Environmental Impact Assessment Report
Volume 4: Outline Construction Environmental Management Plan

MarramWind Offshore Wind Farm

December 2025

MarramWind

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1. Introduction

1.1 Overview

1.1.1.1 This Outline Construction Environmental Management Plan (CEMP) has been produced along with the Environmental Impact Assessment (EIA) Report and aims to ensure