northwards across the WNDA between the existing drumlin landforms into Porth-y-pistyll. Two further watercourses border the WNDA, at the western boundary with Nanner Road and at the eastern boundary with Cemaes.

2.1.62 The WNDA is within five small surface water catchment areas with watercourses within them, which are:

- Tre'r Gof Catchment;
- Afon Cafnan Catchment;
- Cemaes Catchment;
- Cemlyn Catchment; and,
- Power Station Catchment.

2.1.63 Bedrock groundwater generally flows from the south to the north-west, north and north-east, discharging into the Irish Sea.

FLOOD RISK

2.1.65 Figure 2-17 shows that the vast majority of the WNDA and surrounding area is located in Flood Zone A, which indicates a very low risk of tidal or fluvial flooding in response to flood events with a frequency of greater than 1:1,000 years.

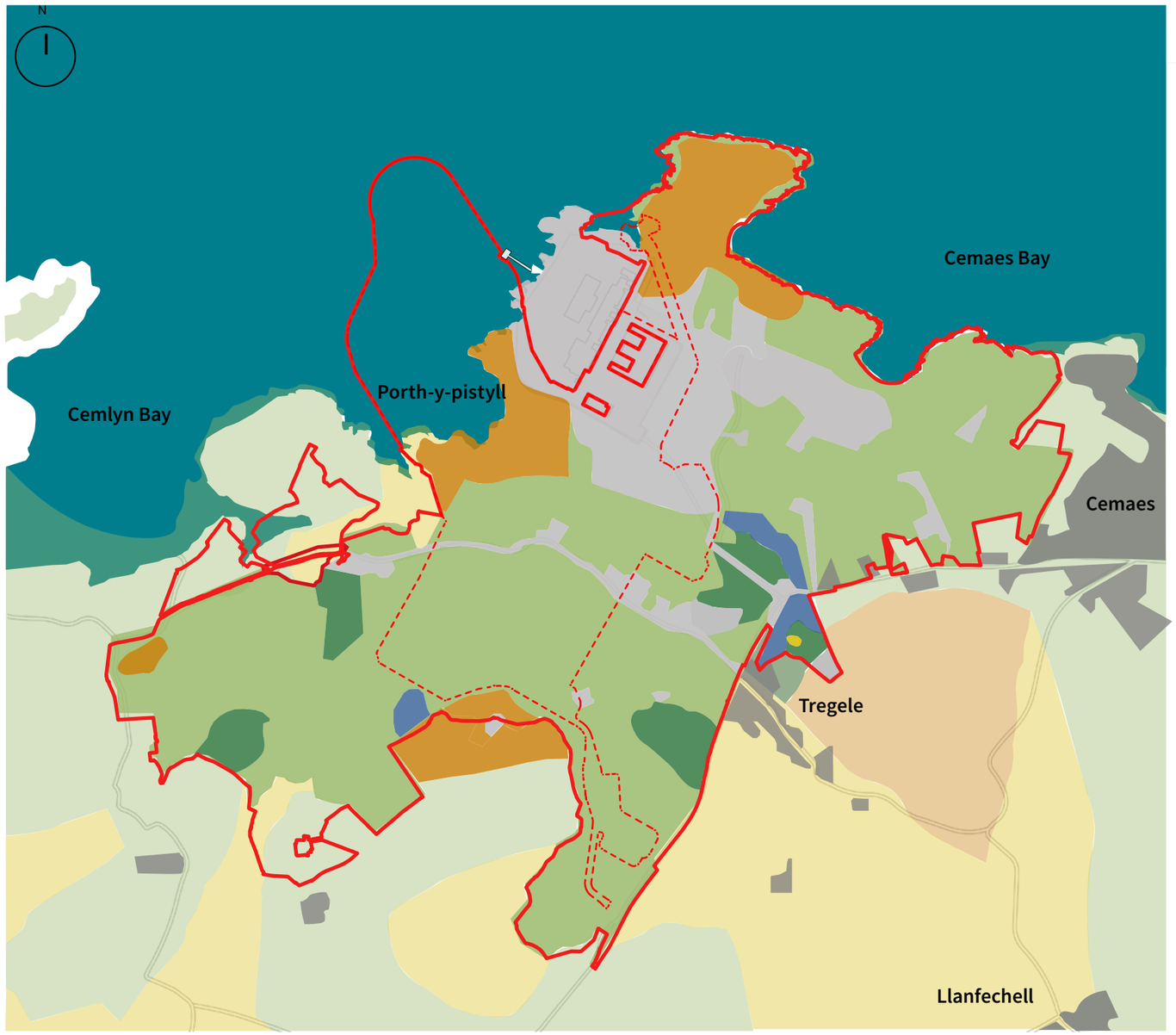
2.1.66 Low lying areas inland of Porth-y-pistyll and Porth Wylfa fall in Flood Zones B and C and extreme sea levels could result in a relatively greater risk of inland flooding in these peripheral locations of the WNDA.

2.1.67 Only small coastline areas bordering the WNDA lie at levels below the highest maximum credible sea water level. The lowest area within the WNDA is Tre'r Gof, which lies at between 5m AOD and 10m AOD. The elevation at which sea levels would breach the high ground to the north of Tre'r Gof is approximately 11m AOD, therefore, still-water tidal inundation of Tre'r Gof or anywhere else outside of the coastal margins of the WNDA is not expected during the construction phase. The wave modelling report indicates that simulated wave heights for the 2023 present day scenario at the low-point access to Tre'r Gof do not exceed 0.4m, therefore, wave assisted overtopping of Tre'r Gof is also not expected.

2.1.68 For decommissioning the tidal flooding levels given for 2187 have been taken as the maximum sea levels likely to affect the site. The majority of the land at the decommissioned Power Station Site would be above 18m AOD and as such, there is no reasonably foreseeable flood risk to the land from coastal flooding for up to the 0.01% AEP flood event. However, lower lying areas such as the platform around the CW intake tunnels and the onshore elements of the MOLF would be at risk of tidal flooding, but this would be to a limited area and as these areas would no longer be in use, it is only the flooding of the land that is of concern. Land along the coastal edges of the WNDA is therefore considered to be of medium sensitivity to flooding during decommissioning.

2.1.69 Extreme wave heights locally have been assessed and combinations of extreme tide levels and wave heights with a joint annual probability of up to 1 in 10,000 have been considered. Tre'r Gof SSSI was highlighted as the sole location where there was thought to be a substantial risk of inundation under these conditions. Due to the topography of Tre'r Gof SSSI, any flooding from overtopping is likely to be contained and not travel further into the WNDA from the coast.

2.1.70 Further details on how climate change has been factored into the modelling that has informed the Landscape and Habitat Management Strategy, and volume 2 of the Design and Access Statement (Application Reference Number: 8.2.2), are set out in volume D, appendix D8-4 of the Environmental Statement (Application Reference Number: 6.4.29).



Legend

- Wylfa Newydd Development Area
- Wylfa Newydd Power Station Site
- Settlements

Site-specific Agricultural Land Classification (ALC) data

- Grade 2 – very good quality
- Subgrade 3a – good quality
- Subgrade 3b – moderate quality
- Grade 4 – poor quality
- Grade 5 – very poor quality
- Non-agricultural

Provisional ALC

- Grade 3 – good to moderate quality
- Grade 4 – poor quality
- Grade 5 – Very poor quality

Figure 2-15 Agricultural land classification

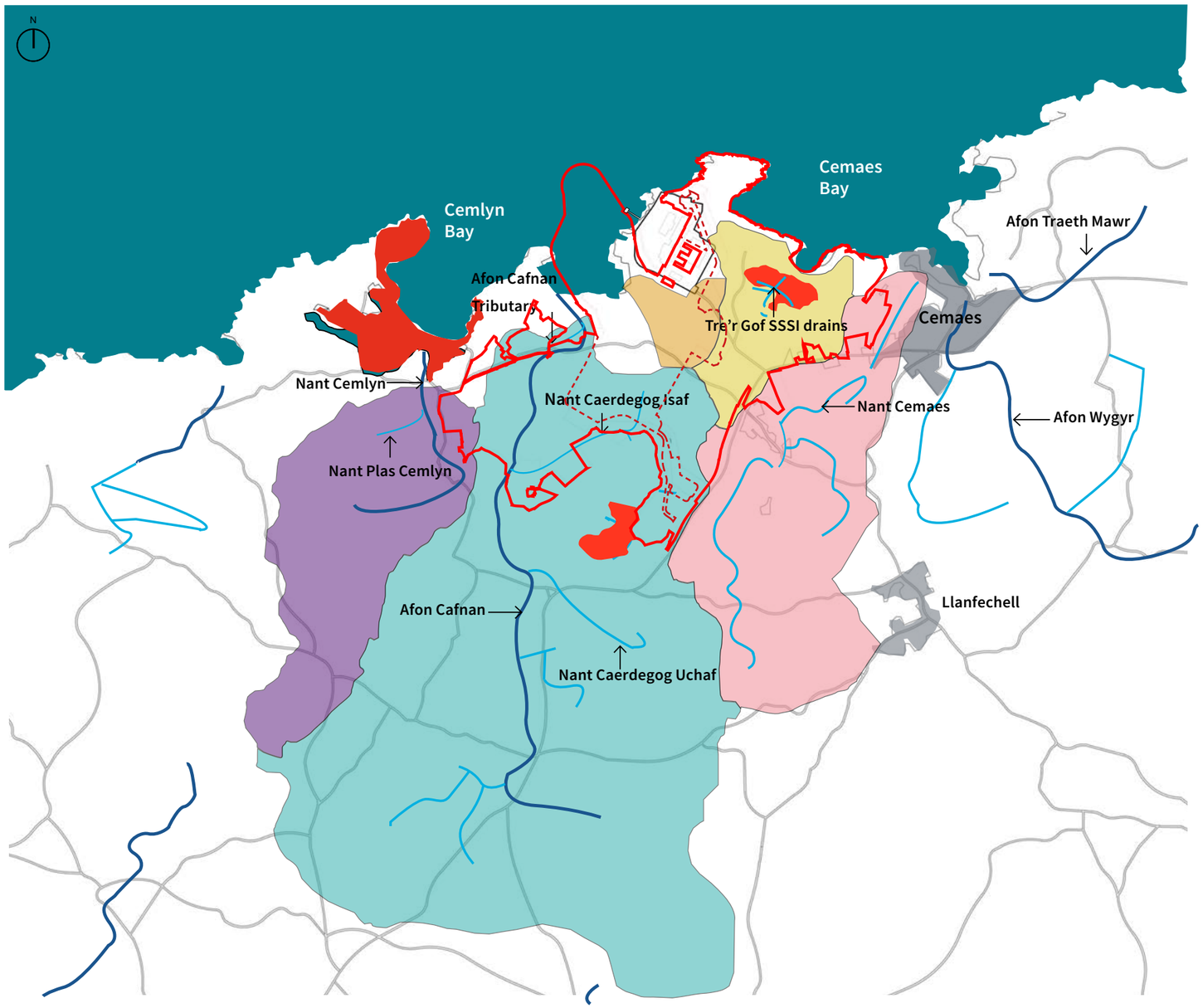
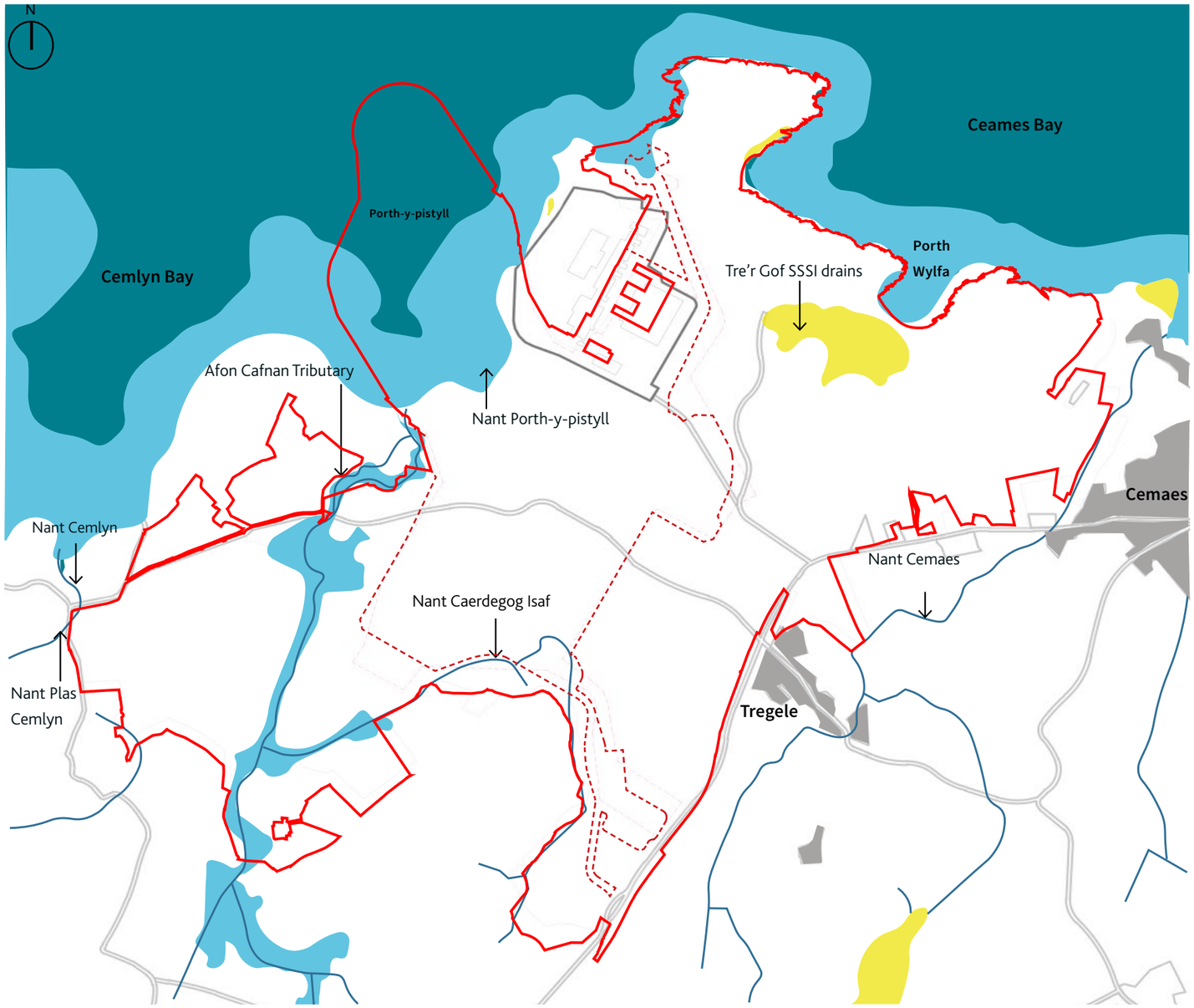


Figure 2-16 Surface water and groundwater



Legend

- Wylfa Newydd Development Area
- Wylfa Newydd Power Station Site
- Settlements
- Flood Zone B
- Flood Zone C2

Figure 2-17 Risk of flooding from rivers and sea

HABITATS

DESIGNATED SITES

2.1.71 There is a single statutory designated site for nature conservation that is wholly within the WNDA; the Tre'r Gof Site of Special Scientific Interest (SSSI) (see Figures 2-9 and 2-18). This site is located to the east of the Existing Power Station in the northern part of the WNDA. The WNDA is also adjacent to Cae Gwyn SSSI, which is situated on the southern boundary. Both of these sites are wetlands designated for their botanical interest.

2.1.72 Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site is also located within the WNDA, along its northern boundary. It comprises a mosaic of coastal grassland, heath and cliff habitats which support a diverse range of species, including a notable assemblage of grassland fungi.

2.1.73 Trwyn Pencarreg Wildlife Site is located 50m west of the WNDA. This site comprises coastal and semi-improved grassland adjacent to Porth-y-pistyll and Cemlyn Bay.

2.1.74 Cemlyn Bay Special Area of Conservation (SAC) and SSSI is located approximately 110m west of the WNDA. This site is designated for its coastal lagoon habitat and perennial vegetation of stony banks. Cemlyn Bay also supports breeding colonies of four species of tern and forms part of the Anglesey Terns Special Protection Area (SPA), which also includes all of the marine parts of the WNDA. North Anglesey Marine candidate SAC, which is proposed for harbour porpoise (Phocoena phocoena), also includes all the marine parts of the WNDA.

TERRESTRIAL AND FRESHWATER HABITATS AND SPECIES

2.1.75 Most of the land within the WNDA is currently used for agricultural purposes. Just over half of the area is improved grassland, with poor semi-improved grassland, arable land and semi-improved neutral grassland (consisting largely of herb-rich hay meadows) making up much of the remainder. These more diverse grassland areas tend to be found closer to the coast. At Wylfa Head the coastal grassland forms a mosaic with heathland habitats.

2.1.76 There are also pockets of woodland and scrub habitat, the most extensive areas being those associated with Dame Sylvia Crowe's mound. The woodland is predominantly plantation woodland (broadleaved, coniferous and mixed).

2.1.77 A diverse range of freshwater habitats, including ponds, streams, ditches, wetland, coastal headland pools and seepages, many of which can be considered as ephemeral water bodies, is present within the WNDA. The majority of the wetland is marshy grassland; the remainder comprising different types of mire habitat, including in the rich fen associated with Tre'r Gof SSSI.

2.1.78 Other types of habitat accounted for are a very small proportion of the WNDA include bare ground, tall ruderal vegetation, short perennial/ephemeral vegetation and maritime cliff vegetation communities.

2.1.79 Outside of the designated sites, coastal heathland, coastal grassland and some areas of semi-improved grassland have been assessed as having conservation interest. Traditional field boundaries (cloddiau) have also been assessed as having some conservation interest, although the quality of these varies across the WNDA.

2.1.80 Detailed descriptions of these habitats and the plant species associated with them are provided in the appendices to volume D, chapter 9 of the Environmental Statement (Application Reference Number: 6.4.9).

2.1.81 Of the habitats present within the WNDA, the following are listed in accordance with the requirements of Section 7 of The Environment (Wales) Act 2016:

- wet woodland;
- hedgerows;
- arable field margins;
- lowland meadows;
- lowland heathland;
- lowland fens;
- reed beds;
- rivers;
- ponds;
- inland rock outcrop and scree habitats;
- maritime cliff and slopes; and
- coastal vegetated shingle.

2.1.82 A variety of notable terrestrial and freshwater animal species have been recorded in the WNDA. These species are listed below, with details of their nature conservation statuses and their habitat requirements provided in Appendix [A]:

- minute moss beetle (Hydraena palustris) and mud snail (Omphiscola glabra);
- grayling butterfly (Hipparchia semele), small heath butterfly (Coenonympha pamphilus), wall brown butterfly (Lasiommata megera) and the cinnabar moth (Tyria jacobaeae);
- brown trout (Salmo trutta) and European eel (Anguilla anguilla);
- great crested newt (Triturus cristatus) (not within the WNDA, but within 250m) and common toad (Bufo bufo);
- adder (Vipera berus) and common lizard (Zootoca vivipara);
- breeding barn owl (Tyto alba), chough (Pyrrhocorax pyrrhocorax) and a further 12 other species of notable breeding birds,
- wintering flocks of black-headed gull (Chroicocephalus ridibundus), which has a commensal relationship with the tern colony in Cemlyn Bay;
- brown long-eared bat (Plecotus auritus), common pipistrelle (Pipistrellus pipistrellus), Nathusius' pipistrelle (Pipistrellus nathusii), Natterer's bat (Myotis nattereri), noctule (Nyctalus noctula), soprano pipistrelle (Pipistrellus pygmaeus) and whiskered/Brandt's bat (Myotis mystacinus/brandtii);
- otter (Lutra lutra) and water vole (Arvicola amphibius); and
- red squirrel (Sciurus vulgaris),brown hare (Lepus europaeus), hedgehog (Erinaceus europaeus) and polecat (Mustela putorius).

2.1.83 A number of plant species of conservation interest have been recorded within the WNDA. Most of these are associated with Tre'r Gof SSSI, but others include yellow bartsia (Parentucellia viscosa), which is classed as "uncommon", sea pink (Armeria maritima), which is listed on the Anglesey Local Biodiversity Action Plan (LBAP) [RD7], and water mint (Mentha aquatica), another LBAP species.

2.1.84 The following invasive non-native species of plant have been recorded within the WNDA:

- Aquatic species:
  - curly waterweed (Lagarosiphon major);
  - waterweed (Elodea spp.);
  - New Zealand pigmyweed (Crassula helmsii);
  - parrot's-feather (Myriophyllum aquaticum); and
  - water fern (Azolla filiculoides).
  - Terrestrial species:
  - cotoneaster (Cotoneaster spp.);
  - Japanese knotweed (Fallopia japonica);
  - Japanese rose (Rosa rugosa);
  - montbretia (Crocosmia x crocosmiiflora);
  - rhododendron (Rhododenron ponticum);
  - variegated yellow archangel (Lamiastrum galeobdolon subsp. argentatum), and
  - three-cornered garlic (Allium triquetrum).
  - three-corned garlic (Allium triquetrum).

MARINE INTERTIDAL HABITATS

INTERTIDAL HABITATS AND SPECIES

2.1.85 There is a complex array of communities on the exposed rocky substrates within the WNDA, which are clearly influenced by natural factors such as substrate, exposure and tidal height.

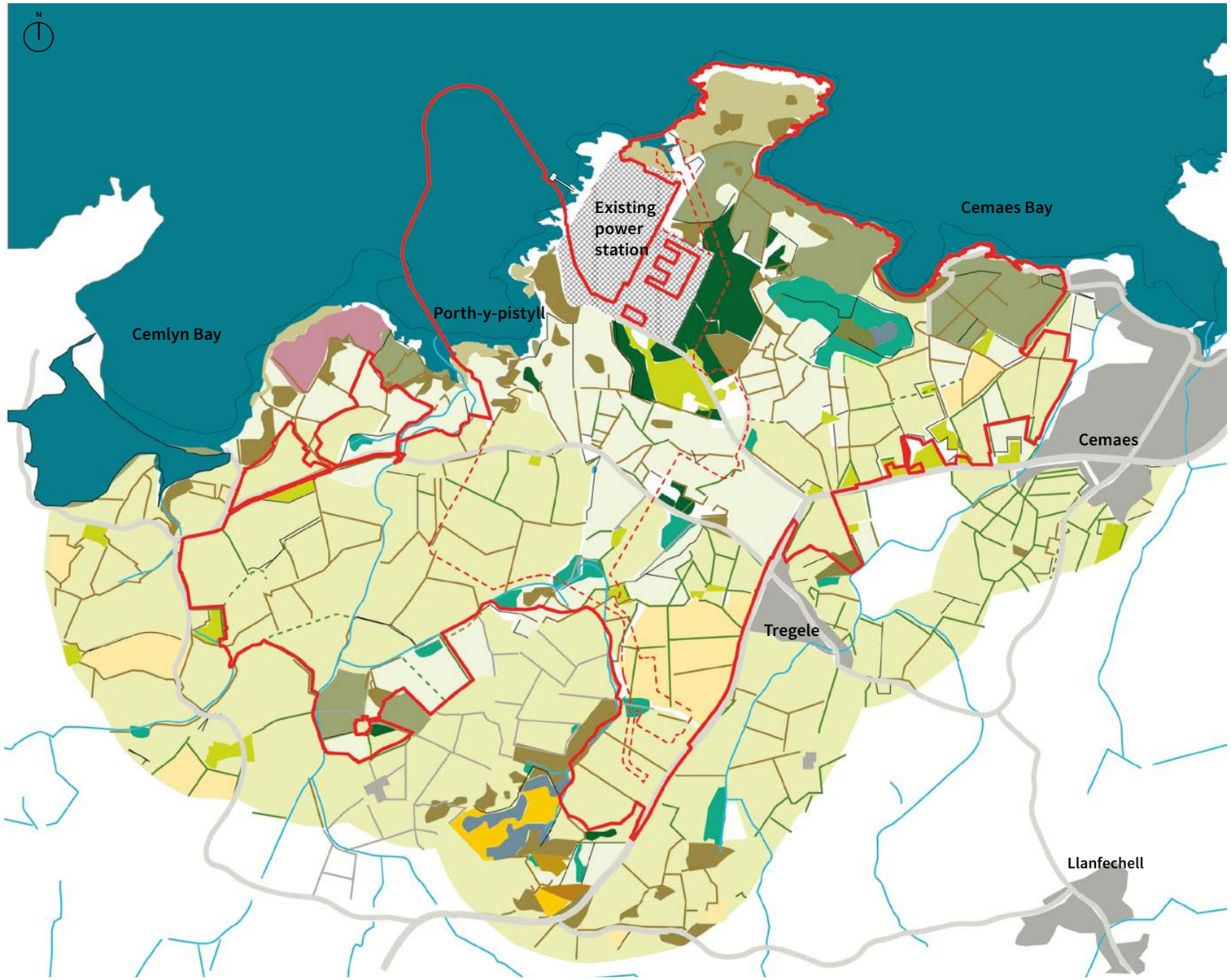
2.1.86 The intertidal areas of Porth y pistyll are composed of a mosaic of habitats, ranging from muds and sands to exposed bedrock, including the following habitats which are listed in accordance with the requirements of Section 7 of The Environment (Wales) Act 2016:

- Fucus serratus and under-boulder fauna on exposed to moderately exposed lower eulittoral boulders (LR.MLR.BF.Fser.Bo);
- Fucus ceranoides on reduced salinity eulittoral rock (LR.LLR.FVS.Fcer);
- coastal saltmarsh (LS.LMp.Sm); and
- blue mussel (Mytilus edulis) beds on littoral mixed substrata (LS.LBR.LMus.Myt.Mx).

2.1.87 There are many rock pools from the low to high shore at Porth-y-pistyll, the majority of which have been described as 'seaweed and sediment floored' pools. This habitat is noted as a feature of 'special interest' within the nearby Cemlyn Bay SSSI and, being relatively uncommon, rock pools are thought to add ecological value to the bay.

2.1.88 Grey seal (Halichoerus grypus) was found to be present year round in the marine study area for the Wylfa Newydd Project. There are limited sites where grey seals are known to haul-out, these being Harry Furlough's Rocks (including Craig yr Iwrch) and occasionally on Cerrig Brith. There are no major haul-out sites within the Wylfa Newydd Development Area, but it is recognised that individual grey seals will haul-out intermittently wherever there is a suitable intertidal habitat. Grey seal nature conservation status and habitat requirements are outlined in Appendix A.

2.1.89 Other marine habitats and species recorded within the WNDA, such as terns and harbour porpoise are unlikely to be influenced by the terrestrial, freshwater or marine intertidal landscape design or habitat management. They are therefore beyond the scope of this document.



Legend

- Wylfa Newydd Development Area
- Power Station Site
- Settlements
- Roads
- Arable
- Dry dwarf shrub heath
- Dry heath/acid grassland
- Acid grassland
- Woodland
- Scrub
- Amenity grassland
- Ponds
- Poor semi-improved grassland
- Improved grassland
- Coastal grassland
- Neutral grassland
- Coastal heathland
- Watercourses
- Marsh/marshy grassland
- Fen basin mire
- Hedges
- Defunct hedge - species poor
- Walls
- Fences
- Undefined field boundary

Figure 2-18 Existing terrestrial and freshwater habitats and species

2.2 LOCAL SETTLEMENTS

2.2.1 The WNDA is located on the boundary of two electoral wards, namely Llanbadrig and Mechell on the Isle of Anglesey. The population of these electoral wards in 2011 was 1,357 and 1,545 respectively.

2.2.2 Cemaes and Tregele are the nearest communities to the WNDA; where both communities are located within 100m of the site boundary, as shown on Figure 2-19. Both settlements predominantly consist of residential properties and also possess a range of commercial, community and amenity facilities, such as a heritage centre, Post Office, and community centre. Ysgol Gynradd Cemaes is located approximately 470m to the east of the site.

2.2.3 The villages of Llanfechell and Carreglefn are located approximately 2km and 5km respectively to the south-east of the WNDA. Both villages are also predominantly residential in nature, with Llanfechell possessing a limited range of facilities including schools, churches and commercial units.

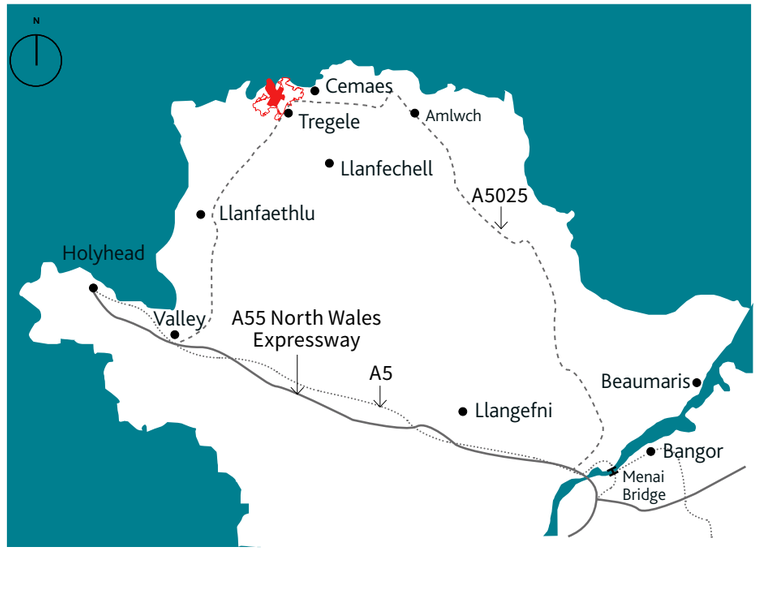


Figure 2-19 Local towns and villages

Figure 2-20 Local settlement of Cemaes

Figure 2-21 Local settlement of Tregele

2.3 RELEVANT LEGISLATION AND PLANNING POLICY

LEGISLATIVE CONTEXT

2.3.1 Section 6 of The Environment (Wales) Act places a duty on public authorities to "seek to maintain and enhance biodiversity in the exercise of their functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions." In complying with this duty, it requires the Secretary of State to have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992.

2.3.2 Section 7 of the Act places a duty on the Welsh Ministers to publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales. The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

PLANNING POLICY

2.3.3 Details of planning policy set out below are included for context purposes only. The policy assessment is contained within the Planning Statement (Application Reference Number: 8.1).

NATIONAL POLICY STATEMENTS

2.3.4 National Policy Statement (NPS) EN-1 [RD4] acknowledges that the nature of energy infrastructure development will often limit the extent to which it can enhance the quality of an area. It advises, at paragraph 4.5.3, however, that "whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation.

2.3.5 Section 5.3 of NPS EN-1 relates to biodiversity and geological conservation. It notes that development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design and states in Section 5.3.15 that, "when considering proposals, the IPC should maximise such opportunities in and around developments, using requirements or planning obligations where appropriate." Section 5.3.18 adds to this, advising the applicant to include appropriate mitigation measures as an integral part of the proposed development. In particular, the applicant should demonstrate that inter alia:

- habitats will, where practicable, be restored after construction works have finished; and,
- opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscape proposals."

2.3.6 Specifically for the Wylfa site, Section 5.16 of the Appraisal of Site Sustainability: Site Report for Wylfa (EN-6) [RD5] states that "opportunities should… … be sought for positive improvements to biodiversity within and around the development, for example through habitat creation and enhancement."

2.3.7 Section 5.9 of NPS EN-1 relates to landscape and visual impact. It notes that virtually all NSIPs will have effects on the landscape, but the nature of the effects will depend on the local landscape character and quality and its capacity to accommodate change. It states that projects should be designed carefully taking into account potential impacts on landscape and minimise harm where possible. Section 3.10 of EN-6 adds to this, stating that the decision maker "should not expect the visual impacts associated with a new nuclear power station to be eliminated with mitigation. Indeed, the scope for visual mitigation will be quite limited. Mitigation should, however, be designed to reduce the visual intrusion of the project as far as reasonably practicable".

LOCAL PLANNING POLICY

2.3.8 Technical Advice Note (TAN) 15 [RD14] provides guidance in relation to development, flooding and how to assess the flooding consequences of proposed development and action that can be taken to mitigate flood risk.

2.3.9 The Joint Local Development Plan (JLDP) [RD2] Strategic Policy PS 5 states that proposals should protect and improve the quality of the natural environment, its landscapes and biodiversity assets.

2.3.10 Strategic Policy PS 6 in the JLDP asserts that, in order to adapt to effects of climate change, proposals will only be permitted where they are located away from flood risk areas unless it can be clearly demonstrated that there is no risk or that the risk can be managed.

2.3.11 Strategic Policy PS 9 in the JLDP states that the design of all the Wylfa Newydd Project and related development should ensure the scheme layout and design and the scale of open spaces, landscaping, planting, waterways and similar features proposed should avoid, minimize, mitigate or compensate for visual and landscape impacts on the local and wider area, as well as on cultural and historic aspects of the landscape, both in the short and longer term. This policy clarifies that proposals will be expected to be commensurate with the scale of the development, and the extent of its impact.

2.3.12 Policy PCYFF 4 in the JLDP states that all proposals should integrate into their surroundings and clarifies that those proposals that fail to show (in a manner appropriate to the nature, scale and location of the proposed development) how landscaping has been considered from the outset as part of the design proposal will be refused. This policy also requires that landscape schemes for developments should inter alia:

- give due consideration to the Landscape Character Area Assessment or Seascape Character Area Assessment;
- respect the natural contours of the landscape;
- respect and protects local and strategic views;
- respect, retain and complement any existing positive natural features, landscapes, or other features on site;
- identify trees, hedgerows, water courses and topographical features to be retained; and
- justify circumstances where the removal/loss of existing trees, hedgerows, water courses and topographical features cannot be avoided and provides details of replacements.

2.3.13 Strategic Policy PS 19 states that development should conserve and where appropriate enhance the distinctive natural environment, countryside and coastline, and confirms that proposals that have a significant adverse effect on them will be refused unless the need for and benefits of the development in that location clearly outweighs the value of the site or area and national policy protection for that site and area.

2.3.14 This policy also states that when determining planning application, consideration should be given to:

- Safeguarding the coastline and landscapes;
- Protecting or where appropriate enhance sites of international, national, regional and local importance and, where appropriate, their settings in line with National Policy.
- Having appropriate regard to the relative significance of international, national or local designations in considering the weight to be attached to acknowledged interests, ensuring that any international or national responsibilities and obligations are fully met in accordance with National Policy.
- Protecting, retaining or enhancing the local character and distinctiveness of the individual Landscape Character Areas and Seascape Character Areas; and
- Protecting, retaining or enhancing trees, hedgerows or woodland of visual, ecological, historic cultural or amenity value.

2.3.15 Policy AMG 1 of the JLDP states that proposals within or affecting the setting and/or Significant Views into and out of the AONB must, where appropriate, have regard to the relevant AONB Management Plan [RD11].

2.3.16 Policy AMG 2 of the JLDP states that proposals within Special Landscape Areas will need to appropriately consider the scale and nature of the development ensuring that there is no significant adverse detrimental impact on the landscape, adding that such development should aim to maintain, enhance or restore the recognised character and qualities of the SLA. However, this policy clarifies that in exceptional circumstances, where development is necessary and could result in significant impacts on the landscape, appropriate mitigation and compensation measures should be provided.

2.3.17 Policy CCC 3.2 states that all new development within and up to 2km adjacent to the Isle of Anglesey AONB should adopt the highest standard of design, materials and landscaping to ensure that they complement the special qualities of the AONB.

2.3.18 The Wylfa Supplementary Planning Guidance (SPG) [RD3] also encourages the project promoter at GP 20 to demonstrate that the Wylfa Newydd Project, either alone or in combination with other proposals, would not have significant adverse impacts on the local landscape character with reference to the Special Landscape Areas and Local Landscape Character Areas. GP 20 also clarifies that where adverse impacts cannot be avoided, IACC expect appropriate mitigation and/or compensation measures to be implemented.

OTHER DOCUMENTS

ANGLESEY LOCAL BIODIVERSITY ACTION PLAN

2.3.19 Whilst the Anglesey Local Biodiversity Action plan [RD7] is not planning policy, it does identify priorities for the biodiversity improvements that planning policy aspires to. The Anglesey LBAP includes the following habitats and species:

- broadleaved woodland;
- ancient hedgerows (including cloddiau);
- lowland and coastal heath;
- scrub;
- river and stream habitats;
- ponds;
- flower-rich road verge;
- pipistrelle bat;
- red squirrel;
- water vole;
- great crested newt;
- brown hare; and
- noctule bat.

2.4 SUMMARY OF OPPORTUNITIES AND CONSTRAINTS

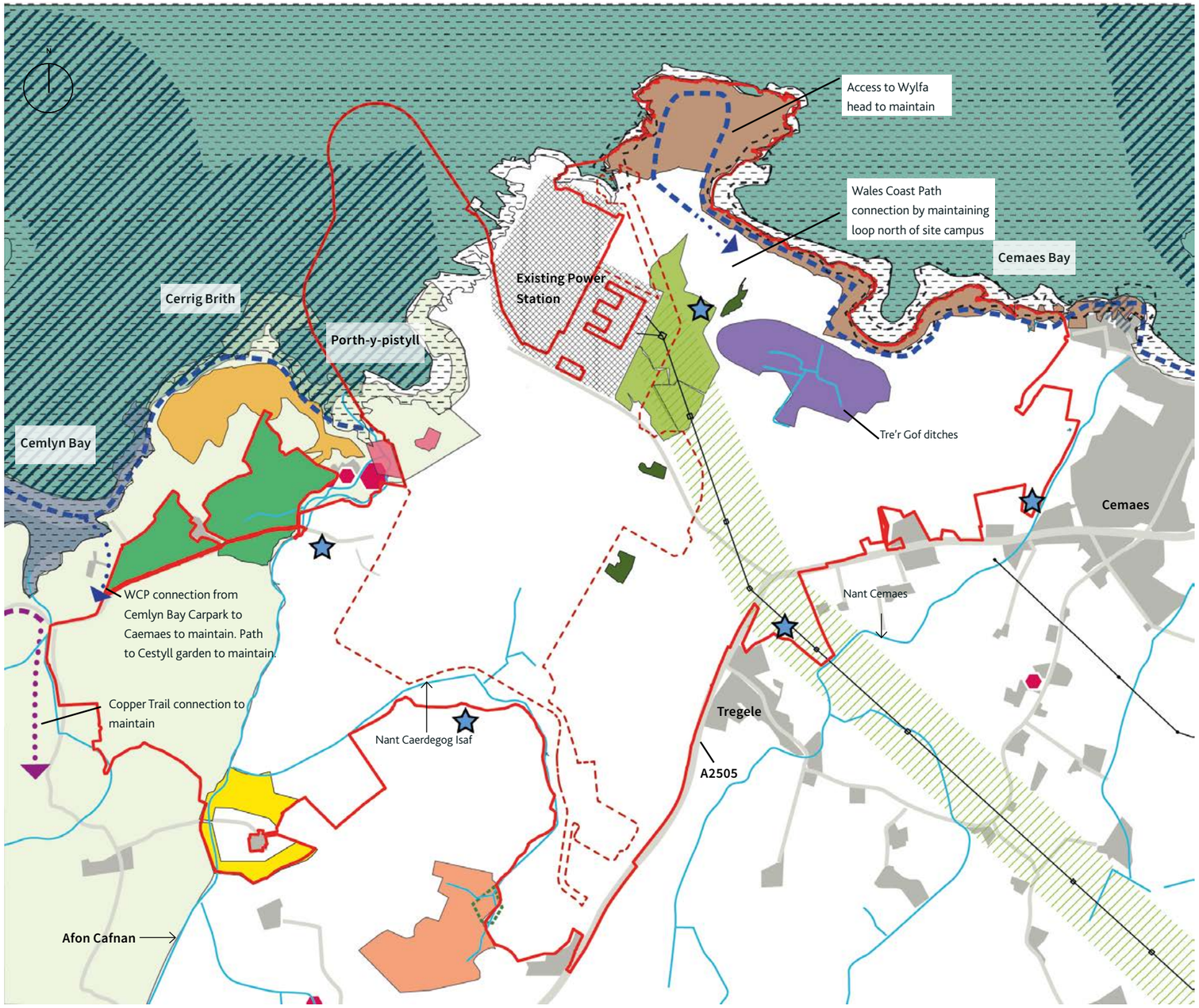
2.4.1 The proposals for the WNDA will be developed to avoid, minimise, mitigate or compensate for visual, landscape and ecological impacts on the local and wider area, as well as on cultural and historic aspects of the landscape, both in the short and longer term. The contextual assessment identifies a number of opportunities and constraints, which have informed the development of the landscape and habitat design principles (see chapter 4). These include features which should be retained, protected or reinstated as well as opportunities to develop a landscape and habitat management strategy for the Power Station setting which is in keeping with the existing local Drumlin landscape character. These are summarised below (refer to figure 2-22).

OPPORTUNITIES

- Reference the existing rolling drumlin landscape character in the design of new landscape and landforms to mitigate visual and noise impacts of the new Power Station and tie the new development into its surroundings;
- Retain the integrity of the Dame Sylvia Crowe designed mound and woodland which provides screening around the Existing Power Station and integrate it into the proposed landscape;
- Retain and enhance existing boundary landscape features including walls, fences, gateposts, woodland, scrub, boundary hedgerows and grassland habitats where practicable;
- Reflect and restore the field boundary pattern wherever practicable;
- Potential for the landscape proposals to reference the existing woodland patterns in the locality by incorporating smaller blocks of native woodland. These could supplement the visual screening provided by landscape mounding and provide locally distinctive features, whilst respecting the relatively open nature of the existing landscape character;
- Use plant species and planting typologies characteristic of the habitats elsewhere in the locality;
- Provide early implementation of landscape mounding and planting to screen or soften views and provide noise attenuation for construction activities from the surrounding area and local settlements;
- Consider opportunities for land to be managed in the long term through grazing and agricultural use, in conjunction with biodiversity improvements;
- Increase biodiversity through both the reinstatement and creation of a mosaic of habitat types which could also facilitate movement of species through the landscape as much as possible during construction and in operation;
- Opportunity to provide a new network of footpaths to replace those impacted by the Power Station development, to serve local communities and other footpath users, and seeking to maintain access to the coast where appropriate and practicable within Power Station constraints.

CONSTRAINTS (REFER TO FIGURE 2-22)

- Minimise harm to the setting of the AONB and Heritage Coast through the implementation of a landscape strategy which sensitively responds to the existing local landscape character;
- Protect and conserve sites designated for their nature conservation value;
- Provide buffer zones where necessary, for example, between the proposed landscape mounds and Tre'r Gof SSSI and other sensitive ecological sites;
- Provide habitats and corridors to maintain favourable conservation status of European protected species (i.e. bats, otter and great crested newt);
- Minimise impacts on the sites cultural heritage and designated sites;
- Minimise impacts on local settlements adjacent to the site notably Cemaes and Tregele;
- Incorporate the operational and security requirements of the existing power station and associated overhead powerline infra structure including offsets for easements for the power lines.
- Retain the existing Dame Sylvia Crowe designed woodland and artificial drumlin which provides screening for the existing power station;
- Where practical retain and protect existing areas of ancient woodland;
- Maintain access to the two existing national trails the Wales Coast Path and Copper Trail which pass through the site during construction and operation;
- Seek to maintain public access to Wylfa Head which is an important local view point during construction and operation;
- Minimise impacts on the existing watercourses and the flood risk areas.



Legend

- Wylfa Newydd Development Area
- Power Station Site Boundary
- Water course
- Trwyn Pencarreg Wildlife Site
- Cae Gwyn SSSI
- Cestyll Gardens Registered Historic Park & Garden
- Ancient Woodland
- Dame Sylvia Crowe woodland
- Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site
- North Anglesey Marine Candidate SAC
- Wildlife tower, bat barns and owl barn
- Reptile Receptor site
- Notable Wildlife Enhancement Site
- Tre'r Gof SSSI
- Cemlyn Bay SSSI & SAC
- Anglesey AONB
- Grade II* listed building
- Grade II listed building
- North Anglesey Heritage Coast
- Regionally Important Geodiversity Site (RIGS)
- Anglesey Terns SPA
- Copper trail
- Wales coast path
- Great Crested Newt receptor site
- Wayleave for overhead line
- Settlements and buildings

Figure 2-22 Constraints summary

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3 DESIGN CONCEPT AND SCHEME EVOLUTION

Design concept and scheme evolution

3.1 DESIGN CONCEPT

NATURALISTIC SETTING

3.1.1 The design concept for the landscape design around the Power Station is largely driven by the existing landscape character and qualities of the local area, which are mainly the vegetated drumlin landforms, irregular field patterns and rich mosaic of local landscape typologies.

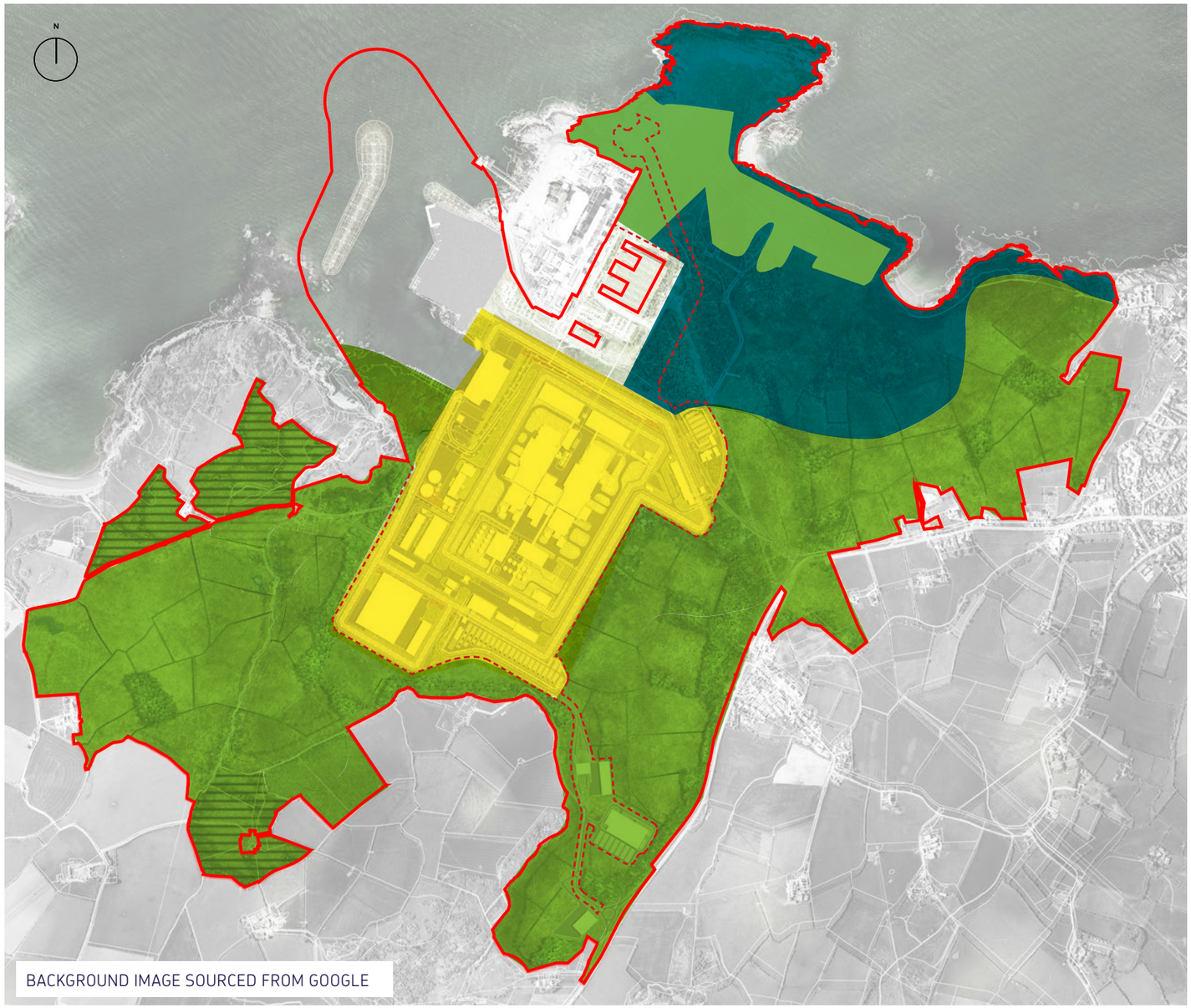
3.1.2 The design concept is to restore the naturalistic setting to the Power Station where possible, through the re-provision of land for sympathetic agricultural use interwoven with areas of appropriate semi-natural habitats. Earth mounds will also seek to visually 'anchor' the Power Station within the existing landscape, as well as provide important mitigation.

3.1.3 Areas of landscape restoration should seek to enhance areas for biodiversity using a mix of landscape typologies such as species rich grassland, marshy grassland, coastal heath and pockets of woodland linked by a mix of hedgerows, stone walls and cloddiau, to provide new habitat areas, facilitate movement of species through the landscape and promote sustainable biodiversity. The combination of these primarily nature conservation focussed areas with sympathetically managed pasture fields gives the opportunity for a balanced landscape that contributes both to local social and economic factors as well as providing positive benefits for wildlife and plants.

3.1.4 Within the WNDA are reminders of human intervention on a coastal stretch that is seemingly timeless. Artefacts and walls, gate posts and planting, boundaries and tree plantations all point to activity that has shaped the area over hundreds of years, as shown on Figure 3-2. Construction and operation of the Power Station would be the latest in a series of events that have caused the landscape to change and adapt. The evidence of weathering and 'bedding in' of foreign artefacts provides an approach as to how new design proposals could be successfully integrated into the landscape.

Figure 3-1 Restoring a naturalistic setting

Figure 3-2 A landscape setting to many industrial interventions



Legend

- Wylfa Newydd Development Area
- Wylfa Newydd Power Station Site
- Landscape Restoration
- Landscape Variation
- Landscape Preservation

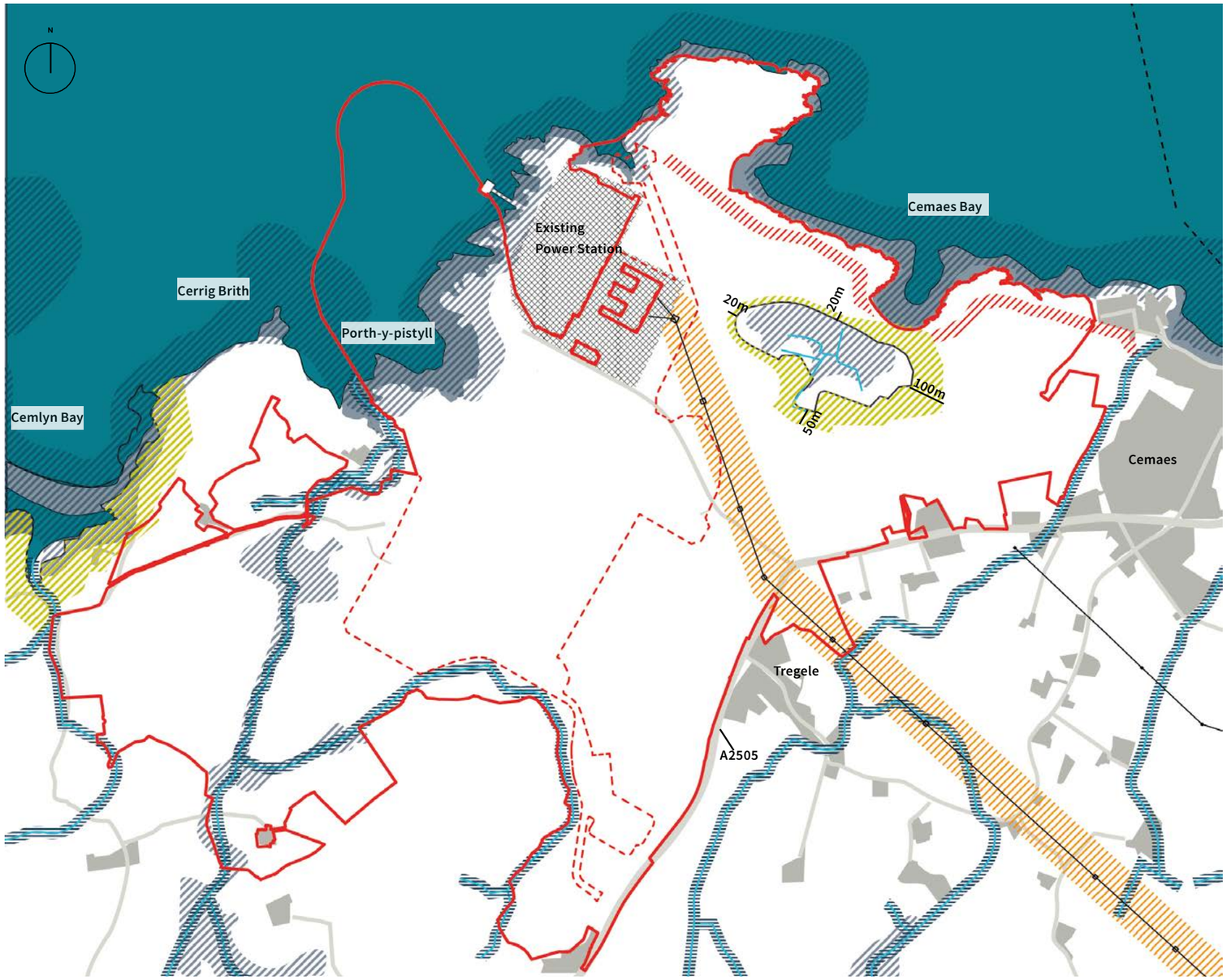
Figure 3-3 Landscape Concept

3.2 SCHEME EVOLUTION

OVERVIEW

3.2.1 The landscape setting to the Power Station has been informed by an analysis of the site and its wider context and relevant national, regional and local policies, along with the requirements of the Power Station and constraints imposed by existing features. It has evolved through the overall design and consultation process to :

- Provide an appropriate landscape setting for a major development whilst accommodating both constructional and operational needs.
- Develop landform mounding to provide effective visual and noise screening and protect views from Tregele, Cemaes, Cemlyn, the Wales Coast Path, the Isle of Anglesey Area of Outstanding Natural Beauty and Cestyll Gardens, amongst others.
- Reflect the local drumlin landscape heights shapes and slope profiles.
- Minimise impacts on designated sites, particularly the SSSIs which lie within and adjacent or close to the WNDA and the key designated landscapes (AONB, SLA and Cestyll Gardens).
- Providing buffer zones where necessary, for example, between the proposed landscape mounds and Tre'r Gof SSSI and other sensitive ecological sites (as shown on figure 3-4).
- Incorporate modifications to the heights and gradients of the landform during project optimisation to improve the design and take account of comments from consultees including.
- Refining - refine phasing of the earthworks to deliver early screening landform to local settlements and visual receptors at Cemeas and Tregele. Mounding would be first seeded, then planted with trees and shrubs at the earliest practical opportunity in order to help mitigate on-going views of construction, stabilise newly created slopes, control surface water runoff, integrate the mounding into the surrounding landscape and provide habitats.
- Modifications - Incorporate modifications to the slopes facing Cemaes such that they would be more reflective of the existing conditions.
- Respond to comments on public access from consultees.
- Incorporate design measures to accommodate the operational and functional requirements of the power station including security zones and clear sight lines required around boundary fence lines and key service route easements corridors.
- Provide a comprehensive mosaic of habitats to support protected species and enhance biodiversity generally, whilst returning some of the land to agricultural use and enhancing amenity and cultural value where possible.
- Provide a more limited realignment of the Afon Cafnan tributary in the southern part of the WNDA than was originally proposed, with no alteration to the course of the main Afon Cafnan.



Legend

- Wylfa Newydd Development Area
- Wylfa Newydd Power Station Site
- Water course
- Overhead Buffer zone / Easement
- Riser Main Buffer zone / Easement
- SSSI Buffer zone / Easement
- Flood zones B and C
- 15m Watercourse Buffers
- Settlements and buildings

Figure 3-4 Buffer Zones

CONSULTATION PROCESS

3.2.2 Illustrations of how the landscape setting has evolved over time are set out below. Further details of specific consultation responses are set out in the Consultation Report.

Figure 3-5 Landscape Setting - Stage One Pre-Application Consultation

DESIGN DEVELOPMENT FOLLOWING STAGE ONE PRE-APPLICATION CONSULTATION

3.2.3 The development of the design following Stage One Pre-Application Consultation resulted in a number of developments to platform levels ranging from 19 to 26m AOD with the main power block area at 14m AOD.

3.2.4 The mounding design also developed within the range of the Stage One Pre-Application Consultation with mound heights in the range 30 to 50m AOD, and gradients generally within the range from 1 in 6 to 1 in 10.

3.2.5 The locations of the simulator and training building, the proposed site of a future visitor centre and the Power Station access road were also refined to help integrate the proposed development into the landscape.

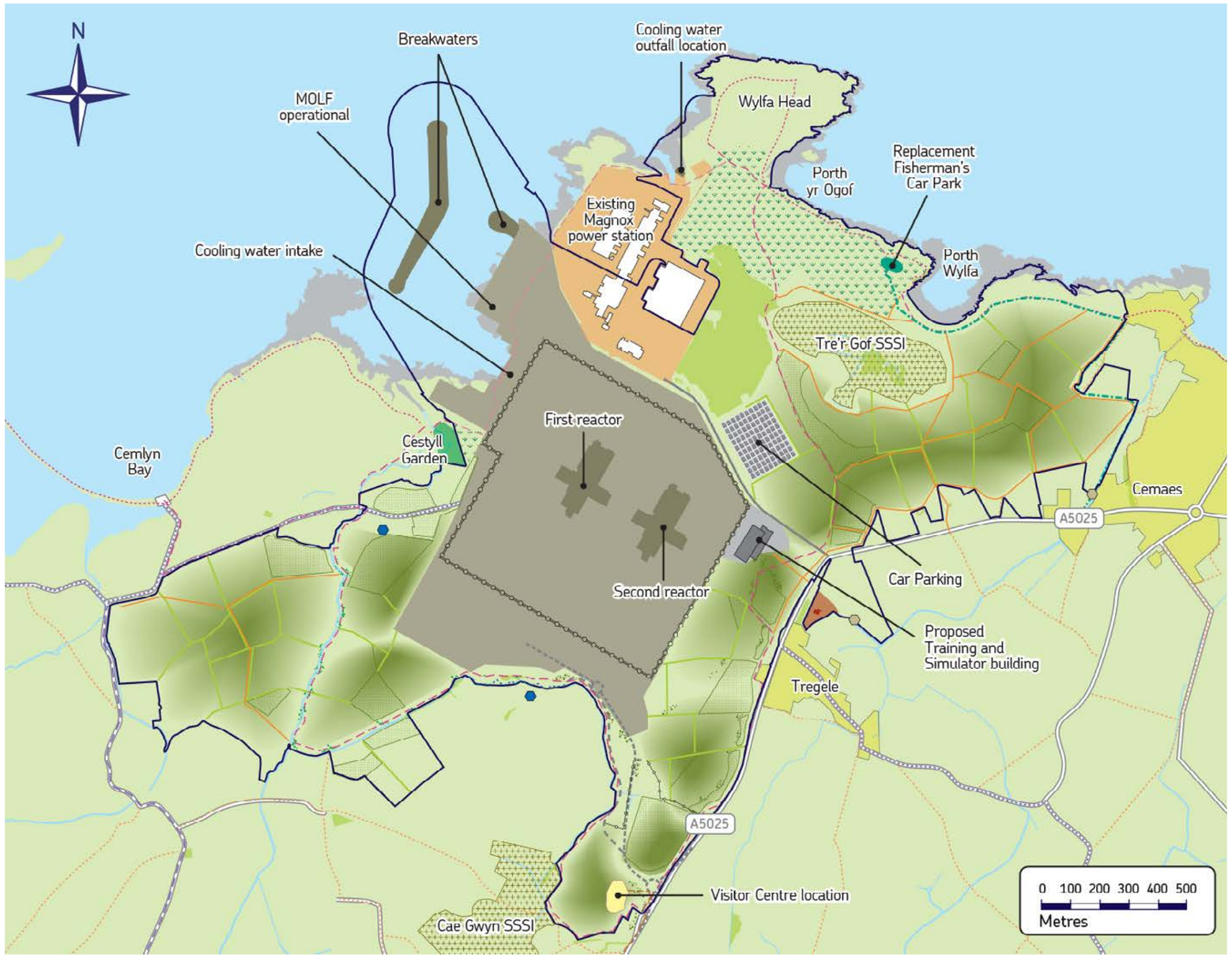


Figure 3-6 Landscape Setting - Stage Two Pre-Application Consultation

DESIGN DEVELOPMENT FOLLOWING STAGE TWO PRE-APPLICATION CONSULTATION

3.2.6 The development of the design following the Stage Two Pre-Application Consultation also resulted in a number of developments to platform levels following a refinement of the overall Power Station with a reduced footprint. The Power Station Site refinement also changed some of the platform levels for the Power Station from 26m AOD with the main power block area raised from 14m AOD to 18m AOD.

3.2.7 The mounding design also developed with the revised volume available but on a reduced footprint in the area surrounding the Tre'r Gof SSSI. The range of the mound heights remained between 30 to 50m AOD, and gradients generally within the range from 1 in 6 to 1 in 10.

3.2.8 The location of the simulator and training building was moved adjacent to the Power Station access road to help integrate this into the wider needs of the project.

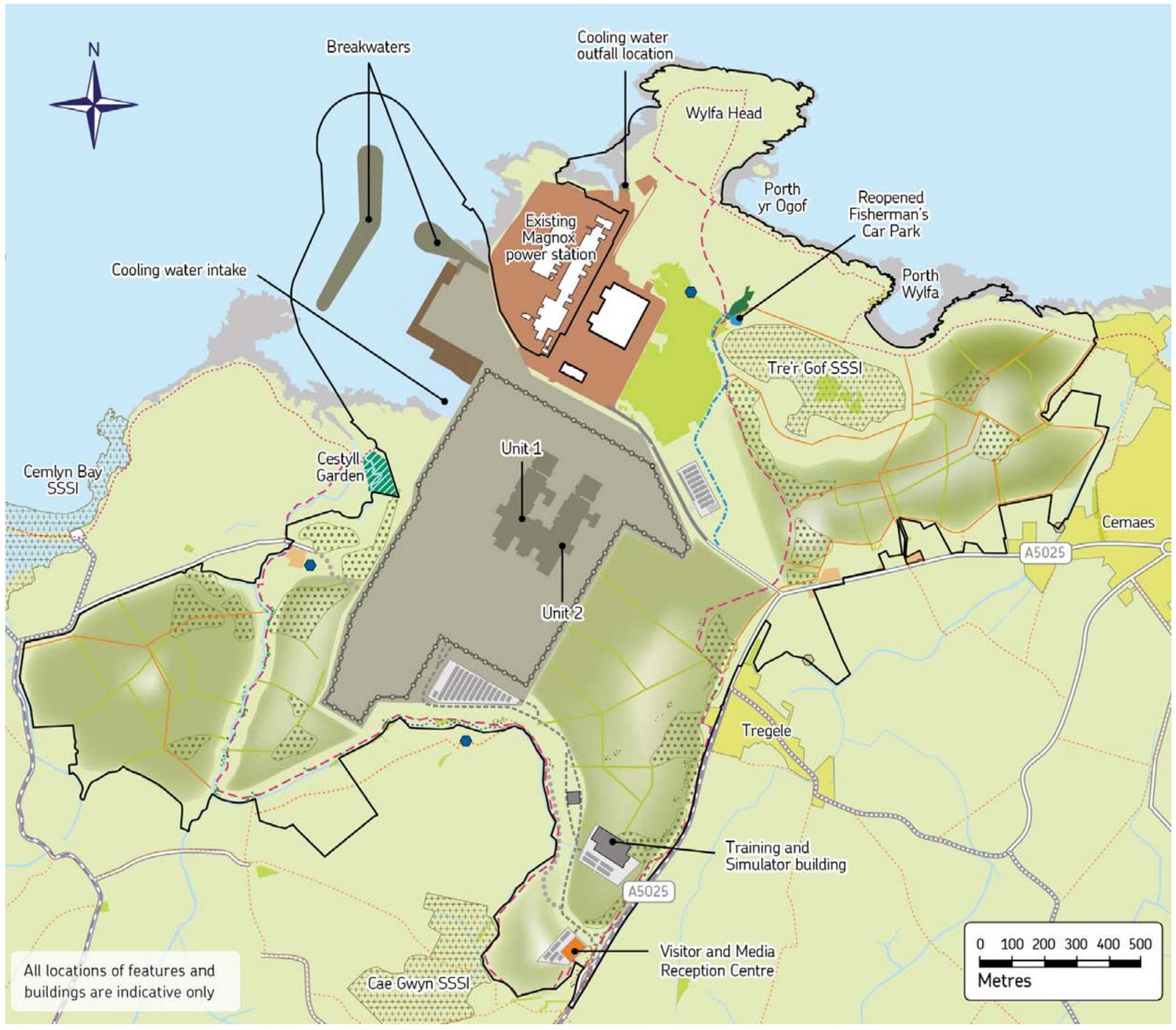


Figure 3-7 Landscape Setting - Stage Three Pre-Application Consultation

HABITATS

3.2.9 During the early stages of the landscape design process habitat provision was not specified beyond the identification of broad habitat types (e.g. pasture, woodland etc.). This also applied to the landscape drawings submitted as part of PAC1, PAC2 and PAC 3, which were high level. This is reflected in the consultation responses received from NRW and North Wales Wildlife Trust (NWWT) at PAC2.

3.2.10 In particular, NWWT advised that to achieve no net loss of biodiversity, the following features should be included in the landscape proposals:

- 2:1 replacement of ponds, including a suite of different designs to accommodate great crested newt, common toad, mud snail and important aquatic invertebrate assemblages respectively;
- replacement habitat for reptiles including coastal grassland/heathland within a pattern of interconnecting semi-natural habitat corridors;
- an increased total area of species-rich grassland, including coastal grassland/heath matrix in suitable coastal locations; and
- areas to be returned to 'sympathetically managed agriculture'.

3.2.11 NWWT also said it was essential that reinstatement of the area used for worker accommodation provides species rich grassland which is cut and managed by grazing to maintain a short sward suitable for foraging chough.

3.2.12 In their PAC2 response, NRW stated that "it is crucial that a phased masterplan is produced for the site layout to demonstrate how bat flight lines and foraging areas (i.e. of bats using the bat barn and other roosts on/adjacent the site) will be maintained throughout all the phases of the works." It also recommended that "NRW should be consulted in advance of the DCO application submission for further advice on the biodiversity enhancement strategy and creation of suitable habitats on the breakwater facilities".

3.2.13 Following PAC3, Horizon engaged with key external stakeholders on the development of the Landscape and Habitat Management Strategy via meetings held in October and December 2017 and through issuing an early draft for comment. Attendees at these meetings included representatives from NRW, IACC, NWWT, National Trust and RSPB. Comments received during this period were primarily associated with the following key themes:

- There is a considerable opportunity for the project to drive a major programme of habitat creation and management. Nature conservation should be the sole objective of the whole site and the proposals should also extend beyond the boundaries of the WNDA – the current proposals are not ambitious enough;
- Proposals are limited by the level of available design detail for the construction phase;
- There is insufficient consideration of Cemlyn Bay SAC/SSSI, with regard to mitigation of potential hydrological effects and provision of habitat connectivity; and
- There should be a commitment to long-term habitat management for the entire operational period of the proposed Power Station.

3.2.14 Comments received from stakeholders and during the PAC process have been considered and incorporated into the development of design and management principles within the LHMS to the greatest extent possible. In particular, the need to maximise conservation value of the site and deliver a net biodiversity gain has been central to the development of the principles. While the LHMS only sets out the principles for attaining these objectives, compliance with these principles are secured through the DCO Requirements.

REPLACEMENT CAR PARK FOR WYLFA HEAD

3.2.15 The car park that serves Wylfa Head and the beaches of Porth Wylfa and Porth yr Ogof (known as Fisherman's car park) would be permanently closed in order to construct the Power Station. During this period, it is proposed that other existing car parks in the area are used by visitors.

3.2.16 Two options for a replacement car park during the operation of the Power Station were presented at PAC 1. These options were:

- a car park at the same or similar location to the existing Fisherman's car park, with access provided along a similar route to the current highway; and
- a car park on the headland close to Porth Wylfa, which would afford sea views, with access provided along the coast from Penrhyn.

3.2.17 Further consideration of these options identified that routing traffic through Cemaes and Penrhyn to access a coastal car park would not be acceptable. An alternative access route was proposed along an alignment similar to the existing road, which would then extend further north to the coastal car park.

3.2.18 Consultation feedback from IACC and Natural Resources Wales (NRW) at meetings indicated that their preference was for a car park to be provided at a similar location to the existing Fisherman's car park as this would be less visually intrusive, though the accessibility benefits of the coastal car park for less mobile users was acknowledged. The preferred option taken forward is for a new car park to be provided at a similar location and capacity to the existing Fisherman's car park.

WALES COAST PATH

3.2.19 The WCP would require diversion around the boundary of the WNDA during construction and operation of the Power Station on safety and security grounds.

3.2.20 Initial proposals involved the diversion of this route to beyond the boundary of the WNDA from Cemlyn Bay to Cemaes during construction, a proposal which would have restricted access to Porth Wylfa, Porth yr Ogof and Wylfa Head for recreational purposes. A commitment was therefore made by Horizon that it would maintain the Wales Coast Path route from Cemaes to Wylfa Head as a linear feature along the coastline, which would be in addition to the diversion from Cemlyn Bay and Cemaes. This decision was welcomed by IACC, NRW, Ramblers Cymru and Ynys Môn Ramblers following PAC 1.

3.2.21 During internal discussions and consultation with the IACC, NRW and the Open Access Forum, the potential to utilise Public Rights of Way (PRoWs) 38/036/2, 28/013/4 and 38/013/4, which are routed across third party land, was proposed. Horizon has maintained throughout that it is its intention to provide a diversion route that is wholly contained within land within its control as far as possible to reduce effects on neighbouring landowners. The current proposals provide a route from Cemlyn Bay car park linking to the existing alignment to Cemaes, which utilises a short section of minor road (approximately 240m). While it is acknowledged that this diversion takes the route away from the coast, access would not be restricted to the Wales Coast Path between Cemlyn Bay and Porth y Felin (National Trust land) or to Wylfa Head along the coastline; thus only 600m of the route that currently provides sea views would be lost.

3.2.22 Land used during construction beyond the boundary of the Power Station Site would become available during operation. The Wales Coast Path would be diverted again at this point. Two options for the Wales Coast Path alignment during operation were presented at PAC 1 and PAC 2.

3.2.23 The two short-listed options considered for the diversion of the Wales Coast Path were:

- re-route the Wales Coast Path inland close to Tregele and around the southern extent of the Power Station Site; and
- re-route the Wales Coast Path to a coastal section around the northern extent of the Existing Power Station and to the west of the Power Station Site.

3.2.24 These involved an option seaward of the Power Station and an option that would be routed inland of the Power Station. Whilst consultation feedback indicated a preference for the seaward option the design evolution of the cooling water intake and security concerns during the operation of the Power Station have resulted in the seaward option being rejected. The inland route has been identified to provide an attractive route for walkers and enhances accessibility with sections of the path leading from car parks being suitable for wheelchair users. In identifying this route, Horizon has considered NRW's Wales Coast Path criteria, which include the following:

- there should be a continuous route around the coast of Wales;
- the public should have a permanent right of access;
- the route should be physically available at all times; and
- the route should be as close to the sea as practicable and desirable.
- by taking the route over the mounded areas it retains the ability to maintain vistas of the sea, so far as is practical.

COPPER TRAIL

3.2.25 The Copper Trail (National Cycle Network Route 566) is currently routed along Cemlyn Road, which would be permanently closed to enable construction of the Power Station. It would therefore be necessary to divert the Copper Trail to avoid Cemlyn Road. Horizon shortlisted two options for the diversion of the Copper Trail:

- a route along Nanner Road, then north along the A5025 for a distance of 2.2km to Tregele to join its existing alignment; and
- a route along Nanner Road, then north along the A5025 for a distance of approximately 550m before taking a minor road to the east to link to Llanfechell (avoiding Tregele).

3.2.26 No preference was given by Sustrans or the IACC, though concerns regarding the routing of the cycle path along the A5025 were raised. Both of these options were presented to the public during public information events that took place in July 2015, which were primarily held to obtain feedback on the A5025 Off-Line Highway Improvements and the A5025 On-Line Highway Improvements in the communities most affected by that element of the Wylfa Newydd DCO Project. Feedback obtained during these events did not reach a clear preference for either route. On this basis, Horizon took the decision to pursue the option that involves the shortest section of A5025. Having considered the feedback regarding the change between cycling on minor roads and on the A5025, a segregated cycle path is proposed along this section of main road; this would be delivered as part of the A5025 On-line Highway Improvements.

PUBLIC RIGHTS OF WAY

3.2.27 There are a further 32 PRoWs within the WNDA, all of which would be permanently closed to enable the construction of the Power Station (Figure 5-6). These closures would be necessary on safety and security grounds. Consultation feedback indicates a general acceptance that these closures would be necessary but that new routes should be provided once construction is complete.

3.2.28 Once construction is complete new PRoW routes would be created on land within the WNDA but beyond the Power Station Site. These PRoWs would link to the Wales Coast Path. The overall length of these new routes would be similar to the length of the PRoWs closed to enable construction. The routes proposed have been informed by consultation with the IACC and NRW and follow the broad principle of enabling improved access for less mobile users, access to beaches and the maintenance of sea views where possible.

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4 LANDSCAPE & HABITAT DESIGN PRINCIPLES

Landscape and habitat design principles

4.1 OVERVIEW

4.1.1 The principles set out in this chapter will be secured by Schedule 3 of the Development Consent Order (Application Reference Number: 3.1) and will guide how Horizon will implement the authorised development within the WNDA, excluding the Power Station Site and the Site Campus. They include principles for both construction and operational phases, as well as overarching principles which underpin the design and apply to both construction and operational phases.

4.1.2 Development within the WNDA is a critical component of mitigating the Wylfa Newydd DCO Project during both the construction and operational phases, by helping to:

- visually integrate the Power Station into the existing landscape context;
- limit noise and vibration from the WNDA;
- deliver coordinated and multi-purpose environmental and amenity enhancements; and,
- provide a high-quality green infrastructure setting for the operation of the Power Station.

OVERARCHING PRINCIPLES

LANDSCAPE DESIGN

- A new landscape setting will be created that reflects the existing open, rolling, drumlin landscape character and sense of place, minimizing harm to the Anglesey Area of Outstanding Natural Beauty (AONB) and its setting and the North Anglesey Heritage Coast
- An appropriate landscape setting will be provided to help integrate a major development through the use of large scale mounding and tree planting to soften views of the Power Station and reduce adverse visual impacts, screening low level buildings and maintaining a natural setting as close to the Power Station as possible.
- The integrity of the Dame Sylvia Crowe designed wooded mound will be retained and enhanced through management, to improve its condition and safeguard its longevity and role in visually softening the Existing Power Station as part of Horizon's long term strategy for the site.
- The characteristic field pattern will be restored with traditional boundary types including hedgerows, tree and shrub planting to integrate the Power Station into the landscape.
- Existing landscape boundary features outside the perimeter construction fence but inside the WNDA will be retained and enhanced where practicable. This includes walls, fences, gateposts, woodland, scrub and boundary hedgerows. Enhancement could include new infill shrub, tree planting and management, to improve the structure and species diversity of the existing hedgerows where appropriate. Stone walls will be repaired and current condition of cloddiau improved, where necessary and practicable.
- Trees and scrub in the vicinity of the watercourse realignment of Nant Caerdegog Isaf, ancient woodland and adjacent trees north-west of Tre'r Gof SSSI will be retained.
- Detailed landscape design will take into account ecology and cultural heritage considerations, including new field boundary designs as part of restoration and agricultural field patterns, which may comprise hedgerows, cloddiau, dry stone walls and woodland planting.
- A phased implementation sequence will be developed to provide early landscape mitigation on the outer parts of the WNDA, which would help to screen or soften views and provide noise attenuation for construction activities from the surrounding area.
- Where practicable land will be sensitively returned to agricultural use on completion of the final landscape scheme, in conjunction with ecological enhancement measures, with new field boundaries reflecting the surrounding landscape pattern. The most likely agricultural use is grazing by sheep or cattle.

PLANTING

- Indigenous plant species characteristic of the habitats elsewhere in the locality will be used unless there are specific reasons for use of other species;
- Plants and seeds from local or regional provenance will be used with no invasive non-native species of plant
- Planting of new woodland with a variety of tree and scrub species will be used to supplement visual screening provided by landscape mounding and to provide locally distinctive features, whilst respecting the relatively open nature of the existing landscape character.
- The local microclimate and soils of the WNDA should be reflected by using species tolerant of the exposed coastal conditions along with plant establishment techniques which have regard to these conditions.
- Plants at appropriate sizes for the intended planting objectives should be used, whether for visual screening, habitat creation, landscape character or grazing stock management. Consideration should be given to ensuring successful plant establishment in the exposed coastal conditions where generally, smaller stock sizes establish more readily. This should be balanced against screening requirements where some larger trees may be required in particularly sensitive locations.
- Soils on the newly created landforms should be protected from erosion using techniques that accelerate plant establishment.

HABITAT

- Existing areas of nature conservation value within the WNDA will be retained, namely Tre'r Gof SSSI, Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site, Dame Sylvia Crowe woodland and the northern block of ancient woodland.
- A mosaic of habitat types to meet the terrestrial habitat mitigation requirements of the Environmental Statement will be created, as listed in Table 4.1. These habitats will align with the Section 7 (Environment (Wales) Act 2016) list of habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.
- The above habitats should be distributed across the WNDA in such a way as to facilitate movement of species through the landscape as much as possible, including connectivity between habitats within the WNDA and key adjacent habitat areas, such as the Notable wildlife enhancement site.
- Terrestrial and aquatic habitats suitable for great crested newt should be provided, in particular within 500m of the existing great crested newt population in the vicinity of the Cae Gwyn SSSI.
- A net increase in reptile carrying capacity should be provided with habitat connectivity to suitable reptile habitat outside the WNDA, including the Reptile receptor site and along the coast.
- A net increase in the abundance of suitable chough foraging habitat should be provided, in particular within 300m of existing nest locations and potential future nest locations along the coast to the east of Wylfa Head.
- A net increase in the availability of high quality bat foraging and commuting habitat should be provided with habitat connectivity to the existing and proposed bat barn locations.
- Watercourse and ditch habitats for water vole and otter should be enhanced.
- Mixed woodland planting suitable for red squirrel with habitat connectivity to existing red squirrel habitat on the Dame Sylvia Crowe mound should be provided.
- Habitats and habitat features should be provided to meet the requirements of all other notable terrestrial and freshwater species detailed in Appendix [A] so that the capacity of the WNDA to support these species during operation is increased compared to that prior to construction.
- New habitats will be created as part of the realignment of the Nant Cardedog Isaf watercourse, using planting of native and regional provenance, to replace those lost, and retaining the trees, hedgerows, scrub in its vicinity. The design will aim to provide habitats of greater value than the existing section by improving sinuosity and enhanced riparian planting. The phasing of watercourse realignment will allow maturation so that there will be no habitat

TABLE 4.1: PROPOSED HABITAT TYPES

PROPOSED HABITAT TYPES	APPROXIMATE AMOUNT TO BE CREATED	CORRESPONDING SECTION 7 HABITATS
Woodland and scrub	25ha	Lowland mixed deciduous woodland, Wet woodland
Planted hedgerows and cloddiau	10km	Hedgerows
Coarse sward / species-rich grassland	75ha	Lowland meadows
Close sward species-rich grassland	40ha	Lowland meadows
Coastal heath / grassland mosaic	30ha	Lowland heathland
Marshy grassland	30ha	Lowland fens, Purple moorgrass and rush pastures, Reedbeds
Ponds (additional to sediment ponds)	9 No.	Ponds

fragmentation caused by the stream realignment.

- Habitat enhancement features should be incorporated into the marine structures.
- The design of the permanent breakwaters will provide intertidal areas for grey seals to haul out.

ECOLOGICAL COMPENSATION SITES

- Horizon will deliver a compensation package, in order to offset a potential adverse effect on Tre'r Gof SSSI, which will create new areas of rich-fen habitat and enhance areas of existing rich-fen habitat at three sites on Anglesey:
  - Ty du SSSI compensation site (enhancement only);
  - Cae Canol-dydd SSSI compensation site; and,
  - Cors Gwawr SSSI compensation site.
- The compensation package will aim to deliver 16ha of rich-fen creation and ensure no less than 10ha is successfully delivered, in addition to 20ha of mire enhancement, unless otherwise agreed by IACC (in consultation with NRW).
- The primary target habitat for the habitat creation and enhancement works at Cae Canol-dydd and Cors Gwawr will be rich-fen, including alkaline and calcareous fen, as found at Tre'r Gof SSSI.
- The earthworks, drainage and landscape proposals will facilitate an adaptive management approach to avoid any adverse effects on adjacent designated sites (in particular Anglesey Fens SAC). Adaptive management includes experimental / trial use of various techniques, including reprofiling, topsoil stripping and nutrient reduction by biomass harvesting (cropping), land-drain removal or modification and irrigation from groundwater with an ongoing review process.
- Drainage modifications will be informed by a suitable analysis (backwater impact assessment impacts or similar) which will consider the flood risk impacts to 3rd parties from the works. The detailed drainage design should demonstrate no significant additional increase in flood risks to 3rd parties due to the compensation site works. A "significant additional increase" is any increase which results in a residual effect of Moderate or Major significance and would result in a measurable increase in flood depth, duration, flow, velocity or extent to highly vulnerable development.
- Wherever practicable, hedgerows, trees (including root protection zones) and walls will be retained (except where it is unavoidable for these to be removed to facilitate fen restoration).
- Topsoil storage areas will be located to mitigate potential adverse effects from habitat loss and nutrient/sediment runoff.
- A boardwalk will be constructed in the southern part of Cae Canol-dydd to enhance accessibility to the existing PRoW during periods of wet weather.
- Public access to Ty du will be improved by clearing scrub from part of the footpath route and installing a new bridge over the watercourse.
- Signage and interpretation boards will be installed at all three sites to enable the public to understand the works being undertaken, and to appreciate the importance of peatlands for nature conservation and ecosystem service provision.

PUBLIC ACCESS

- New or replacement PRoWs will be created within the WNDA and outside the Power Station Site linking to the Wales Coast Path, the existing PRoW network and Cemaes, and maintaining access to the coast where appropriate and practicable within Power Station constraints.

EARTHWORKS

- Earth mounds should be constructed in the following general locations: at the north-east; south and south-west extents of the WNDA; and along the boundary with the A5025 to the west of Tregele; in accordance with drawings WN0902-HZDCO-WPN-DRG-00016 and WN0902-HZDCO-WPN-DRG-00017.
- Earth mounds should generally reflect the local drumlin landscape heights shapes and slope profiles.
- Impacts on designated sites should be minimised as far as practicable.
- Early screening landform should be delivered to local settlements and visual receptors at Cemeas and Tregele to mitigate construction impacts.
- The design of Mound B will have regard to the visual amenity of the adjacent community at Tregele through a combination of slope profiling, and planting, which may incorporate temporary fencing during construction to help mitigate noise and soften visual impact.

CULTURAL HERITAGE

- New woodland planting should be provided between the Power Station and Cestyll Valley Gardens.

DRAINAGE

- Surface water should discharge to the sea, subject to relevant Environmental Permit. A water management system should be integrated into the landform which includes ditches, swales and ponds to deliver effective drainage and improve biodiversity within the area.
- The drainage strategy will be designed to reduce potential effects that could have otherwise occurred on receiving water bodies and ecological receptors, most notably the Tre'r Gof SSSI and the Cae Gwyn SSSI. Earth mounds will be designed to avoid changes in water catchment boundaries as far as practicable.
- Earth mounds will be designed to accommodate a passive drainage system, including appropriate attenuation. The system will match baseline conditions as closely as practicable as part of the final landform design.
- Sedimentation ponds will be designed to achieve a more natural appearance for the final landscape scheme, in keeping with the local landscape character.
- Any development taking place after the main construction period that has the potential to increase off-site flooding or release contaminants into surface water run-off will include appropriate mitigation measures.
- The drainage design should ensure that there will be no increase in flow from the WNDA into Cemaes Stream.

CONSTRUCTION PHASE PRINCIPLES

PLANTING

- Landscape management for the duration of Main Construction will include the management and enhancement of retained trees, scrub and hedgerows including the Dame Sylvia Crowe designed woodland and new areas of landscaping to completed areas of landscape mounding and the control of unwanted plant species including invasive species.
- The Lady's Finger of Lancaster apple tree from Cestyll Kitchen Garden will be translocated.
- Landscape mitigation should generally be implemented at the earliest practical opportunity to limit the extent of disturbance.
- Mounds, or parts thereof, should be planted in the next available planting season following permanent completion of the relevant area of mounding.
- Permanent screen planting adjacent to the A5025 incorporating a bank and new linear woodland belt should generally be implemented early in the construction period.
- Where temporary mounding will be left for more than 60 days, areas should be seeded to reduce weathering.

HABITAT

- Phasing of construction and landscape works should have regard to maintenance of habitat connectivity for species inhabiting pockets of retained habitat within the Wylfa Newydd Development Area, in particular bats, red squirrel, otter and water vole.
- Clearance of habitats prior to construction should be undertaken in such a way as to encourage displacement of species toward the Notable wildlife enhancement site and adjacent habitats to the west, away from the A5025 and settlements to the east and south.
- Where final landscape is provided during the construction phase, it should seek to maximise biodiversity and improve habitat connectivity, both within the site and with existing habitat areas in the surrounding area, resulting in an overall net biodiversity gain.

EARTHWORKS

- Earthworks will be designed to balance cut and fill on-site and to achieve a natural appearance to outward slope profiles that reflects the surrounding drumlin landscape, as far as reasonably practicable.
- Earthworks will provide temporary storage solutions using stockpiles where this does not conflict with other principles in the LHMS.
- Phased implementation of landscape mounding, seeding of pasture and woodland planting must include early creation of the outer slopes of the linear landscaped mound adjacent to Tregele, and landscape mounding on the edge of Cemaes.
- During construction the outer face of the landscape mound opposite Tregele shall be no steeper than 1:2, except for a short section (approximately 100 metres in length) to the west and south of Tregele Services where the slope will need to be steeper to facilitate utility routing. The steeper mound slope will also be designed to facilitate native planting, including shrubs and small trees.

DRAINAGE

- The drainage design will be designed to reduce potential effects on receiving water bodies and ecological receptors, most notably the Tre'r Gof SSSI and the Cae Gwyn SSSI. Drainage from the construction areas and the landscape mounding works will be via sediment settlement lagoons and other water treatment facilities as required; final discharge standards will be implemented in accordance with the approved Environmental Permit.
- The detailed drainage design at Mound A will incorporate the following features:
  - A permeable drainage blanket made up of inert rock material; and,
  - Overflow pipes in the drainage ditch to the north and west of Mound A.
- The detailed drainage design at Mound A will be flexible to allow changes to be made to water treatment and water volume at discharge points during the construction period;
  - The construction drainage system will be designed to reduce mobilisation and transportation of fine suspended sediment.
  - The drainage system for the construction of Mound E will divert surface water runoff into the Afon Cafnan until vegetation is established and risk of sedimentation is low. Cumulative flows to the Afon Cafnan will be managed to avoid any significant change in flood risk.

PUBLIC ACCESS

- During construction there will be no public access through construction areas and existing PRoWs will be stopped up. A route for the diverted Wales Coast Path will be provided around the edge of the Wylfa Newydd Development Area shown on WNDA Rights of Way During Construction plans WN0902-HZDCO-ROW-DRG-00019 to 00023 and illustrated indicatively on figure 5-6. This will include a diversion to ensure access to Wylfa Head is retained, by retaining PRoWs 20/056/1, 20/056/2, 20/002/2, 20/002/5, 20/002/3 and 20/002/4 along the north coast between Cemaes and Wylfa Head as a generally linear route, though a localised diversion of PRoW 20/056/1 may be required at various stages of construction.
- Suitable arrangements to enable viewing of the construction activity should be made. Initially, this may comprise a temporary viewing platform available around 6 months after the start of construction, dependent on availability of safe access and parking capacity. This facility may evolve through the construction period dependant on the positioning of activities while moving through the different phases.
- Wylfa Head will be managed to deter public access in the vicinity of any chough nest location(s), particularly at the beginning of the breeding season (late-March to mid-April). This will be achieved by provision of interpretation boards to educate the public; signage/waymarkers to indicate preferred footpath routes; and fencing to limit access to the most sensitive areas

OPERATIONAL PHASE PRINCIPLES

LANDSCAPE DESIGN

- Land no longer required as hardstanding following the construction period will be restored to an appropriate land use and, wherever practicable, to an enhanced ecological condition to its condition prior to construction.
- The Site Campus will be restored to its pre-existing condition, or similar, in accordance with the principles established in this document.
- New planting will be monitored throughout the establishment period, quarterly for a 5-year period after implementation, followed by annual inspections for second 5-year period (total 10 years) to ensure the landscape planting scheme successfully establishes and achieves the intended mitigation. In the event that these inspections identify that planting has not established, replacement planting on a like for like basis will be undertaken at the first available planting season.
- Benches and picnic areas will be provided at suitable locations adjacent to PROW on the newly re-profiled land outside of the Power Station Site along with a series of interpretation boards on ecology, copper trail, geology, cultural heritage, etc. to improve the recreational amenity of the area.
- Benches should be provided at: the replacement Fisherman's car park; the site of the proposed Visitor and Media Reception Centre; at the top of Porth yr. Ogof; as well as three additional locations along the Wales Coast Path route
- Interpretation boards will be located at: Wylfa Head (top of Porth yr. Ogof); the site of the proposed Visitor and Media Reception Centre; Porth yr. Felin; Mound C; replacement Fisherman's car park; near Penrhyn access point. Interpretation boards in these locations should be on the Wales Coast Path where possible. (Further interpretation boards at the wildlife watching shelter, Porth Wnal and the former Kitchen Garden will also be provided)
- A nature trail will be provided outside of the Power Station Site, comprising

a route along various replacement footpaths. The trail will include interest points and information boards suitable for all ages in Welsh and English, with digital and paper-based maps of the trail made available.

- A new wildlife watching shelter will be provided in the location of the coastguard lookout (which has been demolished) along with interpretation boards, providing details of the wildlife that can be seen from the shelter (including birds, marine mammals, sharks and plants).The design of the shelter will be simple to blend in with the naturalistic setting with internal dimensions of approximately 2 m by 2 m.

HABITAT

4.1.3 All principles for habitat provision during the operational phase are covered by the overarching principles, with management of these habitats covered by the management principles in section 7.

PUBLIC ACCESS

- A replacement public car park will be provided at a similar location as the current Fisherman's car park accessible from the public highway via the Existing Power Station access road off the A5025 at Tregele, this car park will be surfaced and suitable for wheelchair users. Within the car park there will be interpretation boards and picnic tables. Clear signage to the Wales Coast Path and other PRoW that lead away from the car park will be provided.
- New Public Rights of Way (PRoWs) will be created on re-profiled land outside the Power Station Site shown indicatively on Figure 6-26, linking to the Wales Coast Path, the existing PRoW network and Cemaes. A network of new footpaths will be provided to replace extinguished routes that serve local communities and other footpath users to facilitate access for various levels of ability along with maintaining access to the coast where appropriate and practicable within Power Station constraints.
- The PRoW leading from Fisherman's car park to the top of Porth yr Ogof and along the ridgeline of the headland will be surfaced in a manner that makes them suitable for wheelchair use and will be a minimum width of 3m. All other PRoW will be unsurfaced tracks (grass track) and have a nominal minimum 2m width. All PRoW will be clearly signed with either standard PRoW signs or WCP signs depending on location. All field boundary access features will be either self-close gate to enable access by walkers with pushchairs or rucksacks.
- A route for the Wales Coast Path through the Wylfa Newydd Development Area shown indicatively on Figure 6-26 will be created. This route will be unsurfaced with a nominal width of 2m except between the new public car park near Fisherman's car park and the top of Porth yr Ogof where it will be surfaced to a quality suitable for wheelchair users and be a minimum of 3m wide.
- Landscape management of retained area of Dame Sylvia Crowe designed woodland will include maintenance of an access route for the public through the woodland and to the existing viewpoint location once the area is available to the public when the Power Station is operational.
- Public access to the proposed southern entrance to Cestyll Garden (Valley Garden) shall be provided in the form of a Permissive Footpath.

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PART B: ILLUSTRATIVE DESIGN PROPOSALS

5 LANDSCAPE PROPOSALS DURING CONSTRUCTION AND APPROACH TO HABITAT MANAGEMENT

Landscape proposals during construction and approach to habitat management

5.1 INTRODUCTION

5.1.1 This section contains an overview of the indicative construction sequence to provide the context in which the landscape proposals and habitat management will be brought forward. Detail of the phasing is set out in the Construction Method Statement volume D, appendix D1-1 of the Environmental Statement: Construction Method Statement (Application Reference Number: 6.4.17).

5.1.2 Landform and planting will be phased and implemented at the earliest opportunity throughout the construction period. The scale of the earthworks is such that the design will require a major reconfiguration of the existing landscape to accommodate the platform levels for the new buildings and infrastructure. These will be implemented progressively in several phases as illustrated in the following chapter, culminating in the creation of the permanent landscape as described in Chapter 6.

5.1.3 The landscape principles developed through extensive site appraisal of the Wylfa Newydd Power Station and its context, comprehensive consultation, and consideration of engineering constraints, will be applied during all the phases of construction and use, in order to minimise impacts on sensitive receptors.

5.2 CONSTRUCTION – SITE PREPARATION AND CLEARANCE

SITE PREPARATION AND CLEARANCE PROPOSALS

5.2.1 The first phase includes Site Preparation and Clearance for the development. Figure 5-1, represents the current status of the WNDA and reflects the following illustrative drawing:

- Wylfa Newydd Development Area, Reference point 1 (WN0902-HZDCO-LFM-DRG-00001)

5.2.2 Figure 5-2 illustrates how the WNDA would look once the Site Preparation and Clearance proposals are complete. This stage can be summarised as follows:

- A temporary construction fence would be erected and vegetation within the fenced area would be cleared with grass and topsoil retained at this stage;
- Existing vegetation and walls on the outer WNDA boundary would, where possible, be retained and enhanced;
- A small stretch of the Afon Cafnan tributary (Nant Caerdegog Isaf) would be realigned with planting of new native species of trees and wet grassland;
- Internal field boundaries would be dismantled and the stone stockpiled for future re-use in later phases of landscape restoration;
- Protected and notable species would be carefully translocated or displaced in accordance with legal and licence requirements. Tre'r Gof SSSI, Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site, the three ancient woodland units and Dame Sylvia Crowe's woodland are retained and protected, and
- Existing PROW would remain open as shown on Figure 5-3.

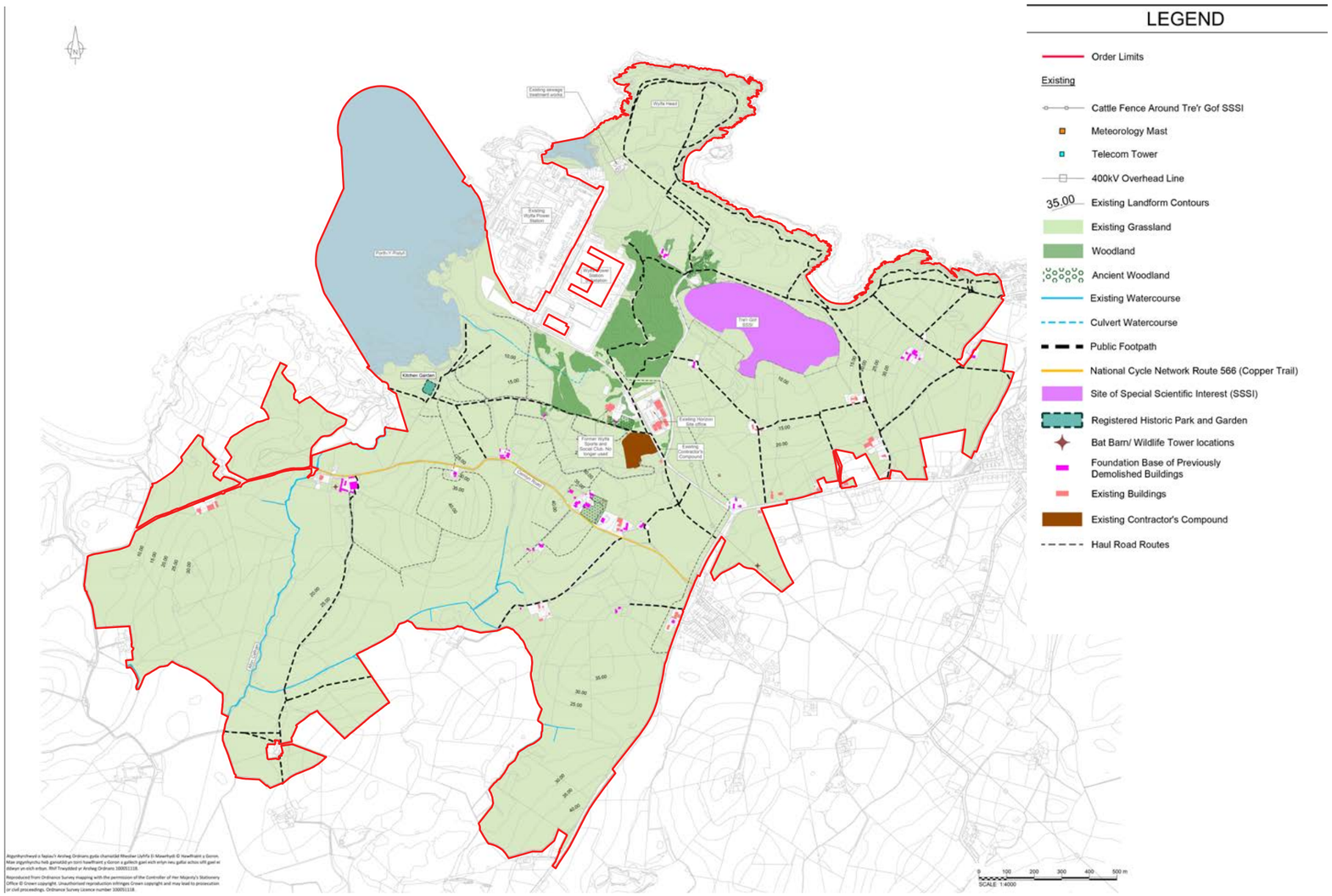
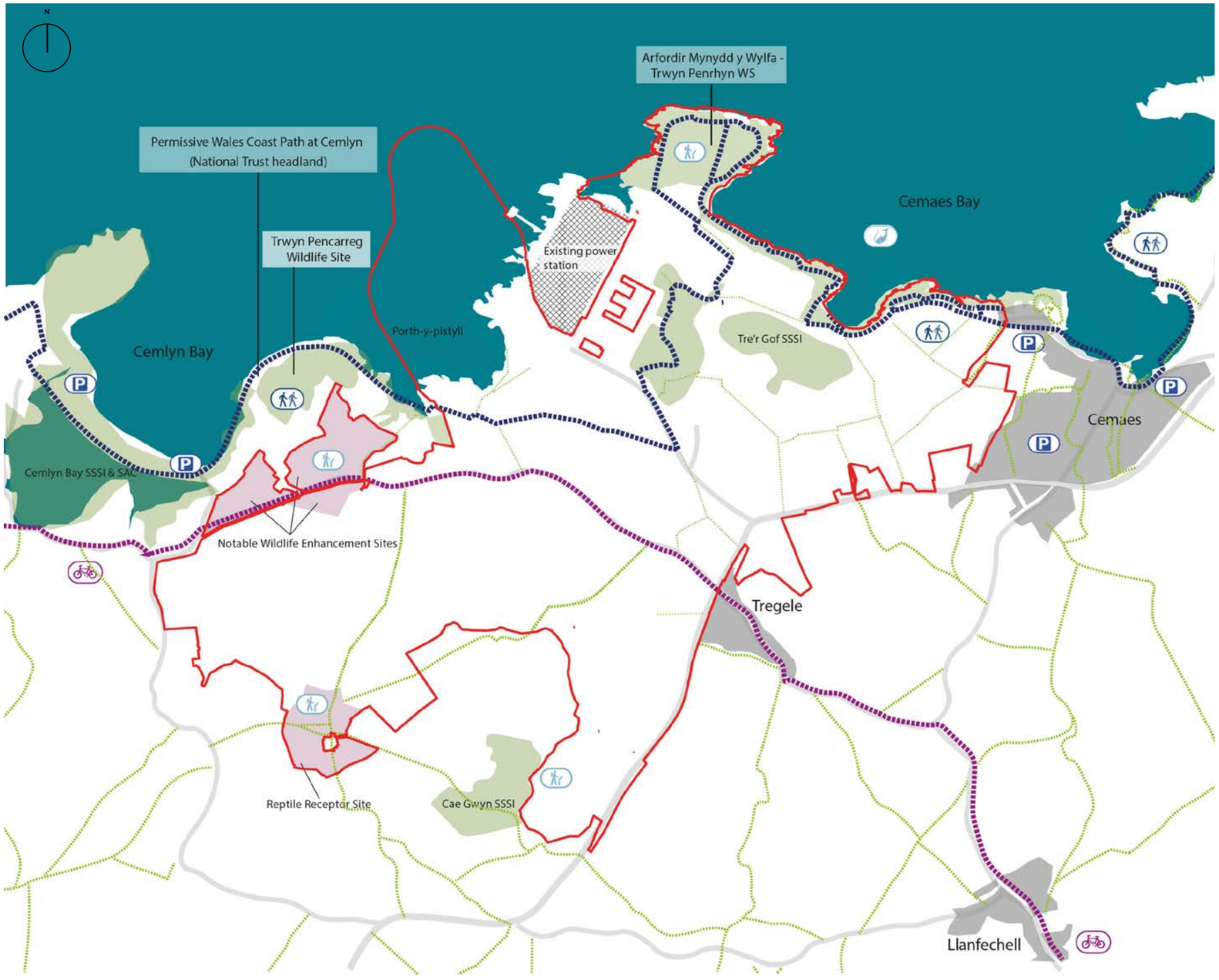


Figure 5-1 Current status of the Wylfa Newydd Development Area

Legend

	Wylfa Newyyd Development Area
1	Existing Wylfa Power Station and Sub-Station
2	Tre'r Gof SSSI
3	Dame Sylvia Crowe woodland
4	Diverted Watercourse
5	Notable Wildlife Enhancement Site
6	Reptile Receptor Site
☆	Proposed Bat Barns, to be completed in 2018
★	Existing Bat Barn
▲	Existing Wildlife Tower
●	Existing Owl Barn
	Area to be cleared
	Retained Vegetation
	Retained woodland
	Retained wetland
	Remnant grassland

Figure 5-2 Illustrative landscape proposals during Site Preparation and Clearance



Walking

Interpretation

Cycling

Fishing

Legend

Wylfa Newydd Development Area	National Cycle Route 566 (Copper Trail)
Settlements	Retained natural features
Public Right of Way	Area no longer under Horizon's control at this stage
Wales Coast Path (existing alignment)	Car park

Figure 5-3 Public access and recreational facilities during Site Preparation and Clearance

DIVERSION OF WATERCOURSE

5.2.3 To facilitate the Main Construction of the Wylfa Newydd DCO Project, a section of watercourse (Nant Caerdegog Isaf) is required to be diverted within the south-east of the WNDA as shown on Figure 5-5. This watercourse is a tributary to the Afon Cafnan.

5.2.4 Importantly, the alignment and design chosen is considered to be the most appropriate in terms of flood risk and the benefits to local habitats. The design of the proposed realignment has taken account of the presence of water voles identified through ecological surveys and seeks to improve the local habitat by enhancing the opportunities for flora and fauna in the area. The form of the diversion itself would involve the formation of a new channel measuring approximately 360m in length, with an average width and depth of approximately 0.8m and 0.2m respectively. It would incorporate a gravel bed using locally won stone designed to mimic the existing watercourse.

5.2.5 The watercourse would be designed to encourage a range of features to develop along its course (including a wetland area, berms and a natural low flow channel) and provide potential habitat for wildlife (including water vole). As a result, this element will result in biodiversity benefits. The area surrounding the watercourse realignment would be planted with native trees along with wetland grasses and or plants with filtering properties with species appropriate to the locality. The new channel would be formed with an irregular sinuous plan form.

5.2.6 A small section of the existing channel to be removed will be filled and grassed allowing its future use for grazing pasture, following construction of the power station. The works will be undertaken in accordance with a strict methodology relating to the protection of ecology. This will include the translocation of water voles present in the vicinity of the works to a receptor site within the realigned watercourse. Once complete, the proposed realignment works would result in ecological enhancements, thus according with Strategic Policy PS5 in the JLDP [RD3].

MANAGEMENT APPROACH

5.2.7 Details of the approach to vegetation management, species displacement and translocation involved in the site preparation and clearance works are provided in the DCO Environmental Statement and CoCP.

5.2.8 Upon completion of Site Preparation and Clearance, management will fall into two categories:

- Management of retained habitat areas (including Notable wildlife enhancement site, Reptile receptor site and Great Crested Newt Receptor Site) to ensure no deterioration of condition and, where possible, enhance.
- Management of cleared areas to prevent colonisation by species which could constrain construction works.

5.2.9 In the case of the latter, this will be achieved by a regime of regular mowing/ flailing, details of which will be provided in a site-specific habitat management plan (see Section 7).

5.2.10 The management of retained habitat areas and receptor sites will have objectives and measures specific to the area concerned. These will be detailed in the relevant site-specific habitat management plans.

5.3 CONSTRUCTION – MAIN CONSTRUCTION

ADVANCE EARTHWORKS AND CREATION OF WORKING PLATFORMS

5.3.1 Following grant of the DCO, grading of the site and earthworks would commence. During this stage the following works would take place:

- Works would commence on delivery of the Ecological Compensation Sites;
- Cemlyn Road and all footpaths inside the construction fence would be closed;
- The access road to Fisherman's Car Park would be closed for the construction period;
- All remaining vegetation would be cleared with the exception of the features and habitats to be retained (refer to figure 5-4).
- Topsoil would be stripped and some of the mounds constructed to help screen visual, noise and vibration impacts during construction;
- Temporary and permanent drainage works would be constructed;
- Levelling works and deep excavations would be completed to form working platforms and deep construction foundations for the reactors;
- The concrete batching plant would be installed;
- Temporary fabrication and laydown areas would be in place, including offices, welfare facilities, car parking, cranes and temporary storage;
- Temporary haul roads would be laid out and access bridges would be constructed to move excavated materials around the site;
- The breakwaters and MOLF would be constructed at Porth-y-pistyll;
- The Power Station Access Road and its roundabout junction with the A5025 to the south-west of Tregele would be constructed. (This work is one of the Off-line Highway Improvements which is described further in chapter 6);
- The temporary construction viewing area would be constructed for members of the public to observe construction of the Power Station; and
- The temporary On Site Campus would be constructed in the early stages of construction. Refer to the Site Campus DAS for operational landscape proposals for this area.

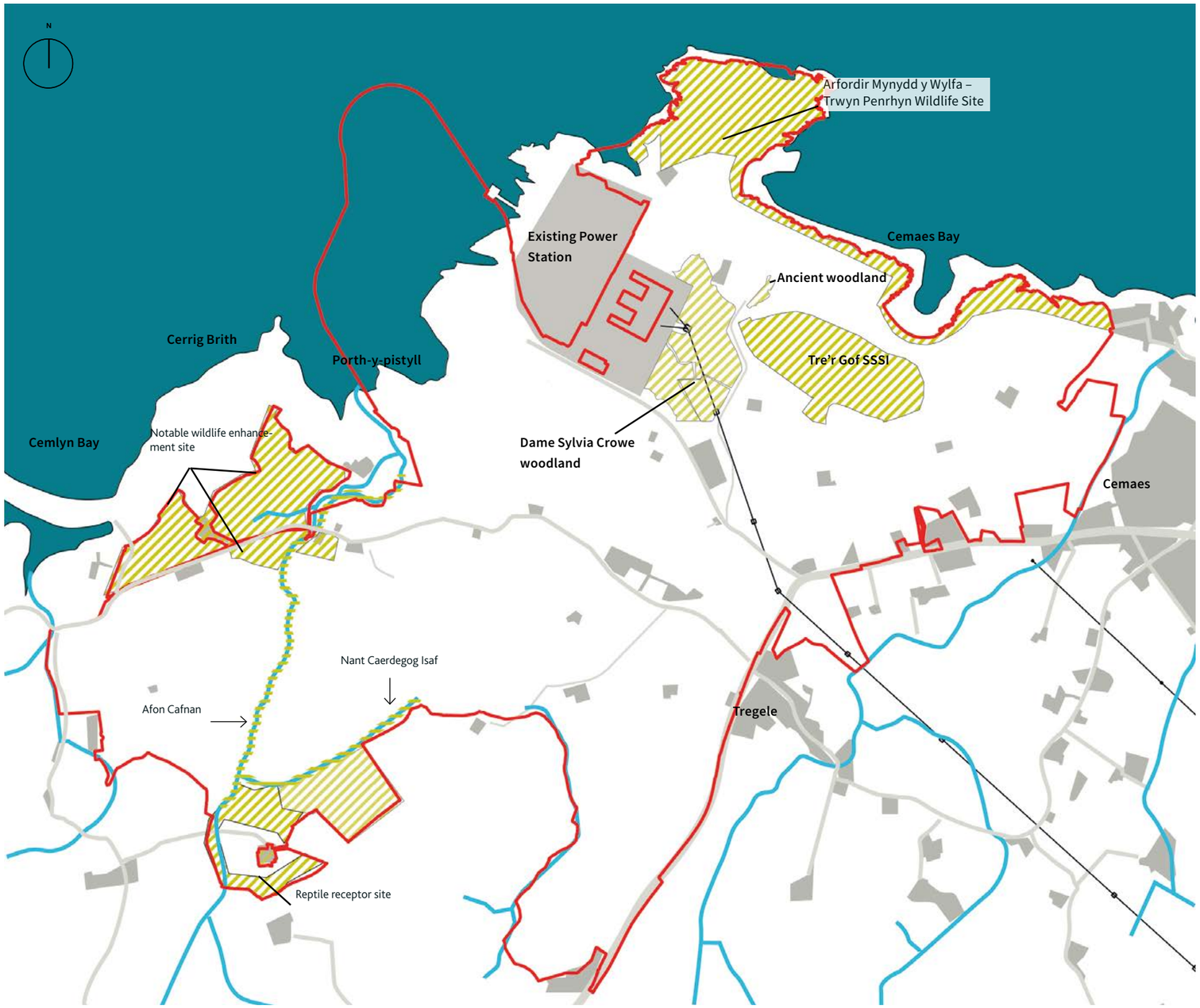
FULL CONSTRUCTION PHASES

5.3.2 At this point, there would be an increase in construction activity, with work progressing on both UK Advanced Boiling Water Reactors and an increased number of construction workers present on-site. This is indicatively illustrated on Figure 5-5 and reflects the following illustrative drawing:

- Wylfa Newydd Development Area, Landscaping Scheme, Reference point 4 (WN0902-HZDCO-LFM-DRG-00004).

5.3.3 At this stage the following works will take place:

- Mobile, tower and large construction cranes would be installed, including the Very Heavy Lift Cranes (up to 292 metres AOD);
- Excavated materials would be stored in temporary mounds, steeper than the final landform design, until material can be placed in its final location;
- Cooling Water System outfall works and discharge tunnels would be completed;
- The majority of other buildings and structures within the Power Station Site would now be under construction; and
- Other mounding and advance landscaping would be progressively completed as described in the following section.



Legend

- Wylfa Newydd Development Area
- Settlements and buildings
- Watercourses
- Roads
- Retained features and habitats
- Retained overhead line

Figure 5-4 Retained features and habitats

Legend

	Wylfa Newyyd Development Area
1	Existing Wylfa Power Station and Sub-Station
2	Tre'r Gof SSSI
3	Dame Sylvia Crowe woodland
4	New Wylfa Newydd Power Station excavation site
5	Breakwaters
6	Power Station Access Road and its roundabout junction with the A5025
7	Area for construction plaza and Training & Simulator Building
8	Temporary mounding
9	Construction Site Campus
10	Notable Wildlife Enhancement Site
11	Reptile Receptor Site

☆	Proposed Bat Barns, to be completed in 2018
★	Existing Bat Barn
▲	Existing Wildlife Tower
●	Existing Owl Barn
——	Security fencing

	Construction area
Retained Vegetation	
	Retained woodland
	Retained wetland
	Retained grassland
Newly Created Landscapes	
	Newly created woodland
	Re-seeded grassland area *
	Re-seeded temporary grassland area

* habitat creation works to start at the earliest opportunity after completion of earthworks - see Figure 6 -3 for illustrative proposals

Figure 5-5 Illustrative landscape proposals during Main Construction

5.4 MAIN CONSTRUCTION LANDSCAPE PROPOSALS

5.4.1 During the construction phase the landscape proposals in line with the principles established in Section 4 seek to deliver early landform completion and planting adjacent to sensitive receptors and facilitate construction works. The sequencing described in this section is indicative only and will be developed and finalised with the Earthworks Contractor to determine an optimum sequence incorporating all the various requirements on the Project. The work will take place at the beginning of the construction period and include:

5.4.2 Early implementation of two new grassland mounds A and E to visually screen the development during construction refer to figures 5-5 and 5-8 to 5-11. These have been designed to sympathetically fit into the Drumlin landscape. The northern part of Mound A will be implemented to its final contours.

5.4.3 Creation of temporary landscapes in the southern section of mound A and on Mound E to provide additional screening and hold material to be used in the final landform.

5.4.4 Provision of permanent screening adjacent to the A5025 incorporating a bank and a new linear woodland belt. Levels to be confirmed following final earthworks development and design refer to figures 5-12.

EARLY IMPLEMENTATION OF GRASSLAND MOUNDS

MOUND A

5.4.5 The illustrative landform proposal for Mound A seeks to deliver early landform completion to the slopes immediately to the west of the local settlement at Cemaes and to the slopes facing the Tre`r Gof SSSI in order to deliver enhanced screening and reduced sedimentation risk in these sensitive locations early in the construction period. The design increases the height of the existing mound to the west of Cemaes by 10m from circa 32 to 42m AOD. These slopes would be planted on completion of the earthworks. The earthworks will also include the creation of new sediment ponds located in and around Mound A. The illustrative landscape design for this mound is described fully in section 6.

MOUND E

5.4.6 Mound E falls within the boundary of the AONB an area of high Landscape sensitivity. It is proposed that Mound E would be created early in the construction period to screen the development from the coastal path and better integrate the development into the landscape, helping to protect views of the main and ancillary buildings into the site from the south and west. The mound will also hold material to be used for the final landform which will increase the height during the construction period. It will be seeded during construction and new sediment ponds will also be created. At the end of the construction period the mound will be reduced to its final contours. The illustrative proposals for the mound are described in section 6.

TEMPORARY LANDSCAPE IN THE SOUTHERN PART OF MOUND A

5.4.7 The area further to the west of Cemaes will temporarily hold material which will increase the height during the construction period on the southern part of Mound A to circa 45m AOD with slope gradients between 1 in 3 and 1 in 5.

5.4.8 At the end of the construction period, the southern part of Mound A will be reduced to create new mounds on the construction platforms at locations B, C and D as described in section 6.

PERMANENT SCREENING ADJACENT TO THE A5025

5.4.9 During the construction period a series of terraced, flat platforms will occupy the Mound B and C area adjacent to the A5025, hosting site cabins and storage areas. These areas will be divided by 1 in 3 embankments. These areas will also cater for a significant number of construction parking spaces and hard lay down areas.

5.4.10 An early mound will be constructed to the immediate west of Tregele running along the A5025 and rising to 7m above the existing local level to provide instant screening to the construction lay down areas, which will be formed at the beginning of the construction period. The mound will be set at circa 1 in 3 gradient (sections may be steeper if required) facing Tregele and densely planted with native trees and shrubs. The development facing slope will be set at 60 degrees and reinforced for stability to maximise the available land take for construction. This mound will remain in place throughout the construction period and will be backfilled at the end of construction works to form part of the ultimate new drumlin forms for Mounds B and C (described in section 6).

PLANTING STRATEGY

5.4.11 The completed permanent landforms and diverted water course will be planted to their final landscape schemes as described in section 6 in the planting season following completion of the earthworks.

5.4.12 The temporary mound solution for the southern section of Mound A and mound E will be in place for approximately 6 years during the construction period. Although this is a temporary solution it is proposed that the landforms would be planted with grassland with potentially some planting of fast growing scrub species for visual relief.

MANAGEMENT APPROACH

5.4.13 The management approach described above for construction phase 1 would continue into Main Construction, with the addition of two further management area categories:

- Areas where vegetation and topsoil has been removed, temporary mound surfaces and topsoil stockpiles;
- Areas of newly created permanent landscaping.

5.4.14 The key objectives of management for the first two categories will be to reduce the likelihood of colonisation by species which could constrain works, minimise sediment run-off and, where possible, minimise visual impacts. This will be achieved by implementation of measures detailed in the CoCP and relevant site-specific habitat management schemes.

5.4.15 The management of newly created permanent landscaping areas will have objectives and measures specific to the area concerned. These will be detailed in the relevant site-specific habitat management schemes. Management objectives and measures for the key habitat elements of the proposed landscape are provided in Section 6.

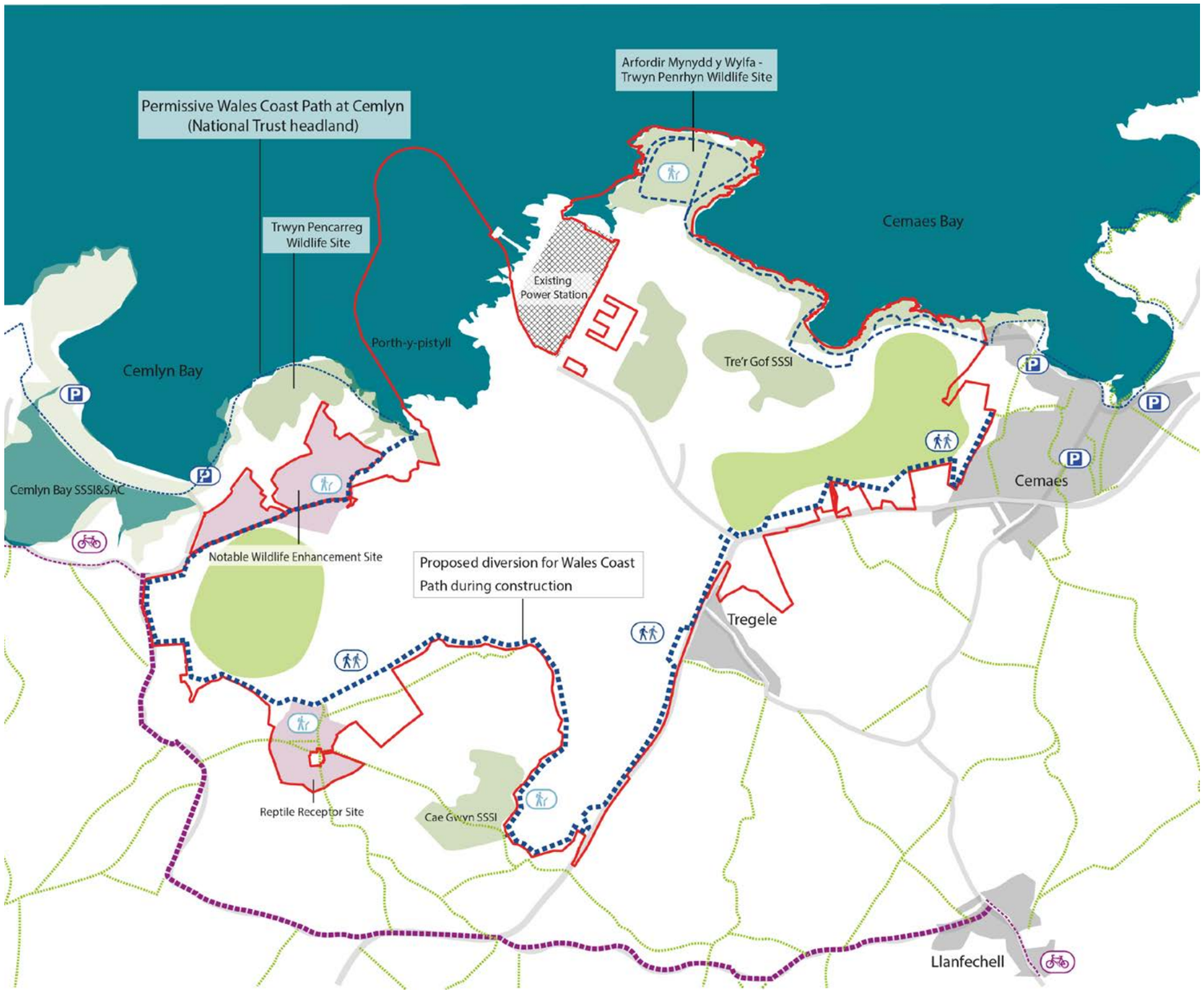
5.4.16 Habitat fragmentation would peak during main construction, prior to the completion of new landscaping. Indicative bat flight corridors during main construction are illustrated in figure 5-7.

FOOTPATHS AND CYCLE PATHS

5.4.17 During the construction phase the Wales Coast Path will be temporarily closed and diverted around the construction area as shown on figure 5-6 below. There will be no public access through the WNDA except to the visitor viewing platform. Access to Wylfa Head will be retained, by retaining existing PRoWs along the north coast between Cemaes and Wylfa Head as a generally linear route, though a localised diversion may be required.

DRAINAGE

5.4.18 To prevent increase in flow of Nant Cemaes, the detailed design will consider options to increase infiltration, minimise catchment area increase from the change in landform, reducing flow path slopes and if necessary, provide further attenuation and divert flow to a different less sensitive discharge point.



Walking

Interpretation

Cycling

Legend

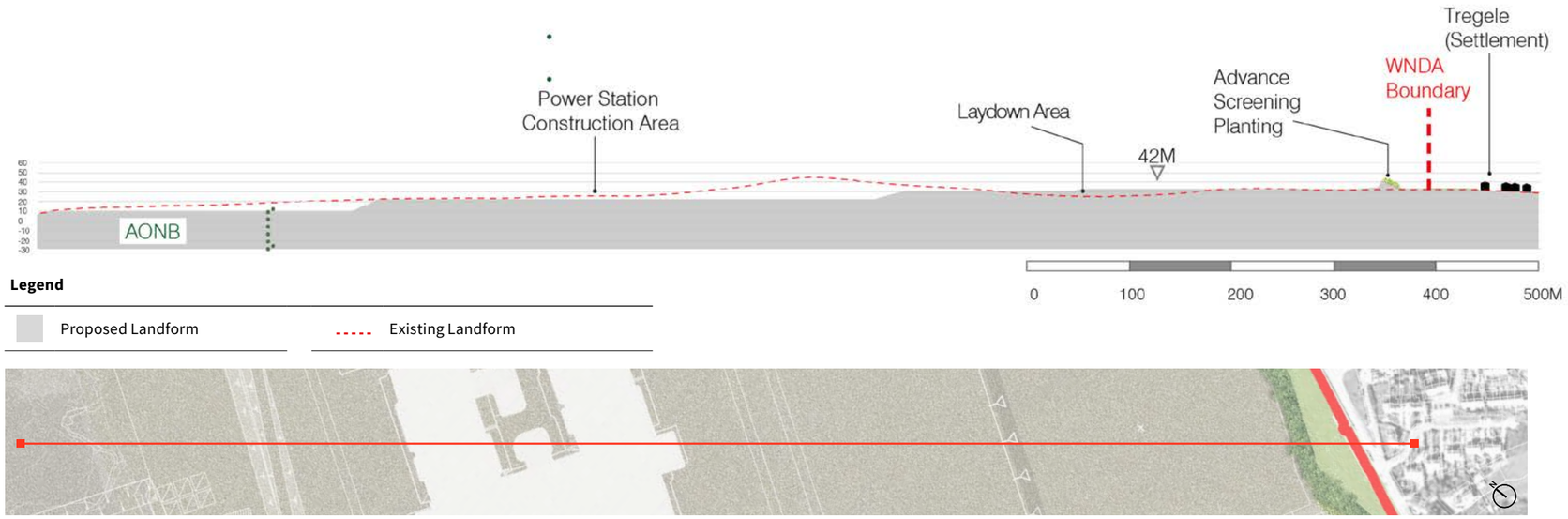
Wylfa Newydd Development Area	Wales Coast Path (proposed diversion during construction)
Settlements	Wales Coast Path (diversion)
Public Right of Way	National Cycle Route 566 (Copper Trail)
Wales Coast Path (outside construction boundary)	Proposed Copper Trail diversion
Retained Natural Features	Proposed mounding
Area no longer under Horizon's control at this stage	Car Park

Figure 5-6 Public access and recreational facilities during Main Construction

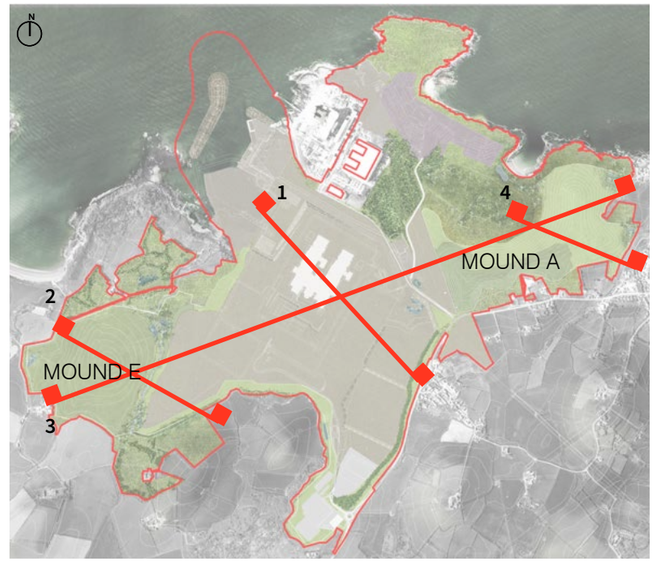
Legend

- Indicative bat corridors
- bat roost structure

Figure 5-7 Bat corridors during Main Construction

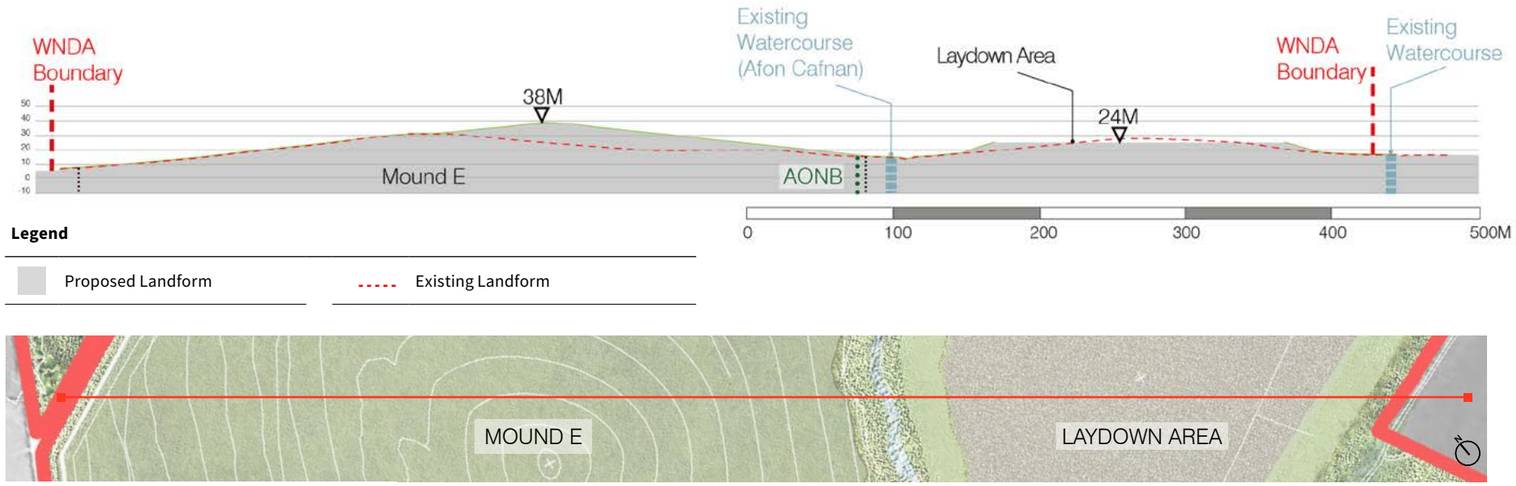


Section 1 : Power station construction area transversal section



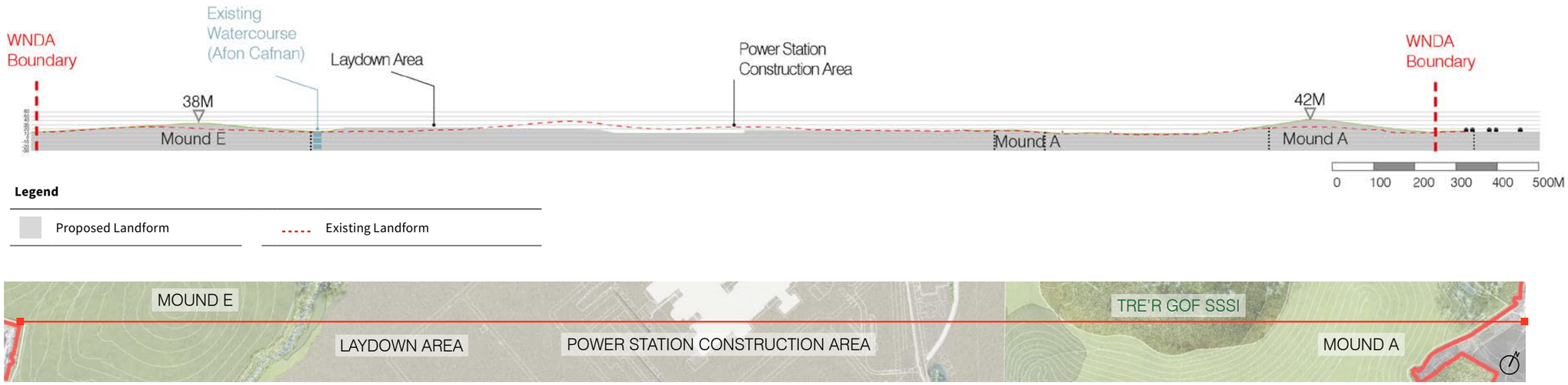
Location plan

IMAGE SOURCED FROM GOOGLE

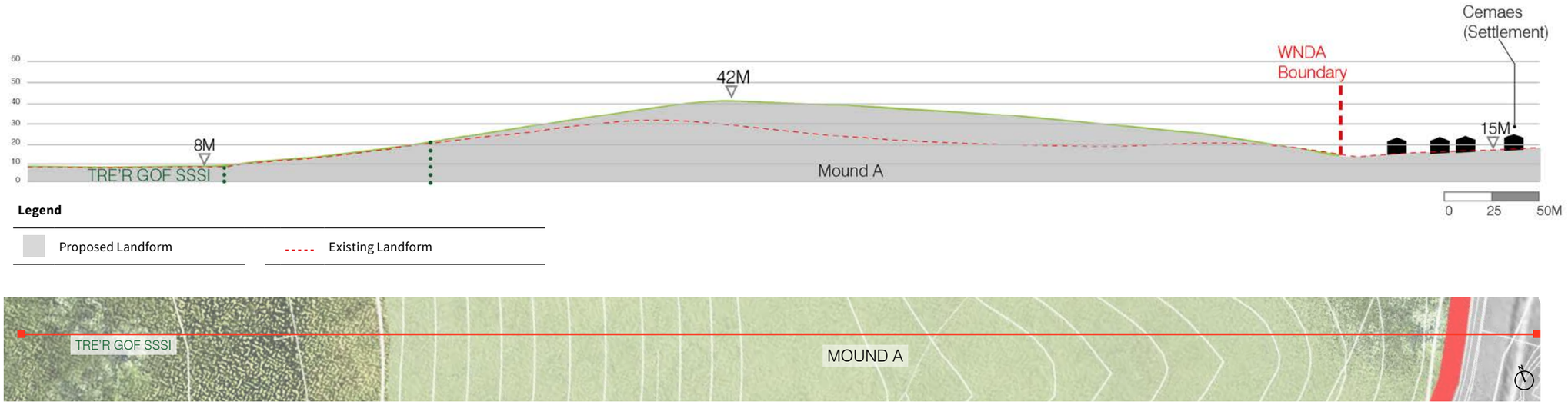


Section 2 : Mound E transversal sections

Figure 5-8 Illustrative section of proposed landform during construction 1 of 4

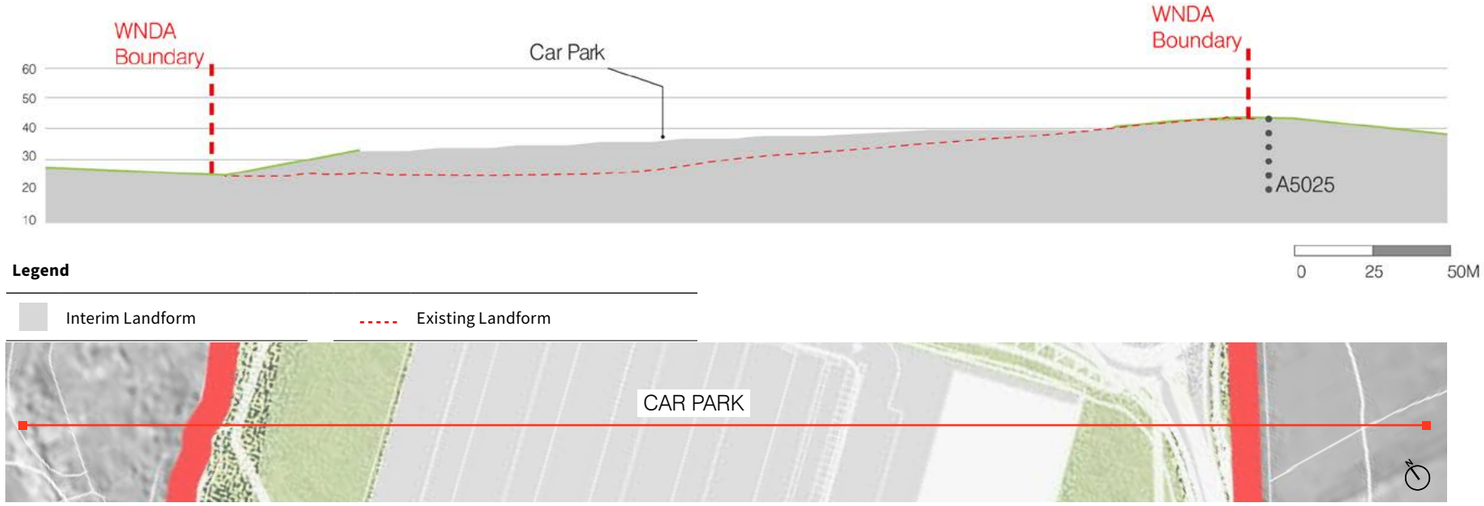


Section 3 : Mounds A and E section

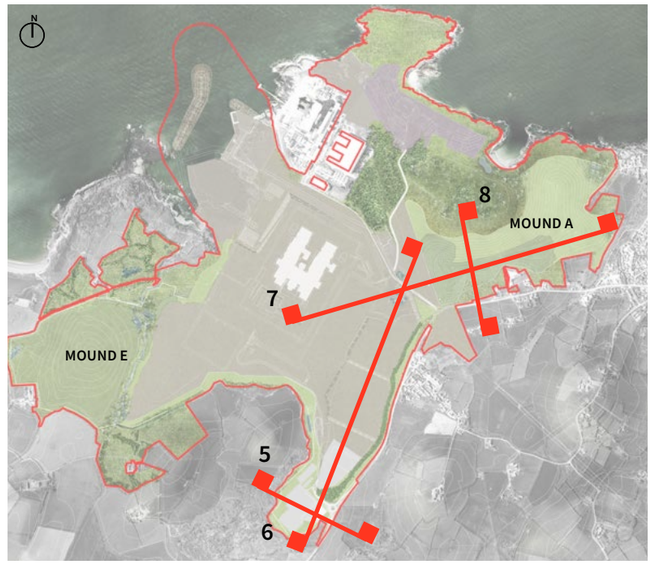


Section 4 : Mound A transversal section

Figure 5-9 Illustrative section of proposed landform during construction 2 of 4

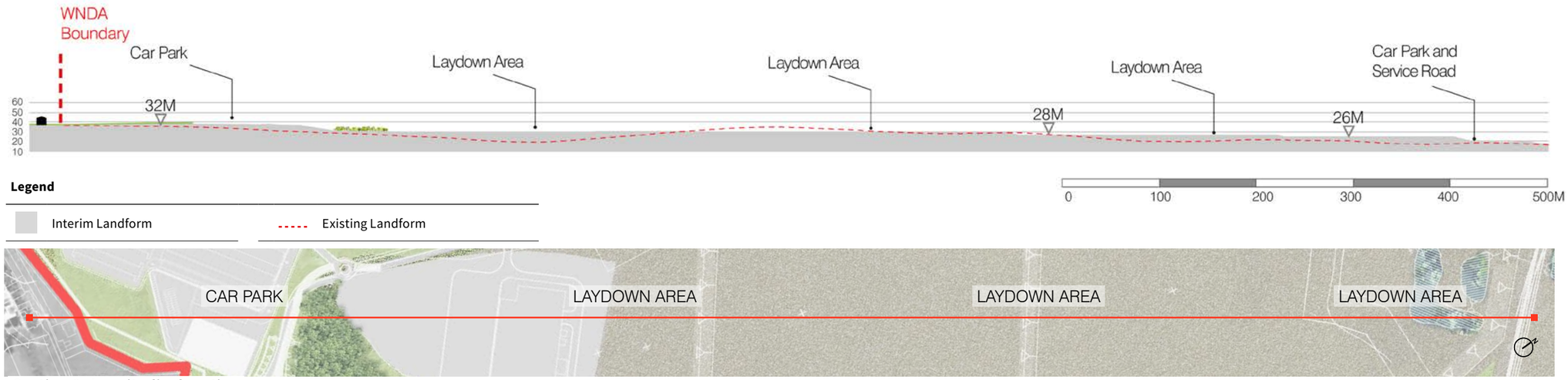


Section 5 : Mound C transversal section



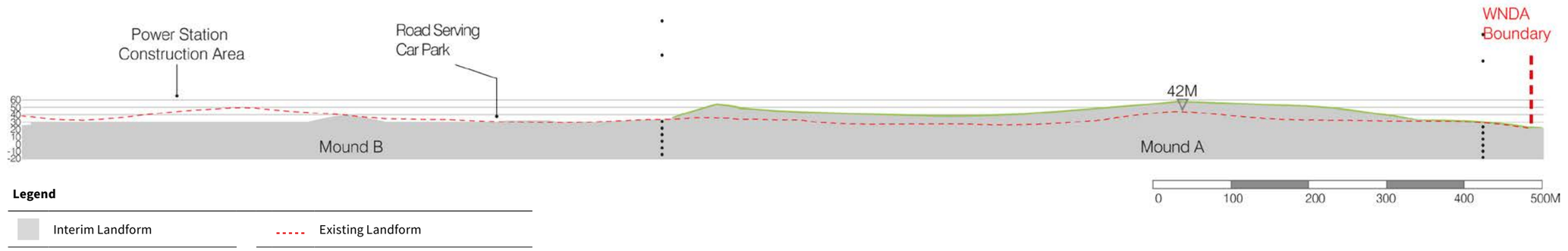
Location plan

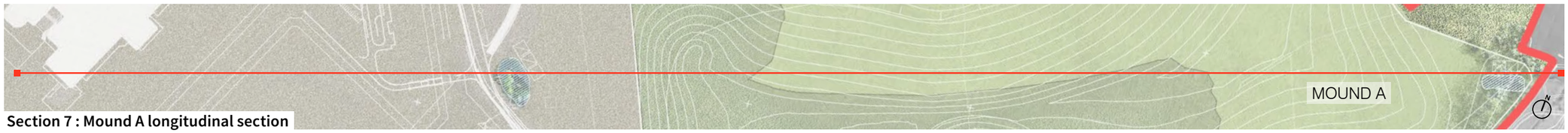
IMAGE SOURCED FROM GOOGLE



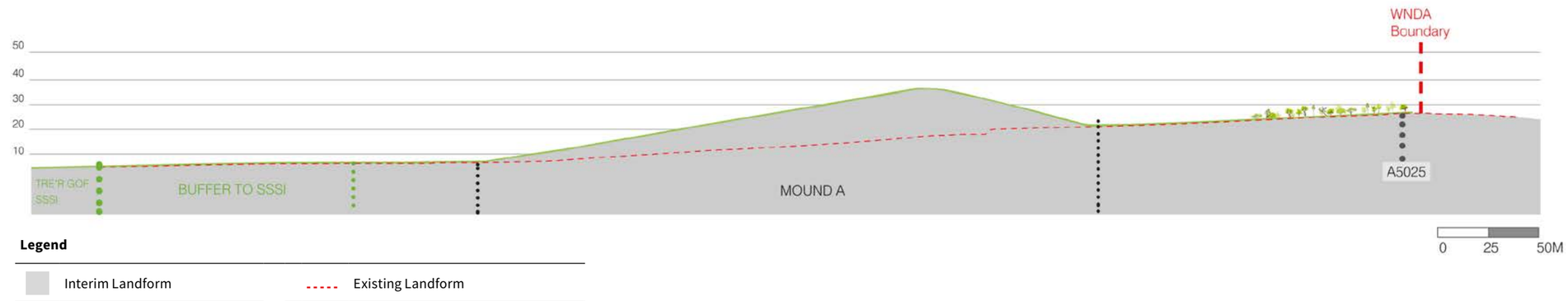
Section 6 : Longitudinal section

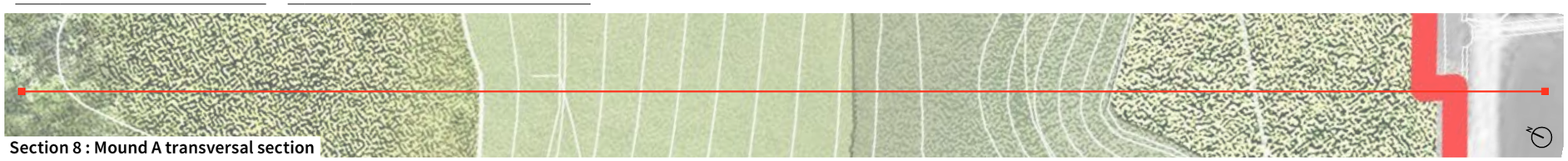
Figure 5-10 Illustrative sections of proposed landform during construction 3 of 4





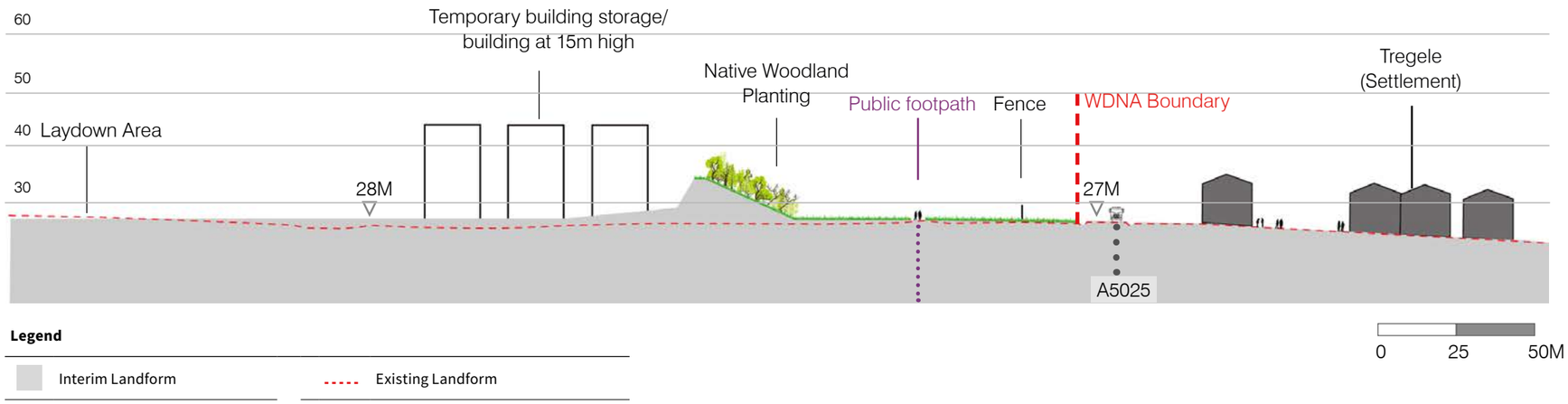
Section 7 : Mound A longitudinal section





Section 8 : Mound A transversal section

Figure 5-11 Illustrative section of proposed landform during construction 4 of 4



Location plan

IMAGE SOURCED FROM GOOGLE

Figure 5-12 a – Illustrative section on advance planting screening along the A5025

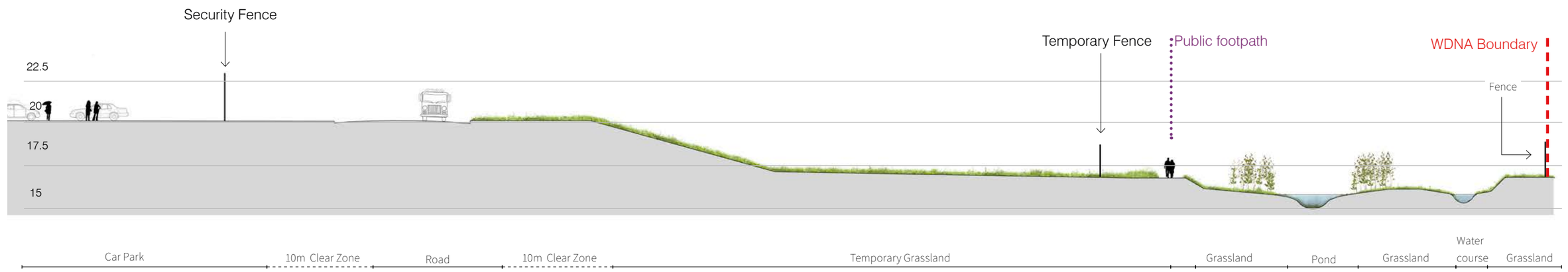


Figure 5-12 b – Illustrative sections of early planting during Main Construction

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6 RESTORATION LANDSCAPE PROPOSALS DURING SITE OPERATION AND APPROACH TO HABITAT MANAGEMENT

RESTORATION LANDSCAPE PROPOSALS DURING SITE OPERATION & APPROACH TO HABITAT MANAGEMENT

6.1 OVERVIEW

6.1.1 The landscape principles which have been developed through extensive site appraisal of the WNDA and its context, comprehensive consultation, and consideration of engineering constraints, will be applied during the landscape restoration, in order to minimise impacts on sensitive receptors.

6.1.2 On completion of construction, the construction platforms, laydown areas and Site Campus will be restored to reflect the local landscape character to integrate the power station into the surrounding landscape, while maximising nature conservation value. Figures 6-1, 6-2 and 6-3 illustrates how the final landscape proposals will appear on completion of construction and during early operation of the Power Station and reflects the following illustrative drawing:

- Wylfa Newydd Development Area, Landscaping Scheme, Reference point 5 (WN0902-HZDCO-LFM-DRG-00005).

6.1.3 This stage can be summarised as follows:

- Construction compounds and plant will be removed;
- The temporary facilities provided in the Site Campus would be completely removed and the site restored to its pre-existing condition or similar;
- Remaining landscape mounding will be completed and planted;
- Most of the land not required for operation of the Power Station or other functions within the WNDA outside the Power Station Site will be sensitively returned to agricultural use, in conjunction with ecological enhancement measures;
- New field boundaries will be created using the original stones and or hedges;
- The Wales Coast Path will be diverted to its final route. New footpaths will be created across the restored landscape to provide linkages between Cemlyn Bay, Wylfa Head, Porth yr Ogof and Porth Wylfa beach and Cemaes;
- Vehicular access will be provided off the Existing Power Station Access Road with re-opening of the existing Fisherman's Car Park to provide easy access to the coastline and Wylfa Head;
- Selected sedimentation ponds and drainage channels will be enhanced to provide ecological habitats; and
- All of the perimeter construction fence will be removed releasing substantial parts of the WNDA for public use.

Figure 6-1 Illustrative view of the restored landscape

Aerial view from North-West towards the Power station

Aerial view from the South over the Power station

Figure 6-2 Illustrative aerial views of the power station and restored landscape

Legend

Wylfa Newyyd Development Area	
1	Existing Wylfa Power Station and Sub-Station
2	Tre'r Gof SSSI
3	Dame Sylvia Crowe woodland
4	New Wylfa Newydd Power Station
5	Breakwaters
6	Power Station Access Road and its roundabout junction with the A5025
7	Visitor centre and car park
8	Simulator & Training Building
9	Notable Wildlife Enhancement Site
10	Reptile Receptor Site
☆	Proposed Bat Barns / wildlife tower, to be completed in 2018
★	Existing Bat Barn / wildlife tower
=	Area no longer under Horizon's control at this stage

Note: Reference should also be made to Figure 6-19 Proposed habitats that illustrates the habitats created and preserved as part of the proposals at Wylfa Newyyd

Figure 6-3 Illustrative plan of the restored landscape during site operation

6.2 APPROACH TO LANDSCAPE DESIGN

6.2.1 In line with the principles established in section 4 the landscape design aims to creating a new landscape setting that reflects the existing open, rolling, drumlin landscape character structure of the surrounding landscape. It seeks to replicate, where possible, the existing field divisions, formed by a mix of stone walls, cloddiau and hedgerows but in line with the new landform. Native woodland copses are proposed to the tops of the drumlins and in field corners to reflect existing patterns and to protect key views from sensitive receptors, principally, the settlement of Cemaes and Tregele, along the A5025, to the south west of the spent fuel storage area, south west of Tre'r Gof SSSI, to soften views from across Cemaes Bay and to the southern boundary of Cestyll Gardens.

6.2.2 The aim is also to create networks of wildlife corridors and a mosaic of habitats across the site formed by woodland, scrub and hedgerows, with intermittent areas of wetland and rough or species rich grassland which will link Mounds A-E, whilst also providing pasture land for a return to agricultural use as grazing. A comprehensive network of footpaths will be provided to facilitate access for various levels of ability.

6.2.3 The landscape characteristics have been derived through on-site observations and a review of relevant policy including The Isle of Anglesey Area of Outstanding Natural Beauty (AONB) Management Plan Review 2015 –2020 where "All new developments within and up to 2km adjacent to the AONB will be expected to adopt the highest standard of design, materials and landscaping in order to enhance the special qualities and features of the AONB".

6.2.4 The new landform will also provide some noise and visual screening which will be supplemented by maturing woodland vegetation. However, it will not be possible to fully screen the development of this scale and nature from all viewpoints, with some building heights predicted at 44m and stack heights of 75m above finished ground level. Therefore a key principle of the landscape design continues the approach established by Dame Sylvia Crowe and includes the use of large scale mounding and tree planting to soften views of the Power Station, screening low level buildings and maintaining a natural landscape setting as close to the Power Station as possible.

A water management system will be carefully integrated into the landform and will include new natural sedimentation ponds which will deliver effective drainage and improve biodiversity within the area.

SITE CAMPUS RESTORATION

6.2.5 On completion of construction the temporary facilities provided in the Site Campus would be completely removed and the site restored to its pre-existing condition or similar in accordance with a landscape restoration plan.

6.2.6 The landscape proposals for the Site Campus during operation are set out in Design and Access Statement Volume 3 Appendix 1-2 The Site Campus and include the preservation of key landscape features such as retained rock outcrops. The restoration proposals would focus on re-establishing the site, incorporating the key environmental assets that would have been identified, enhanced and protected throughout the operation of the site. These enhancements primarily focus on preserving and restoring the habitats and features and will include:

- reinstating coastal grassland areas;
- reinstating stone walling to existing field pattern;
- reinstating landform;
- retaining rock outcrops;
- reinforcing woodland edge and wooded slopes;
- providing new woodland areas connecting with the retained ancient woodland;
- reinstating native shrub planting replicating the species prevalent in the local area;
- providing new gravel surfaced path connecting the Wales Coast Path with the Fisherman's car park and footpaths to the south and east;
- providing public vehicular access restored to the reinstated Fisherman's car park;
- providing a new viewpoint along the Wales Coast Path, providing a place to sit and pause on the route; and
- retaining accessible footpaths to support the wider public network.

6.3 ILLUSTRATIVE RESTORATION MOUND DESIGN

APPROACH TO MOUND DESIGN

6.3.1 The illustrative design for the final restored landform is the result of a combination of many influencing factors. In accordance with the principles established in section 4 it represents a balanced solution to provide a landscape setting which reflects the special landscape context, provides effective screening and the successful integration of a large-scale development and removes the need to export or import material during development.

6.3.2 The scale of the earthworks, which cover an area of approximately 400 Ha is such that the design will require a major reconfiguration of the existing landscape to accommodate the new buildings and infrastructure. The most significant change to the existing landform will be as a result of the formation of two large platform areas created at 18m and 21m AOD which will host the Power Island, core development site. These platforms will broadly cover an area formerly occupied by two large drumlin forms which currently rise to around 40m AOD.

6.3.3 The design principles for the new landform set out in chapter 4 have been driven by an analysis of the site and its wider context and relevant national, regional and local policies, along with the requirements of the Power Station, constraints imposed by existing features and consultation responses.

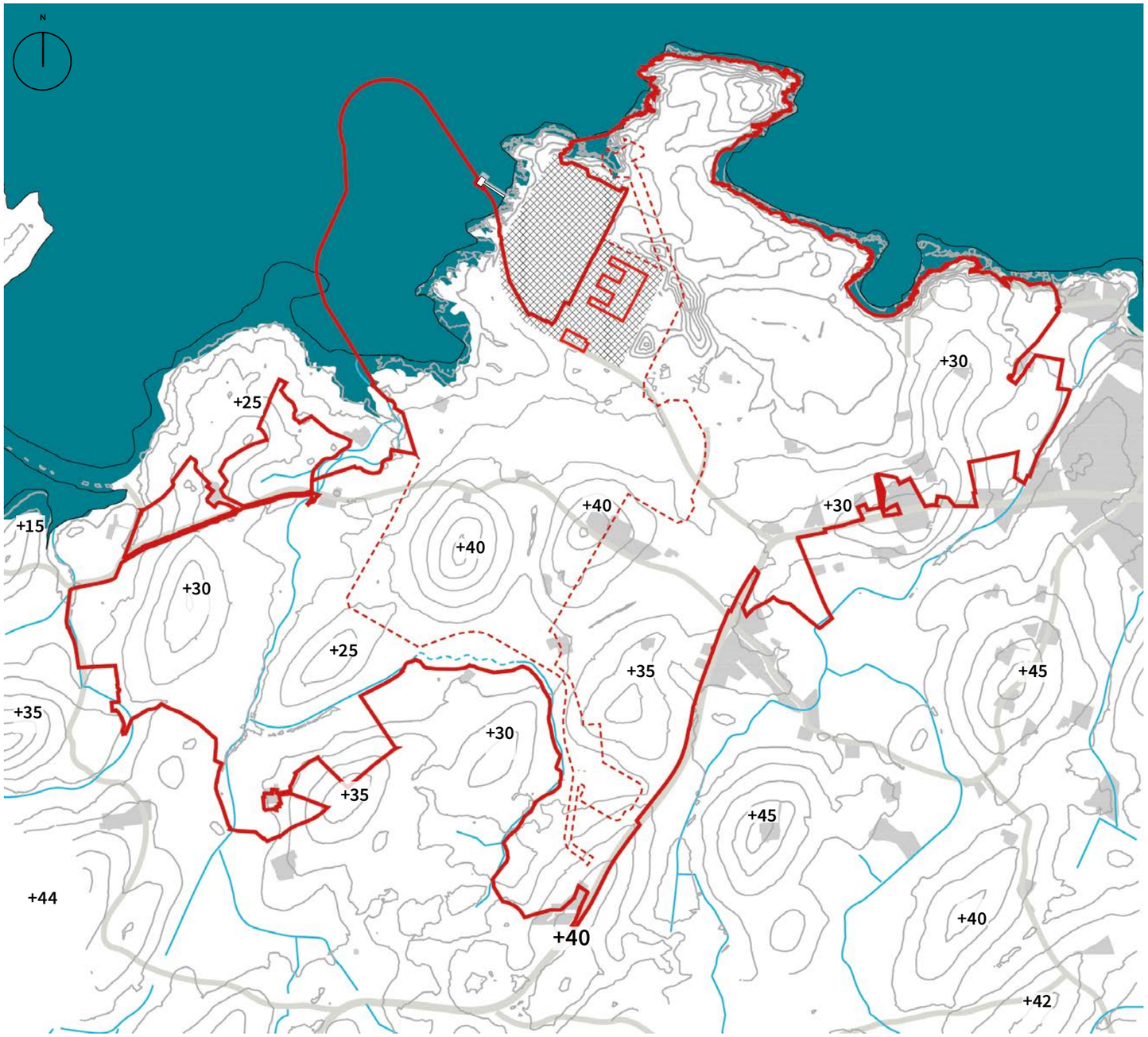
6.3.4 The heights and gradients should be designed to be in keeping with those in the immediate surrounding landscape, where the local drumlin forms generally range between 30-45m AOD refer to figure 6-4. As such it is proposed that new drumlin heights would generally range between 30-45m AOD. This would not only be reflective of the local landscape context but would also deliver effective noise and visual screening.

6.3.5 Figure 6-5 illustrates the areas available for new landform including the buffer zone constraints imposed by the overhead power lines and SSSI.

6.3.6 Slope gradients for the new landforms should be designed to be in keeping with the existing ones which typically range between 1 in 7 and 1 in 22 within the WNDA, with the majority falling between 1 in 8 and 1 in 12. These factors along with the north to north east aligned and broadly oval shaped existing mound profiles, should be used to influence the landform design to ensure that the final scheme looks and feels at home in its surroundings.

6.3.7 In terms of phasing the most westerly and easterly landforms (Mounds A and E) would have been implemented during the construction phases. During the final restoration phase the construction laydown areas will be removed and three new mounds created in their place. Mounds A and E will be shaped to their final height to create the final landform.

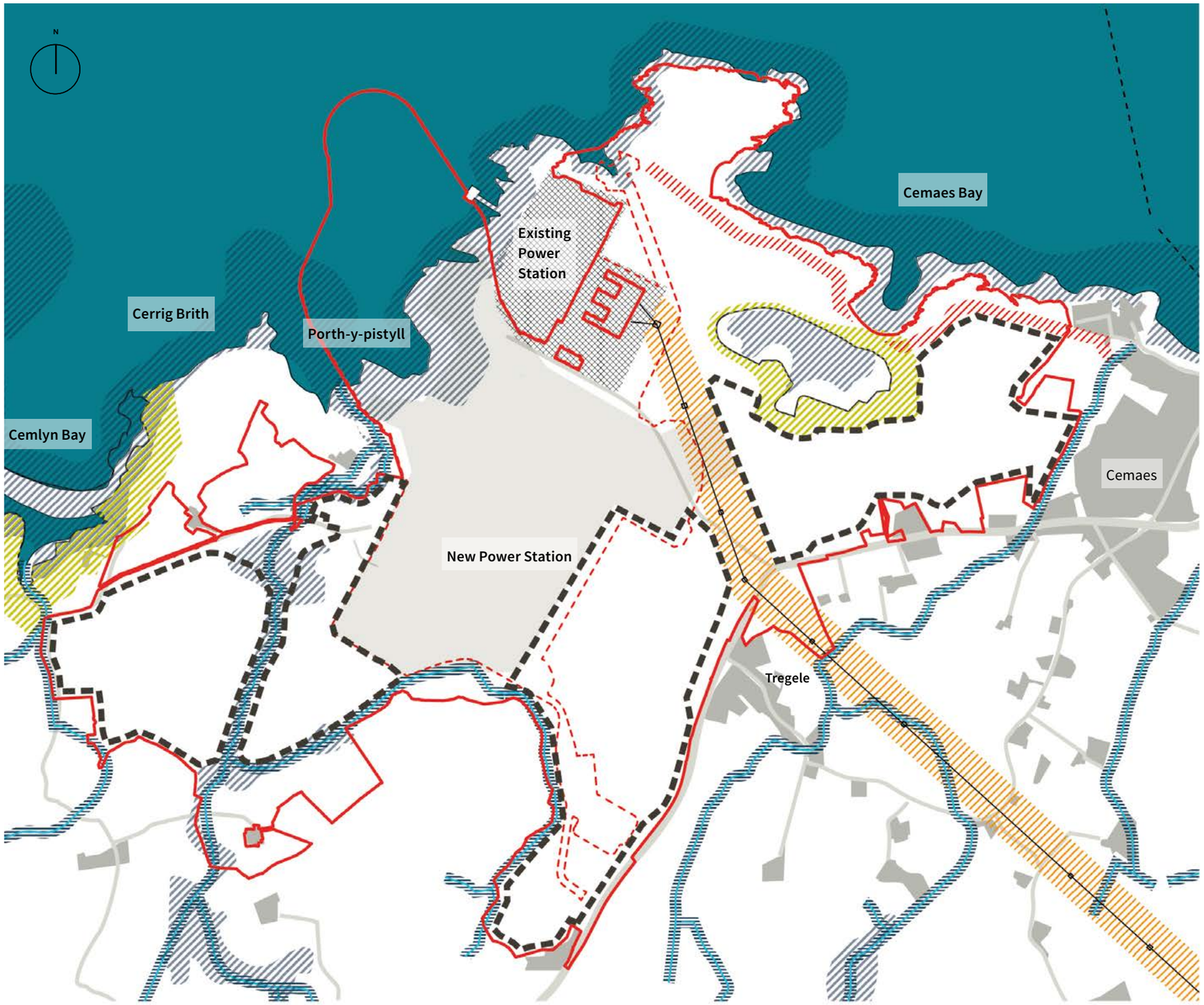
6.3.8 The completed landscape design would create a naturalistic setting and gradually sloping landforms to complement the existing context and surrounding areas as shown in figure 6-6.



Legend

- Wylfa Newydd Development Area
- Power Station Site
- Buildings and settlements
- Roads
- Watercourse
- Contours (2,5m equidistance)
- +39 Existing levels

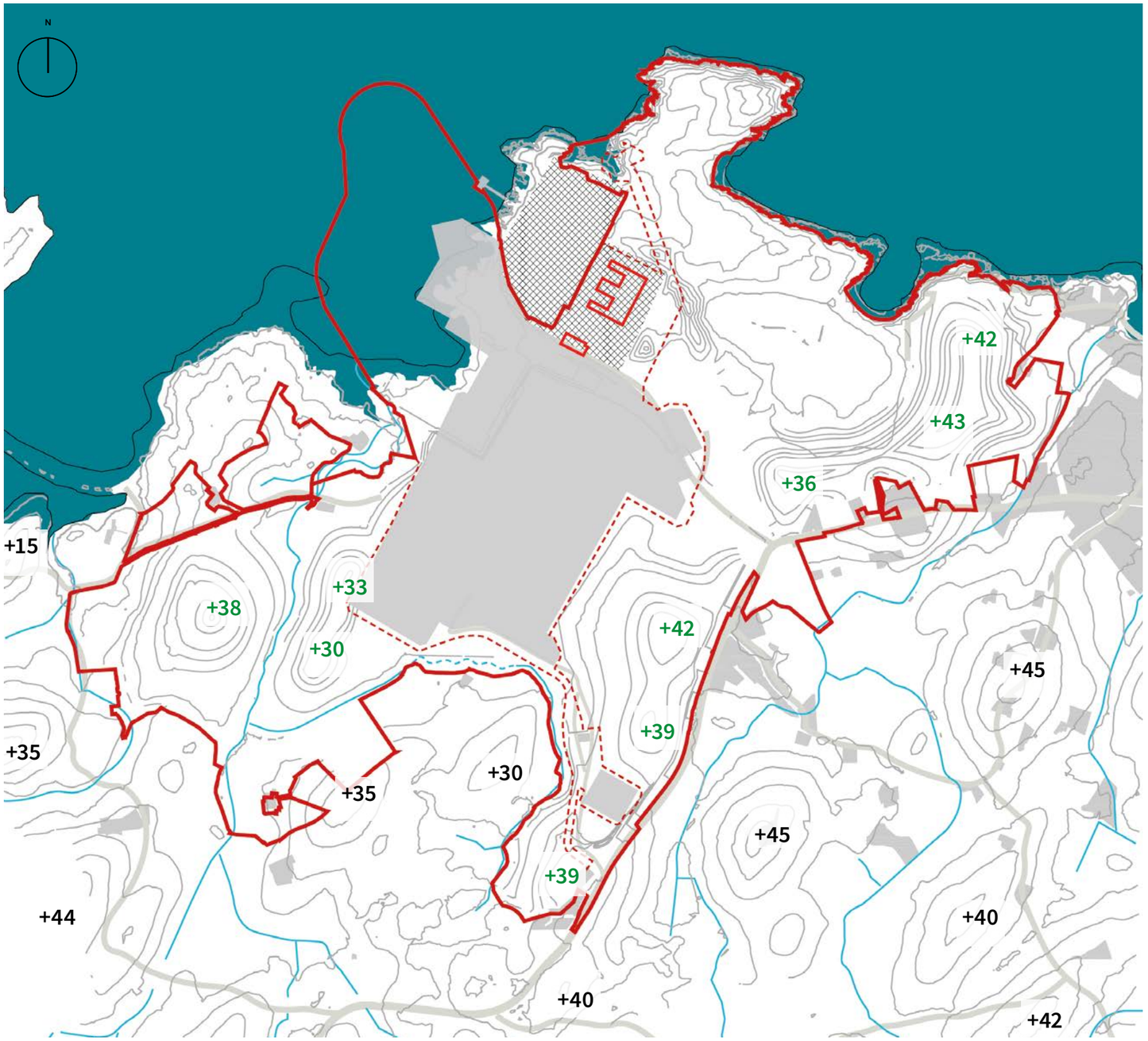
Figure 6-4 Existing contours



Legend

- Wylfa Newydd Development Area
- Settlements and buildings
- Watercourses
- Roads
- Land available for landform
- Overhead Buffer zone / Easement
- Riser Main Buffer zone / Easement
- SSSI Buffer zone / Easement
- Flood zones B and C
- 15m Watercourse Buffers

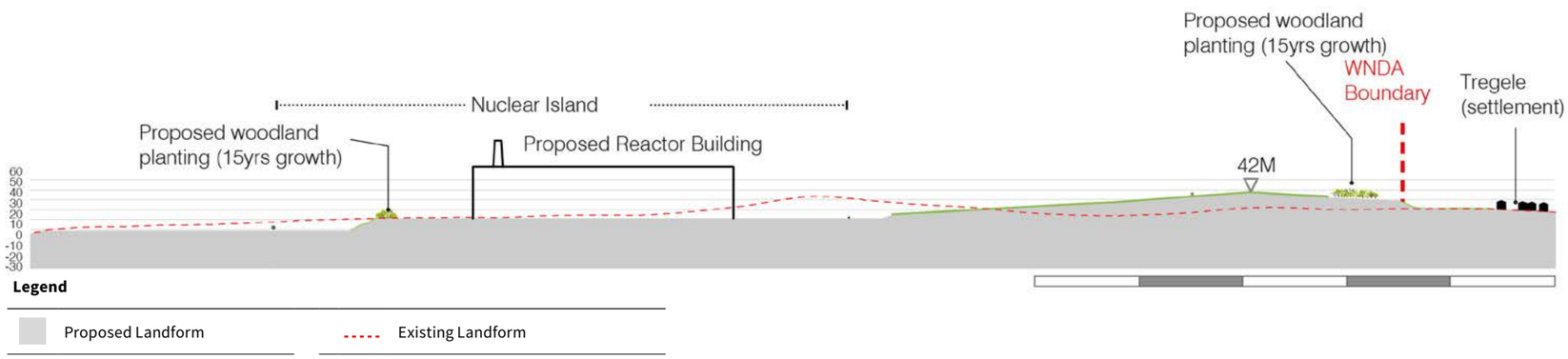
Figure 6-5 Land available for landform



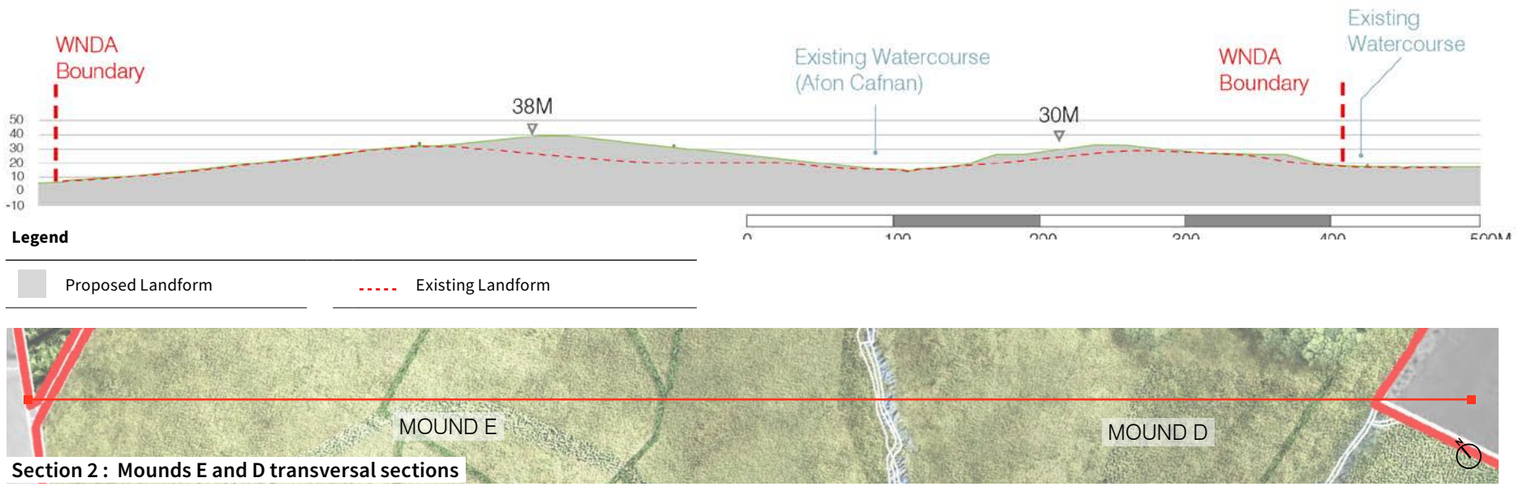
Legend

- Wylfa Newydd Development Area
- Power Station Site
- Buildings and settlements
- Roads
- Watercourse
- Contours (2,5m equidistance)
- +39 Existing levels
- +33 Proposed levels

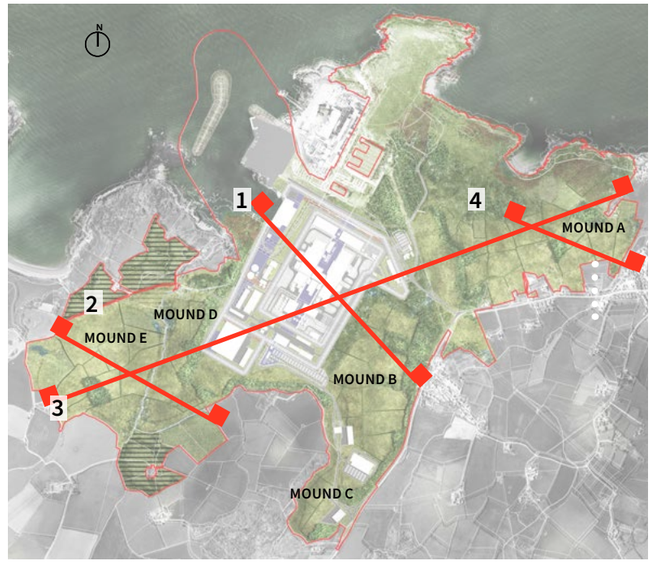
Figure 6-6 Illustrative plan of final contours



Section 1 : Mound B transversal section



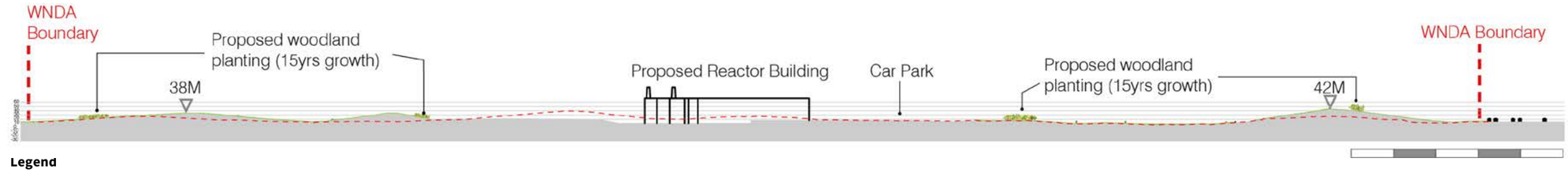
Section 2 : Mounds E and D transversal sections



Location plan

IMAGE SOURCED FROM GOOGLE

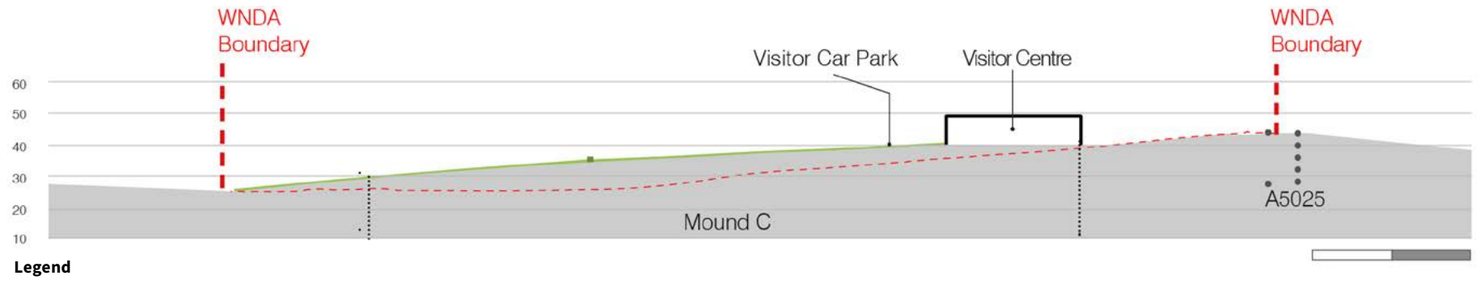
Figure 6-7 Illustrative sections through landform on restoration 1 of 4



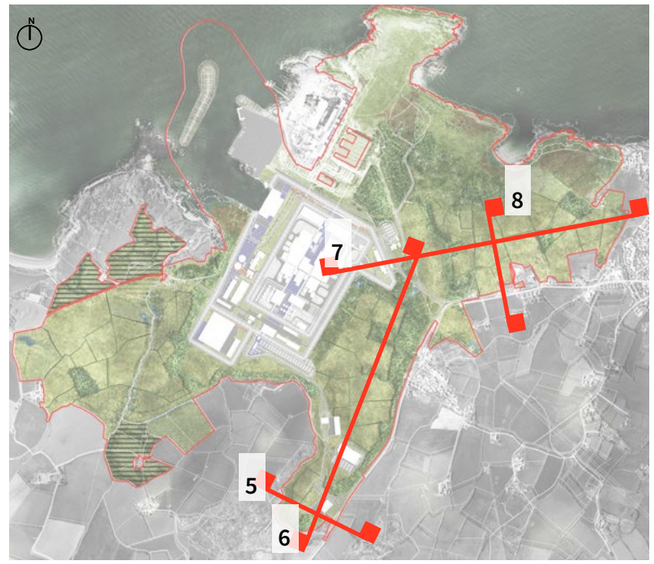
Section 3 : Mounds A, D and E section

Section 4 : Mound A transversal section

Figure 6-8 Illustrative sections through landform on restoration 2 of 4

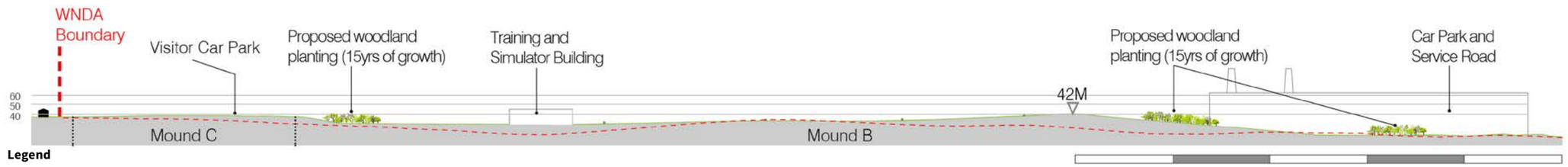


Section 5 : Mound C transversal section



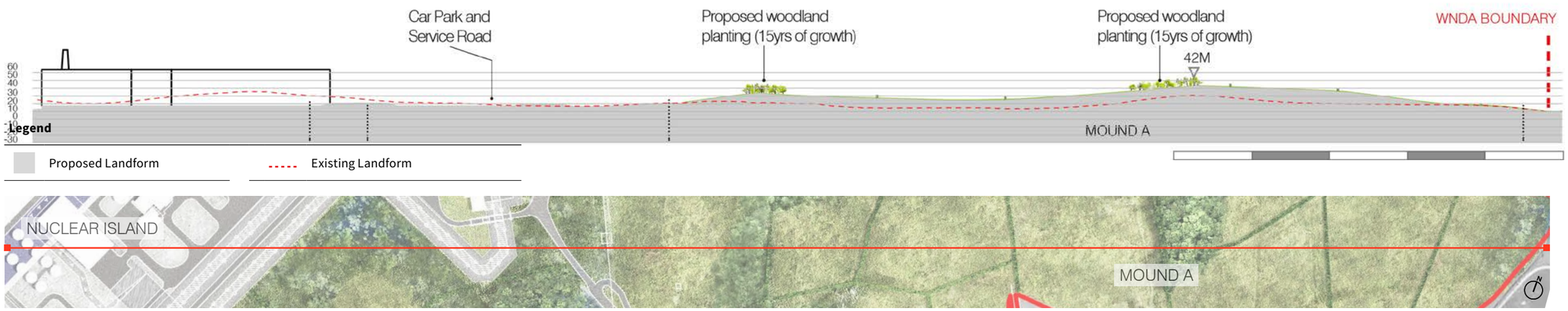
Location plan

IMAGE SOURCED FROM GOOGLE

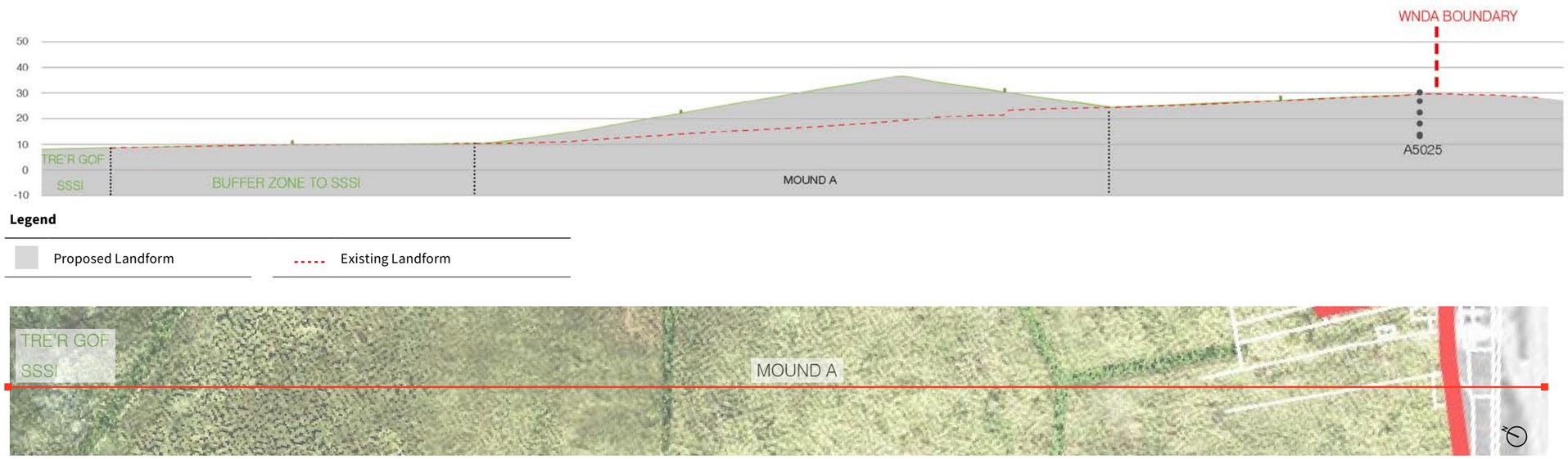


Section 6 : Longitudinal section

Figure 6-9 Illustrative sections through landform on restoration 3 of 4



Section 7 : Mound A longitudinal section



Section 8 : Mound A transversal section

Figure 6-10 Illustrative sections through landform on restoration 4 of 4

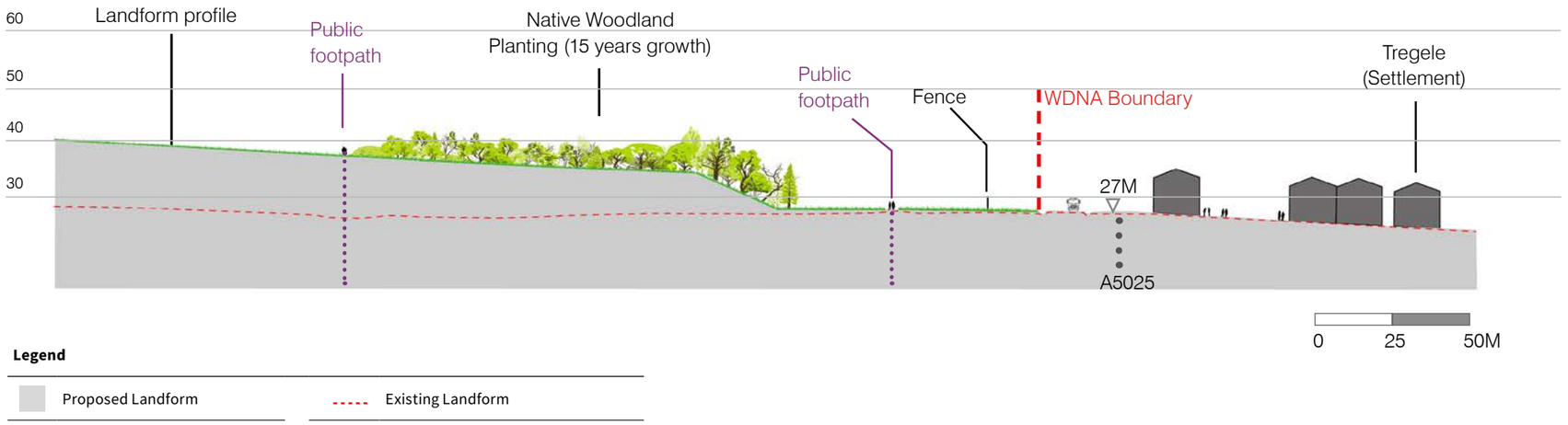
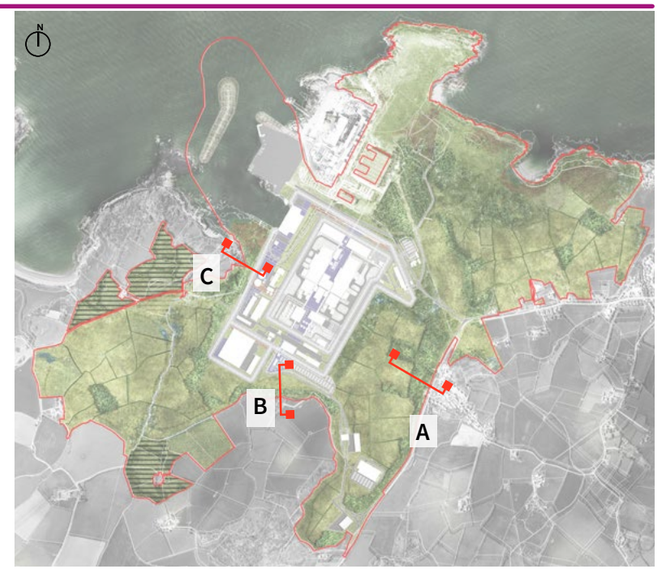


Figure 6-11 a – Illustrative section of proposed planting screening along the A5025 near Tregele



Location plan

Figure 6-11 b – Illustrative proposed planting screening near the watercourse diversion

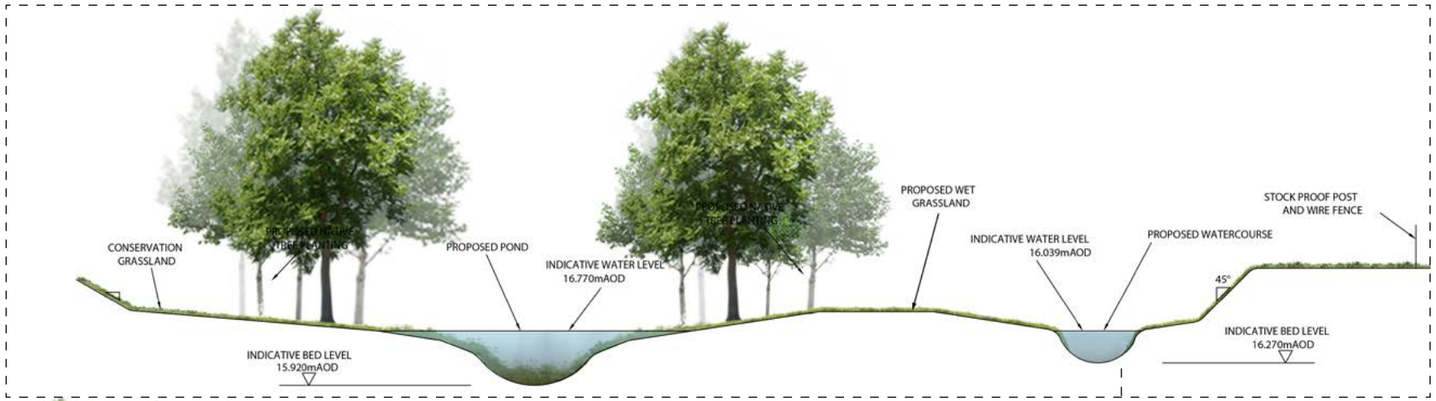
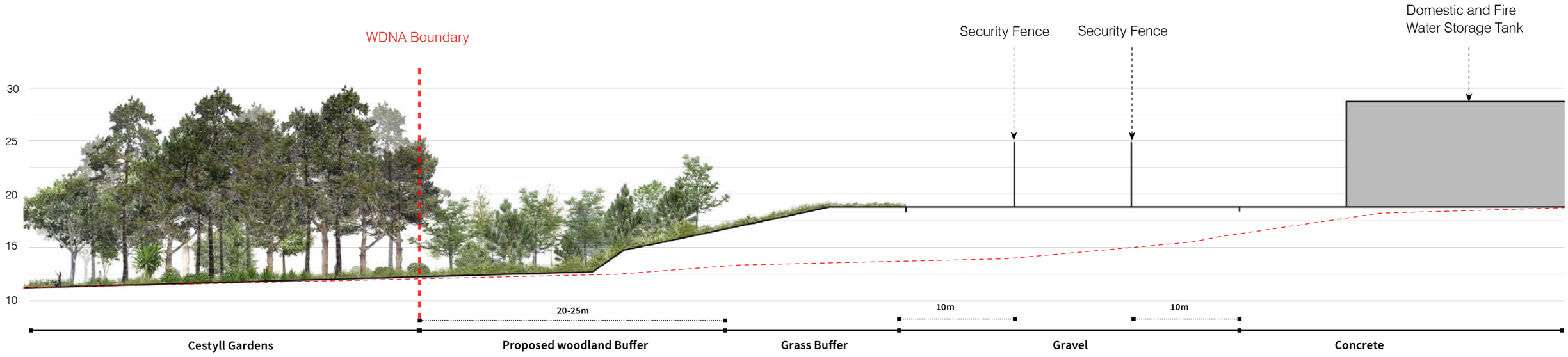


Figure 6-11 Illustrative sections through proposed planting screening

Location plan

IMAGE SOURCED FROM GOOGLE

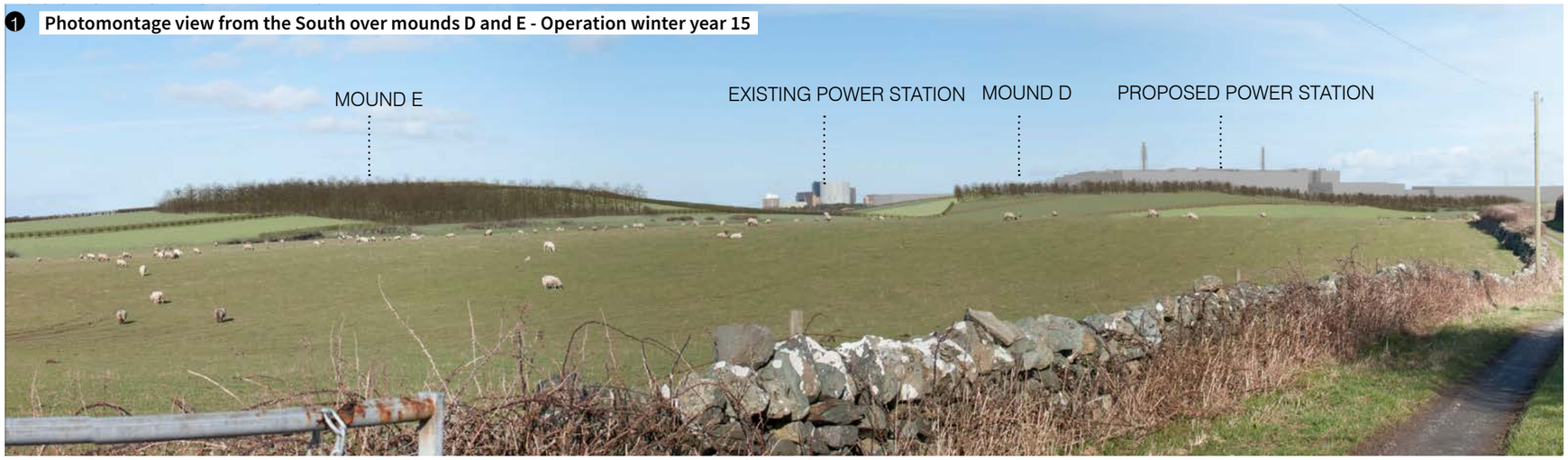


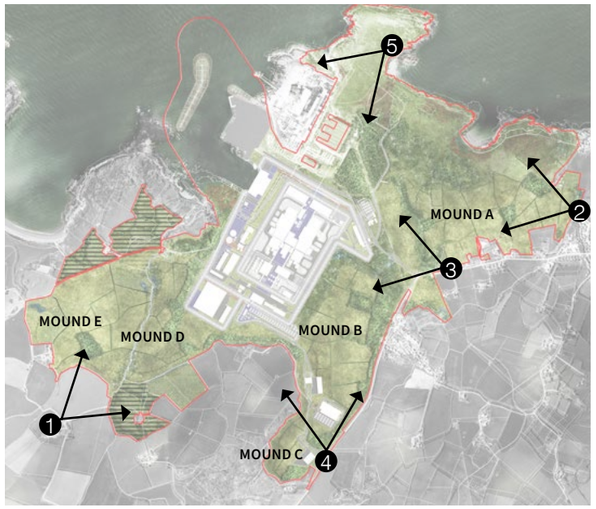
Legend

Existing Landform

Figure 6-11c – Illustrative proposed planting screening near Gardens

❶ **Photomontage view from the South over mounds D and E - Operation winter year 15**

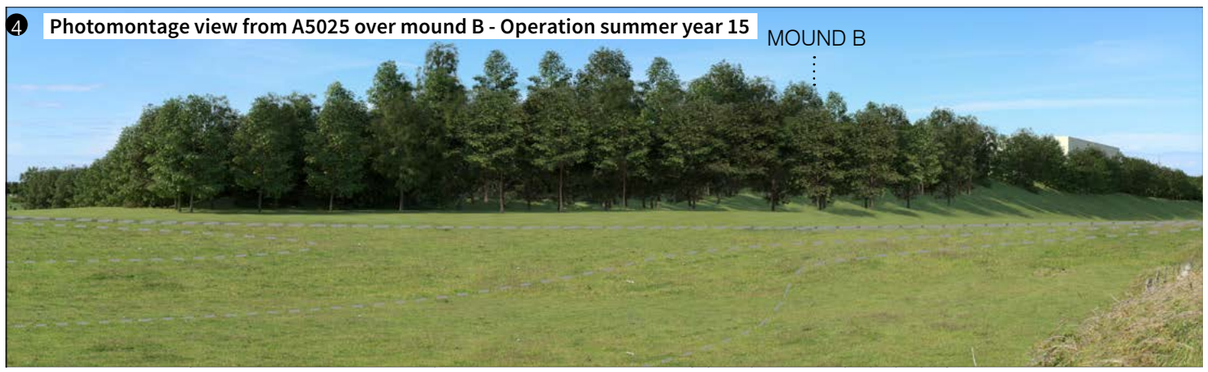




❷ **Photomontage view from Cemaes over mound A - Operation winter year 15**

❸ **Photomontage view from A5025 near Cemaes- Operation summer year 15**

❹ **Photomontage view from A5025 over mound B - Operation summer year 15**



❺ **Photomontage view from Wylfa Head - Operation winter year 15**

Figure 6-12 Photomontage views of the restored landscape

MOUND A

6.3.10 The illustrative landform proposal for Mound A seeks to deliver early landform completion to the slopes immediately to the west of the local settlement at Cemaes and to the slopes facing the Tre `r Gof SSSI in order to deliver enhanced screening in these sensitive locations early in the construction period. The design would increase the height of the existing mound to the west of Cemaes by approximately 10m from circa 32 to 42m AOD. Slope gradients would be similar to the existing drumlins in the area, ranging between 1 in 6 to 1 in 9. It is anticipated that the addition of approximately 10m height to the existing landform to the west of Cemaes would provide significant screening of the new development, including the upper portions of the main reactor buildings with only the tops of the 75m high stacks or their plumes potentially remaining visible.

6.3.11 At the end of the construction period, the temporary contours in southern part of Mound A would be reduced to create new mounds on the construction platform areas. The height of the southern part of Mound A would drop from circa 42m during construction to heights ranging between 33m AOD to 36m AOD, with slope gradients slackening.

6.3.12 On completion of construction the vegetation established early in the construction period on the final contours in the northern part of Mound A would be well established. The newly completed southern section of the mound would be planted. New sediment ponds would be located in and around Mound A hosting marshy wet grassland and or plants with filtering properties.

6.3.13 The planting strategy for the area would provide species rich grasslands and field boundary hedges which would match existing patterns and styles, with native woodland copses planted to the top of the drumlin to reflect existing patterns and to enhance screening value in the long term.

MOUNDS B AND C – TO THE WEST AND SOUTH WEST OF TREGELE

6.3.14 At the end of construction the platform areas would be returned to drumlin landforms. The early mound formed and planted at the beginning of the construction period to the immediate west of Tregele, running along the A5025 and rising to circa 7m above the existing local level to provide instant screening to the construction lay down areas, would be backfilled retaining the initial screen mounding and vegetation facing Tregele. This would form part of the ultimate new drumlin forms, with the initial screen mounding vegetation having matured by 6 years growth.

6.3.15 The illustrative final landform design for Mounds B and C reflects the existing heights and slopes of the landforms in this immediate area, creating two new localised drumlin forms either side of the new access road which would rise to circa 42m AOD immediately opposite Tregele and circa 39m AOD to the southwest, with side slopes ranging between 1 in 11 to 1 in 22. The new mounds would provide both visual screening and noise reduction to the adjacent settlement of Tregele with new landform with ground levels significantly higher than the existing ones.

6.3.16 New sediment ponds will be provided within the mound areas which will host marshy wet grassland and or plants with filtering properties, with species appropriate to the locality, improving biodiversity and forming part of a network of wildlife corridor links.

6.3.17 The new drumlin landforms would host a mixture of uses including agricultural pasture and new habitat, with new hedgerow field divisions to match the existing and significant new woodland planting along the Tregele facing edges to help screen the new development, which will lie around 500m from the edge of the settlement.

MOUND D – TO SOUTH WEST OF THE POWER ISLAND

6.3.18 The illustrative final landform proposals for Mound D aim to create a similar shaped landform to the existing, increasing the height from circa 25 to 33m AOD with the landform designed to be in keeping with the scale and nature of the adjacent AONB. This landform would wrap around the south west corner of the new development site and would generally help to protect views into the site from the south which would include the spent fuel storage area. The views would be from a number of sporadic properties and farmsteads as well as longer range views from the south enjoyed from PRoW. The increased height would steepen the slopes to between 1 in 6 and 1 in 10.

6.3.19 The new drumlin would be planted with new hedgerows to enclose agricultural fields closely following the existing patterns with new blocks of woodland planting proposed to the upper slopes and development facing boundary to enhance screening value. There is an opportunity to enhance the river corridors biodiversity in this location with new marsh / wetland orientated habitat. New sediment ponds would be created within the Mound D area close to the Afon Cafnan watercourse, which will host wetland grasses and or plants with filtering properties with species appropriate to the locality, improving biodiversity. This mound would also host coarse sward species / rich grassland as part of the wider linked mosaic of habitats previously described.

MOUND E – TO THE SOUTH WEST OF POWER ISLAND ADJACENT TO CEMLYN BAY

6.3.20 Mound E falls within the boundary of the AONB an area of high landscape sensitivity. The area is surrounded by other drumlin forms which are circa 25m, 35m and 40m AOD. There are limited footpaths / PRoW in this area but the site skirts the Copper Trail in the north-west and is close to the Wales coast path and the Cemlyn Bay SAC/SPA and SSSI. As such it is a highly protected and sensitive area.

6.3.21 At the end of the construction period, the temporary contours in Mound E would be reduced to provide material for Mounds B,C and D and the final landform created. The illustrative proposals for Mound E create a very similar shaped landform to the existing, increasing the height from 30m to 38m AOD which is not out of context with the surrounding drumlins. This landform would help to screen the development from the coastal path and better integrate the development into the landscape, helping to protect views of the main and ancillary buildings into the site from the south and west. The increased height would steepen the side slopes to 1 in 9 with the long slopes at 1 in 15, with the slacker slopes facing the sensitive AONB area.

6.3.22 Field boundaries on the drumlin would be defined by a combination of dry stone walls, cloddiau and hedgerows, the latter planted to match those existing, with woodland planting located around the lower slopes to enhance screening and local biodiversity value. Woodland is more sparse in this area and this should influence the design replicating as far as possible the existing conditions as the area falls within the AONB. There is also an opportunity to enhance the river corridors biodiversity in this location with new wetland orientated habitat around the Afon Cafnan watercourse. New sediment ponds would be created in this mound area, two to the east, adjacent to the Afon Cafnan watercourse and a further pond to the north-west boundary of the mound. All would be planted with wetland grasses and or plants with filtering properties with species appropriate to the locality. The remainder of the mound would be managed using agricultural practices to generate a diverse mosaic of coarse sward / species-rich grassland.

HYDROLOGY

6.3.23 The proposed development will alter existing drainage catchment characteristics through the construction of platforms to accommodate the new power station, associated infrastructure and new earthwork mounds. A surface water management scheme will be provided as part of the final landscaping scheme proposals. This aims to maintain an overall surface water balance within existing drainage catchments with key focus on minimising impacts to the SSSIs and European designated sites located within, or close to, the development area. Alongside maintaining the surface water balance within the WNDA, there is also the requirement to maintain water quality.

6.3.24 Each of the proposed five mounds would have an associated drainage system and outfalls would discharge into the existing aquatic environment. Surface water runoff would be collected using a system of open ditches and swales. Where swales can be used, they will be constructed with a french drain below to improve silt capture efficiency and capacity. The sedimentation ponds would be designed to receive runoff generated in a 1 in 100 year storm event with an additional 20% climate change factor. Sedimentation ponds would be designed to achieve a more natural appearance for the final landscape scheme, in keeping with the local landscape character.

6.3.25 Increased levels of sediment suspended within surface water runoff would be the main source of risk to watercourses during the construction stage and will remain so until vegetation becomes established and matures on earthwork mounds. The proposed drainage system will be of low maintenance, although sediment loads during the construction stage will influence the frequency of maintenance required. Regular inspection would be required to monitor sediment build-up that could have an adverse effect on the efficiency of the system. Notwithstanding this, the frequency of maintenance, including sediment removal requirements, would reduce over time as vegetation on the mounds becomes established and matures.

6.3.26 The phased nature of the earthworks means that some of the ditches and swales created during the construction phases would be temporary with the final system being installed on completion of the final contours. In some locations it is likely to be necessary to use accelerated plant establishment techniques such as hydroseeding, or impregnated matting, to reduce the likelihood of sediment runoff from un-vegetated surfaces.

6.3.27 In terms of post-construction design, it is proposed that all completed mound slopes would be grassed / vegetated with the overall SuDS principle remaining unchanged, whereby ditches will remain connected to sedimentation ponds. Temporary measures such as silt fences, curtains etc. and dosing installations would be removed as vegetation becomes established and monitoring confirms its effectiveness. The small stretch of the Afon Cafnan tributary that was realigned during the site clearance works and planted would be well established.

6.3.28 During the operational phase the ditches, swales and ponds would become attractive features of the new landscape and valuable wildlife habitat for otter, water voles and a wide variety of other wildlife. Vegetation to the watercourses may either be established through natural colonisation or in some instances through planting or seeding following completion of the final earthworks. These habitat features will be further augmented by the creation of nine additional wildlife ponds at appropriate locations within the WNDA.

6.3.29 To prevent increase in flow of Nant Cemaes during the operational phase, the detailed design will consider options to increase infiltration, minimise catchment area increase from the change in landform, reducing flow path slopes and if necessary, provide further attenuation and divert flow to a different less sensitive discharge point.

6.3.30 Additionally permanently damp hollows and seasonal pools would also be created at appropriate locations across the WNDA.

Legend

- Wylfa Newydd Development Area
- Watercourse
- Watercourse Diversion
- Proposed marshy grassland
- SSSI Wetland
- Alignment indicative of existing surface water drainage ditch
- Proposed permanent swale/ditch
- Existing wetland / marshy grassland
- Proposed sedimentation pond
- Proposed wildlife pond

IMAGE SOURCED FROM GOOGLE

Figure 6-13 Proposed hydrology

Figure 6-14 a. Typical plan of a sedimentation pond

Location plan

IMAGE SOURCED FROM GOOGLE

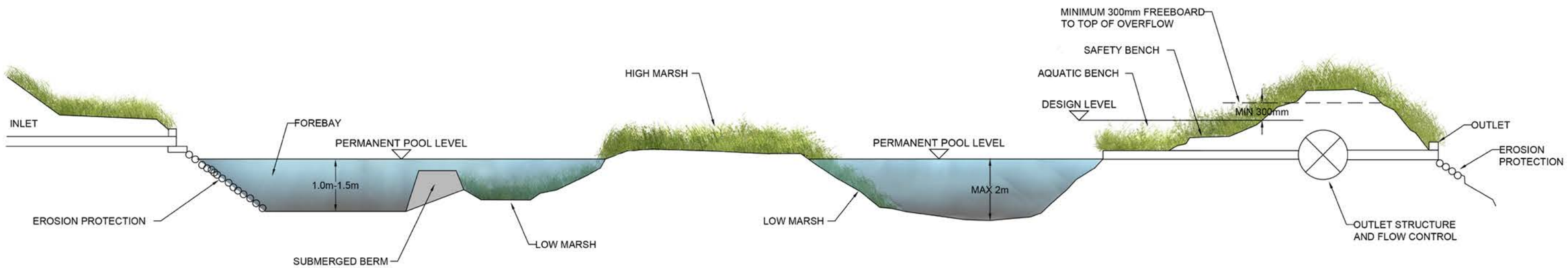


Figure 6-14 b. Typical section of a sedimentation pond

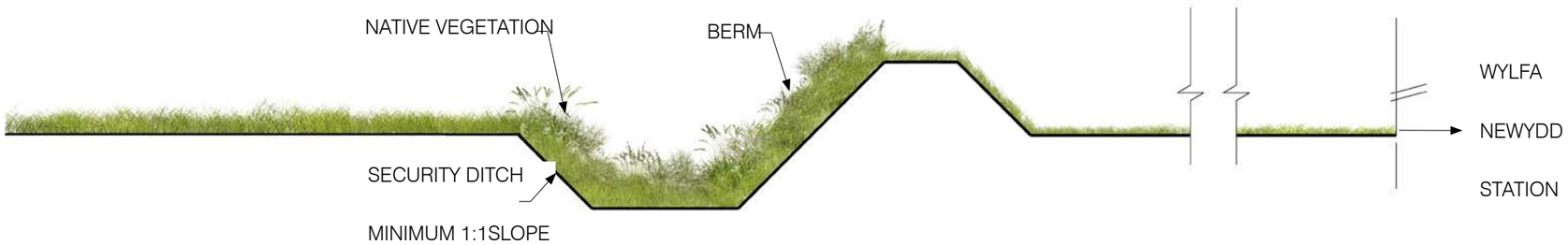


Figure 6-14 c. Section 1 - Security Ditch

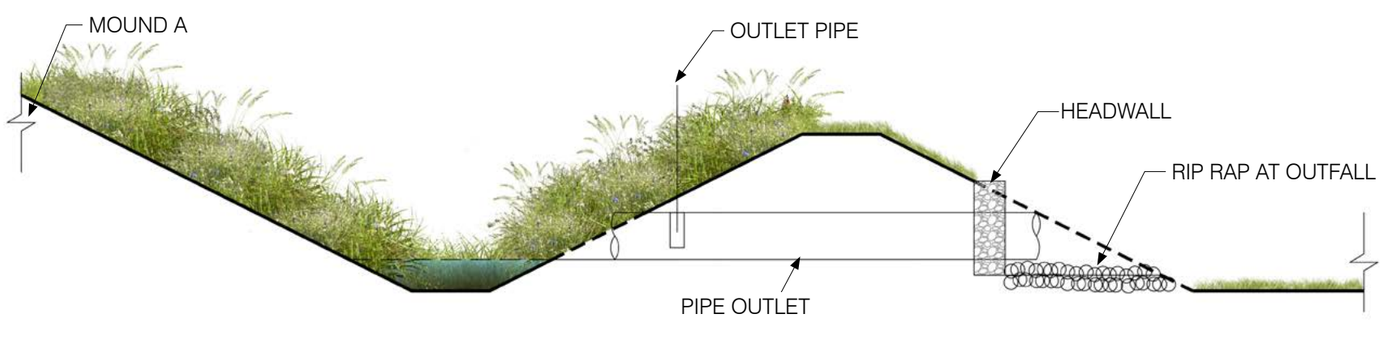


Figure 6-14 d. Section 2 – Mound A (Tre'r Gof) toe ditch

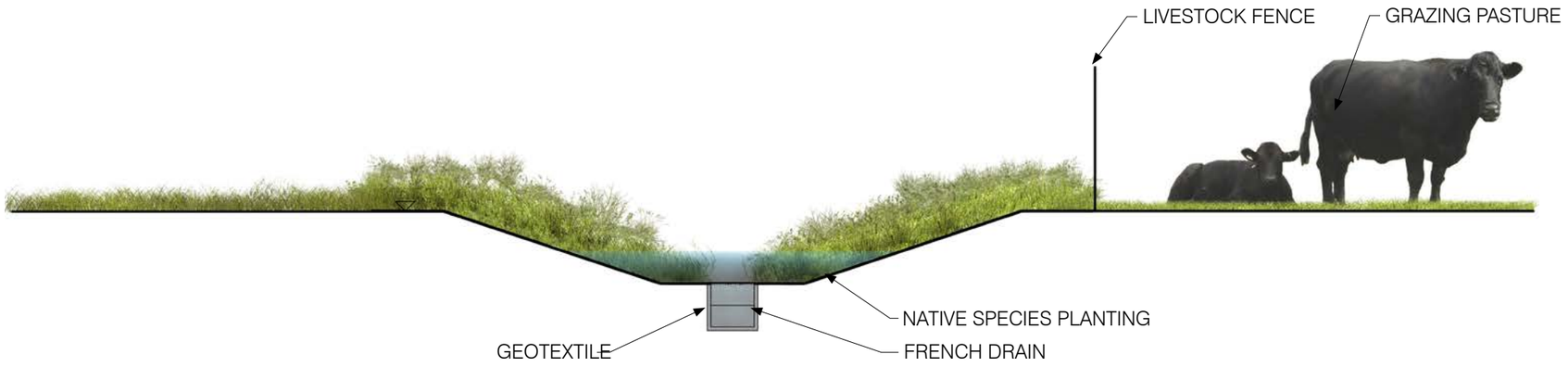


Figure 6-14 e. Typical section on a swale

Location plan

IMAGE SOURCED FROM GOOGLE

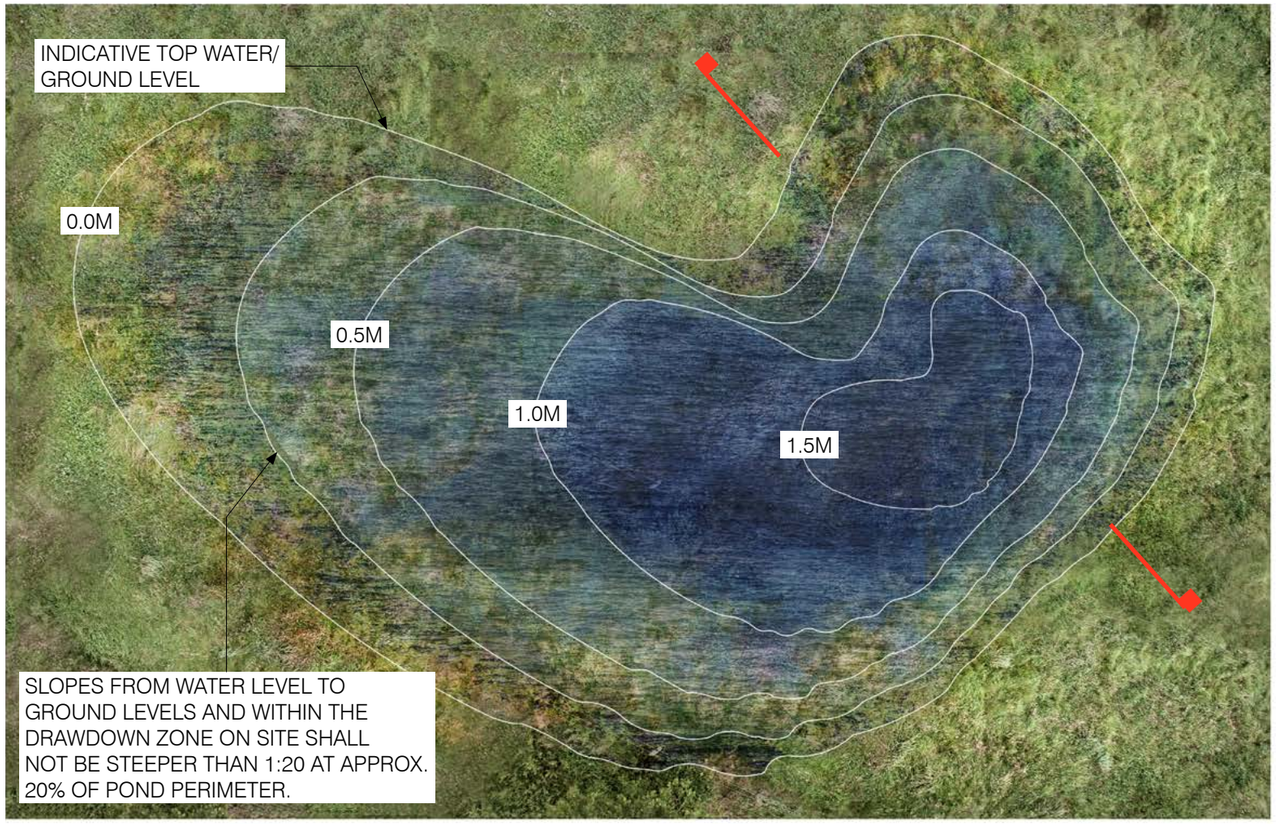


Figure 6-14 f. Typical plan of a wildlife pond

Location plan

IMAGE SOURCED FROM GOOGLE

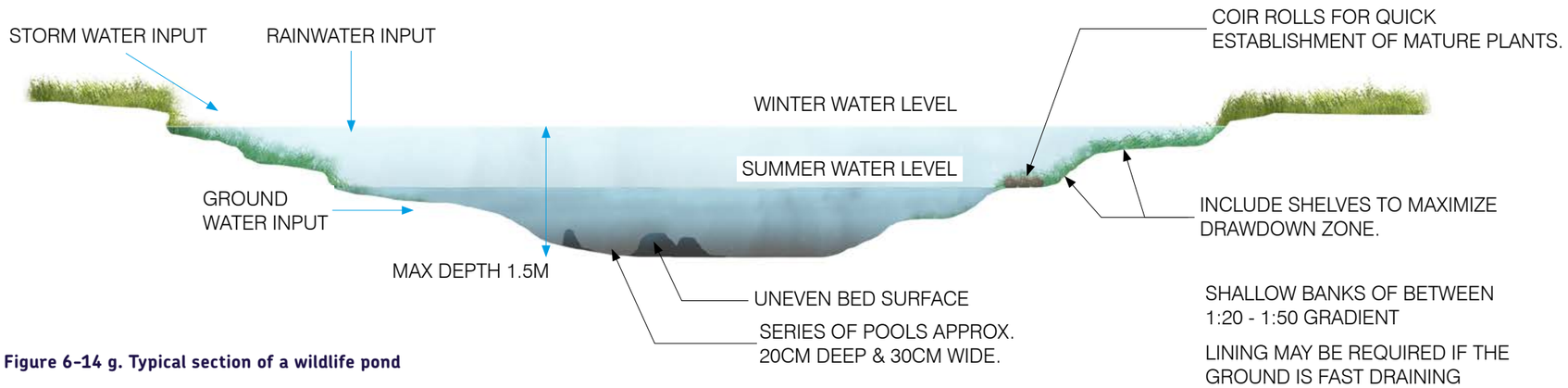


Figure 6-14 g. Typical section of a wildlife pond

6.4 NEW AND EXISTING BOUNDARY FEATURES

6.4.1 Existing boundary features would be retained on the edge of the WNDA where possible, including hedgerows, stone walls, and cloddiau. Enhancement of these existing landscape features would reinforce local landscape character and help integrate the proposed development into its surroundings. It would also help to maintain habitat connectivity.

6.4.2 Dry stone walls to the perimeter of the site would be repaired, using local stone and traditional techniques to enhance the distinctive character of the area, for example as shown on Figure 6-15.

6.4.3 Cloddiau are a unique feature of the Welsh landscape and also characteristic of the WNDA. The condition of many cloddiau is poor, with many overgrown or surviving only as remnants. As part of the landscape strategy for the WNDA, the existing cloddiau would be enhanced using local materials and techniques where practical, as shown in the examples in Figure 6-16.

6.4.4 Figure 6-17 illustratively shows the creation of a new field pattern that reflects the surrounding area, using a combination of hedgerows, dry stone walls and cloddiau. Approximately 10km of new field boundary will be created in total.

6.4.5 New hedgerows/cloddiau should contain at least five native woody species within per 30m length, with abundant thorny species to facilitate livestock control. No more than 10% of the hedgerow length should be occupied by gaps and no one gap should be greater than 5m wide (excluding access points and gates). Cover of injurious/agricultural weeds will be kept below 5%.

6.4.6 The creation of field boundaries will help to restore and enhance habitat connectivity across the WNDA. This will benefit a range of species, including bats through the provision of bat commuting corridors between the existing and proposed bat barn locations. Planting of the field boundaries using a diverse range of native species of local provenance will encourage use by invertebrates and birds. South-facing field boundaries will enhance the availability of warm microhabitat for basking opportunities for reptiles.

Figure 6-15 Dry stone walls and cloddiau

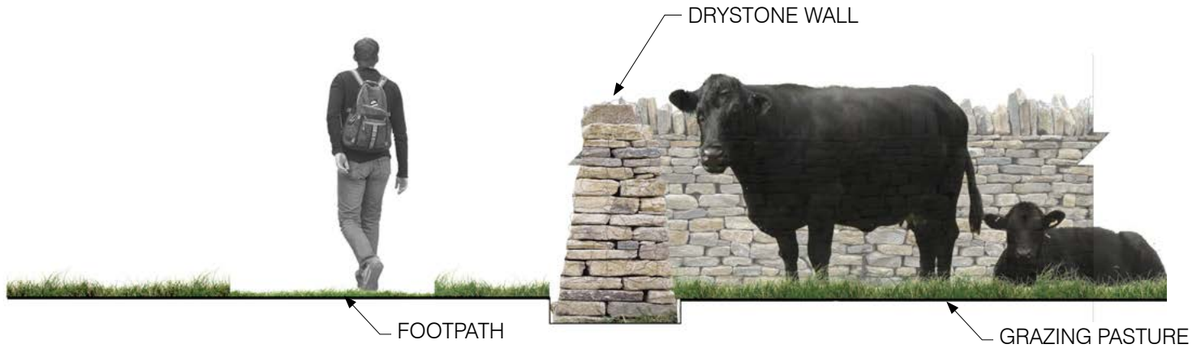


Figure 6-16a Typical section on a dry stone wall

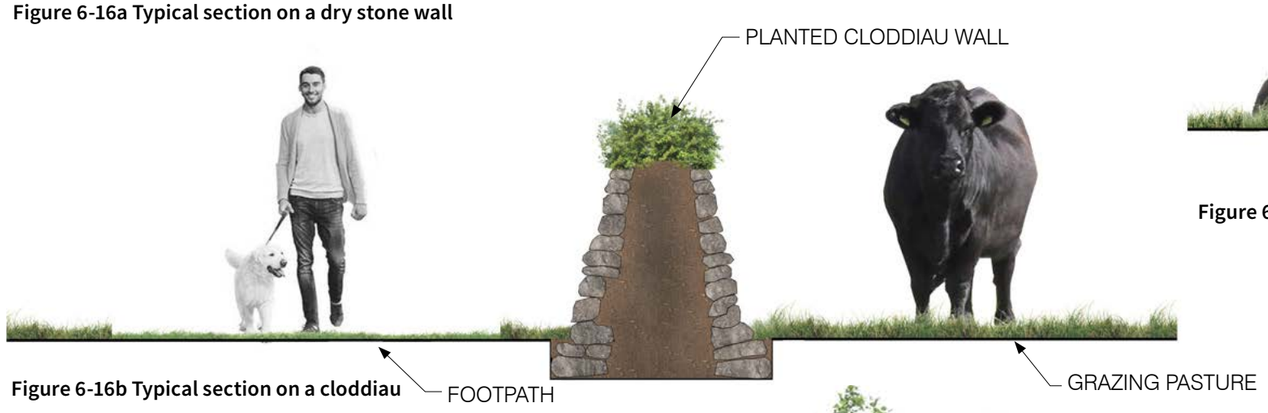
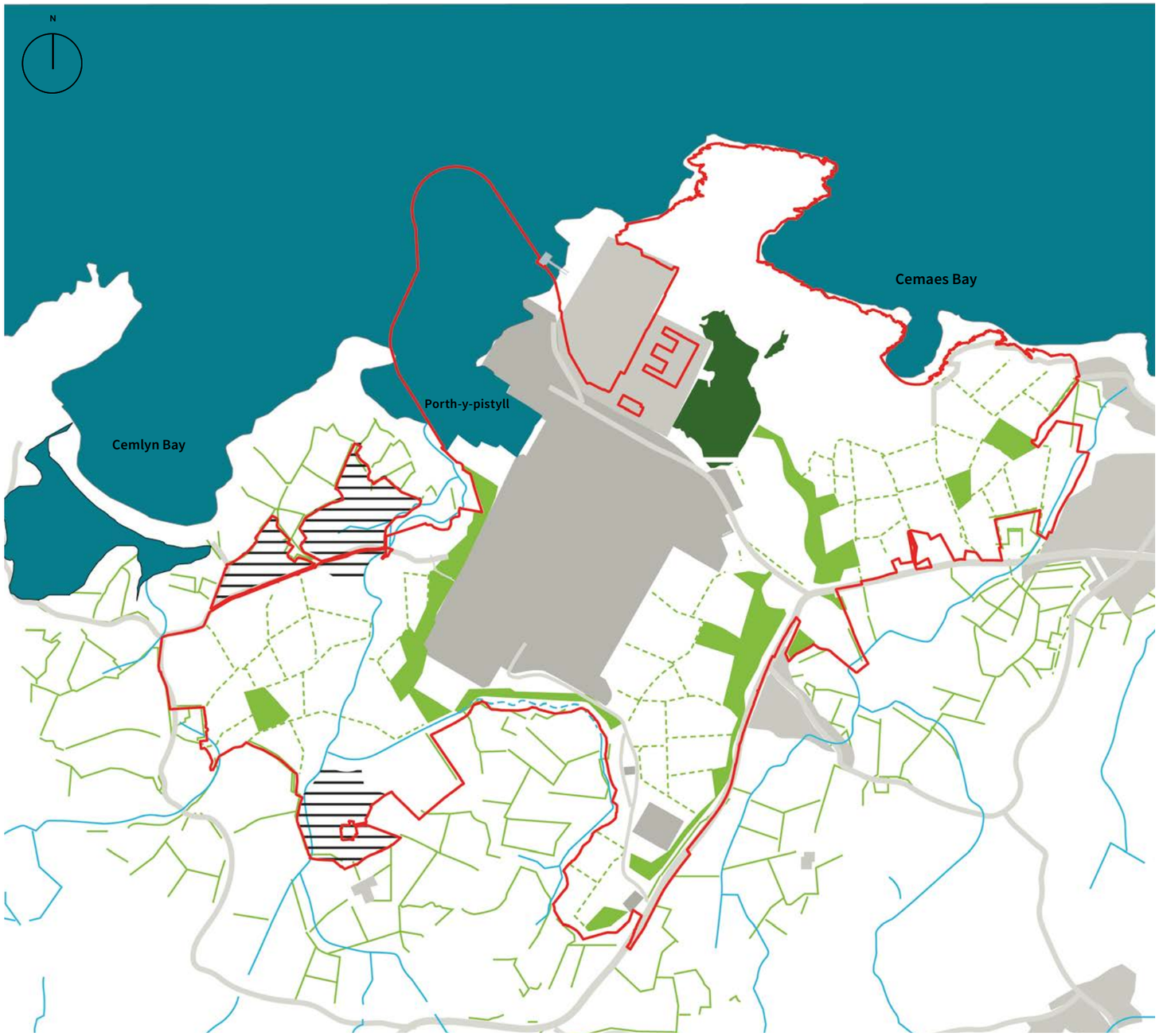


Figure 6-16b Typical section on a cloddiau

Figure 6-16d Typical section on a field hedge

Figure 6-16 Proposed illustrative boundary treatments



Legend

- Wylfa Newydd Development Area
- Roads
- Buildings and settlements
- Existing field boundary
- Proposed new field pattern
- Existing woodland
- Proposed woodland
- Area no longer under Horizon's control at this stage

Figure 6-17 Proposed illustrative field boundaries

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6.5 HABITATS CREATION AND WILDLIFE CORRIDORS

GRAZING LAND

6.5.1 The composition of the Anglesey landscape consists not only of its distinct 'basket of eggs' topography, but also the complex field patterns which enclose the agricultural landscape and overlay the topography. Following the completion of earthworks, much of the WNDA surrounding the Power Station Site would be restored to agricultural land use. This approach would reflect the character of the surrounding area, including reinstatement of a field pattern, using traditional boundary features as set out earlier in this section. This restoration would help to integrate the Power Station into the surrounding rural landscape.

6.5.2 The use of traditional agricultural practices, such as grazing and summer hay cutting, will provide a pragmatic means of delivering the desirable long-term aesthetic, contextual and ecological benefits.

6.5.3 A key aspect of the management approach is the selection of appropriate grazing regimes to deliver the desired grassland habitats. The category of grassland desired, the species involved and the underlying soil conditions (e.g. fertility and depth) will dictate the appropriate intensity of grazing. Annual reviews of grazing regimes will also need to be undertaken to establish appropriate stocking densities and timings relative to the desired grassland sward. Following the detailed landscape design, detailed grazing regimes will be set out in the relevant subsidiary site-specific landscape and habitat management schemes (see Section 7).

6.5.4 The use of insecticides within the grazing land will need scrutiny to avoid a reduction in invertebrate prey availability for chough and other insectivorous animals. Grazing animal husbandry will also need to avoid the use of worming treatments and other drugs that adversely affect dung invertebrate fauna.

6.5.5 The distribution of grazing land across the WNDA landscape will facilitate movement of species which use open habitats within the WNDA and between the WNDA and adjacent grassland areas, as illustrated in Figure 6-22

6.5.6 Grazing land will be divided into the following five broad categories.

CLOSE SWARD SPECIES-RICH GRASSLAND

6.5.7 Approximately 40ha (equivalent to approx. 6% of the WNDA) of species-rich grassland with a close sward (i.e. generally no higher than 50mm) will be created and managed along the coast between Wylfa Head and Porth Wylfa. This area will be managed to provide suitable habitat to support breeding and non-breeding chough and will comprise assemblages of native species (MC8, MC9 and MC10 NVC communities) of local provenance with no invasive non-native species of plant. Wildflower and sedge cover will exceed 20% throughout the sward and total cover of injurious agricultural weeds will not exceed 5%. Bare ground will make up less than 10% of the total area.

COARSE SWARD / SPECIES-RICH GRASSLAND

6.5.8 A diverse network of approximately 75ha of species-rich / coarse sward grasslands will be created and managed across the WNDA (equivalent to approx. a third of the total area). The grassland will be managed to promote a structurally diverse habitat suitable to support bats, reptiles, great crested newt and a wide variety of other species, providing a mix of open habitat and vegetation cover. These grasslands will be distributed across the site in such a way as to form a network of interlinking habitats, enhancing ecological connectivity within the site and its environs. They will comprise assemblages of native species (primarily MG5) of local provenance with no invasive non-native species of plant. Wildflower and sedge cover will exceed 20% throughout the sward and total cover of injurious agricultural weeds will not exceed 5%. Bare ground will make up less than 10% of the total area.

MARSHY / WET GRASSLAND AND FEN

6.5.9 Approximately 30ha of marshy/wet grassland will be created adjacent to ditches, ponds and watercourses across the WNDA (equivalent to approx. 4% of the total area), providing a component of the mosaic of suitable habitat for bats, reptiles, great crested newt and a wide variety of other species. This will comprise assemblages of native species (primarily M23) of local provenance with no invasive non-native species of plant, more than 30% cover of large sedges, rushes and reeds and less than 5% total cover of injurious agricultural weeds. Along ditches and watercourses, there will be less than 10% riparian tree and scrub cover.

6.5.10 The marshy/wet grassland category includes the herbaceous riparian vegetation alongside ditches, ponds and watercourses, which will be managed to ensure that there is suitable habitat for water vole.

6.5.11 Wetland habitats within Tre'r Gof SSSI, including rich fen, will be retained throughout construction and managed in the long term to ensure conservation of the site's special interest features.

COASTAL HEATH / GRASSLAND MOSAIC

6.5.12 In addition to the close sward species-rich grassland, approximately 30ha (equivalent to approx. 4% of the WNDA) of coastal heath/grassland mosaic habitat will be managed along the coast between Wylfa Head and Porth Wylfa. In addition to providing suitable habitat to support chough, this area will be managed to promote a structurally diverse habitat suitable to support other notable bird species, reptiles and invertebrates, providing a mix of open areas and vegetation cover.

6.5.13 The coastal heath/grassland mosaic areas will be interspersed amongst the close sward species-rich grassland described above and will comprise assemblages of native species (primarily a mosaic of H8 and U4) of local provenance with no invasive non-native species of plant. Overall there will be at least 25% cover of heather and other dwarf shrubs (developing a range of age classes over time), with no more than 20% cover of coarse grasses and less than 10% bracken (Pteridium aquilinium) cover. Patches of scrub and scattered trees will provide useful cover and singing posts, but will be managed to maximise edge habitats and cover no more than 10% of the total coastal heath/grassland mosaic area.

6.5.14 The species-rich grassland and coastal heath/grassland mosaic creation will augment the retained coastal grassland and heath habitats at Wylfa Head, which will also be managed in the long-term to maintain and enhance the nature conservation value of that area.

PONDS, DITCHES AND SWALES

6.5.15 A network of drainage features will be created across the WNDA, including sediment ponds, ditches and swales. In addition, nine wildlife ponds will be created, along with a number of permanently damp hollows and seasonal pools. The nine wildlife ponds will be located in appropriate locations conducive to holding water, which, along with the other wetland features, provide suitable 'stepping stones' across the WNDA for species such as great crested newt and common toad. An illustrative pond design is shown in Figures 6-14f and 6-14g.

6.5.16 Management activities will seek to ensure that the wildlife ponds support a diverse assemblage of macrophytes and marginal vegetation, without any aquatic INNS or fish, and with a third to two thirds of the surface area covered by floating plants. Adjacent vegetation will also be managed to ensure that the wetland habitat features are not excessively shaded.

WOODLAND, TREES AND SCRUB

6.5.17 In addition to retaining and enhancing an existing 25ha of woodland immediately to the east of the Existing Power Station, blocks of broadleaved woodland, scattered trees and scrub covering a total area of approximately 25ha will be created across the WNDA (equivalent to approx. 6% of the total area).

6.5.18 The woodland will comprise assemblages of native species (dominance of at least seven native species with non-native species accounting for less than 10% of total vegetation cover) of local provenance with no invasive non-native species of plant and will be managed to promote its suitability to support a diverse assemblage of flora and fauna, in particular bats, great crested newt, reptiles and red squirrel. The provision of woodland will be a component in the creation of a habitat mosaic of high ecological value and will enhance habitat connectivity within the WNDA and its environs, as shown in Figure 6-23

6.5.19 To benefit foraging bats, the management of woodland habitat will provide graded (through appropriate shrub planting) and scalloped woodland edges to enhance the value of the woodland for invertebrates and, thereby, foraging bats. The graded and scalloped woodland edges will also increase the amount of transitional habitat between grassland and woodland edge for the benefit of reptiles. The diversity in habitat structure and microclimate that the creation of transitional habitat will achieve is a key element of suitable reptile habitat and will provide warm open areas for basking and more vegetated areas for shelter. Additional structural diversity will be created through the provision of rides and glades, equivalent to 10-20% total open areas within the woodlands.

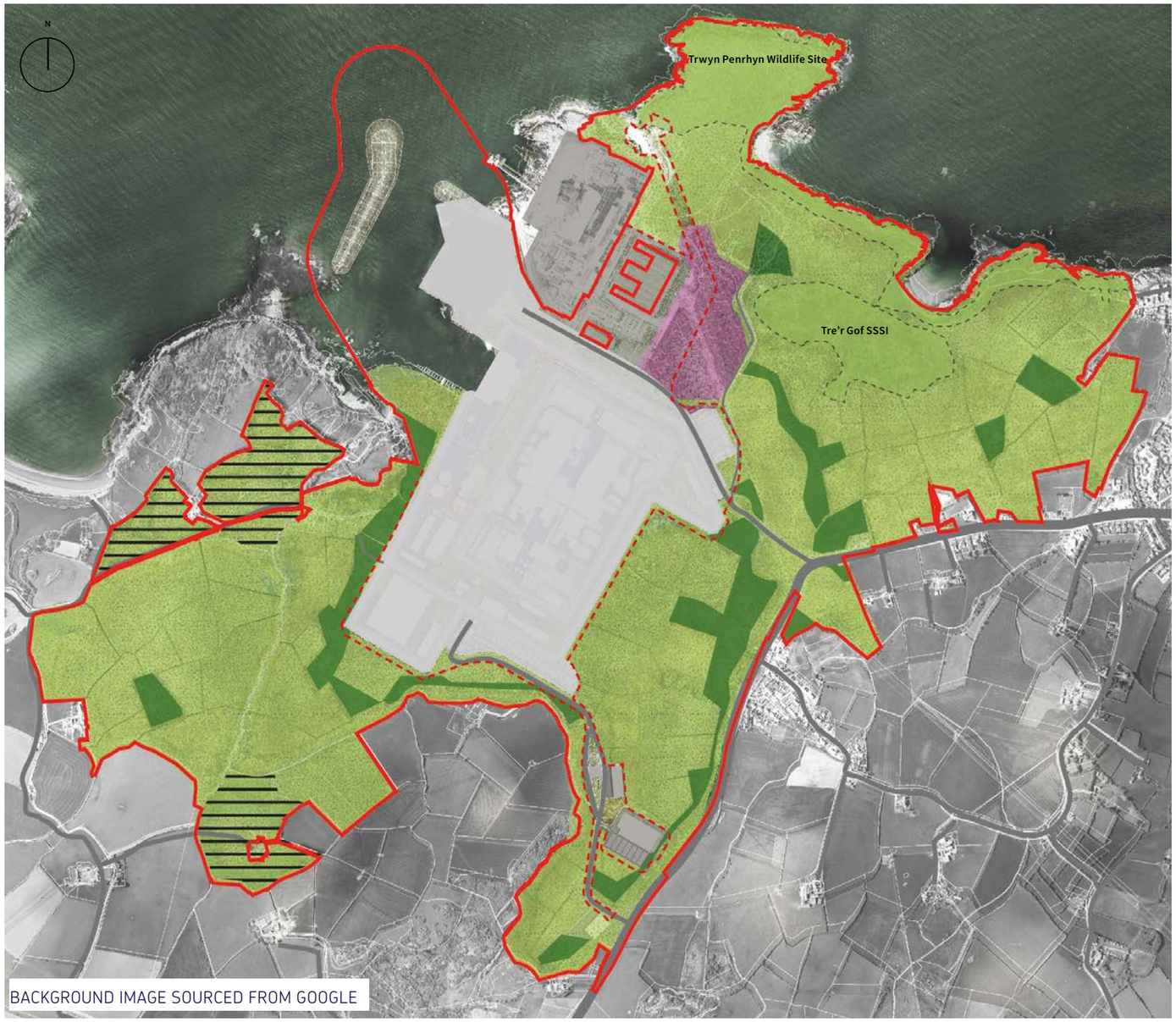
6.5.20 Bat barn locations will be surrounded by a buffer strip of woodland planting which is at least 10m wide.

6.5.21 Scrub will be planted and managed to enhance habitat connectivity across the WNDA. The scrub will be managed to promote a structurally diverse habitat (comprising at least three native woody species) suitable to support reptiles and great crested newt, providing a mix of open habitat and vegetation cover. Management will ensure that scrub does not succeed to woodland or invade adjacent habitats of higher ecological value, e.g. coastal heath/grassland mosaic.

MARINE INTERTIDAL HABITATS

6.5.22 Marine intertidal habitats will not be subject to ongoing management, but one or more of the following ecological enhancement features will be incorporated into the proposed marine structures at suitable locations:

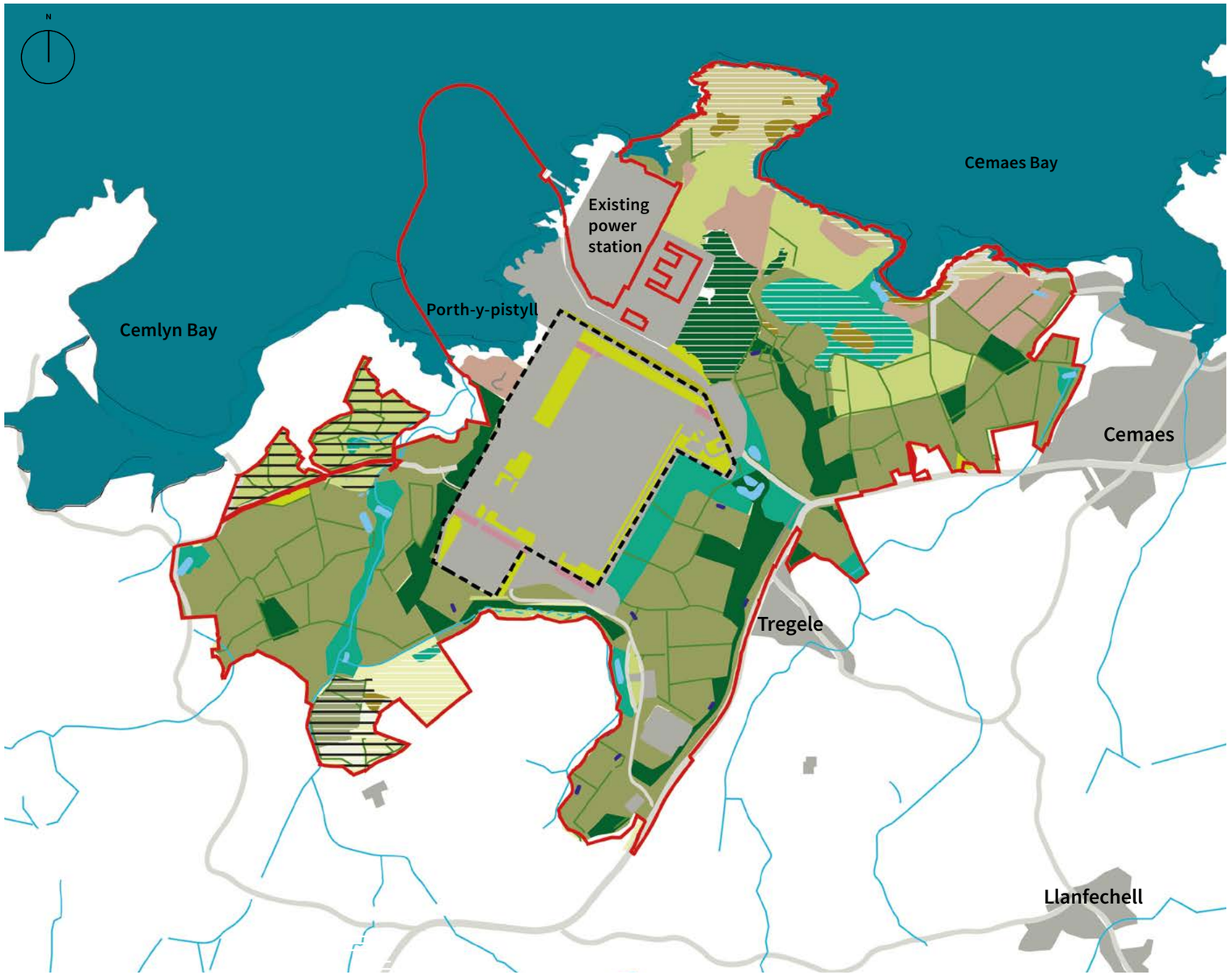
- incorporation of a small number of Eco-Xblocs within the design of the breakwater structures on the seaward and leeward face where wave loading is less severe;
- inclusion of ecologically enhanced units and rock pools in the region of rock armour on the leeward side of the western breakwater and on the shore protection/revetments; and
- inclusion of ecologically enhanced units and rock pools on the shore protection/revetments and on marginal regions of the breakwater structures where feasible.



Legend

- Wylfa Newydd Development Area
- Power Station Site
- Roads
- Existing Power Station
- Proposed Power Station
- Dame Sylvia Crowe Woodland
- Grazing land managed primarily for biodiversity
- Managed woodland
- Protected Site
- Area no longer under Horizon's control at this stage

Figure 6-18 Proposed land use



Legend

- Wylfa Newydd Development Area
- Nuclear island
- Buildings and settlements
- Roads
- Watercourses
- Area no longer under Horizon's control at this stage

Proposed habitats

- Coastal heath/grass mosaic
- Close sward species-rich grassland
- Coarse sward / species-rich grassland
- Marshy wet grassland
- Sedimentation pond
- Wildlife pond
- Broadleaf woodland
- Stonewall/hedgerow/clawdd

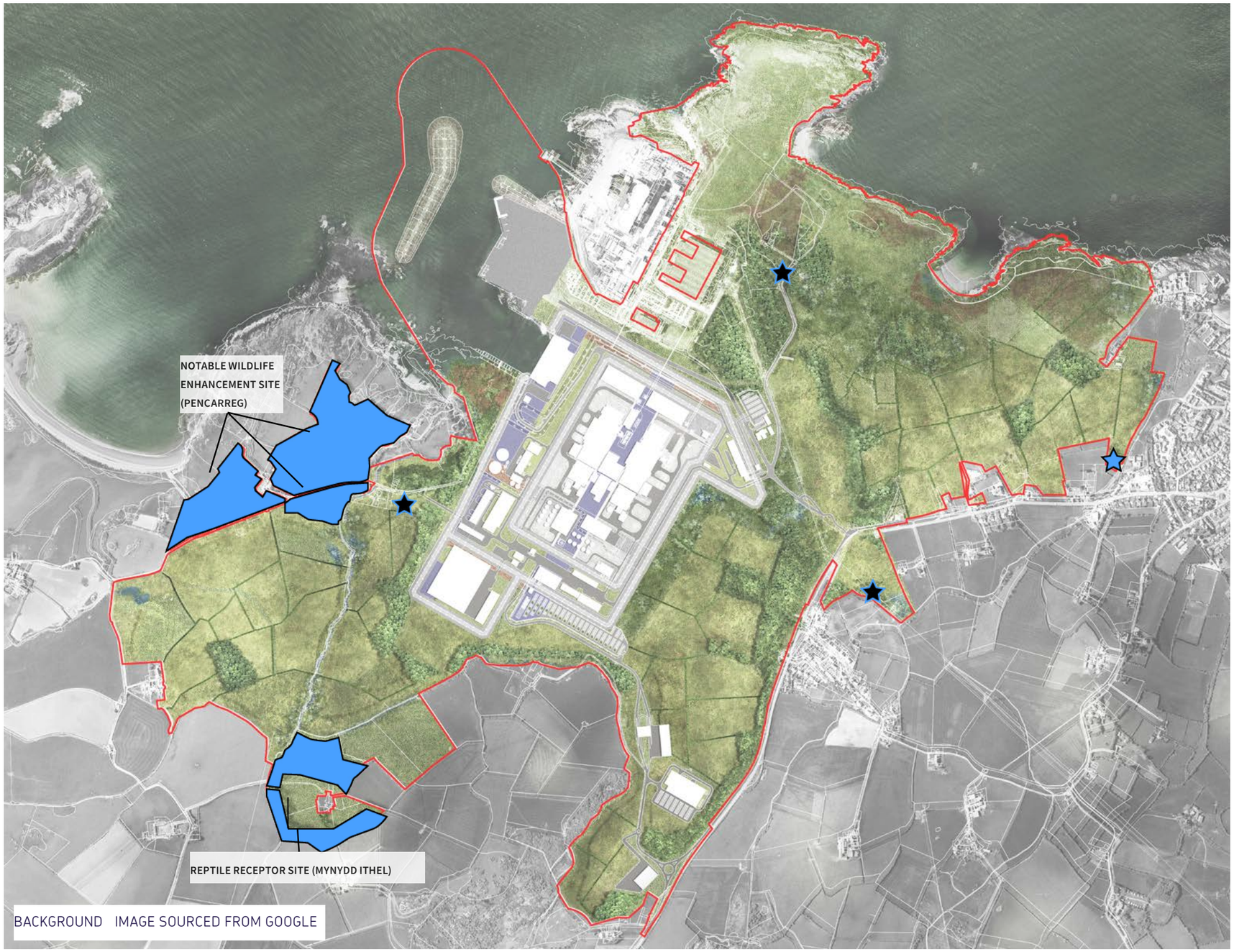
Proposed habitats (within nuclear island)

- Grassland - amenity
- Wildflower meadow
- Heather

Existing habitats

- Marsh / marshy grassland
- Coastal grassland
- Woodland
- Scrub
- Neutral grassland
- Semi-improved grassland

Figure 6-19 Proposed habitats



Legend

- Wylfa Newydd Development Area
- Proposed Bat Barns / Wildlife Tower, to be completed in 2018
- Existing Bat Barn / Wildlife Tower
- Ecological works completed

Figure 6-20 Proposed ecological mitigation features

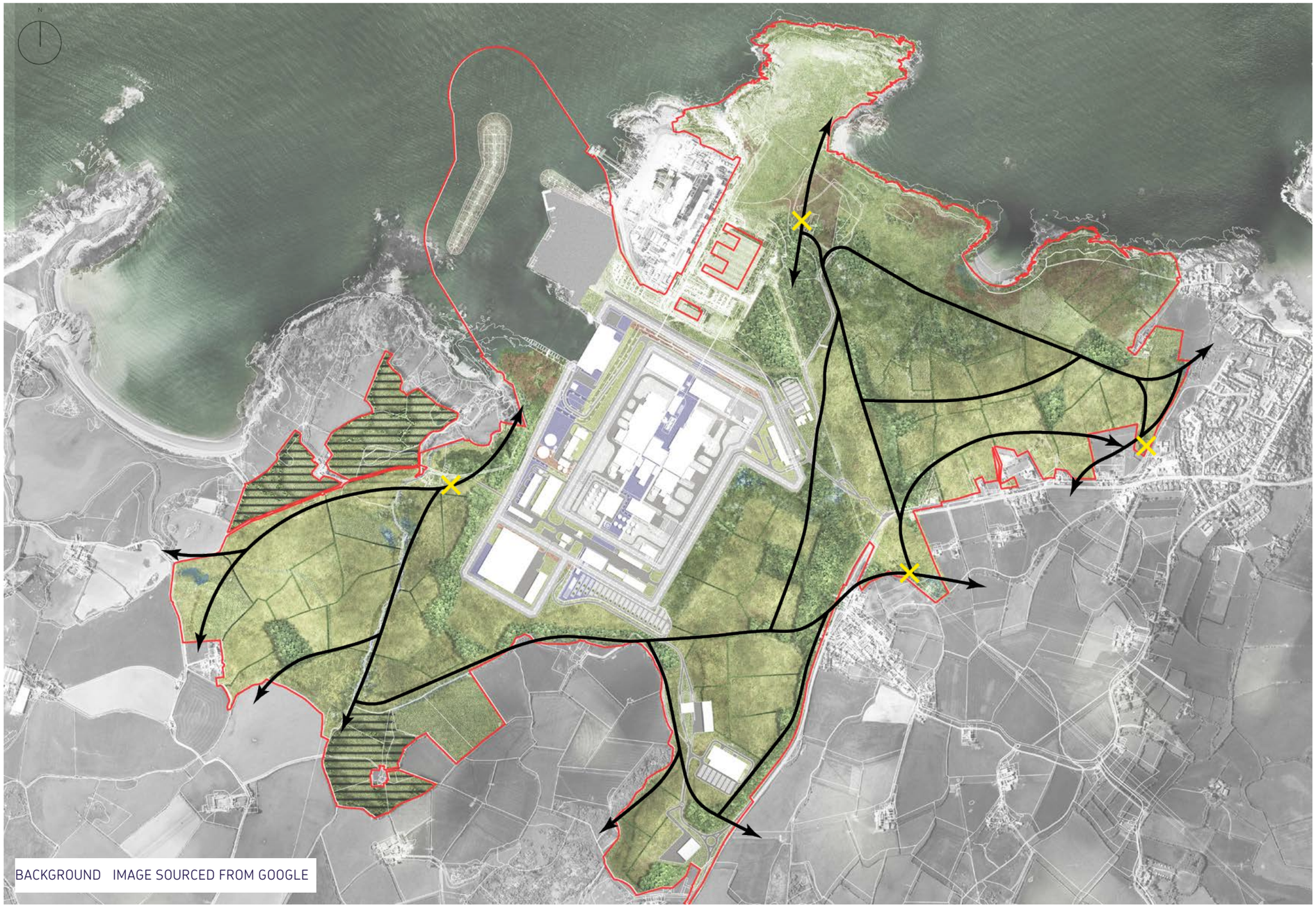


Figure 6-21 Illustrative Bat corridors during operation

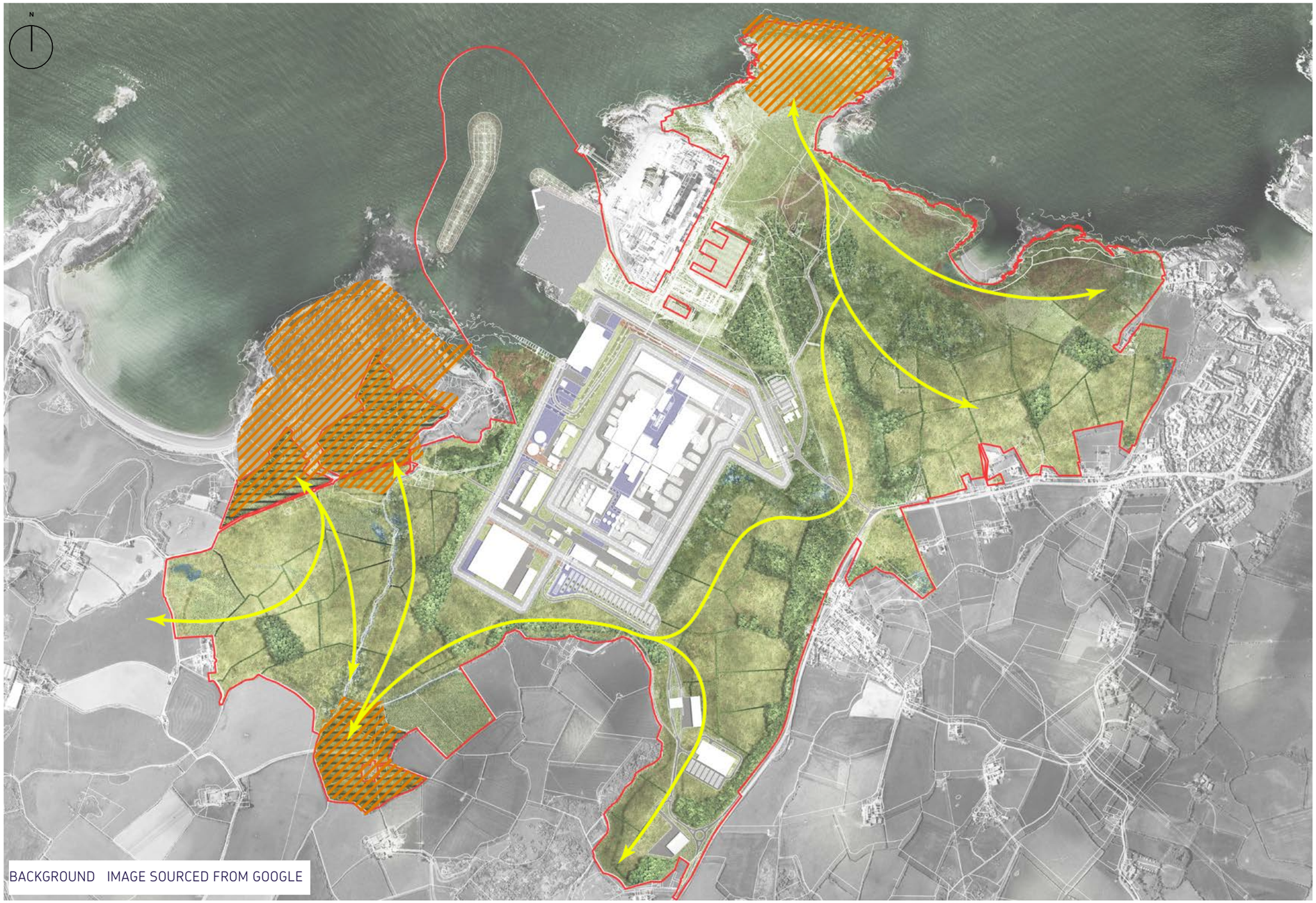


Figure 6-22 Illustrative grassland species corridors during operation

Figure 6-23 Illustrative woodland species corridors during operation

6.6 PUBLIC ACCESS, RECREATION AND VISITOR FACILITIES

6.6.1 As part of the restoration landscape proposals a comprehensive network of new foot paths will be created across the restored landscape linking to the Wales Coast Path and existing PRoW network to provide linkages between Cemlyn Bay, Wylfa Head, Porth yr Ogof and Porth Wylfa beach and Cemaes, enabling public access to substantial parts of the WNDA. These are shown on figure 6-26.

6.6.2 The Wales Coast Path would be diverted to its final route to create a shorter route than that necessary during the construction period. The Copper Trail would remain in the alignment it was diverted to during construction.

6.6.3 Vehicular access will be provided off the Existing Power Station Access Road with re-opening of the existing Fisherman's Car Park to provide easy access to the coastline and Wylfa Head;

6.6.4 A picnic area with bilingual interpretation boards would be provided above Porth yr Ogof; this area would be accessible by wheelchair from the new car park at a similar location to the existing Fisherman's car park.

6.6.5 A nature trail will be provided outside of the Power Station Site, comprising a route along various replacement PROWs. The trail should include interest points and information boards suitable for all ages in Welsh and English, with digital and paper-based maps of the trail made available.

6.6.6 The design of footpaths and cycle paths would range from simple, grass paths, to bound gravel tracks where a more durable surface is required, as illustrated on Figure 6-24.

6.6.7 In conjunction with the provision of new footpaths and cycle paths, there would be a need for a variety of street furniture, for example, way-marker posts, wayfinding and interpretative signage, stiles, kissing gates, seats and occasional picnic tables. An illustrative view of a footpath in the WNDA looking south from the north of Tre'r Gof SSSI is shown on Figure 6-25.

6.6.8 The following recreational facilities would be provided as illustrated on figure 6-25:

- A new wildlife watching shelter will be provided in the location of the coastguard lookout (which has been demolished) along with interpretation boards, providing details of the wildlife that can be seen from the shelter (including birds, marine mammals, sharks and plants). The design of the shelter should be simple to blend in with the naturalistic setting with internal dimensions of approximately 2 m by 2 m; and
- Interpretation boards would be provided at Porth Wnal which would reference the GeoMôn Geopark and the specific geology of this area, these interpretation boards will set out the information in Welsh and English.

6.6.9 In addition to the access and recreation provision outlined above Horizon intends to apply for a separate planning permission under the Town and Country Planning Act 1990 to permit the development of a permanent Visitor and Media Reception Centre at the Power Station Site for the operational phase post-2025.

6.6.10 The design of the centre and facilities contained within it will be subject to discussion with key stakeholders in advance of planning permission being submitted. There is an opportunity for this centre to provide facilities for tourists and local visitors to gain a greater understanding of the Wylfa Newydd DCO Project and for the centre to act as a community and educational resource. This centre would provide a focal point in the north of the island for tourists to visit and potentially for communities to gather. The likely site is at the proposed junction of the A5025 and new Power Station Access Road, just under a kilometre south of Tregele, which is considered to be a prominent and accessible location for members of the public.

Figure 6-24 Footpath materials

Timber bench

Litter bins

Directional signage

Timber gate

Picnic Table and seats

Street furniture

Way finding posts

Stile gate

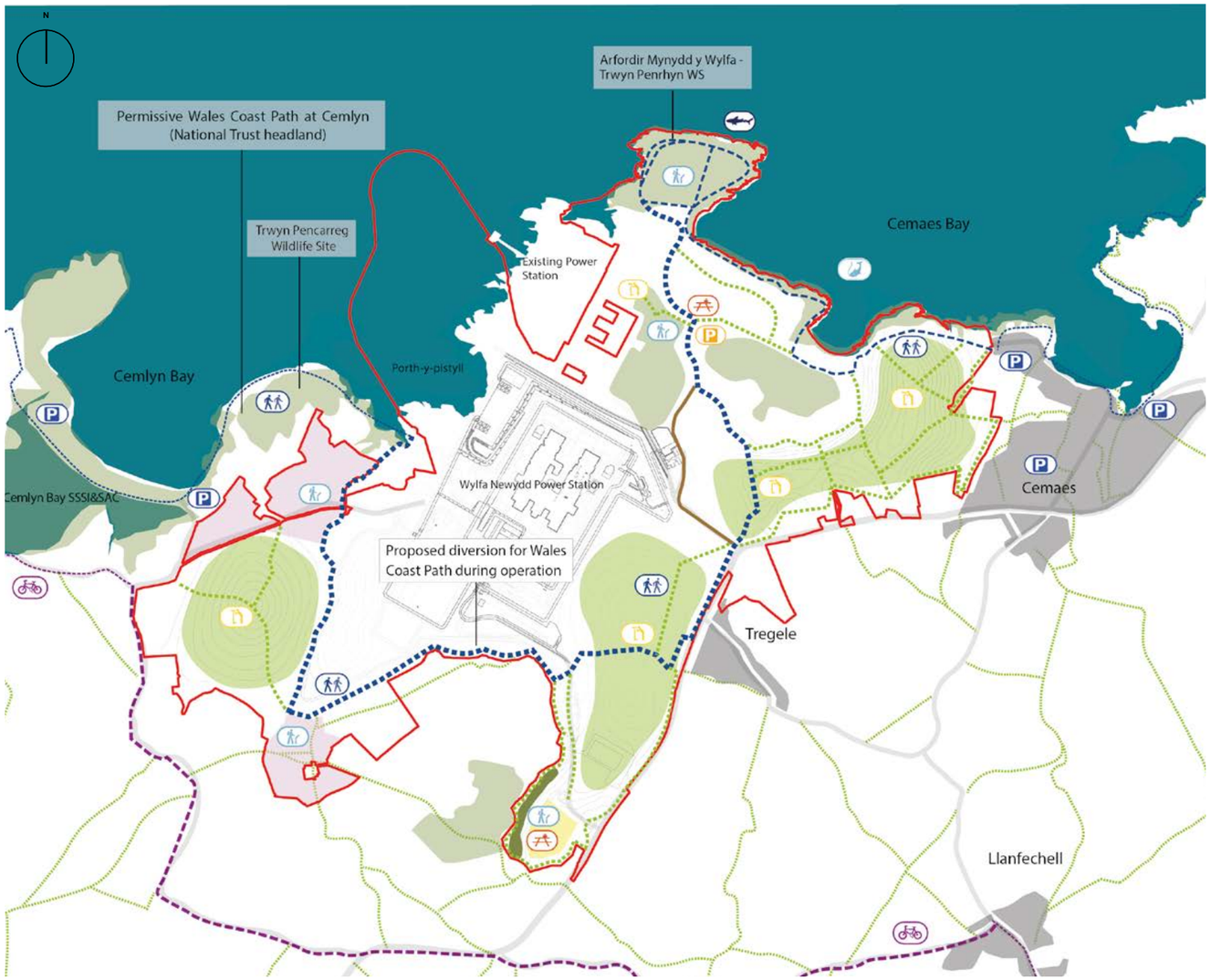
Kissing gate

Interpretation boards

Illustrative view from a proposed footpath near Tre'r Gof SSSI

Wildlife watching shelter

Figure 6-25 Street furniture, signage and wildlife watching shelter



Cycling

Picnicking

Viewpoint

New marine wildlife lookout

Walking

Fishing

Interpretation

Legend

Wylfa Newydd Development Area	Wales Coast Path (outside construction boundary)	Proposed Copper Trail diversion	Proposed Nature trail	Area no longer under Horizon's control at this stage
Settlements	Wales Coast Path (existing alignment)	Protected sites	Car park	
Public Right of Way	Wales Coast Path (proposed diversion during operation)	Proposed mounding	New car park	
New footpath (during operation)	National Cycle Route 566 (Copper Trail)	Area for proposed Visitor Centre	Vehicular access to new car park	

Figure 6-26 Public access and recreational facilities during site operation

6.7 PLANTING STRATEGY

OVERVIEW

6.7.1 The planting strategy for the WNDA has been developed in line with the principles established in section 4 and would aim to:

- Reflect local landscape character and species typically found in the surrounding local area to knit the new landscape into its local context;
- Provide screening and visual mitigation;
- Increase biodiversity through both the reinstatement and creation of a mosaic of habitat types to meet the habitat mitigation requirements of the ES including;
  - Woodland and scrub,
  - Planted hedgerows and cloddiau,
  - Coarse sward / species-rich grassland,
  - Close sward species rich grassland,
  - Coastal heath/grassland mosaic,
  - Marshy grassland;
- Provide wildlife corridors and habitat connectivity across the WNDA in accordance with the requirements of the ES.
- Reflect the local microclimate of the WNDA by using species tolerant of the exposed coastal conditions along with plant establishment techniques which have regard to these conditions;
- Use species tolerant of the existing soil type (typically a medium clay loam);
- Protect soils on the newly created landforms from erosion using techniques that accelerate plant establishment;
- Reflect the newly installed drainage patterns to optimise opportunities to create diversity of habitat types;
- Provide variety and seasonal interest;
- Avoid conflicts with operational, security and maintenance requirements of the Power Station;
- Provide planting typologies designed with regard to the intended management, maintenance and level of public access according to their location; and
- Use plants and seeds from regional or local provenance with no invasive non-native species of plant.

6.7.2 Details of how these could be created and managed are illustrated below.

PROPOSED WOODLAND, HEDGEROW AND SCRUB SPECIES

6.7.3 It is proposed that new tree and shrub planting would be of predominantly native broadleaved species, which are characteristic of the area (see section 2.1.33 to 2.1.37) and/or suitable for the local conditions. These would be supplemented by conifer species that are relatively fast growing, tolerant of exposure to sea winds and would also add to the visual screening/amenity properties and habitat quality of the planting.

6.7.4 The following broadleaved species are proposed for woodland planting, with those species marked with an asterix favoured for the more exposed coastal locations:

- Sessile oak* – main canopy species;
- Blackthorn*;
- Buckthorn (Rhamnus cathartica);
- Common lime
- Crab apple (Malus sylvestris);
- Dog rose (Rosa canina);
- Elder* (Sambucus nigra);
- Field maple (Acer campestre)
- Guelder rose (Viburnum opulus);
- Hawthorn*;
- Hazel (Corylus avellana);
- Holly (Ilex aquifolium);
- Rowan (Sorbus aucuparia);
- Silver birch (Betula pendula);
- Wild cherry (Prunus avium); and
- Wych Elm (Ulmus glabra).

6.7.5 Conifer species would reflect those proposed by Dame Sylvia Crowe for the landscape design of the Existing Power Station, comprising:

- Corsican pine (Pinus nigra);
- Lodgepole pine (Pinus contorta); and
- Monterey pine (Pinus rdiata).

6.7.6 In wetter areas, woodland and scrub planting would primarily comprise:

- Alder (Alnus glutinosa);
- Aspen (Populus tremula);
- Bird cherry (Prunus padus);
- Goat willow (Salix caprea); and
- Grey willow (Salix cinerea).

6.7.7 Hedgerow and scrub planting would primarily be a mix of hawthorn and blackthorn, interspersed with a diverse mix of the above broadleaved woodland species.

6.7.8 It is not proposed to plant gorse, which is a highly invasive species and prone to combustion in hot dry conditions.

SPECIFICATION OF PLANTS

6.7.9 Plants would be specified at appropriate sizes for the intended planting objectives – whether for visual screening, habitat creation, landscape character or grazing stock management. For tree and shrub planting, smaller stock sizes establish more readily and tend to be more tolerant of exposure to coastal winds, so these would form the bulk of proposed group planting. Shrub and hedgerow planting could include cell grown or bare root whips, ranging from 40-60cm to 100-125cm height. A variety of tree sizes would be specified, ranging from 150cm height feathered trees to 20-25cm girth standard trees. Some larger trees may be required for particularly sensitive locations, including early screen planting along the A5025 road, where a mix of tree sizes could include larger stock for initial visual impact. Plant density would be appropriate to the species and planted size.

6.7.10 Appropriate ground preparation, topsoil, staking, mulching and protection from pests and salt-laden coastal winds would be specified to aid establishment of the new planting in the challenging coastal conditions.

MANAGEMENT OF NEW WOODLAND, SCRUB AND HEDGEROWS

6.7.11 The newly created woodland scrub and hedgerow will be actively managed by Horizon to maximise their habitat value and in the case of hedgerows to ensure they are stock proof. Thinning and felling of new planting and some retained areas will be used to establish and to maintain the desired 10-20% open areas within the woodland. Thinning and felling will target less healthy or less desirable trees and give the remaining trees more space to establish. It will also allow light through to aid the development of an appropriate woodland field layer. Pruning and cutting back of the shrub edge species in retained areas and, later in the management programme, areas of new planting will be undertaken to maintain a graded woodland edge and to ensure a good age structure to the woodland edge as it develops.

6.7.12 Figure 6-27 below identifies a variety of species which are tolerant of exposure to sea winds, and are considered suitable for planting in the WNDA:

GRASSLAND AND HEATHLAND PLANT SPECIES, ESTABLISHMENT AND MANAGEMENT

6.7.13 Plant species lists for the different grassland and heathland habitats would be based on the species characteristic of the habitats elsewhere in the locality as shown in figure 6-28. Species rich grassland would be established from seed of local or regional provenance. Vegetation establishment on the new mounds may be accelerated through the implementation of appropriate surface binding techniques, such as hydroseeding, or impregnated matting, thereby reducing the likelihood of sediment runoff from un-vegetated surfaces.

6.7.14 New coastal heathland would be established from a combination of seed or brush harvestings from the local area. Wet grassland would be established either via a combination of natural regeneration, seeding or planting grown from locally harvested seed where ever possible.

6.7.15 Coastal heath and grassland swards will need to be maintained once they have become established to prevent them succeeding to scrub. This will be undertaken primarily by the implementation of suitable grazing regimes.

WOODLAND TREES/UNDERSTOREY (WET AREAS):

Common Alder

Goat Willow

Grey Willow

Bird Cherry

Aspen

Figure 6-27 Proposed woodland, scrub and hedgerow species

WOODLAND TREES/UNDERSTOREY (DRY AREAS):


Sessile Oak *main canopy species


Blackthorn


Holly


Elder


Dog Rose


Corsican Pine


Wych Elm


Roan


Hazel


Common Lime


Silver Birch


Guelder Rose


Monterey Pine


Hawthorn


Buckthorn


Crabapple


Wild Cherry


Field Maple


Lodgepole Pine

HEDGEROWS


Hawthorn


Blackthorn

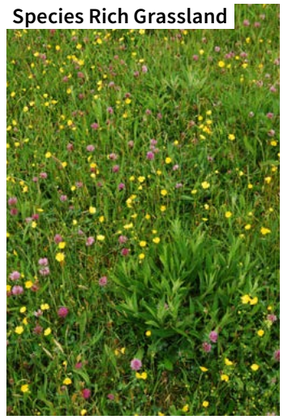


Figure 6-28 Grassland and heathland habitats to be re-created

PART C: IMPLEMENTATION AND LONG TERM MANAGEMENT

7 IMPLEMENTATION & LONG TERM MANAGEMENT

Implementation and long term management

7.1 IMPLEMENTATION

7.1.1 Detailed implementation and management schemes will be prepared for the new landscape and habitats by Horizon or its contractors in consultation with key stakeholders as appropriate, following the design principles in section 4 and management principles established in this chapter. Key stakeholders may include Isle of Anglesey County Council (IACC), Natural Resources Wales, North Wales Wildlife Trust, the National Trust and the Royal Society for the Protection of Birds.

7.1.2 Detailed implementation schemes will provide the information required in Schedule 3 of the Development Consent Order (Application Reference Number: 3.1).

7.2 MANAGEMENT PRINCIPLES

7.2.1 Management schemes will seek to ensure:

- That the design principles set out in Chapter 4 of this document are delivered for the lifetime of the Power Station.
- The enhancement and long-term viability of retained semi-natural habitats at Tre'r Gof SSSI, Arfordir Mynydd y Wylfa – Trwyn Penrhyn Wildlife Site, Dame Sylvia Crowe woodland and the northern block of ancient woodland.
- The notable wildlife habitat enhancement site and the reptile receptor site provide suitable habitats for reptiles and other notable wildlife which have been displaced/translocated until new habitats have been created on the new landform surrounding the Power Station Site;
- The WNDA is managed following Site Preparation and Clearance works in a given area to minimise the likelihood of colonisation by species which could constrain construction works in that area.
- The successful establishment of new landscape and habitats and their long-term viability.
- The planting will be maintained and enhanced during operation of the Power Station to mitigate the visual and noise impacts of the Power Station Site with respect to neighbouring sensitive receptors as well as enhancing the landscape and ecological environment surrounding the Power Station as a whole;
- The continued vitality of existing retained planting, including existing hedgerows on the Wylfa Newydd Development Area boundary;
- The strengthening of the landscape character and restoration of the field boundary pattern wherever practicable, including hedgerows, cloddiau and dry-stone walls.
- The provision of effective visual screening.
- The re-establishment of high quality coastal grassland at Wylfa Head, which will support foraging chough through natural regeneration within the cooling outfall work area. If required, natural regeneration will be supported by the control of undesirable plant species and/or reseeding the area with seed harvested from Wylfa Head.
- That the WNDA (including marine structures) is free of Invasive Non-native Species as far as reasonably practicable.
- That grazing regimes within a given area are appropriate to the target habitat type(s), using appropriate livestock at appropriate densities at appropriate times of year;
- That there are no fertilizer inputs to any areas, except where identified as being essential to maintaining the desired habitat. Even in these areas, inputs and application methods must be restricted to prevent enrichment of adjacent habitats, in particular ditches and watercourses.
- That use of other agrichemicals (including herbicides, pesticides and worming treatments) is limited to the absolute minimum requirements and does not adversely affect the target habitats for a given area, the notable species it supports, or adjacent habitats and species.
- That cover of injurious agricultural weeds is below 5% for all habitats.
- That bare ground cover is less than 10% for all areas identified as some form of grassland.
- That wildflower and sedge cover is greater than 20% for all areas identified as some form of species-rich grassland.
- That sward height in areas identified as close-sward species-rich grassland is generally no greater than 50mm.
- That areas identified as coastal heath/grassland mosaic comprise greater than 25% cover of heather and other dwarf shrubs, less than 20% coarse grasses, less than 10% bracken and less than 10% scrub.
- That cover of large sedges, rushes and reeds is greater than 30% for all areas identified as marshy grassland.
- That riparian tree cover is less than 10% along watercourses and ditches and watercourses.
- That areas identified as woodland will include 10-20% open areas (e.g. glades, rides and recent coppice).
- That selective thinning and coppicing is undertaken in woodland areas to maintain tree health and create a diverse woodland structure.
- That management works use appropriate methods at appropriate times of year to avoid harming legally protected and other notable species.
- That new planting is monitored throughout the establishment period, quarterly for a 5-year period after implementation, followed by annual inspections for second 5-year period (total 10 years) to ensure the landscape planting scheme successfully establishes and achieves the intended mitigation. In the event that these inspections identify that planting has not established, replacement planting on a like for like basis will be undertaken at the first available planting season;
- That the landscape and habitats are regularly monitored to assess efficacy of management and inform management reviews. Monitoring will be undertaken for the lifetime of the Power Station and will include monitoring of key fauna for which design principles have been identified in Chapter 4, including but not limited to:
  - Great crested newt
  - Reptiles
  - Chough
  - Bats
  - Water vole
  - Red squirrel
- That monitoring will be undertaken of species translocations, habitat creation and work undertaken as part of a protected species licences to assess the efficacy of mitigation provided (including chough habitat enhancement). Monitoring commitments will be undertaken in line with the requirements of the relevant protected species licence.
- That the management regimes are regularly reviewed (at least once every five years – more frequently where monitoring identifies the need for change) and updated as required.
- Appropriate maintenance of public access infrastructure to allow and ensure the safe and convenient passage of members of the public through and within the WNDA.
- The maintenance of other landscape features, including dry-stone walls and cloddiau in good condition.
- That the wildlife ponds support a diverse assemblage of macrophytes and marginal vegetation, without any aquatic INNS or fish, and with a third to two thirds of the surface area covered by floating plants.
- That public access on Wylfa Head is managed to minimise adverse effects on sensitive habitats and species, in particular chough.
- That appropriate details on flood management measures will be included in the Landscape and habitat Management Schemes.
- Monitoring of the presence of reptiles within the reptile receptor site would be undertaken on an annual basis throughout the period of its lease by Horizon (until 2032). This would follow published good practice guidance such as Sewell et al., (2013).
- To determine the progress of reptile species in recolonising the Wylfa Newydd Development Area as the habitats described above become established, presence / absence surveys would be undertaken on an annual basis along

the key corridors (field boundary habitats; tree and scrub edges) linking reptile hotspots into the wider site. These surveys would follow published good practice guidance such as Sewell et al., (2013), and would occur for both the five year planting establishment period, and the following five year inspection period.

ECOLOGICAL COMPENSATION SITES

- Horizon would be responsible for the long-term management of all three sites and would assign a project officer, to be employed directly by Horizon or through a third party, to co-ordinate and oversee the management works.
- During construction, a process of adaptive management will be employed to ensure the success of habitat creation and enhancement proposal at Cae Canol-dydd and Cors Gwawr and avoid adverse effects to designated sites or neighbouring farmland.
- Habitat Management Schemes will include adaptive management measures to control any adverse effects that could arise following completion of the works. This will be informed by ongoing hydrological monitoring, allowing any issues identified by Horizon or its contractors to be dealt with as and when they arise.
- Habitat creation areas will be managed differently from other areas during habitat establishment, with stock excluded for at least the first five years to prevent grazing. Management infrastructure to support this will be installed as part of construction works. Any management that may be required during this period would be identified by the project officer and undertaken on an ad hoc basis, (e.g. control of weeds or other species by cutting). The point at which habitat creation areas would be incorporated with the wider site grazing management would be determined by the monitoring, assessment and review process.
- Habitat enhancement works in established vegetation will be detailed in the Habitat Management Schemes and will include a combination of the following activities, as appropriate: manual cutting and raking of vegetation to improve condition of coarser vegetation; introduction of hay or other plant propagules to areas in order to diversify existing vegetation; and instigation of grazing management.
- Grazing will be low intensity, using appropriate livestock such as cattle and/or ponies. Livestock densities will be appropriate to the target habitat for a given area.
- The Habitat Management Schemes will set out a water management plan for each site, to include targets for water levels and flows across site and their management in order to support key vegetation types and avoid adverse effects on adjacent land, and a programme of maintenance of water infrastructure.
- Long-term hydrological and habitat monitoring will be undertaken to determine the success of the habitat creation and enhancement proposal and of subsequent management.
- Footpaths, boardwalks and bridges will be managed to maintain public access routes.

MANAGEMENT SCHEMES

7.2.2 Management schemes for specific areas will be submitted to the determining authority (IACC) following grant of the DCO alongside the detailed design for that area. Management schemes will be developed in accordance with the principles in the LHMS which will aim to secure the establishment and long term viability of these landscapes and habitats. These will be prepared for the locations identified in Schedule 3 of the Development Consent Order (Application Reference Number: 3.1).

7.2.3 Management schemes will contain the following information:

- Introduction: Identify the terms of reference, the spatial and temporal scope of the document, and responsibilities;
- Site information: concise background information relevant to the management of the site, including location plan, climate, geology, soils, hydrology and ecology (including identification of any protected/notable habitats or species);
- Factors influencing management: concise details of any factors that have an influence on how the site is managed, including PRoW, other legal rights of access, potential management access routes as well as health, safety, security and environmental hazards This will specifically include the SP Manweb electricity network on the Ty Du and Cors Gwawr proposed ecological compensation sites, following consultation with SP Manweb;
- Management aim(s): identification of the overall purpose of management; a clear vision of what the management will achieve in accordance with the principles in the LHMS;
- Management objectives: concise, specific, measurable, achievable, relevant targets for realisation of the identified management aim(s) in accordance with the principles established in this document;
- Management prescriptions: clear, detailed descriptions of the management measures required to meet the management objectives in accordance with the principles established in this document
- Monitoring: clear, concise details of any monitoring (and reporting) requirements to identify if objectives are being met and if management requires amendment; and,
- Management programme: in tabular form

8 REFERENCES

References

ID	REFERENCE
RD1	Section 2.1, Planning Policy Wales – Technical Advice Note 5: Nature and Conservation Planning (September 2009) – Section 2. Key Principles of Positive Planning for Nature Conservation (http://gov.wales/docs/desh/policy/100730tan5en.pdf)
RD2	Anglesey and Gwynedd Joint Local Development Plan (July 2017) – Section 6.5: Natural and Built Environment (http://www.anglesey.gov.uk/planning-and-waste/planning-policy/joint-local-development-plan-anglesey-and-gwynedd/)
RD3	New Nuclear Build at Wylfa: Supplementary Planning Guidance (July 2014) – Section 4.10: Natural Environment (http://www.anglesey.gov.uk/Journals/2014/08/11/q/k/h/Wylfa-NNB-SPG-Adopted-July-2014.pdf)
RD4	Section 5.3.15, Overarching National Policy Statement for Energy (EN-1) (July 2011) – Section 5.3. Biodiversity and geological conservation (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf)
RD5	Section 5.3.18, Overarching National Policy Statement for Energy (EN-1) (July 2011) – Section 5.3. Biodiversity and geological conservation (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf)
RD6	Appraisal of Site Sustainability: Site Report for Wylfa (EN-6 Revised Draft National Policy Statement for Nuclear Power Generation) (October 2010) – Section 5.16. Biodiversity and ecosystems
RD7	Anglesey Local Biodiversity Action Plan (undated) (http://www.anglesey.gov.uk/planning-and-waste/countryside/biodiversity-and-conservation/what-are-we-doing-to-help-biodiversity-on-anglesey/)
RD8	Horizon Nuclear Power (Wylfa) Ltd (November 2013). Consultancy Report: A Phase 1 Habitat Survey. (Document Number: B1496000/WP6-2/R001) (Horizon Ref: W202.01-S5-PAC-REP-00015).
RD9	Jacobs UK Ltd (2017). Wylfa Newydd Project - Ecological Enhancement Options for the Marine Structures. (Document Number: 60PO8077/AQE/TM/005) (Horizon Ref: WN0902-JAC-OS-REP-00011)
RD10	Rodwell, J.S. (ed.) (1992). British Plant Communities. Volume 3. Grassland and montane communities. Cambridge University Press.

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A HABITATS REQUIREMENTS TABLE

Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation
Brown hare	*Lepus europaeus*	EWA-S7 LBAP	Grassland, woodland edges, heathland, hedgerows, scrub	Shallow depression in ground or grass (‘form’)	Does not hibernate
Brown long-eared bat	*Plecotus auritus*	CHSR-S2 WCA-S5 EWA-S7	Open woodland, parkland and orchards	Roost in older buildings, barns, churches and trees	Hibernates in caves, tunnels, mines and occasionally buildings and trees
Common pipistrelle	*Pipistrellus pipistrellus*	CHSR-S2 WCA-S5 EWA-S7 LBAP	Woodland, grassland, hedgerows and gardens	Roost in crevices in buildings and trees	Crevices in buildings and trees
Grey seal	*Halichoerus grypus*	HD-A2	Spend most of the year at sea, coming ashore in autumn to form breeding colonies	Rocky shores, beaches and caves	Does not hibernate
Hedgehog	*Erinaceus europaeus*	EWA-S7	Woodland, hedgerows, scrub, grassland, parkland, gardens	Nest under piles of logs/brash and leaves	Hibernate under piles of logs/brash and leaves
Nathusius’ pipistrelle	*Pipistrellus nathusii*	CHSR-S2 WCA-S5	Near water, marshland and woodland edges	Roost in crevices in buildings and trees, usually near open water	Crevices in trees, cliffs, walls and caves
Natterer’s bat	*Myotis nattereri*	CHSR-S2 WCA-S5	Broadleaved woodland, grassland, tree-lined watercourses and ponds	Roost in old stone buildings with large timbers and under bridges	Caves, mines and tunnels
Noctule	*Nyctalus noctula*	CHSR-S2 WCA-S5 EWA-S7 LBAP	Woodland and pasture, often near water	Roost in trees	Trees
Otter	*Lutra lutra*	HD-A2 CHSR-S2 WCA-S5 EWA-S7	Sea shore and banks of rivers, streams and lakes	Den in riverbank (‘holt’)	Does not hibernate

Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation
		LBAP			
Polecat	*Mustela putorius*	EWA-S7	Marshland, woodland, grassland, river banks, sea cliffs, sand dunes, farm buildings, drystone walls	May dig a den, but prefers existing sites such as rabbit burrows, hay stacks and log piles	Does not hibernate
Red squirrel	*Sciurus vulgaris*	WCA-S5 EWA-S7 LBAP	Woodland	Dense ball of twigs (‘drey’) located in tree canopy	Does not hibernate
Soprano pipistrelle	*Pipistrellus pygmaeus*	CHSR-S2 WCA-S5 EWA-S7	Wetlands, woodland edges, hedgerows and gardens	Roost in crevices in buildings and trees	Crevices in buildings and trees
Water vole	*Arvicola amphibius*	WCA-S5 EWA-S7 LBAP	Marshland and vegetated banks of rivers, streams, ditches and ponds	Burrow in banks of rivers, streams, ditches and ponds	Do not hibernate in winter, but spend more time in burrows
Whiskered/Brandt’s bat	*Myotis mystacinus/brandtii*	CHSR-S2 WCA-S5	Woodland, pasture with hedgerows and riparian habitats; Brandt’s bat favouring woodland and whiskered bat favouring riparian and open habitats	Roost in crevices in buildings	Caves and tunnels
Barn owl	*Tyto alba*	WCA-S1 LBAP	Rough grassland	Nest and roost in old barns and tree cavities	Does not hibernate
Black-headed gull	*Chroicocephalus ridibundus*	EWA-S7 Also notable for its commensal relationship with the terns at Cemlyn Lagoon (part of Anglesey Terns Special Protection Area)	Coastal marshland, wetlands, arable fields, grassland, playing fields and rubbish tips	Nest on ground adjacent to coastal and inland waterbodies	Does not hibernate

Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation
Bullfinch	*Pyrrhula pyrrhula*	EWA-S7	Woodland, scrub, orchards, hedgerows and gardens	Nest in dense vegetation 1-2m above ground	Does not hibernate
Chough	*Pyrrhocorax pyrrhocorax*	BD-A1 WCA-S1 EWA-S7 LBAP	Rocky coasts with short grassland (mainly within 300m of nest site during breeding season)	Nest in crevices or on ledges on sea cliffs or in caves	Does not hibernate
Dunnock	*Prunella modularis*	EWA-S7	Woodland, scrub, hedgerows, parkland and gardens	Nest in dense shrubs and hedges	Does not hibernate
Grasshopper warbler	*Locustella naevia*	EWA-S7 BoCC-Red	Scrub, rough grassland, marshy grassland, reedbed edge and new woodland plantation	Nest in hollow in dense ground vegetation near to bushes and small trees	Does not hibernate
Herring gull	*Larus argentatus*	EWA-S7 BoCC-Red	Coastal habitats, arable fields, grassland, playing fields, gardens and rubbish tips	Nest on rocky coastline, shingle banks and building rooftops	Does not hibernate
House sparrow	*Passer domesticus*	EWA-S7 BoCC-Red	Hedgerows, gardens and built up areas – always in the vicinity of people	Nest in holes in buildings and in thick hedges or conifers	Does not hibernate
Kestrel	*Falco tinnunculus*	EWA-S7	Grassland, heathland and urban areas	Nest in tree holes, disused nests of crows and ledges on cliffs and buildings	Does not hibernate
Lesser redpoll	*Carduelis cabaret*	EWA-S7 BoCC-Red	Mixed woodland, birch scrub and wet woodland	Nest in tree or shrub, typically in birch scrub or mixed conifer and birch woodland	Does not hibernate
Linnet	*Carduelis cannabina*	EWA-S7 BoCC-Red	Heathland, scrub, rough ground, winter stubble fields hedgerows, saltmarsh, parkland and gardens	Nest in thick, thorny hedges and scrub	Does not hibernate

Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation
Reed bunting	*Emberiza schoeniclus*	EWA-S7	Reedbeds, conifer plantation, hedgerows and arable fields	Nest on ground among reeds or grasses in a wet or marshy place	Does not hibernate
Skylark	*Alauda arvensis*	EWA-S7 LBAP BoCC-Red	Grassland, arable fields and heathland	Nest on open ground in vegetation 20-50cm high (e.g. spring-sown cereals)	Does not hibernate
Song thrush	*Turdus philomelos*	EWA-S7 LBAP BoCC-Red	Woodland, hedgerows, scrub, grassland, parkland and gardens	Nest low down on trees and shrubs or on the ground amongst thick vegetation	Does not hibernate
Starling	*Sturnus vulgaris*	EWA-S7 BoCC-Red	Grassland, arable fields, playing fields, parkland and gardens	Nest in holes in trees and buildings	Does not hibernate
Adder	*Vipera berus*	WCA-S5 EWA-S7	Woodland edges, scrub, heathland, moorland, coastal dunes and rough grassland with combination of sunny basking sites and dense cover	Give birth to live young in well-protected hollows, e.g. under tree stumps	Well-protected hollows on high, dry ground, e.g. abandoned burrows of small mammals or in overgrown root systems of fallen trees
Common lizard	*Zootoca vivipara*	WCA-S5 EWA-S7	Woodland edges, scrub moorland, heathland, marshland, rough grassland, sea cliffs, gardens, dry stone walls and embankments with combination of sunny basking sites and dense cover	Female needs warm basking sites to incubate eggs inside her before giving birth to live young	Sheltered places among rocks or dead wood

Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation
Common toad	*Bufo bufo*	EWA-S7	Woodland, scrub, hedgerows, marshland and rough grassland	Large ponds needed for breeding and larval development	Do not hibernate, but spend much of winter sheltering under deep leaf litter and log piles, as well as mammal burrows
Great crested newt	*Triturus cristatus*	HD-A2 CHSR-S2 WCA-S5 EWA-S7 LBAP	Woodland, scrub, hedgerows, marshland and rough grassland, usually within 500m of breeding ponds	Large, vegetated ponds needed for breeding and larval development	Underground crevice (e.g. void in tree stump or bank) or under rocks or dead wood
Brown trout	*Salmo trutta*	EWA-S7	Fast-flowing, stony and gravelly rivers		Does not hibernate
European eel	*Anguilla anguilla*	EWA-S7	Breed in sea, migrate up freshwater streams to grow and return to sea to spawn. May travel over land on dark nights.	Sargasso Sea (North Atlantic)	Does not hibernate
Cinnabar moth	*Tyria jacobaeae*	EWA-S7	Well-drained, rabbit-grazed grassland, sand-dunes and heathland containing common ragwort (*Senecio jacobaea*)		Does not hibernate
Grayling butterfly	*Hipparchia semele*	EWA-S7	Well-drained, open, short grassland and heathland with fine grasses and patches of bare ground		Does not hibernate
Small heath butterfly	*Coenonympha pamphilus*	EWA-S7	Well-drained, short, sparse grassland and heathland with fine grasses		Does not hibernate
Wall brown butterfly	*Lasiommata megera*	EWA-S7	Short, open grassland where turf is broken or stony		Does not hibernate
Minute moss beetle	*Hydraena palustris*	Red-NT	Pond margins		Does not hibernate
Mud snail	*Omphiscola glabra*	Red-NT	Waterbodies of poor water quality and fluctuating conditions, such as marshes, ditches, ephemeral pools and seepages within unimproved grasslands and heathland		Does not hibernate

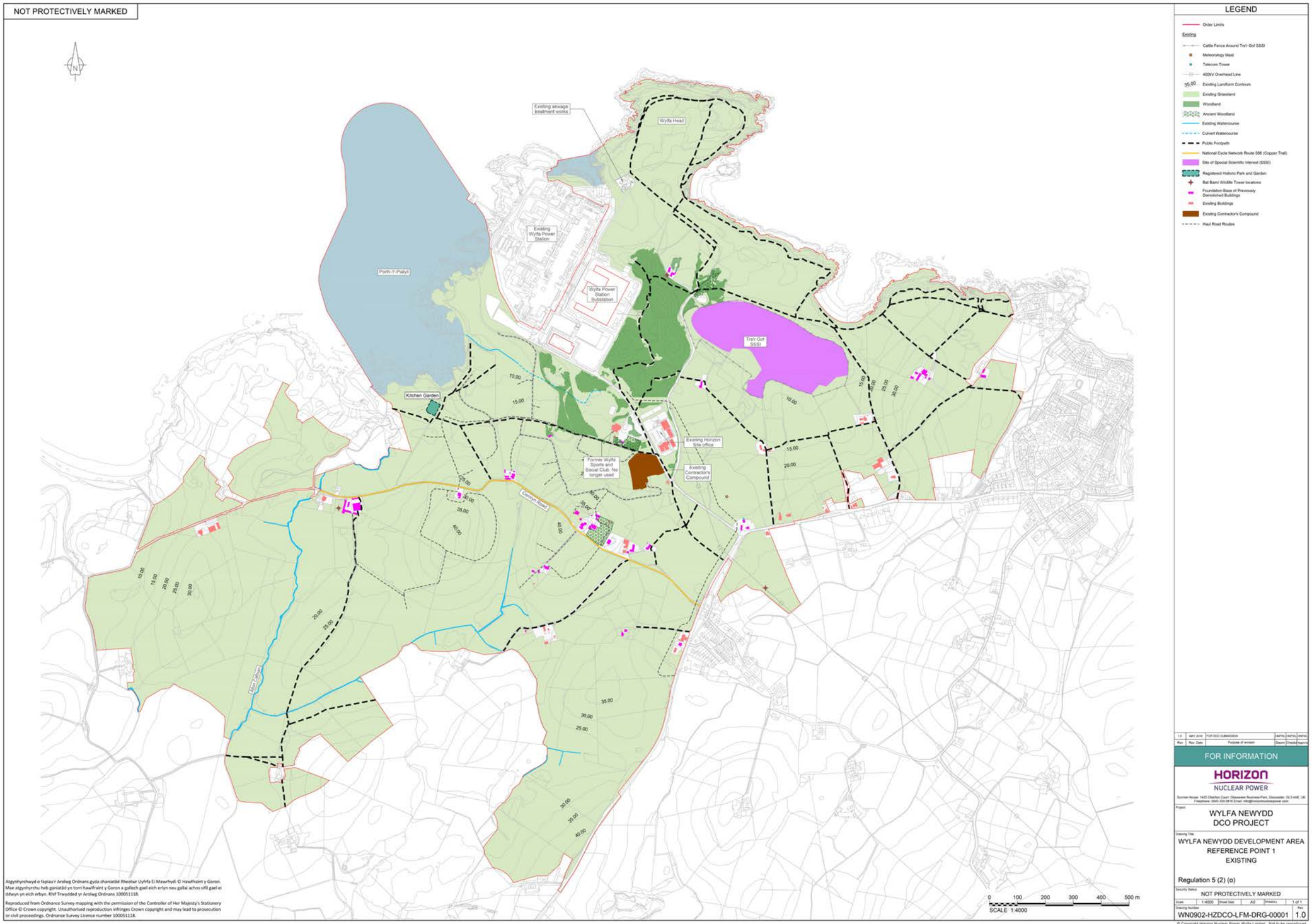
Common Name	Scientific Name	Nature Conservation Status*	Typical Habitats	Other Requirements	
				Breeding/Shelter	Hibernation

***Key to Nature Conservation Status:**

- BD-A1 – Bird species listed on Annex I of Directive 2009/147/EC (Birds Directive) requiring protection via designation of core habitat areas
- HD-A2 – Animal species listed on Annex II of Council Directive 92/43/EEC (Habitats Directive) requiring protection via designation of core habitat areas
- CHSR-S2 – European protected species of animal listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017
- WCA-S1 – Specially protected bird species listed on Schedule 1 of the Wildlife & Countryside Act 1981
- WCA-S5 – Protected animal species listed on Schedule 5 of the Wildlife & Countryside Act 1981
- EWA-S7 – Species of principal importance for conservation of biodiversity in Wales, listed in accordance with Section 7 of the Environment (Wales) Act 2016
- LBAP – Species with Species Action Plans or listed as locally significant species in the Anglesey Biodiversity Action Plan
- BoCC-Red – Red List Birds of Conservation Concern
- Red-NT – Invertebrate species categorised as Near Threatened on the Red List for Great Britain

B REFERENCE POINT DRAWINGS

NOT PROTECTIVELY MARKED



LEGEND

- Order Limits

Existing

- Cattle Fence Around Tre'r Gof SSSI
- Meteorology Mast
- Telecom Tower
- 400kV Overhead Line
- 35.00 Existing Landform Contours
- Existing Grassland
- Woodland
- Ancient Woodland
- Existing Watercourse
- Culvert Watercourse
- Public Footpath
- National Cycle Network Route 566 (Copper Trail)
- Site of Special Scientific Interest (SSSI)
- Registered Historic Park and Garden
- Bat Barn/ Wildlife Tower locations
- Foundation Base of Previously Demolished Buildings
- Existing Buildings
- Existing Contractor's Compound
- Haul Road Routes

Rev 1.0 | Rev. Date: MAY 2019 | Purpose of revision: FOR DCO SUBMISSION | Drawn: AMPW | Checked: AMPW | Approved: AMPW

FOR INFORMATION

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Project: WYLFA NEWYDD DCO PROJECT

Drawing Title: WYLFA NEWYDD DEVELOPMENT AREA REFERENCE POINT 1 EXISTING

Regulation 5 (2) (o)

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Drawing Number: WN0902-HZDCO-LFM-DRG-00001 | Rev: 1.0

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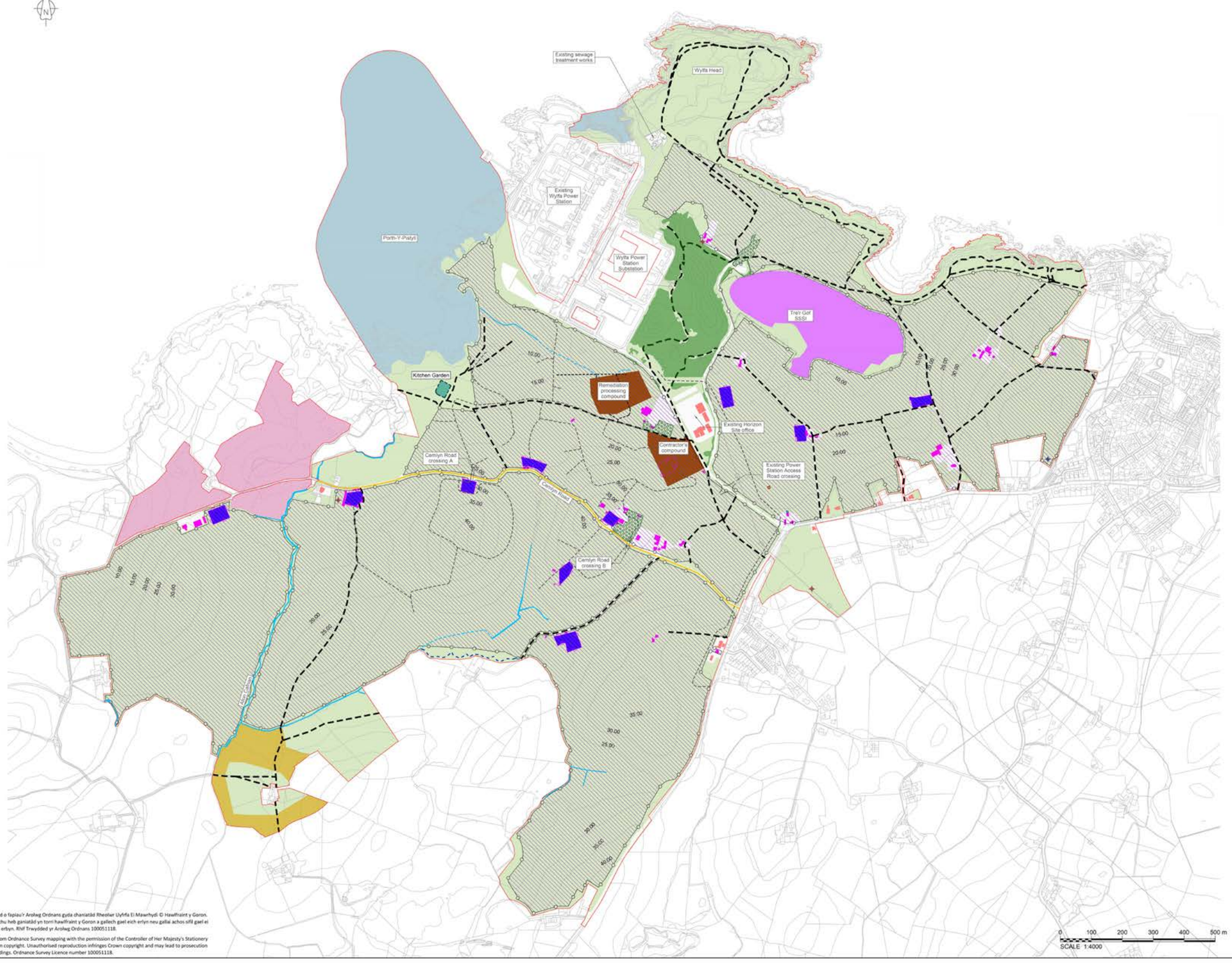

LEGEND

- Order Limits

Existing

- Cattle Fence Around Tre'r Gof SSSI
- Meteorology Mast
- Telecom Tower
- 400kV Overhead Line
- 55.00 Existing Landform Contours
- Existing Grassland
- Woodland
- Ancient Woodland
- Existing Watercourse
- Culvert Watercourse
- Public Footpath
- National Cycle Network Route 566 (Copper Trail)
- Site of Special Scientific Interest (SSSI)
- Registered Historic Park and Garden
- Bat Barn/ Wildlife Tower locations
- Foundation Base of Previously Demolished Buildings
- Retained Buildings
- Haul Road Routes
- Notable Wildlife Enhancement Site
- Reptile Receptor Site

Proposed

- Area of Site Clearance
- Temporary Construction Fencing
- Bat Barn/ Wildlife Tower Locations
- Contractor Compounds
- Main Contractor Compound and Remediation Processing Compound
- CPNI Fencing
- Proposed Access Tracks
- Watercourse diversion

Atgynhyrchwyd o fapiau'r Arolwg Ordnans gyda chaniatâd Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron. Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gallech gael eich erlyn neu gallai achos sifil gael ei ddwyn yn eich erbyn. Rhif Trwydded yr Arolwg Ordnans 100051118.

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Rev	Rev. Date	Purpose of revision	Drawn	Checked	Approved
1.0	MAY 2015	PCH DCO SUBMISSION	AM/NG	AM/NG	AM/NG

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WYLFA NEWYDD DCO PROJECT

Drawing Title
WYLFA NEWYDD DEVELOPMENT AREA REFERENCE POINT 2 CONSTRUCTION

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Drawing Number: WN0902-HZDCO-LFM-DRG-00002 Rev. 1.0

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NOTES

1. Construction fence not shown.

LEGEND

Order Limits

Existing

- Cattle Fence Around Tre'r Gof SSSI
- Meteorology Mast
- Telecom Tower
- 400kV Overhead Line
- Existing Grassland
- Woodland
- Ancient Woodland
- Site of Special Scientific Interest (SSSI)
- Notable Wildlife Enhancement Site
- Reptile Receptor Site
- Existing Watercourse
- Public Footpath
- Bat Barn/ Wildlife Tower locations
- Foundation Base of Previously Demolished Buildings
- Retained Buildings

Proposed

- Main Deep Excavation
- Landscape Mounding/ Grassland
- Landform Contours
- Temporary Landscape Mounding - To Be Seeded
- Top of Landscape Mounding Height (Metres AOD)
- Power Station Construction Area
- Training and Simulator Area
- Lay-down/ Other Construction Areas
- Indicative Intake Channel Excavation Area
- Stone Wall Storage Area
- Viewing Area
- Site Campus
- Cooling Water Outfall Working Area
- Indicative Concrete Batching Plant Location
- Bat Barn/ Wildlife Tower Locations
- Public Footpath
- Private Means of Access
- Security Fencing
- Haul Road and River Crossing
- Sedimentation pond
- Watercourse diversion

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Approved
1.0	MAY 2019	FOR DCO SUBMISSION	AMPW	ANPW	ANPW

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Drawing Title: WYLFA NEWYDD DEVELOPMENT AREA REFERENCE POINT 3 CONSTRUCTION

Regulation 5 (2) (o)

Security Status: NOT PROTECTIVELY MARKED

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1:4000	A0	1 of 1	1.0

Drawing Number: WN0902-HZDCO-LFM-DRG-00003

NOT PROTECTIVELY MARKED

NOTES

1. Construction fence not shown.

LEGEND

- Order Limits
- Existing
- Cattle Fence Around Tre'r Gof SSSI
- Meteorology Mast
- Telecom Tower
- 400kV Overhead Line
- Existing Grassland
- Woodland
- Ancient Woodland
- Site of Special Scientific Interest (SSSI)
- Notable Wildlife Enhancement Site
- Reptile Receptor Site
- Existing Watercourse
- Public Footpath
- Bat Barn/ Wildlife Tower locations
- Foundation Base of Previously Demolished Buildings
- Retained Buildings
- Proposed
- Main Deep Excavation
- Landscape Mounding/ Grassland
- 35.00 Landform Contours
- Temporary Landscape Mounding - To Be Seeded
- +40 Top of Landscape Mounding Height (Metres AOD)
- Power Station Construction Area
- Training and Simulator Area
- Lay-down/ Other Construction Areas
- Indicative Intake Channel Excavation Area
- Stone Wall Storage Area
- Viewing Area
- Site Campus
- Cooling Water Outfall Working Area
- Indicative Concrete Batching Plant Location
- Bat Barn/ Wildlife Tower Locations
- Public Footpath
- Private Means of Access
- Security Fencing
- Haul Road and River Crossing
- Sedimentation pond
- Watercourse diversion

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Approved
1.0	MAY 2018	FOR DCO SUBMISSION	AMPW	HAPW	HMPW

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WYLFA NEWYDD DCO PROJECT

Drawing Title
WYLFA NEWYDD DEVELOPMENT AREA REFERENCE POINT 4 CONSTRUCTION

Regulation 5 (2) (o)

Security Status: NOT PROTECTIVELY MARKED

Scale	Sheet Size	Drawn(s)	
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Drawing Number: WN0902-HZDCO-LFM-DRG-00004 Rev. 1.0

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LEGEND

- Order Limits

Existing

- Cattle Fence Around Tre'r Gof SSSI
- 400kV Overhead Line
- Existing Grassland
- Woodland
- Ancient Woodland
- Bat Barn/ Wildlife Tower Locations
- Site of Special Scientific Interest (SSSI)
- Public Footpath
- Existing Watercourse
- Retained Buildings

Proposed

- Sympathetically Managed Agricultural Grassland
- 35.00 Landform Contours
- Close Sward Species Rich Grassland
- Coarse Sward Species Rich Grassland
- Marshy Wet Grassland
- Coastal Heath / Grass Mosaic
- Broadleaf / Mixed Woodland
- Scattered Tree Planting
- +40 Top of Landscape Mounding Height (Metres AOD)
- New Field Boundary - stone wall / hedgerow / ditch/d
- Bat Barn/ Wildlife Tower Locations
- Power Station Site
- Viewing Area
- Public Footpath
- Wales Coast Path
- Private Means of Access
- Security Fencing
- Sedimentation pond
- Permanent Watercourse Realignment

Rev.	Rev. Date	Purpose of revision	Drawn	Checked	Approved
3.0	FEB 2016	FEBRUARY 2016 AMENDMENTS	AHPWL	AHPWL	AHPWL
2.0	DEC 2015	DECEMBER 2015 AMENDMENTS	AHPWL	AHPWL	AHPWL
1.0	MAY 2015	FOR DCO SUBMISSION	AHPWL	AHPWL	AHPWL

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Project: WYLFA NEWYDD DCO PROJECT

Drawing Title: WYLFA NEWYDD DEVELOPMENT AREA REFERENCE POINT 5 OPERATION

Regulation 5 (2) (o)

Security Status: NOT PROTECTIVELY MARKED

Scale	1:4000	Sheet Size	A0	Sheet no.	1 of 1

Drawing Number: WN0902-HZDCO-LFM-DRG-00005 Rev: 3.0

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C TREE SURVEY

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

Horizon Nuclear Power

Jacobs Project Ref. 60PO8028

Project No:	60PO8028
Document Title:	Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area
Document No.:	01
Revision:	Rev 3
Date:	22 March 2017
Client Name:	Horizon Nuclear Power
Client No:	
Project Manager:	Alexia Rogers-Wright
Author:	Mark Watson
File Name:	P:\ARB Team\Horizon 2017\Main site\CRAV\Wylfa Newydd Development Area tree schedule 2015-16 combined data_revised_SK.docx

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Document history and status

Revision	Date	Description	By	Review	Approved
3	22/03/2017	Tree Survey Schedule	Mark Watson	Peter Small	Alexia Rogers-Wright

JACOBS

Contents

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

1. Overview

1. This schedule presents the findings of the tree survey data undertaken in 2015 and 2016 in accordance with *BS5837:2012 Trees in relation to design, demolition and construction* (BSI, 2012), for the Wylfa Newydd Development Area..
2. The requirements of the survey were to:
   - record information about the trees and hedges that may be impacted upon by the proposed development; and
   - provide a tree survey plan.

2. Scope of tree Survey

3. The survey relates to trees with a stem diameter of 75mm or more (measured at 1.5m above ground level) located within the area highlighted on the General Arrangement Layout (drawing nos. WN012-JAC-OS-DRG-00085 owned/leased land key plan and WN012-JAC-OS-DRG-00086 option land key plan).
4. Trees and hedges included in the survey are those in close proximity to/within the footprint of the proposed development as well as any trees within a 15-metre buffer of the site which were considered to be potentially impacted by any works associated with the proposed development.
5. Results of the tree survey are provided within the associated plan produced (drawing nos. 60PO8028-LSC-D-00014/15/17/18/19/20/22/23 Rev3).

3. References

Mattheck, C., 1994. The Body Language of Trees, Research for Amenity Trees No 4. London: TSO.

British Standards Institute, 2012. British Standard 5837: 2012 Trees in relation to design, demolition and construction – Recommendations. London: BSI Ltd.

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Appendix A. - Cascade Chart for Tree Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see note)			
Category U			
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.		
Trees to be considered for retention			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values including conservation**
Category A			
Trees of high quality with an remaining estimated life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran or semi-formal arboricultural trees or wood-pasture)
Category B			
Trees of moderate quality with an remaining estimated life expectancy of at least 20 years	Trees that might be included in Category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such as they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C			
Trees of low quality with an remaining estimated life expectancy of at least 10 years, or younger trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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Appendix B. - Schedule Key – BS5837

Age Class	
Young (Y) - A tree in the first quarter of its life span. Semi Mature (SM) - A tree in the latter stages of its first quarter, well established. Early Mature (EM) - A tree half way through its life span significant further growth potential. Mature (M) - A tree at or near its potential maximum size which is still growing vigorously in its third quarter of life span. Over Mature (OM) - A tree in decline in its final quarter of life span. Veteran (V) - A tree that by recognised criteria shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.	
Physiological Condition (P)	**Structural Condition (S)**
Good – Showing no adverse risk of failure/defects. Fair – Showing minor signs of deterioration. Poor – Unlikely to recover to a good condition. Dead	Good – No signs of decay or structural weakness. Fair – Minor defects not causing structural weakness. Poor – severe decay in the main stem or branches/structurally weak.
Estimated Remaining Contribution	**Bat Roost Potential (Not surveyed by Arboricultural team)**
<10 - Less than 10 years of normal life expectancy remaining. 10+ - Between 10 and 20 years of normal life expectancy remaining. 20+ - Between 20 and 40 years of normal life expectancy remaining. 40+ - Tree would normally expect to live for more than 40 more years.	**Negligible** – Saplings or semi-mature trees with a small girth. No ivy cover, loose bark, cracks or fissures. **Moderate** – Small or semi-mature trees. May have small amounts of ivy present, stems of small diameter. Trees may have some loose bark but no obvious cracks, fissures or holes. **High –** Trees with large crack, crevices or disused woodpecker holes that can provide refuge for bats. Trees may support dense ivy with multiple stems.

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Appendix C. - Tree Survey Schedule (combined 2015 and 2016 data)

Root Protection Areas have been calculated using the formulae within British Standard 5837:2012

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G1	Sycamore	7	150			Early mature	Dense group around boundary; surveyed from G6 location	10+	C2	1.8
H2	Hawthorn	2	75			Early mature	Field boundary hedge, gorse understory	20+	B1	0.9
G3	Hawthorn, rowan, pine	4	150			Early mature	4 x rowan; 2 x pine with shrubby hawthorn in-between main trees	10+	C2	1.8
H4	Fuchsia	2	75			Early mature	1.5m wide shrubby fuchsia growing as hedge	20+	B1	0.9
H5	Fuchsia	2	75			Early mature	1.5m wide shrubby fuchsia growing as hedge	20+	B1	0.9
T6	Sycamore	9	400			Early mature	Bifurcate at 1.5m; a few dead braches in top canopy; biased crown to north	10+	C1	4.8

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
T7	Common Ash	8	450			Early mature	Canopy to ground; vastly stunted and deformed by weather conditions; wounds from failed branches; crossing branches; small cavity in trunk	20+	B1	5.4
H8	Hawthorn, Elder	4	75			Early mature	4m wide; dense and shrubby form	10+	C1	0.9
H9	Hawthorn, Sycamore, Elder	4	75			Early mature	4m wide; dense; some tall slender form sycamore	10+	C1	0.9
H10	Hawthorn	4	75			Early mature	Predominantly gorse with one multi-stemmed hawthorn; 2m wide	10+	C1	0.9
H11	Cypress	3	80			Mature	(S) Fair. (P)Good. Maintained garden hedge, major dead wood?	20+	B2	1.0
T12	Common Ash	6	150			Early mature	Good form and condition; few crossing branches; potential to be a good specimen tree.	20+	B1	1.8

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G13	Sycamore, Hawthorn	8	150			Early mature	Road track boundary group; multi-stemmed; crossing branches; some tight unions on sycamore	10+	C2	1.8
G14	Sycamore	10	200			Early mature	Multi-stemmed at base; growing against dry stone wall; crossing branches; good condition	20+	B2	2.4
G15	Leyland Cypress, sycamore	9	150			Early mature	Multi-stemmed; garden boundary group; linear feature of Leyland cypress	20+	B2	1.8
T16	Goat Willow	6		300, 250, 250		Mature	(S) Fair. (P) Good. Multi-stemmed at base. Private tree, unable to carry out full visual tree inspection.	20+	B1	5.6
H17	Hawthorn	2	80			Mature	(S) Fair. (P) Good. remnant of old field boundary.	10+	C2	1.0
G18	Hawthorn, Elder	4	100			Early mature	Linear boundary group, multi-stem, crossed stems and branches.	10+	C2	1.2
H19	Hawthorn	4	75			Early mature	field boundary hedge	10+	C2	0.9
T20	Hawthorn	2		80,75		Mature	(S) Fair. (P) Good. next to stone wall, multi-base.	10+	C1	1.3

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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T21	Hawthorn	3		80, 80, 75		Mature	(S) Fair. (P) Good. multi-stem at 1.2m, next to stone wall.	10+	C2	1.6
T22	Hawthorn	2		110, 80,80		Mature	(S) Fair. (P) Good. multi-stem, next to stone wall.	10+	C2	1.9
T23	Hawthorn	2		130, 110		Mature	(S) Fair. (P) Good. multi-stem, next to stone wall.	10+	C2	2.0
T24	Hawthorn	3		310, 110		Mature	(S) Fair. (P) Good. multi-stem, next to stone wall.	10+	C2	3.9
T25	Hawthorn	3		80, 110		Mature	(S) Fair. (P) Good. multi-stem, next to stone wall.	10+	C2	1.6
H26	Hawthorn	4	75			Early mature	2m wide; field boundary hedge.	10+	C1	0.9
H27	Hawthorn	3	75			Early mature	1.5m wide; roadside hedgerow; multi-stemmed shrubby form; well maintained.	20+	B1	0.9
T28	Apple	3		110, 110		Early mature	(S) Fair. (P) Good. multi-stem.	10+	C1	1.9
T29	Sycamore	6	360			Mature	(S) Good. (P) Good. multi- stem, Dense undergrowth - preventing full visual tree assessment.	20+	B1	4.3

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T30	Sycamore	6	435			Mature	(S) Fair. (P) Good. Major deadwood in crown. Stem abutting boundary wall..	20+	B1	5.2
H31	Sycamore, Ash, Hawthorn	6	200			Early mature	(S) Fair. (P) Good. Trees forming boundary hedge.	20+	B2	2.4
T32	Sycamore	6	300			Early mature	(S) Fair. (P) Good. Crown supressed by adjacent tree. Dense undergrowth preventing full visual tree inspection.	10+	C1	3.6
T33	Elm	16	755			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	9.1
T34	Sycamore	12	470			Mature	(S) Fair. (P) Good. Previously pruned back from building.	20+	B1	5.6
T35	Elm	5	210			Early mature	(S) Good. (P) Good. Tree supressed by adjacent tree. Natural lean in stem towards north.	10+	C1	2.5
T36	Elm	6	335			Mature	(S) Fair. (P) Good. Epicormic growth on stem and branches.	10+	C1	4.0
T37	Sycamore	8	620			Mature	(S) Fair. (P) Good. Stem abutting boundary wall. Small cavity in stem at 2.5m.	20+	B1	7.4
G38	Sycamore, pine, ash	7	250			Early mature	(S) Fair. (P) Good. Understory of hawthorn, gorse. Close planting spaces compromising form of trees.	20+	B2	3.0

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G39	Sorbus spp.	4	75			Young	(S) . (P) . Single stemmed young planted trees; dense canopies.	10+	C2	0.9
G40	Sycamore	6	260			Early mature	(S) Good. (P) Good. No signs of ill health or significant structural defect.	20+	B1	3.1
T41	Sycamore	7	240			Early mature	(S) Good. (P) Good. No signs of ill health or significant structural defect.	20+	B1	2.9
G42	Sycamore	8	200			Mature	(S) Fair. (P) Good. Close planting compromising tree form.	20+	B2	2.4
T43	Sycamore	8	500			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	6.0
T44	Ash	16	640			Mature	(S) Fair. (P) Good. Major deadwood in upper crown.	20+	B1	7.7
T45	Sycamore	14		380, 300		Mature	(S) Fair. (P) Good. Twin stemmed at 1.5m. Major deadwood in upper crown.	20+	B1	5.8
G46	Sycamore, ash, elm, pine, holly	15	500			Mature	(S) Fair. (P) Good. Major deadwood in crown. Understorey of hawthorn	20+	B2	6.0
T47	Sycamore	16	400			Mature	(S) Fair. (P) Good. Major deadwood in upper crown.	20+	B1	4.8
T48	Sycamore	16	570			Mature	(S) Fair. (P) Good. Major deadwood in upper crown.	20+	B1	6.8

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G49	Sycamore	10	270			Mature	(S) Fair. (P) Good. Large cavity inn stem at 2m on west side with decay column from 1.5m to 2.5m.Not compromising structural integrity at present.	10+	C1	3.2
G50	Sycamore, common ash, wych elm	11	450			Early mature	22 sycamore, 6 ash and 4 elms; self set and coppiced sycamores; elms with suckering growth; ivy on some stems; moderate deadwood.	20+	B1,2	5.4
G51	Sycamore, hawthorn, privet, common ash, cosican pine, layland cypress, elder	11	350			Early mature	.Dense group of trees; approx. 16 middle aged to mature sycamore with many young self set sycamore; shrubby hawthorn, elder and privet understorey; ivy on some trunks; poor form cypress	20+	B1,2	4.2
T52	Common ash	12	710			Mature	Bifurcate at 2.5m; holes and crevices in branches; moderate deadwood; wounds from failed branches.	20+	B1,2	8.5

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G53	Sycamore, ash, beech, white poplar	15	600			Mature	(S) Good. (P) Good. Major deadwood in upper crowns of sycamore trees.	20+	B2	7.2
T54	Holly	7	340			Early mature	(S) Good. (P) Good. No signs of ill health or significant structural defect.	20+	B2	4.1
T55	Horse chestnut	7	550			Early mature	(S) Fair. (P) Good. Previously crown lifted over field.	20+	B1	6.6
T56	Copper beech	10	670			Mature	(S) Good. (P) Good. No signs of ill health or significant structural defects.	40+	A1	8.0
T57	Holly	6	380			Mature	(S) Fair. (P) Good. Small cavity in stem at 2.5m on north side.	20+	B2	4.6
T58	Sycamore	15	665			Mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	8.0
T59	Sycamore	7	395			Mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	4.7
T60	Sycamore	5	175			Early mature	(S) Good. (P) Good. Natural sweep in stem at 1.5m.	20+	B1	2.1
T61	Silver birch	6	280			Early mature	(S) Fair. (P) Good. Twin stemmed at 1.8m.	20+	B1	3.4

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T62	Silver birch	5		125,120		Early mature	(S) Fair. (P) Poor. Twin stemmed at 1.2m. Witches broom in crown. Tree supressed by adjacent tree. Epicormic growth on stem and branches.	<10	U	Nil
T63	Sliver birch	5		130, 120		Early mature	(S) Fair. (P) Fair. Twin stemmed at 0.5m. Crown supressed by adjacent tree. Epicormic growth on stem.	10+	C1	2.1
T64	sycamore	8		380, 355		Mature	(S) Fair. (P) Good. Twin stemmed at 1.2m.	20+	B1	6.2
G65	Alder, Sycamore	7	250			Early mature	(S) Fair. (P) Good. Close planting spaces compromising form of trees.	20+	B2	3.0
G66	Willow	18	500			Mature	(S) Fair. (P) Good. Major deadwood in crowns.	20+	B2	6.0
T67	Sycamore	5		300, 280		Early mature	(S) Fair. (P) Good. Twin stemmed. Dense undergrowth preventing full visual tree inspection.	20+	B1	4.9
T68	Sycamore	7	385			Early mature	(S) Fair. (P) Good. Small cavity in stem at base on north west side. Natural lean in stem towards south.	10+	C1	4.6
T69	Pine	7	540			Mature	(S) Fair. (P) Good. Previously crown lifted. Major deadwood in crown.	20+	B1	6.5

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T70	Sycamore	6	430			Mature	(S) Fair. (P) Good. Natural sweep in stem at1.5m. Major deadwood in crown.	20+	B1	5.2
T71	Pine	12	680			Mature	(S) Fair. (P) Good. Natural sweep in stem at1.5m. Major deadwood in crown.	20+	B1	8.2
T72	Sycamore	5	285			Early mature	(S) Fair. (P) Good. Small cavity in stem at 1.5m Tree supressed by adjacent tree.	10+	C1	3.4
T73	Pine	12	530			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Barbed wire occluded in to stem at 1m. Major deadwood in crown.	20+	B1	6.4
T74	Sycamore	4	210			Early mature	(S) Poor. (P) Fair. Wind swept tree. Decay column in stem from 1.5m to 2m.	10+	C1	2.5
T75	Pine	6	590			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Major deadwood in crown.	20+	B1	7.1
T76	Pine	8	355			Mature	(S) Fair. (P) Good. Natural lean in stem towards south.Major deadwood in crown.	20+	B1	4.3

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T77	Pine	12	730			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Major deadwood in crown.	20+	B1	8.8
T78	Pine	12	390			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Major deadwood in crown.	20+	B1	4.7
T79	Pine	8	505			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Major deadwood in crown.	20+	B1	6.1
G80	Sycamore	5	400			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	4.8
T81	Sycamore	12		310, 290		Mature	(S) Fair. (P) Good. Barbed wire occluded in to stem at 1.5m. Major deadwood in crown.	20+	B1	5.1
T82	Sycamore	12	510			Mature	(S) Fair. (P) Good. Natural lean in stem towards south. Major deadwood in crown.	20+	B1	6.1
T83	Sycamore	6	360			Mature	(S) Fair. (P) Poor. Major deadwood in crown. 40% crown dieback.	<10	U	Nil

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T84	Sycamore	10	680			Mature	(S) Fair. (P) Good. Acute lean in stem towards east. Stem abutting stone wall. Denser undergrowth preventing full visual tree inspection. Major deadwood in crown.	10+	C1	8.2
G85	Sycamore	7	350			Early mature	Both beginning to retrench; growing adjacent to wall	10+	C2	4.2
T86	Pine	14	380			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	4.6
T87	Pine	7	290			Mature	(S) Fair. (P) Good. Major deadwood in crown. 30% crown dieback.	<10	U	Nil
T88	Corsican pine	12	350			Early mature	Bifurcate at 7m; previous failure at 8m to south	10+	C1	4.2
T89	Corsican pine	9	300			Early mature	Only 2 small living branches to north and east	<10	U	Nil
T90	Sycamore	6		240, 230		Mature	(S) Fair. (P) Good. Twin stemmed at 1.4m.	20+	B1	4.0
T91	Apple	3		240,23 0		Mature	(S) Fair. (P) Good. Twin stemmed at 0.5m.	20+	B1	4.0
W92	Sycamore, white poplar, pine	10	300			Mature	(S) Fair. (P) Good. Close planting compromising tree form.	20+	B2	3.6

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W93	Pine	18	300			Mature	(S) Poor. (P) Good. No understorey due to dense canopy cover. Close planting spaces compromising form of trees. Trees potential of wind throw along recently felled sections.	20+	B2	3.6
W94	Sycamore, ash	15	300			Early mature	(S) Good. (P) Good. Understory of hawthorn, gorse. . Close planting spaces compromising form of trees. Potential of wind throw along recently felled sections.	20+	B2	3.6
W95	stump	1	-			Dead	Sections of recently felled trees		U	Nil
W96	stump	1	-			Dead	Sections of recently felled trees		U	Nil
W97	stump	1	-			Dead	(S) . (P) . Sections of recently felled trees		U	Nil
G98	Pine	6	350						C2	4.2
G99	Pine	8	330						B2	4.0
T100	Pine	6	340						B1	4.1
G101	Pine	12	420						C2	5.0
H102	Cypress, pine	18	350						C2	4.2
G103	Willow	18	500			Mature	(S) poor. (P) Good. Large decay cavities in both trees at base.	<10	U	Nil

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G104	Hawthorn, willow, Blackthorn	5	250			Mature	(S) fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B	3.0
G105	Sycamore, hawthorn, apple palm	14	500			Early mature	Within walled garden; single stemmed; tall slender form sycamore; some with cavities at base; minor bark wounds; some with low growing canopies; shrubby hawthorn around outer edge; some growing up against wall	20+	B2	6.0
G106	Common Ash, sycamore, hawthorn	14	550			Early mature	Single stemmed; some leaning; 1 mature ash in good condition and form; small shrubby hawthorn; some young self set sycamore	20+	B2	6.6
G107	Sycamore, wych elm	12	600			Early mature	Single stemmed; many bifurcate; low growing canopies; some recently heavily pruned and left as habitat poles; suckering at base; poor form elm; failed main leader on elm	20+	B1,2	7.2

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G108	Sycamore, wych elm	13	450			Early mature	Single stemmed; many bifurcate; poor form elm with epicormic on trunk; some stems leaning north-east	20+	B1	5.4
T109	Corsican pine	14	1000			Mature	Bifurcate at 6m; wounds from previous branch removals; slight lean north-east; high canopy	20+	B1,2	12.0
G110	Sycamore, hawthorn, Turkey oak, corsican pine, wych elm	12	500			Early mature	Linear row along dry stone wall; some bifurcate; minor deadwood; shrubby hawthorn; low growing canopies; recent branch removal on some	20+	B1	6.0
T111	Corsican pine	14	790			Mature	Bifurcate at 5m; recent branch removal; high canopy; minor deadwood	10+	C2	9.5

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G112	Sycamore, malas spp, holly, wych elm, elder, palm, rowan, common ash, white poplar	10	600			Early mature	Multi-stemmed; some growing against wall; minor deadwood; sycamore suckering at base	20+	B1,2	7.2
T113	Common ash	10	790			Mature	Growing in wall; bark wounds; bifurcate at base; branches previously reduced; moderate deadwood; few crossing branches	20+	B1,2	9.5
T114	Common ash	8	550			Early mature	Large bark wounds to west side at 1.5m; branches failed to west; decay in stems; crossing branches; wounds from rubbing branches; moderate deadwood; epicormic on trunk to south and east; splits in branches; asymmetric crown	10+	C1	6.6

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W115	Pine	13	370			Mature	Close planting compromising tree form.	20+	B2	4.4
G116	Silver birch, pine, rowan	2.5	75			Young	(S) Good. (P) Good.Newly planted trees.	10+	C2	0.9
G117	Sycamore	6	380			Mature	(S) Good. (P) Good. Close planting compromising tree form.	20+	B2	4.6
T118	Sycamore	7		365, 270		Mature	(S) Fair. (P) Good. Low crown over road.	20+	B1	5.4
G119	Pine	13	350			Mature	(S) Fair. (P) Good. Close planting compromising tree form.	20+	B2	4.2
G120	Maritime pine, sycamore, elder	14	450			Early mature	Some dieback or northern most tree; surveyed from Pennant (*on drawing) reasonable form	10+	C2	5.4
H121	Goat willow, hawthorn		75			Early mature	4m wide; outgrown hawthorn trees	10+	C1	0.9
G122	Maritime pine	14	300			Early mature	Dense group, surveyed from Pennant (*on drawing) good form	20+	B2	3.6

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H123	Cank willow, hawthorn, elder	4	75			Early mature	5m wide; grown out and sporadic hedge; dense	10+	C1	0.9
H124	Hawthorn, gorse	1	75			Early mature	1.5m wide; one hawthorn outgrown to 2m	20+	B1	0.9
H125	Hawthorn, elder	1	75			Early mature	2m wide; mainly gorse with a couple of multi-stemmed hawthorn; dry stone wall	20+	B1	0.9
H126	Fuchsia, juniper; buddleia, guelder rose, silver fir, privet, dog rose	2	75			Early Mature	2.5m wide	10+	C1	0.9
T127	Cherry spp.	6	135			Early mature	Multi-stemmed at base; growing in dense vegetation; crossing branches; minor bark wounds	10+	C1	1.6

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H128	Hawthorn, dog rose, sea buckthorn	2	75			Early mature	1.5m wide; dry stone wall within	20+	B1	0.9
H129	Hawthorn	2	75			Early mature	2m wide; multi-stemmed shrubby hawthorn	20+	B1	0.9
H130	Hawthorn, sycamore	5	75			Early mature	4m wide; multi-stemmed shrubby trees; dense	10+	C1	0.9
H131	Hawthorn, goat willow	4	75			Early mature	5m wide; outgrown hedge	10+	C1	0.9
T132	Sycamore	5	193			Early mature	Multi-stemmed at base; growing on side of road in vegetation; crossing stems and branches	10+	C1	2.3
G133	Sycamore, hawthorn	10	350			Early mature	All sycamore multi-stemmed, precluded from growing over road by neighbouring group	10+	C2	4.2

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G134	Sycamore, wych elm, cypress, common ash	10	350			Early mature	Mainly single stemmed sycamore; dieback in top canopy of sycamore; bifurcate, cypress almost dead with only small canopies remaining at top; young low growing elm	10+	C2	4.2
G135	Sycamore, common ash	10	350			Early mature	Single and multi-stemmed sycamore; dieback in top canopies; suckering at base on some; ash in decline; dry stone wall running through group	10+	C2	4.2
G136	Hawthorn, sycamore, crack willow, sessile oak, bullace	9	150			Early mature	Small group of mixed vitality; poor condition oak with dieback in canopy; dieback in top canopy of willow; dense shrubby bullace	10+	C2	1.8
T137	Sycamore	8	282			Early mature	Bifurcate at base; stems fused together; retrenching; moderate deadwood	10+	C2	3.4

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

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H138	Hawthorn, gorse	2	75			Early mature	Mainly gorse with multi-stemmed shrubby hawthorn at various spacing's; 2m wide; busier to northern end	20+	B1	0.9
H139	Hawthorn, sycamore	5	75			Early mature	4m wide; multi-stemmed shrubby trees; dense	20+	B1	0.9
T140	Scots pine	8	230			Early mature	(S) Fair. (P) Good. One sided crown. Dense undergrowth preventing full visual tree inspection.	10+	C1	2.8
T141	Sycamore	6	600			Mature	(S) Fair. (P) Good. Major deadwood in crown. Dense undergrowth preventing full visual tree inspection.	20+	B1	7.2
T142	Scots pine	8	200			Early mature	(S) Fair. (P) Good. One sided crown. Dense undergrowth preventing full visual tree inspection.	10+	C1	2.4
T143	Sycamore	9	620			Mature	(S) Fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B1	7.4

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T144	Sycamore	7		280, 220, 110		Mature	(S) Fair. (P) Good. Multi-stemmed at base.	20+	B1	4.5
T145	Ash	13	775			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	9.3
T146	Sycamore	4	165			Early mature	(S) fair. (P) Good. Crown supressed by adjacent tree.	10+	C1	2.0
W147	Sycamore, Ash, horse chestnut	16	350			Mature	(S) Good. (P) Good. Understory of hawthorn. Major deadwood in upper crowns of sycamore trees. Close planting spaces compromising form of trees.	20+	B2	4.2
H148	Cypress	7	200			Mature	(S) Good. (P) Good. Unmaintained boundary hedge.	20+	B1	2.0
H149	Cypress, Sycamore	8	300			Mature	(S) Good. (P) Good. Unmaintained boundary hedge.	20+	B1	3.6
H150	Blackthorn, Gorse	3	100			Mature	(S) Good. (P) Good. Unmaintained field boundary hedge.	20+	B1	1.2
T151	Sycamore	12		550, 500		Mature	(S) Good. (P) Good. Twin stemmed at base. Major deadwood in crown. Dense undergrowth preventing full visual tree inspection.	20+	B1	4.2

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T152	Sycamore	8	680			Mature	(S) fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B1	8.2
G153	Sycamore, Hawthorn	4	250			Early mature	(S) fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B2	3.0
H154	Hawthorn	2	75			Early mature	1.5m wide; roadside hedge	20+	B1	2.4
H155	Hawthorn	2	75			Early mature	1.5m wide; roadside hedge	20+	B1	3.6
G156	Sycamore, Hawthorn	6	300			Early mature	(S) Fair. (P) Good. Overhead utility cables running through crowns.	20+	B2	1.2
G157	Hawthorn	6	300			Early mature	(S) Fair. (P) Good. Trees forming field boundary hedge.	20+	B2	3.6
G158	Sycamore	7	315			Early mature	(S) Fair. (P) Good. Middle tree of group suppressed by adjacent trees.	20+	B2	8.2
T159	Sycamore	7	385			Early mature	(S) Fair. (P) Good. Small decay cavity at base and 1.5m. Natural sweep in stem at base.	10+	C1	3.0
H160	Hawthorn	4	150			Early mature	(S) Fair. (P) Good. Unmaintained boundary hedge.	20+	B2	0.9

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T161	Sycamore	12		550, 420, 210		Mature	(S) Fair. (P) Good. Multi-stemmed at 1.3m.	20+	B1	0.9
T162	Sycamore	12	700			Mature	(S) Fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B1	3.6
T163	Sycamore	5	425			Mature	(S) Fair. (P) Good. Large cavity at 1.5m. Suppressed by adjacent trees.	10+	C1	3.6
T164	Sycamore	12	655			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	3.8
H165	Cypress	4	150			Early mature	(S) Fair. (P) Good. Unmaintained garden hedge.	20+	B2	4.6
T166	Sycamore	9	550			Mature	(S) Fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B1	1.8
G167	Sycamore	10	550			Mature	(S) Fair. (P) Good. Natural sweep in stems at base.	20+	B2	6.6
T168	Sycamore	7	470			Mature	(S) Poor. (P) Poor. Large decay cavity at base. Small cavity at 2.5m. Major deadwood in crown.	<10	U	Nil

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T169	Sycamore	8	720			Mature	(S) Fair. (P) Good. Tree late into leaf. Small cavity at 2m.	10+	C1	5.1
T170	Elder	3	90			Early mature	(S) Poor. (P) Poor. 40% crown dieback.	<10	U	Nil
T171	Sycamore	6	760			Mature	(S)Poor. (P) Fair. Large decay cavity at base. 2 large tear out wounds at 2m with small cavities. .	<10	U	Nil
T172	Sycamore	8		510, 220		Mature	(S) Fair. (P) Good. Twin stemmed at 1.4m. Major deadwood in crown.	20+	B1	6.6
T173	Sycamore	10		555, 370		Mature	(S) Fair. (P) Good. Twin stemmed at 1.4m.	20+	B1	6.6
T174	Sycamore	7		335, 315		Mature	(S) Fair. (P) Good. Twin stemmed at 1.4m.	20+	B1	5.6
T175	Sycamore	7		310, 140		Mature	(S) Fair. (P) Good. Twin stemmed at 1.4m. Crown suppressed by adjacent trees	10+	C1	8.6
T176	Cherry	2.5	260			Middle Aged	(S) Fair. (P) Good. Ornamental tree with poor graft union at 1.4m.	10+	C1	1.1

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G177	Hawthorn, holly, cypress	3	150			Middle aged	(S) Fair. (P) Fair. Dense undergrowth preventing full visual tree inspection. Sparse crown on holly tree on south west side.	10+	C2	9.1
T178		2.5	150			Dead	(S) Fair. (P) Dead. Dead monolith.	<10	U	Nil
T179	Rowan	3.5	150			Young	(S) Fair. (P) Fair. Sparse crown on west side.	10+	C1	1.8
T180	Sycamore	5	185			Young	(S) Fair. (P) Good. Natural sweep in stem at base.	20+	B2	2.2
T181	Poplar	3		195, 185		Early mature	(S) Fair. (P) Good. Previously reduced 2m. Twin stemmed at 1m.	10+	C1	3.2
T182	Sycamore	10	650			Mature	(S) Fair. (P) Good. Crown touching building. Twin stemmed at 1.7m.	20+	B1	7.8
G183	Sycamore x 2	7	400			Mature	(S) Fair. (P) Good. Trees forming boundary hedge.	20+	B2	4.8
T184	Sycamore	7		620, 250, 100		Mature	(S) Fair. (P) Good. Multi-stemmed at base. Dense undergrowth preventing full visual inspection.	20+	B1	8.1
H185	Hawthorn, sycamore	3	100			Early mature	(S) Fair. (P) Good. Trees forming boundary hedge.	20+	B2	1.2

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H186	Hawthorn, sycamore, elder	3	100			Early mature	(S) Fair. (P) Good. Trees forming boundary hedge.	20+	B2	1.2
T187	Sycamore	8	630			Mature	(S) Fair. (P) Good. Sparse upper crown. Major deadwood in crown.	10+	C1	7.6
G188	Elm x 2, hawthorn x 2	5	250			Early mature	(S) Fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B2	3.0
T189	Ash	7	750			Mature	(S) Fair. (P) Good. Wind swept tree. Dense ivy and undergrowth preventing full visual tree inspection.	10+	C1	9.0
G190	Hawthorn	2	100			Early mature	Shrubby boundary trees. Multi-stemmed with crossing branches.		C2	1.2
T191	Hawthorn	3	100			Early mature	Multi-stemmed at base, stems lean east, biased canopy east, poor form.		C1	1.2
H192	Hawthorn	3	100			Early mature	3m wide, poor overgrown hedgerow with dry stone wall, leaning stems, crossing stems, some decay.		C1	1.2
H193	Hawthorn	2	100			Early mature	Sporadic hedge abd dry stone wall, 2m wide.		C1	1.2
H194	Hawthorn	2	100			Mature	(S) Fair. (P) Good. Maintained boundary hedge.	20+	B2	1.2

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G195	Sycamore x 26, ash x 5, alder x 1	12	600			Mature	(S) Fair. (P) Good. Group following water course. Major deadwood in sycamore trees.	20+	B2	7.2
T196	Sycamore	5	485			Mature	(S) Fair. (P) Good. Ivy on stem hiding any possible defects.	20+	B1	5.8
T197	Sycamore	5		210, 170		Early mature	(S) Fair. (P) Good. Twin stemmed at 1.5m.	20+	B1	3.2
T198	Sycamore	5	565			Mature	(S) Fair. (P) Good. Ivy on stem hiding any possible defects.	20+	B1	6.8
T199	Sycamore	8	410			Mature	(S) Fair. (P) Fair. Large pruning wound at 1.5m on north side (flush cut), poor occlusion. Crown supressed on west side by adjacent trees.	10+	C1	4.9
T200	Sycamore	10	485			Mature	(S) Fair. (P) Good. Previously crown lifted. Stem abutting boundary wall.	20+	B1	5.8
T201	Horse chestnut	10	760			Mature	(S) Fair. (P) Good. Major deadwood in crown with woodpecker hole at 4m. Snapped hung up branch at 4m. Ivy on stem hiding any possible defects	10+	C1	9.1
G202	Sycamore x 16, horse chestnut x 1	10	450			Mature	(S) Fair. (P) Good. Major deadwood in sycamore trees.	20+	B1	5.4

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T203	Sycamore	7	260			Early mature	(S) Fair. (P) Good. Natural sweep in stem at 1.6m. One sided crown.	10+	C1	3.1
T204	Sycamore	7	280			Early mature	(S) Fair. (P) Good. Natural sweep in stem at 1.6m. One sided crown.	10+	C1	3.4
T205	Sycamore	3.5	360			Early mature	(S) Fair. (P) Good. Previously monolithed at 3m.	10+	C1	4.3
T206	Sycamore	7	310			Mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	3.7
T207	Beech	13		425, 400, 270		Mature	(S) Fair. (P) Good. Multi-stemmed at 1.5m. Large burr on stem at 1m. Crown suppressed on west side by adjacent trees.	10+	C1	7.7
T208	Sycamore	12	280			Early mature	(S) Fair. (P) Good. Previously crown lifted. Natural sweep in stem at 1.5m.	20+	B1	3.4
T209	Sycamore	10	310			Early mature	(S) Fair. (P) Good. Previously crown lifted. Natural sweep in stem at 1.5m and 2.5m.	20+	B1	3.7
T210	Oak	3	310			Early mature	(S) Fair. (P) Good. Main stem leader topped at 3m.	10+	C1	3.7
T211	Whitebeam	3	320			Mature	(S) Fair. (P) Good. Main stem leader topped at 3m. Natural sweep in stem at 1m.	10+	C1	3.8
T212	Cherry	4	275			Early mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	3.3

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T213	Horse chestnut	3	305			Early mature	(S) Fair. (P) Good. Previously pollarded at 2.5m.	10+	C1	3.7
T214	Horse chestnut	4	320			Early mature	(S) Fair. (P) Good. Small cavity at 2m on north side. Dense undergrowth preventing full visual inspection.	10+	C1	3.8
T215	Sycamore	8	260			Early mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	3.1
T216	Sycamore	7	250			Early mature	(S) Fair. (P) Good. Previously crown lifted. Stem abutting boundary wall.	20+	B1	3.0
T217	Sycamore	7	240			Early mature	(S) Fair. (P) Good. Previously crown lifted. Stem abutting boundary wall.	20+	B1	2.9
T218	Hawthorn	3	325			Mature	(S) Fair. (P) Good. Previously crown lifted.	20+	B1	3.9
T219	Ash	8		395, 185		Mature	(S) Fair. (P) Good. Twin stemmed at 1.5m. Ivy on stem and branches hiding any possible defects. Crown suppressed on west side by adjacent trees.	10+	C1	5.2
T220	Ash	10	570			Mature	(S) Fair. (P) Good. Previously crown lifted. Compost build up around base of tree. Stem abutting boundary wall.	20+	B1	6.8
T221	Pine	13	335			Mature	(S) Fair. (P) Good.M inor bark damage at base and 1m with exposed wood.	20+	B1	4.0

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T222	Pine	16	540			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	6.5
T223	Pine	16	600			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	7.2
T224	Sycamore	4	395			Mature	(S) Fair. (P) Good. Previously pollarded at 2.5m.	10+	C1	4.7
T225	Ash	12	460			Mature	(S) Fair. (P) Fair. Small cavities at 2m & 2.5m. Bacterial cankers on stem and branches.	10+	C1	5.5
T226	Elder	2.5		75, 75, 50		Young	(S) Fair. (P) Good. Multi-stemmed at base.	10+	C1	1.4
T227	Sycamore	6	350			Early mature	(S) Fair. (P) Good. Natural sweep in stem at 1m.	20+	B1	4.2
T228	Apple	3		80, 80, 75		Mature	(S) Poor. (P) Fair. Large decay cavity at base.	<10	U	Nil
T229	Apple	2.5	120			Mature	(S) Fair. (P) Good. Acute lean in stem towards east.	10+	C1	1.4
G230	Sycamore x 1, ash x 1	4	150			Early mature	(S) Fair. (P) Good. Dense undergrowth preventing full visual tree inspection.	20+	B2	1.8
T231	Unknown	3		100, 80		Dead	(S) Poor. (P) Dead. Dead tree.	<10	U	Nil
G232	Sycamore x 2	7	320			Early mature	(S) Fair. (P) Good. Previously pruned away from overhead utility cables. Ivy on stems hiding any possible defects.	20+	B2	3.8

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T233	Beech	13	665			Mature	(S) Fair. (P) Good. Major deadwood in crown.	20+	B1	8.0
G234	Sycamore x 15, ash x 2, hawthorn x 1	8	200			Early mature	(S) Fair. (P) Good. Previously pruned away from overhead utility cables. Ivy on stems hiding any possible defects	20+	B2	2.4
T235	Ash	2		200, 170		Early mature	(S) Fair. (P) Good. Twin stemmed at base.	20+	B1	3.1
G236	Sycamore x 4, ash x 2, hawthorn x 1	3	600			Mature	(S) Fair. (P) Good. Livestock in fields preventing full visual tree inspection. Tree surveyed from nearest safe vantage point.	20+	B2	7.2
T237	Hawthorn	3	250			Early mature	(S) Fair. (P) Good. Livestock in fields preventing full visual tree inspection. Tree surveyed from nearest safe vantage point.	20+	B1	3.0
T238	Hawthorn	3	150			Early mature	(S) Fair. (P) Good. Livestock in fields preventing full visual tree inspection. Tree surveyed from nearest safe vantage point.	20+	B1	1.8
T239	Pine	3	150			Early mature	(S) Fair. (P) Good. Livestock in fields preventing full visual tree inspection. Tree surveyed from nearest safe vantage point.	20+	B1	1.8

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G240	Cypress x 7, eucalyptus x 3, pine x 1, cabbage palm x 1, hawthorn x 1	4	200			Mature	(S) Fair. (P) Good. Ornamental trees forming group. Close planting comprimising tree form.	20+	B2	2.4
G241	Pine	12	400			Mature	(S) Fair. (P) Fair.	20+	B2	4.8
W242	Mixed conifer species, pinus spp., sycamore	10	350			Mature	(S) Good. (P) Good.	20+	B2	4.2
G243	Birch, pine, ash, hazel, sycamore	6	75			Young	(S) Good. (P) Good.	10+	C2	0.9
W244	Mixed conifer and ornamental species, pinus spp., lime, ash	12	400			Mature	(S) Good. (P) Good.	20+	B2	4.8
G245	Hawthorn, maritime pine	4	100			Mature	(S) Good. (P) Good. Unmaintained boundary group, bramble, bracken and gorse understory.	10+	C2	1.2

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T246	Maritime pine	6		180,180		Early mature	(S) Good. (P) Good. Unable to access fully assess, multi stem.	10+	C2	3.1
T247	Sycamore	6		200, 150		Early mature	(S) Good. (P) Good. Unable to access fully assess, multi stem.	10+	C2	3.0
G248	Elder	3	130			Early mature	(S) Fair. (P) Good. Jews ear on minor deadwood, some small wounds and occluding cavities	10+	C2	1.6
T249	Maritime pine	8	300			Early mature	(S) Fair. (P) Fair. Minor detail, crown thinning, next to steep slope down to beach, wounds on stem, past limb tear outs.	10+	C2	3.6
G250	Hawthorn	4	240			Mature	(S) Poor. (P) Poor. Moderate dieback and deadwood, past limb tear outs, field boundary group.	<10	U	Nil
G251	Hawthorn, goat willow	6	280			Mature	(S) Fair. (P) Good. Minor deadwood, field boundary group, ivy on some stems.	10+	C2	3.4
G252	Goat willow	6	150			Early mature	(S) Good. (P) Good. Field boundary group, bramble understory.	10+	C2	1.8

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G253	Goat willow, hawthorn, elder	7	150			Mature	(S) Good. (P) Good. Field boundary group, unmaintained, on marshland next to ditch, minor deadwood.	10+	C2	1.8
G254	Hawthorn, elder x 1	4	230			Mature	(S) Fair. (P) Fair. Minor to moderate deadwood and minor dieback, past limb tear outs, field boundary group next to small stone wall.	10+	C2	2.8
G255	Hawthorn	2	120			Mature	(S) Good. (P) Fair. Minor dieback at the canopy tops, next to stone wall.	10+	C2	1.4
T256	Elder	3	120			Mature	(S) Good. (P) Good. Overgrown tree with ivy, gorse and bramble understory, next to ditch at field boundary.	10+	C2	1.4
G257	Hawthorn x 1, goat willow x 2	4	240			Mature	(S) Fair. (P) Poor. Willow has moderate dieback and deadwood, hawthorn overgrown with ivy, unmaintained field boundary group next to ditch.	<10	U	Nil

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G258	Hawthorn, goat willow, elder	6	200			Mature	(S) Good. (P) Good. Unmaintained field boundary group next to marsh land, unable to access to fully assess.	10+	C2	2.4
G259	Stone pine, Douglas fir, common larch, hawthorn	8	350			Early mature	(S) Fair. (P) Good. Unable to access area to fully assess, fallen trees within group, past limb tear outs and stem snapping, unmaintained field boundary group, bramble understory, remaining trees have minor deadwood.	10+	C2,3	4.2
T260	Hawthorn	3	150			Mature	(S) Good. (P) Fair. Minor dieback at top of canopy	10+	C2	1.8
G261	Blackthorn, hawthorn	3	150			Mature	(S) Good. (P) Good. Minor deadwood, bramble and gorse understory, roadside group at field boundary, unmaintained.	10+	C2	1.8
G262	Hawthorn, elder, blackthorn	5	120			Mature	(S) Good. (P) Good. Unmaintained field boundary group with bramble and gorse understory.	10+	C2	1.4
G263	Hawthorn, blackthorn	3	150			Mature	(S) Good. (P) Good. Unmaintained field boundary group with bramble and gorse understory.	10+	C2	1.8

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
T264	Hawthorn	3	100			Mature	(S) Good. (P) Good. On field boundary.	10+	C2	1.2
G265	Hawthorn, blackthorn, goat willow	5	150			Mature	(S) Good. (P) Good. Unmaintained field boundary group with bramble and gorse understory, unable to access to fully assess, assessed from vantage point.	10+	C2	1.8
G266	Blackthorn, hawthorn	6	120			Mature	(S) Good. (P) Good. Unmaintained field boundary group.	10+	C2	1.4
H267	Hawthorn, blackthorn	3	100			Mature	(S) Good. (P) Good. Lapsed boundary hedge over grown with gorse and bramble.	10+	C2	1.2
T268	Hawthorn	2	75			Mature	(S) Good. (P) Good. On field boundary.	10+	C2	0.9
G269	Hawthorn, stone pine x 1	3	100			Mature	(S) Fair. (P) Good. Field boundary group on edge of G15, minor dieback and deadwood, bramble and bracken incorporated into group. Pine has moderate dieback.	10+	C2	1.2
T270	Hawthorn	2	120			Mature	(S) Poor. (P) Poor. Major dieback and deadwood for tree size.	<10	U	Nil

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T271	Goat willow	6			140 x 6	Early mature	(S) Good. (P) Good.On field boundary with hawthorn, blackthorn, bramble, gorse and thistle understory, multi stem, good form.	20+	B1,2	4.1
G272	Hawthorn, blackthorn	6	150			Mature	(S) Good. (P) Fair. Field boundary group with bramble and nettle understory, minor dieback and deadwood, some patches of gorse within group.	10+	C2	1.8
G273	Hawthorn, blackthorn	5	120			Mature	(S) Good. (P) Good. Field boundary group with bramble and nettle understory, minor dieback and deadwood, some patches of gorse within group.	10+	C2	1.4
G274	Hawthorn x 2	6	150			Mature	(S) Fair. (P) Fair. Field boundary group with moderate deadwood, minor dieback and heavily overgrown with ivy. Ivy preventing full inspection of stems and canopy.	10+	C2	1.8

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G275	Hawthorn x 2	5	150			Mature	(S) Poor. (P) Poor. 1 dead and 1 has major dieback and deadwood, ivy covering set and canopy preventing full Visual tree assessment.	<10	U	Nil
G276	Hawthorn, blackthorn	7	180			Mature	(S) Fair. (P) Fair. Moderate to major dieback and minor to moderate deadwood, field boundary group, occluding wounds on stems.	10+	C2	2.2
G277	Sycamore x 3, hawthorn x 1	9	420			Mature	(S) Fair. (P) Good. Hawthorn has major dieback and deadwood for tree size, sycamores have moderate deadwood. Barbed wire fence occluding into stem of smallest sycamore, minor past limb tear outs, occluding wounds and cavities.	10+	C2	5.0
G278	Hawthorn, blackthorn	4	120			Mature	(S) Good. (P) Fair. Minor dieback and deadwood, field boundary group, gorse and bramble incorporated in group.	10+	C2	1.4
T279	Hawthorn	2	100			Mature	(S) Good. (P) Good. On field boundary.	10+	C2	1.2

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

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T280	Hawthorn	3	120			Mature	(S) Poor. (P) Fair. On field boundary, moderate dieback and deadwood for tree size.	<10	U	Nil
T281	Hawthorn	2	100			Mature	(S) Fair. (P) Fair. Windswept tree that grows to the east due to a north westerly prevailing wind, minor dieback in canopy.	10+	C2	1.2
T282	Ash	8	350			Mature	(S) Good. (P) Fair. Asymmetrical canopy, minor dieback and deadwood. Private garden tree preventing further inspection.	10+	C2	4.2
G283	Hawthorn	3	120			Mature	(S) Good. (P) Good. Hawthorns growing under canopy of G40, private garden group preventing full Visual tree assessment.	10+	C2	1.4
G284	Sycamore	12	210			Mature	(S) Good. (P) Good. Minor regeneration of sycamore under G40 canopy, minor occluded wounds from previous pruning, private garden group preventing full Visual tree assessment.	20+	B2	2.5

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T285	Ash	13		420, 200		Mature	(S) Good. (P) Good. Slight lean to south east, multi stem, minor dieback at top of canopy, private garden tree preventing full Visual tree assessment.	20+	B2	5.6
T286	Sycamore	15		500, 250, 400, 320		Mature	(S) Good. (P) Good. Large multi stem, minor deadwood, good form, private garden tree preventing full Visual tree assessment.	20+	B1,2	9.1
G287	Ash x 2, sycamore x 1	12	410			Mature	(S) Good. (P) Fair. Minor deadwood and minor dieback in group, group next to telegraph pole and wires, ivy covered stem of largest ash, private garden group preventing full Visual tree assessment.	20+	B2	4.9
H288	Hawthorn, blackthorn	3	100			Mature	(S) Good. (P) Good. Lapsed field boundary hedge.	10+	C2	1.2
G289	Hawthorn	3	100			Mature	(S) Fair. (P) Fair. Minor deadwood and moderate dieback.	10+	C2	1.2
G290	Blackthorn, damson	6	100			Mature	(S) Fair. (P) Fair. Small patch of dead in group.	10+	C2	1.2

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G291	Hawthorn, elder	4	120			Mature	(S) Good. (P) Fair. Minor dieback, field boundary group, patches of gorse and bramble in group.	10+	C2	1.4
G292	Goat willow	8	200			Mature	(S) Good. (P) Good. Unable to access due to undergrowth, no full Visual tree assessment carried out.	10+	C2	2.4
T293	Hawthorn	3	100			Mature	(S) Good. (P) Good. Unable to access due to undergrowth, no full Visual tree assessment carried out.	10+	C2	1.2
G294	Goat willow, hawthorn, elder	6	220			Mature	(S) Good. (P) Fair. Minor dieback and deadwood, bramble and bracken understory.	10+	C2	2.6
G295	Elder, hawthorn, damson	6	120			Mature	(S) Good. (P) Good. Patches of bramble and gorse in group, power pole and wires in group x 2.	10+	C2	1.4
G296	Hawthorn, elder	6	130			Mature	(S) Good. (P) Good. Patches of gorse, bramble and ivy in group, next to lay-by.	10+	C2	1.6

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G297	Hawthorn, blackthorn	2	90			Mature	(S) Good. (P) Good. Patches of gorse, bramble, wildflower in group, field boundary group on bund.	10+	C2	1.1
T298	Hawthorn	2	100			Mature	(S) Fair. (P) Good. Minor deadwood.	10+	C2	1.2
G299	Hawthorn	4	100			Mature	(S) Fair. (P) Fair. Minor dieback, moderate dead wood, field boundary group, bramble and wild flower understory	10+	C2	1.2
T300	Goat willow	10			200 x 4, 250 x 4	Mature	(S) Good. (P) Good. Large multi steam, minor past limb tear outs, minor dead wood, unable to access due to under growth preventing full Visual tree assessment	20+	B2	7.6
G301	Hawthorn	4	85			Mature	(S) Good. (P) Fair. Minor deadwood.	10+	C2	1.0
G302	Goat willow, elder, hawthorn	7	200			Mature	(S) Good. (P) Fair. Wild flower and gorse understory, small patch of dead, power line s running over group.	10+	C2	2.4

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G303	Elder, hawthorn,	6	100			Mature	(S) Good. (P) Fair. Minor deadwood at canopy tops and power line, group over grown with ivy, wild flower, bracken and bramble understory.	10+	C2	1.2
G304	Hawthorn, goat willow, elder, white poplar, prunus spp.	11	250			Mature	(S) Good. (P) Fair. Limited access due to fencing and Japanese knot weed, minor dieback in tops and crown.	10+	C2	3.0
G305	Hawthorn	5	180			Mature	(S) Fair. (P) Fair. Moderate deadwood, minor die back, ivy covering gorse understory, over grown wall in places.	10+	C2	2.2
T306	Sycamore	11		170, 290,250		Mature	(S) Good. (P) Good. Epicormics growth, some ivy on stem.	20+	B2	5.0
G307	Hawthorn	4	150			Mature	(S) Good. (P) Fair. Some past limb tear out on largest, some minor deadwood and die back.	10+	C2	1.8

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G308	Elder	4	120			Mature	(S) Good. (P) Good. Understory of wild flowers , surrounded by gorse.	10+	C2	1.4
G309	Elder	6			220,90 ,120,1 30,100 ,190,1 10,110	Over mature	(S) Fair. (P) Fair. Moderate deadwood, minor die back, past limb tear outs.	10+	C2	4.5
G310	Elder, hawthorn	8		340,29 0,290		Mature	(S) Fair. (P) Good. Moderate dead wood, past level my tear outs, ivy covering stems and Canopies.	10+	C2	6.4
T311	Hawthorn	8		110,23 0,130, 320		Over mature	(S) Good. (P) Good. Thick ivy preventing full Visual tree assessment	10+	C2	5.2
G312	Hawthorn	6		180,19 0		Mature	(S) Good. (P) Good. Small amount of ivy on stem and in canopy, small amount of deadwood.	10+	C2	3.1
T313	Sycamore	6	75			Early mature	(S) Good. (P) Good. Minor regeneration at base	10+	C2	0.9
T314	Sycamore	12	470			Mature	(S) Good. (P) Good. Ivy on stem, minor dead wood, good form	20+	B1,2	5.6

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T315	Sycamore	12	380			Mature	(S) Good. (P) Good. Minor regeneration at base, suppressed on west due to T16 minor ivy on stem	20+	B1,2	4.6
T316	Goat willow	7			120X6	Mature	(S) Fair. (P) Good. Unable to access due to undergrowth and ditch, multi stem minor dead wood	10+	C2	3.5
T317	Ash	10		280, 210, 190		Mature	(S) Good. (P) Good. Unable to access due to terrain, gates, undergrowth preventing full Visual tree assessment	10+	C2	4.8
G318	Hawthorn	3	100			Mature	(S) Good. (P) Fair. Minor die back at tops, telegraph pole in group, small stream next to group, over grown wall	10+	C2	1.2
G319	Sycamore, ash	8	550			Mature	(S) Fair. (P) Fair. Trees topped, and pruned heavily, on bund/stone wall, private garden group preventing full Visual tree assessment	10+	C2	6.6
G320	Sycamore	6	240			Early mature	(S) Good. (P) Good. Private garden group preventing full Visual tree assessment	10+	C2	2.9

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G321	Blackthorn, hawthorn, elder	4	100			Mature	(S) Good. (P) Fair. Over grown stone wall boundary, minor die back at top of canopy, small patch of dead, patches of gorse, some areas over grown with bramble	10+	C2	1.2
T322	Ash	6	120			Early mature	(S) Good. (P) Good. Within G23 near fence	10+	C2	1.4
H323	Hawthorn	4	100			Mature	(S) Good. (P) Fair. Small amount of die back at top	10+	C2	1.2
G324	Corsican pine	12	450			Mature	(S) Fair. (P) Good. Some occluded pruning wounds, moderate dead wood, within private garden group preventing full Visual tree assessment	20+	B2	5.4
G325	Prunus spp., holly, rowan, oak	6	200			Mature	(S) Good. (P) Fair. Minor die back at tops of Canopus, private garden group preventing full Visual tree assessment	10+	C2	2.4
T326	Hawthorn	3	100			Mature	(S) Good. (P) Fair. Minor die back at top of canopy, next to/within stone wall	10+	C2	1.2

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G327	Hawthorn	4	120			Mature	(S) Good. (P) Good. Next to dry stone wall, ivy on stems, roadside group	10+	C2	1.4
T328	Elder	4	120			Mature	(S) Good. (P) Good. Growing in/ on dry stone wall, understory of bramble and blackthorn	10+	C2	1.4
G329	Hawthorn, blackthorn	4	100			Mature	(S) Good. (P) Good. Next to stone wall, over grown with bramble and ivy, patches of gorse next to ditch	10+	C2	1.2
T330	Hawthorn	1	75			Mature	(S) Good. (P) Good. Between stone wall and fence	10+	C2	0.9
G331	Hawthorn, elder	3	120			Mature	(S) Good. (P) Good. Some trees growing in Alan easterly direction due to prevailing wind	10+	C2	1.4
G332	Hawthorn	5	100			Mature	(S) Good. (P) Fair. Minor dieback in canopy s, next to ditch, gorse, bramble wildflower understory	10+	C2	1.2
G333	Hawthorn, elder	6	130			Mature	(S) Good. (P) Good. Next to ditch, on slight bund, wildflower nod bramble understory	10+	C2	1.6

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T334	Hawthorn	2	80			Mature	(S) Fair. (P) Fair. Minor dead wood, minor dieback, on bund, next to ditch	10+	C2	1.0
T335	Hawthorn	3	140			Mature	(S) Good. (P) Fair. Minor dieback in the canopy	10+	C2	1.7
T336	Hawthorn	1	80			Early mature	(S) Good. (P) Good. Next to ditch	10+	C2	1.0
H337	Hawthorn, elder	4	100			Mature	(S) Good. (P) Fair. Minor dieback, next to stone wall, small amount of ivy on stems	10+	C2	1.2
G338	Hawthorn	3	110			Mature	(S) Good. (P) Good. Lapsed hedge, on dry stone wall	10+	C2	1.3
T339	Sycamore	10	350			Mature	(S) Good. (P) Good. On stone bund,	20+	B2	4.2
T340	Sycamore	12	410			Mature	(S) Good. (P) Good. On stone bund slightly wind swept	20+	B2	4.9
T341	Sycamore	6	250			Mature	(S) Fair. (P) Good. On stone bund, was multi stem - torn out, minor regrow the from remaining stump	10+	C2	3.0
G342	Hawthorn	2	80			Early mature	(S) Fair. (P) Fair. Patches of dead, minor dead wood, lapsed hedge- sporadic, patches of gorse, on stone bund	10+	C2	1.0

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G343	Hawthorn	2	100			Mature	(S) Fair. (P) Fair. Overgrown with brambles, patch s of gorse within group	10+	C2	1.2
G344	Prunus spp., blackthorn, hawthorn	3	90			Mature	(S) Good. (P) Good. Very minor dieback in canopy, on stone bund	10+	C2	1.1
T345	Prunus spp.	4	150			Mature	(S) Good. (P) Good. On stone bund, bramble, wildflower understory	10+	C2	1.8
G346	Prunes sap, Hawthorn	4	100			Mature	(S) Good. (P) Fair. Minor die back at canopy tops, patches of dead some ivy on stems	10+	C2	1.2
T347	Goat willow	5		130,110,110		Mature	(S) Good. (P) Good. Within G48, bramble understory	10+	C2	2.4
T348	Hawthorn	6	400			Mature	(S) Good. (P) Good. Old multi stem, now fused together, next to stream, unable to access	10+	C2	4.8
G349	Hawthorn	2	100			Mature	(S) Good. (P) Good. Next to ditch unable to access	10+	C2	1.2

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G350	Sycamore	14	300			Mature	(S) Good. (P) Good. Next to stone wall, unable to access preventing full Visual tree assessment	20+	B2	3.6
G351	Sycamore	16	450			Mature	(S) Good. (P) Good. Canopus merge, next to stone wall, private garden so unable to access preventing full Visual tree assessment	20+	B1,2	5.4
T352	Ash	12	350			Mature	(S) Poor. (P) Poor. Major die back and dead wood at crown, dying, within G53, thick Lowe canopy	<10	U	Nil
T353	Ash	11	750			Over mature	(S) Fair. (P) Poor. Heavily pruned and top d little foliage remaining, occluding/end wounds and cavities on stem, bark damage from pruning wounds throughout, private garden tree unable to access preventing full Visual tree assessment	10+	C2,3	9.0

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G354	Sycamore	9	500			Mature	(S) Fair. (P) Poor. Heavily pruned and top d little foliage remaining, private garden tree unable to access preventing full Visual tree assessment	10+	C2	6.0
G355	Sycamore	6	500			over Mature	(S) Fair. (P) Poor. Heavily pruned and top d little foliage remaining, occluding/end wounds and cavities on stem, bark damage from pruning wounds throughout, private garden tree unable to access preventing full Visual tree assessment	10+	C2,3	
T356	Ash	11	750			Mature	(S) Good. (P) Good. Next to stone wall raised up next to house	10+	C2	3.0
H357	Loral	2	75			Mature	(S) Good. (P) Good. Overgrown hedge and next to wall and house bramble rowing threw	10+	C2	0.9
G358	Hawthorn	2	75			Mature	(S) Good. (P) Fair. Next to wall, overgrown with bramble	10+	C2	0.9

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T359	Grey alder	4	100			Early mature	(S) Good. (P) Good. Bramble understory, edge of parking area	10+	C2	1.2
G360	Hawthorn	3		100, 100		Mature	(S) Good. (P) Good. On small stone bund, nettle understory	10+	C2	1.7
T361	White willow	5		75,75		Mature	(S) Good. (P) Good. Near building and in field, bramble understory	10+	C2	1.3
T362	Grey alder	5	100			Early mature	(S) Good. (P) Good. Field boundary, some regen at base	10+	C2	1.2
G363	Hawthorn	4	100			Mature	(S) Good. (P) Fair. Some die back in canopy, some patches of gorse, next to stone wall	10+	C2	1.2
G364	Elder	3	180			Mature	(S) Good. (P) Good. On stone bund, over grown with ivy, bramble understory	10+	C2	2.2
G365	Hawthorn	4	150			Mature	(S) Fair. (P) Fair. One fallen, physiologically still going, on field boundary, patchy gorse, bramble understory	10+	C2	1.8

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Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G366	Sycamore	8		240, 350		Mature	(S) Good. (P) Good. Some ivy on stem, bramble understory, on field boundary, fencing occluding into trees	10+	C2	5.1
T367	Sycamore	8		200, 350,60 0		Mature	(S) Good. (P) Good. Some ivy on stem, bramble understory, on field boundary, fencing occluding into trees	10+	C2	8.7
G368	Hawthorn	3		75,75, 75		Mature	(S) Good. (P) Good. Along boundary between two fields	10+	C2	1.6
T369	Hawthorn	5		180,15 0		Mature	(S) Dead. (P) Dead. Within G71	<10	U	Nil
G370	Hawthorn, elder	6	150			Mature	(S) Fair. (P) Fair. Minor dead wood, minor die back, field boundary	10+	C2	1.8
T371	Hawthorn	2	100			Mature	(S) Good. (P) Good. On field boundary.	10+	C2	1.2
G372	Silver birch, goat willow	9	250			Mature	(S) Good. (P) Good. Garden field boundary, bramble and wildflower understory, private garden group preventing full Visual tree assessment	10+	C2	3.0

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
T373	Goat willow	10		250, 220, 220,250,350		Mature	(S) Good. (P) Good. Garden field boundary, bramble and wildflower understory, small amount of ivy on stem, private garden group preventing full Visual tree assessment	20+	B2	7.0
G374	Goat willow, sycamore	8	250			Early mature	(S) Good. (P) Good. Garden field boundary, bramble and wildflower understory, small amount of ivy on stem, private garden group preventing full Visual tree assessment	10+	C2	3.0
G375	Elder, sycamore, hawthorn	9	350			Mature	(S) Good. (P) Good. Garden field boundary, bramble and wildflower understory, small amount of ivy on stem, private garden group preventing full Visual tree assessment	10+	C2	4.2
T376	Sycamore	10		400, 200,220,280		Mature	(S) Good. (P) Good. Garden field boundary, bramble and wildflower understory, small amount of ivy on stem, private garden group preventing full Visual tree assessment,	20+	B2	6.3

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G377	Hawthorn	4	120			Mature	(S) Good. (P) Good. Field boundary next to concrete wall, bramble understory	10+	C2	1.4
H378	Leyland cypress	5	150			Mature	(S) Good. (P) Fair. 3/4 of group topped, some of the lower canopy dying back, private garden group preventing full Visual tree assessment	10+	C2	1.8
G379	Hawthorn, sycamore	3	100			Mature	(S) Good. (P) Good. On stone bund, roadside, bramble understory, minor die back in canopy,	10+	C2	1.2
G380	Hawthorn	4	130			Mature	(S) Good. (P) Good. Within gorse and bramble hedge along two field boundary	10+	C2	1.6
G381	Hawthorn	3	150			Mature	(S) Fair. (P) Fair. Along dh, ditch side, wildflower understory, minor dead wood, one dead tree	10+	C2	1.8
G382	Hawthorn	5		200,100		Mature	(S) Good. (P) Good. Minor dead wood, bramble understory, power lines within group	10+	C2	2.7

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G383	Hawthorn	4	100			Mature	(S) Good. (P) Fair. On stone bund with a bramble understory, field boundary	10+	C2	1.2
T384	Hawthorn	5	140			Mature	(S) Poor. (P) Fair. On stone bund, bramble understory, lots of die back almost dead	<10	U	Nil
T385	Hawthorn	2	100			Mature	(S) Dead. (P) Dead. On stone bund, bramble understory, dead	<10	U	Nil
G386	Hawthorn	4	100			Mature	(S) Good. (P) Good. on stone bund, edge of SSSI, minor die back in canopy tops	10+	C2	1.2
G387	Sycamore, Elder, Hawthorn	10	500			Mature	(S) Good. (P) Good. Garden/ field boundary, bramble understory	20+	B2	6.0
G388	Silver birch	4	150			Early mature	(S) Good. (P) Good. Private garden group preventing full Visual tree assessment	10+	C2	1.8
G389	Sycamore	8	210			Mature	(S) Good. (P) Good. One was multi stem - previous snap out, now single stem - wound occluding - some decay - minor dead wood and die back	10+	C2	2.5

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G390	Holly, Prunes, copper beech	6	110			Mature	(S) Good. (P) Good. Private garden group preventing full Visual tree assessment	10+	C2	1.3
G391	Goat willow	8	280			Mature	(S) Fair. (P) Good. minor dead wood some die back	10+	C2	3.4
G392	Sycamore	9	250			Mature	(S) Good. (P) Good. Private garden group preventing full Visual tree assessment	10+	C2	3.0
T393	Hawthorn	2		100, 100, 100		Mature	(S) Good. (P) Good. Field boundary, next to stone wall	10+	C2	2.1
G394	Hawthorn	3	120			Mature	(S) Fair. (P) Fair. overgrown hedge, large amounts of bramble, patches of gorse, patches of dead and die back	10+	C2	1.4
T395	Hawthorn	2	120			Mature	(S) Good. (P) Good. surrounding telegraph pole, next to ditch, minor die back	10+	C2	1.4
G396	Hawthorn, Elder	3	90			Mature	(S) Good. (P) Good. on bund next to ditch, bramble and gorse understory	10+	C2	1.1

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G397	White willow	7	189			Mature	(S) Good. (P) Good. some on stone bund, along a field boundary, near the corner of a ditch	10+	C2	2.3
G398	Hawthorn, elder, Willow	6	150			Mature	(S) Good. (P) Good. unable to access due to cows preventing full VTA, along hedge line, close to ditch	10+	C2	1.8
G399	Sycamore	7	180			Mature	(S) Good. (P) Good. On bank next to a track, within a private garden, ivy on stems, minor dead wood	10+	C2	2.2
G400	Sycamore	4	100			Mature	(S) Good. (P) Good. On bank next to track, field boundary with track, some iv on stems, minor dead wood	10+	C2	1.2
G401	Hawthorn X2	3	100			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock	10+	C2	1.2
G402	Sycamore	10	300			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock	10+	C2	3.6

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G403	Hawthorn, prunes	7	130			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, patches of gorse, filed boundary/ possible lapsed hedge	10+	C2	1.6
G404	Hawthorn	4	100			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, along field boundary, patches of gorse	10+	C2	1.2
G405	Hawthorn, Willow, Sycamore	6	120			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, on boundary with large section of gorse	10+	C2	1.4
G406	Hawthorn	3	100			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, on field boundary of 3 fields	10+	C2	1.2
G407	Hawthorn	5	100			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, bramble understory, along field boundary	10+	C2	1.2

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

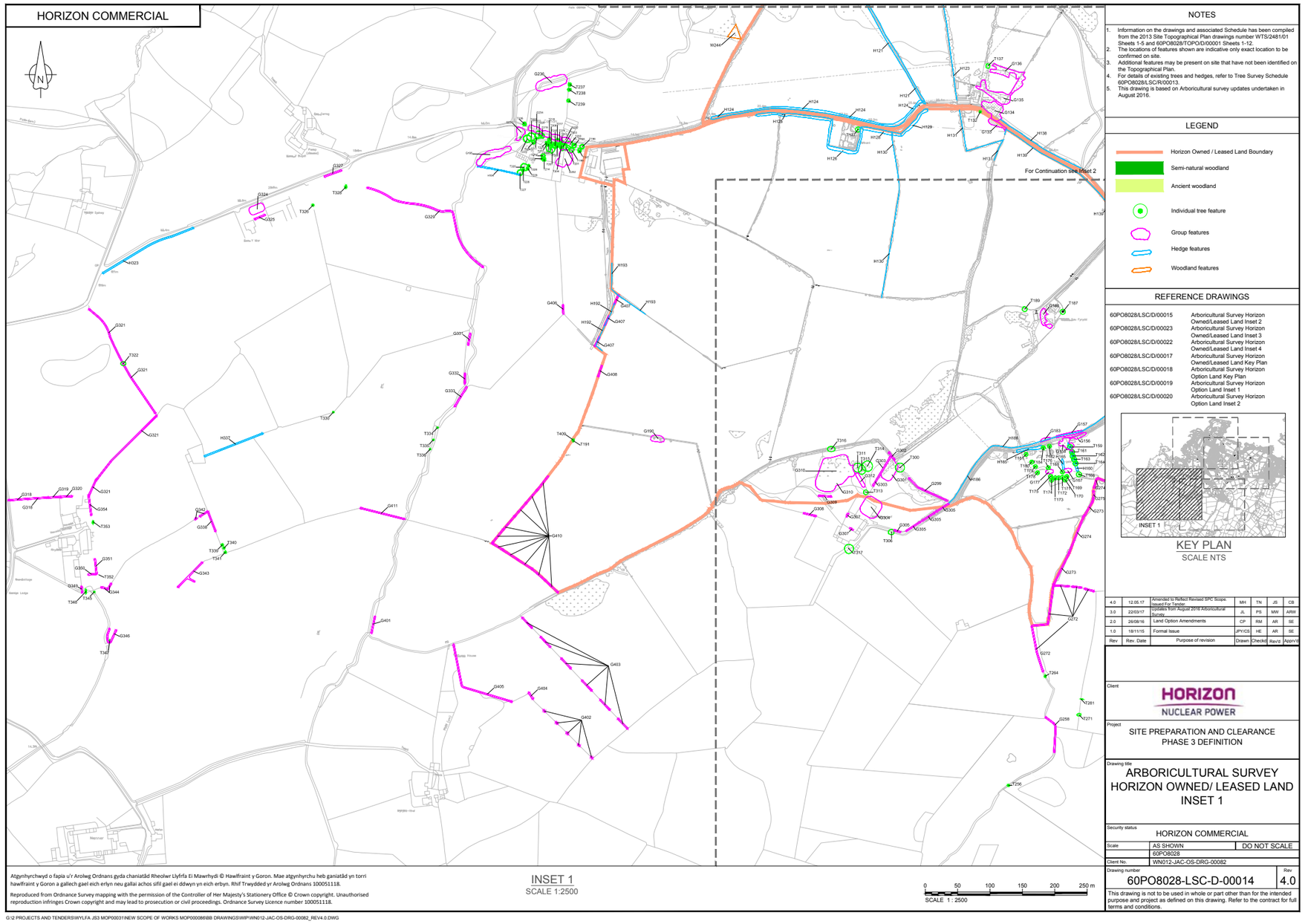
Ref No	Species	Height (m)	Single stem dia (mm)	<=5 no. stems dia (mm)	>5 no. stems dia (mm)	Age class	General Observations (Structural (S) and Physiological (P) Conditions, Comments and Management Recommendations).	Est remaining contribution (yrs)	BS5837 category grade	RPA radius (m)
G408	Sycamore	8	200			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, lone tree on field boundary	10+	C2	2.4
T409	Hawthorn	4	120			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, field boundary location	10+	C2	1.4
G410	Hawthorn	3	130			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, bramble, bracken and gorse understory	10+	C2	1.6
G411	Hawthorn	3	120			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, along field boundary possibly lapsed hedge, patches of gorse	10+	C2	1.4
G412	Hawthorn	2	100			Mature	(S) Good. (P) Good. Field done form desk top study due to lack of access or livestock, along ditch, patchy old field boundary with patches of gorse and brambles	10+	C2	1.2

01

Tree Survey Schedule (2015-16 combined) – Wylfa Newydd Development Area

JACOBS

01



NOTES

1. Information on the drawings and associated Schedule has been compiled from the 2013 Site Topographical Plan drawings number WTS/2481/01 Sheets 1-5 and 60PO8028/TOPO/D/00001 Sheets 1-12.
2. The locations of features shown are indicative only exact location to be confirmed on site.
3. Additional features may be present on site that have not been identified on the Topographical Plan.
4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Owned / Leased Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00015	Arboricultural Survey Horizon Owned/Leased Land Inset 2
60PO8028/LSC/D/00023	Arboricultural Survey Horizon Owned/Leased Land Inset 3
60PO8028/LSC/D/00022	Arboricultural Survey Horizon Owned/Leased Land Inset 4
60PO8028/LSC/D/00017	Arboricultural Survey Horizon Owned/Leased Land Key Plan
60PO8028/LSC/D/00018	Arboricultural Survey Horizon Option Land Key Plan
60PO8028/LSC/D/00019	Arboricultural Survey Horizon Option Land Inset 1
60PO8028/LSC/D/00020	Arboricultural Survey Horizon Option Land Inset 2

KEY PLAN
SCALE NTS

Rev	Rev. Date	Purpose of revision	Drawn	Checkd	RevViz	ApprVis
4.0	12.05.17	Amended to Reflect Revised SPC Scope. Issued For Tender	MH	TN	JS	CB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	PS	MW	ARW
2.0	26/08/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JPY/CS	HE	AR	SE

Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

Drawing title: ARBORICULTURAL SURVEY HORIZON OWNED/ LEASED LAND INSET 1

Security status: HORIZON COMMERCIAL

Scale	AS SHOWN	DO NOT SCALE
	60PO8028	
Client No.	WN012-JAC-OS-DRG-00082	

Drawing number: 60PO8028-LSC-D-00014 Rev 4.0

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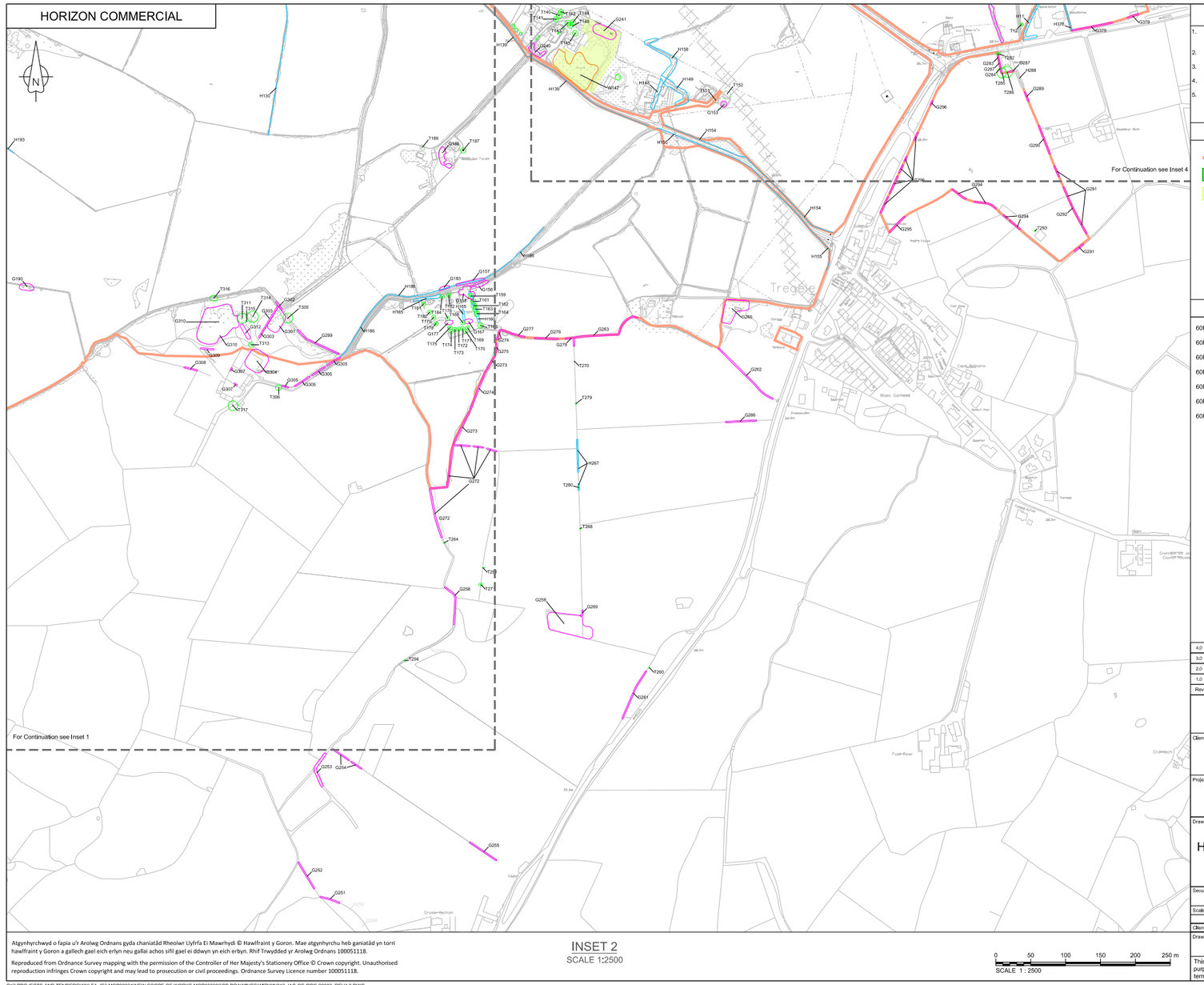
HORIZON COMMERCIAL



INSET 2
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SCALE 1 : 2500

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NOTES

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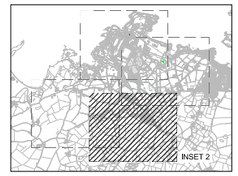
3. Additional features may be present on site that have not been identified on the Topographical Plan.
4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Owned / Leased Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00014	Arboricultural Survey Horizon Owned/Leased Land Inset 1
60PO8028/LSC/D/00023	Arboricultural Survey Horizon Owned/Leased Land Inset 3
60PO8028/LSC/D/00022	Arboricultural Survey Horizon Owned/Leased Land Inset 4
60PO8028/LSC/D/00017	Arboricultural Survey Horizon Owned/Leased Land Key Plan
60PO8028/LSC/D/00018	Arboricultural Survey Horizon Option Land Key Plan
60PO8028/LSC/D/00019	Arboricultural Survey Horizon Option Land Inset 1
60PO8028/LSC/D/00020	Arboricultural Survey Horizon Option Land Inset 2



KEY PLAN
SCALE NTS

Rev	Rev. Date	Purpose of revision	Drawn	Checkd	Rev'd	Apprv'd
4.0	12.05.17	Amended to Reflect Revised SPC Scope; Inset Land Removed	MW	JS	JS	CB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	PS	MW	ARW
2.0	26/08/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JP/YCS	HE	AR	SE

Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

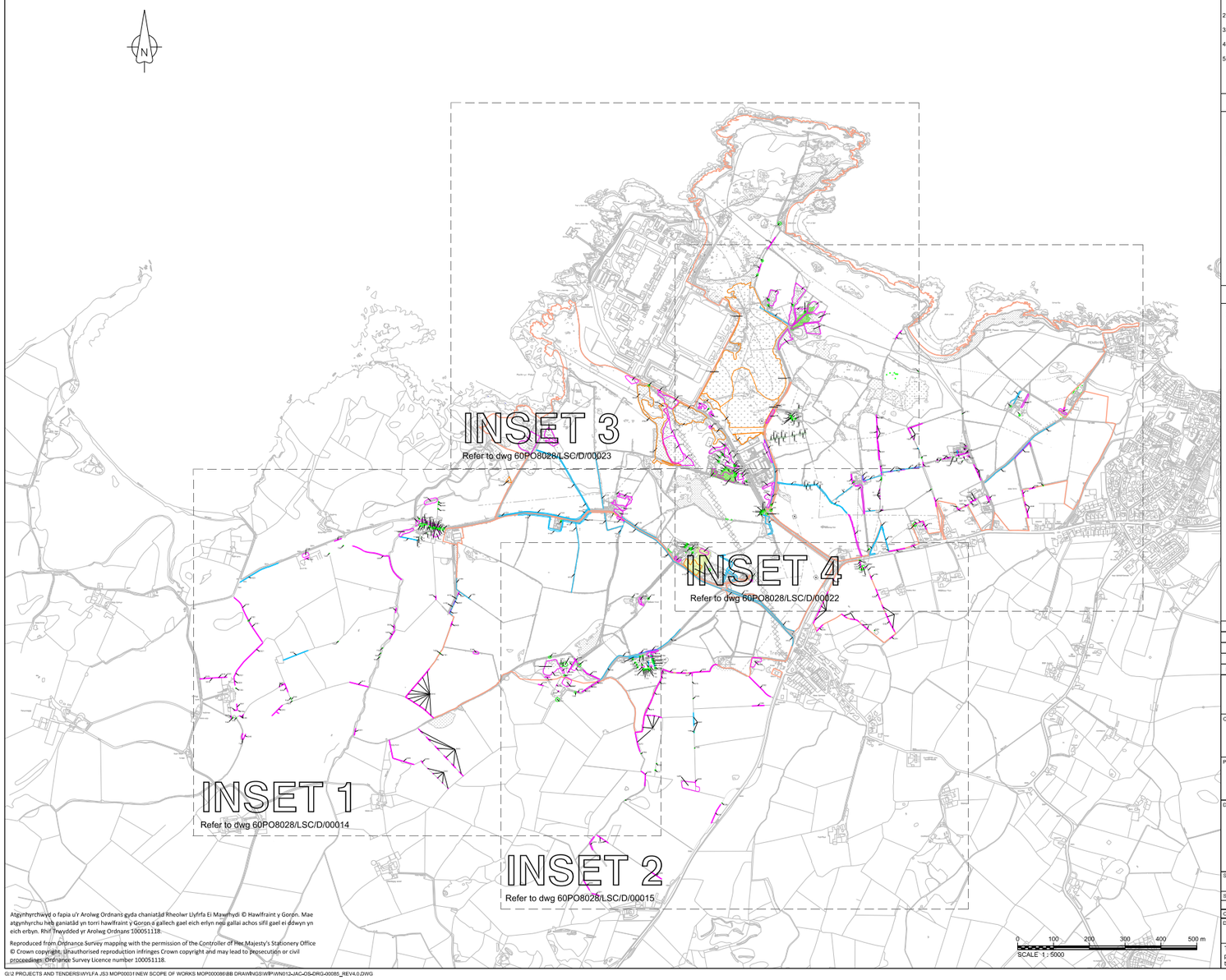
Drawing title: ARBORICULTURAL SURVEY HORIZON OWNED/ LEASED LAND INSET 2

Security status: HORIZON COMMERCIAL

Scale	AS SHOWN @ A1	DO NOT SCALE
	60PO8028	
Client No.	WN012-JAC-OS-DRG-00083	

Drawing number: 60PO8028/LSC/D/00015 Rev 4.0

HORIZON COMMERCIAL



NOTES

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2. The locations of features shown are indicative only exact location to be confirmed on site.
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4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Owned / Leased Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00014	Arboricultural Survey Horizon Owned/ Leased Land Inset 1
60PO8028/LSC/D/00015	Arboricultural Survey Horizon Owned/ Leased Land Inset 2
60PO8028/LSC/D/00023	Arboricultural Survey Horizon Owned/ Leased Land Inset 3
60PO8028/LSC/D/00022	Arboricultural Survey Horizon Owned/ Leased Land Inset 4
60PO8028/LSC/D/00018	Arboricultural Survey Horizon Option Land Key Plan
60PO8028/LSC/D/00019	Arboricultural Survey Horizon Option Land Inset 1
60PO8028/LSC/D/00020	Arboricultural Survey Horizon Option Land Inset 2

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd
4.0	12.05.17	Amended to Reflect Revised SPC Scope, Revised Land Ownership	AW	JS	JS	GB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	PS	MW	ARW
2.0	26/08/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JP/YCS	HE	AR	SE

Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

Drawing title: ARBORICULTURAL SURVEY HORIZON OWNED/ LEASED LAND KEY PLAN

Security status: HORIZON COMMERCIAL

Scale	AS SHOWN	DO NOT SCALE
	60PO8028	
Client No.	WN012-JAC-OS-DRG-00085	
Drawing number	60PO8028-LSC-D-00017	Rev 4.0

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

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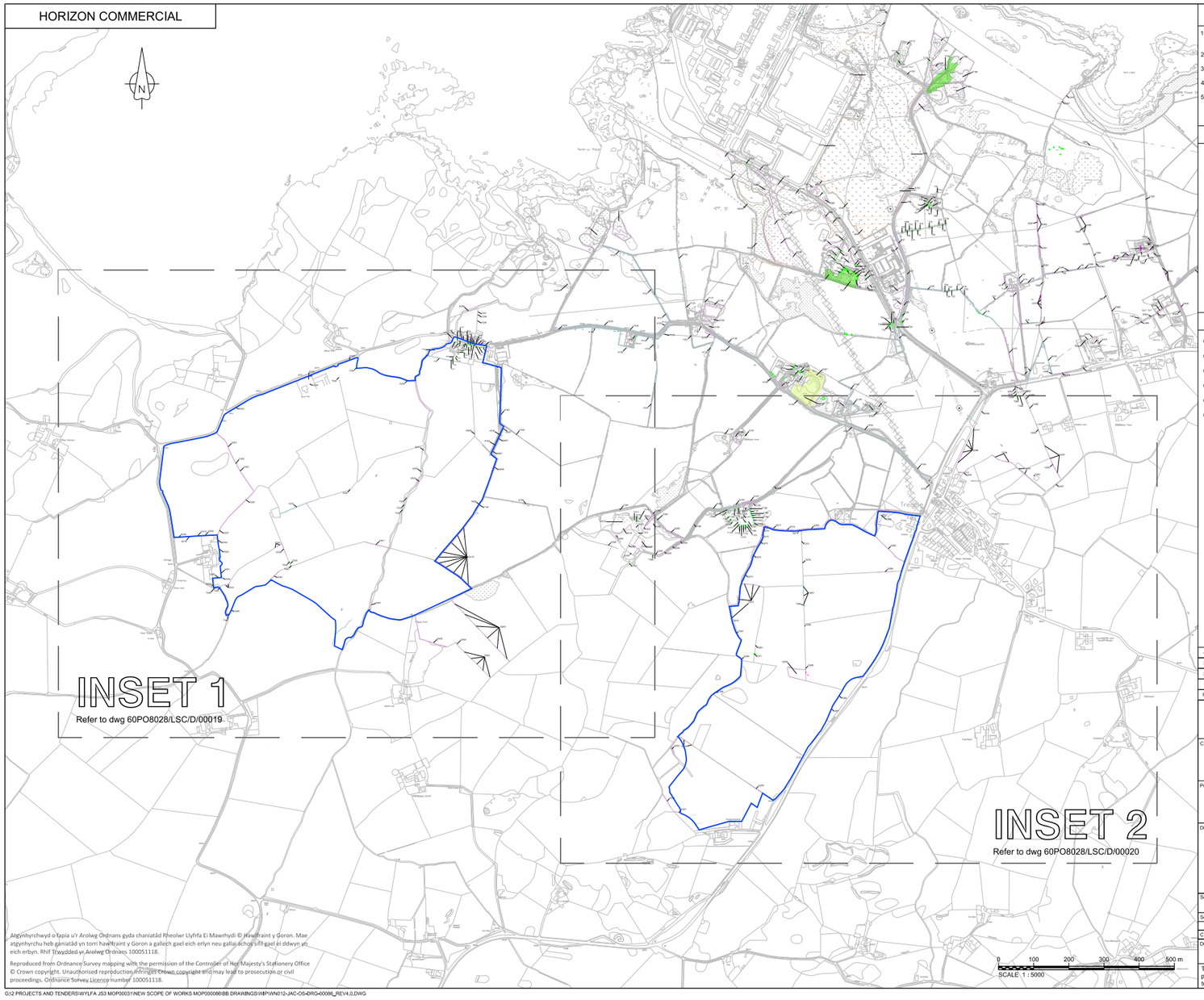
HORIZON COMMERCIAL



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NOTES

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4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Option Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00014	Arboricultural Survey Horizon Owned/ Leased Land Inset 1
60PO8028/LSC/D/00015	Arboricultural Survey Horizon Owned/ Leased Land Inset 2
60PO8028/LSC/D/00016	Arboricultural Survey Horizon Owned/ Leased Land Inset 3
60PO8028/LSC/D/00017	Arboricultural Survey Horizon Owned/ Leased Land Key Plan
60PO8028/LSC/D/00019	Arboricultural Survey Horizon Option Land Inset 1
60PO8028/LSC/D/00020	Arboricultural Survey Horizon Option Land Inset 2

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd
4.0	12.05.17	Amended to Reflect Revised SPC Scope, Issued For Tender	AW	RN	JS	CB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	PS	MW	ARW
2.0	26/08/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JPY/CS	HE	AR	SE

Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

Drawing title: ARBORICULTURAL SURVEY HORIZON OPTION LAND KEY PLAN

Security status: HORIZON COMMERCIAL

Scale	1:5000 @ A1	DO NOT SCALE
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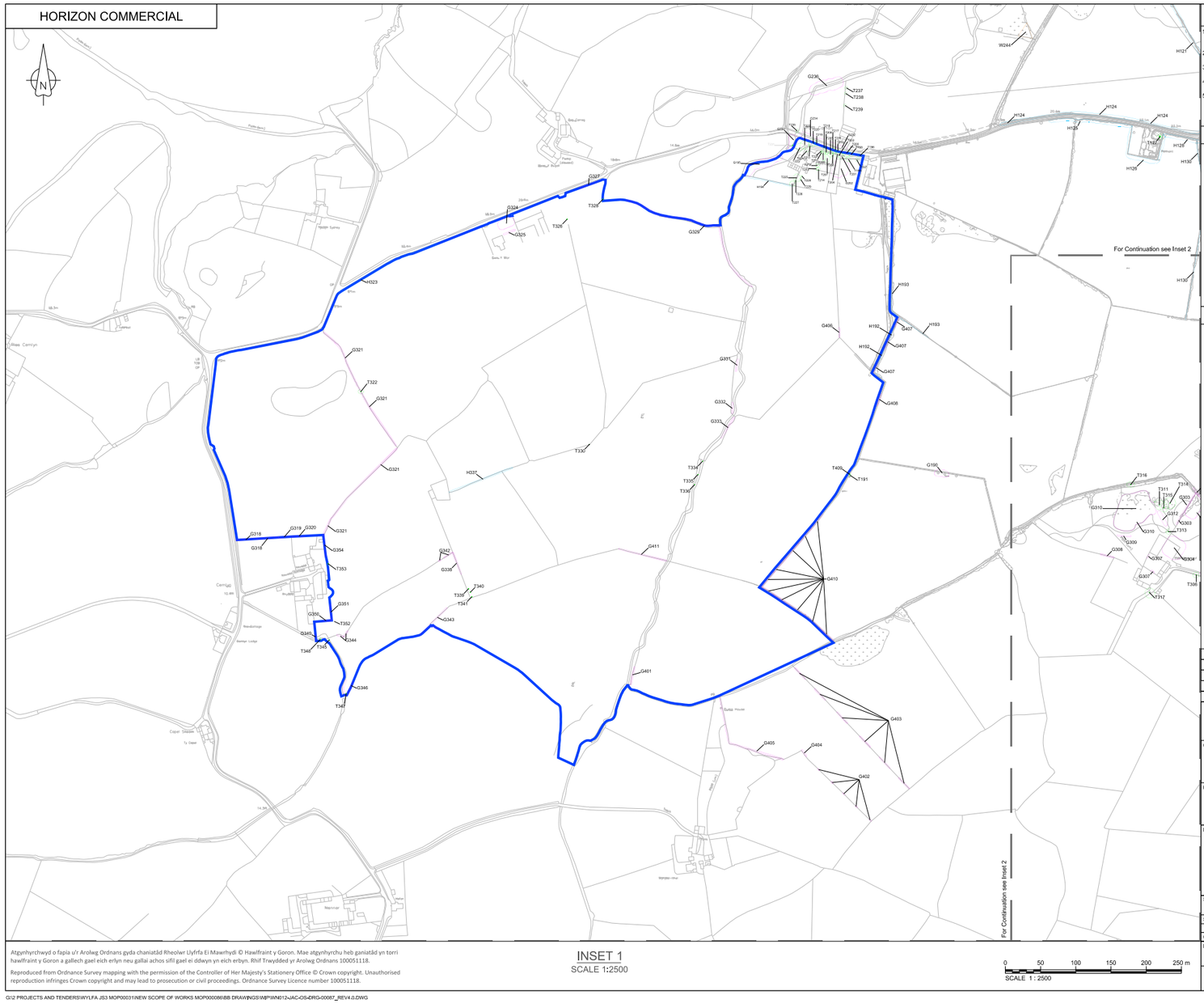
Client No.	WN012-JAC-OS-DRG-00086	
Drawing number	60PO8028-LSC-D-00018	Rev 4.0

HORIZON COMMERCIAL



INSET 1
SCALE 1:2500

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SCALE 1 : 2500

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NOTES

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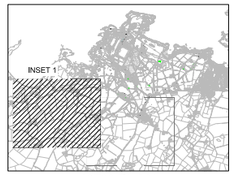
4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Option Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00014	Arboricultural Survey Horizon Owned/Leased Land Inset 1
60PO8028/LSC/D/00015	Arboricultural Survey Horizon Owned/Leased Land Inset 2
60PO8028/LSC/D/00016	Arboricultural Survey Horizon Owned/Leased Land Inset 3
60PO8028/LSC/D/00017	Arboricultural Survey Horizon Owned/Leased Land Key Plan
60PO8028/LSC/D/00018	Arboricultural Survey Horizon Option Land Key Plan
60PO8028/LSC/D/00020	Arboricultural Survey Horizon Option Land Inset 2



KEY PLAN
SCALE NTS

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd
4.0	12.05.17	Amended to Reflect Revised SPC Scope, Name and Terms	JS	JS	JS	CB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	PS	MW	ARW
2.0	26/08/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JPY/CS	HE	AR	SE

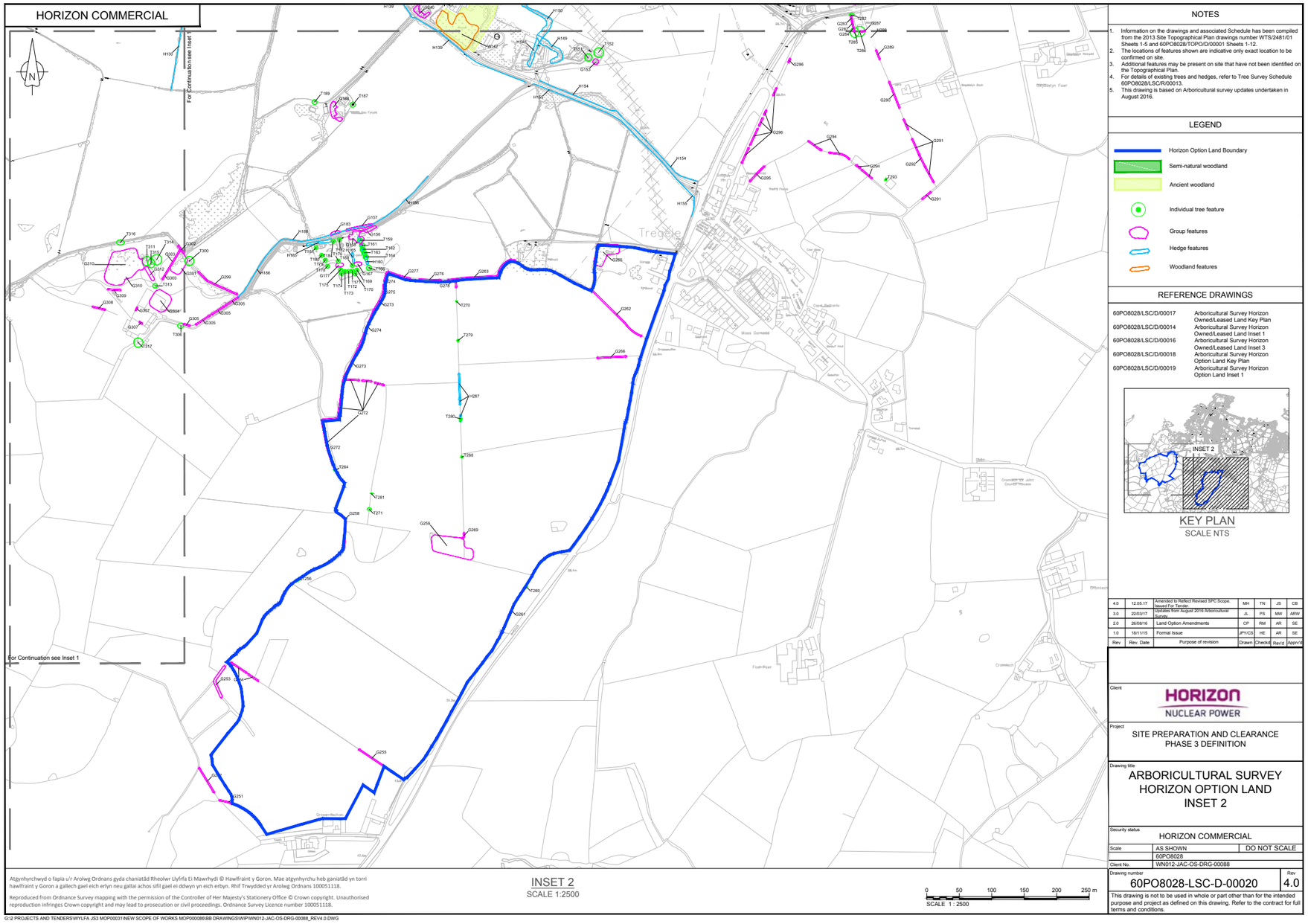
Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

Drawing title: ARBORICULTURAL SURVEY HORIZON OPTION LAND INSET 1

Security status: HORIZON COMMERCIAL

Scale	AS SHOWN	DO NOT SCALE
	60PO8028	
Client No.	WN012-JAC-OS-DRG-00087	
Drawing number	60PO8028-LSC-D-00019	Rev 4.0



NOTES

1. Information on the drawings and associated Schedule has been compiled from the 2013 Site Topographical Plan drawings number WTS/2481/01 Sheets 1-5 and 60PO8028/TOPO/D/00001 Sheets 1-12.
2. The locations of features shown are indicative only exact location to be confirmed on site.
3. Additional features may be present on site that have not been identified on the Topographical Plan.
4. For details of existing trees and hedges, refer to Tree Survey Schedule 60PO8028/LSC/R/00013.
5. This drawing is based on Arboricultural survey updates undertaken in August 2016.

LEGEND

- Horizon Option Land Boundary
- Semi-natural woodland
- Ancient woodland
- Individual tree feature
- Group features
- Hedge features
- Woodland features

REFERENCE DRAWINGS

60PO8028/LSC/D/00017	Arboricultural Survey Horizon Owned/Leased Land Key Plan
60PO8028/LSC/D/00014	Arboricultural Survey Horizon Owned/Leased Land Inset 1
60PO8028/LSC/D/00016	Arboricultural Survey Horizon Owned/Leased Land Inset 3
60PO8028/LSC/D/00018	Arboricultural Survey Horizon Option Land Key Plan
60PO8028/LSC/D/00019	Arboricultural Survey Horizon Option Land Inset 1

KEY PLAN
SCALE NTS

Rev	Rev. Date	Purpose of revision	Drawn	Checkd	Rev'd	Appv'd
4.0	12.05.17	Amended to Reflect Revised SPC Scope. Issued For Tender.	MH	TN	JS	CB
3.0	22/03/17	Updates from August 2016 Arboricultural Survey	JL	FS	MW	ARW
2.0	26/09/16	Land Option Amendments	CP	RM	AR	SE
1.0	18/11/15	Formal Issue	JPY/CS	HE	AR	SE

Client: HORIZON NUCLEAR POWER

Project: SITE PREPARATION AND CLEARANCE PHASE 3 DEFINITION

Drawing title: ARBORICULTURAL SURVEY HORIZON OPTION LAND INSET 2

Security status: HORIZON COMMERCIAL

Scale	AS SHOWN	DO NOT SCALE
	60PO8028	
Client No.	WN012-JAC-OS-DRG-00088	

Drawing number: 60PO8028-LSC-D-00020 Rev 4.0

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

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HORIZON
NUCLEAR POWER

CONTACT US:
If you have any questions or feedback regarding the Wylfa Newydd DCO Project you can contact us on our dedicated Wylfa Newydd freephone hotline and email address, by calling on **0800 954 9516** or emailing **wylfaenquiries@horizonnuclearpower.com**

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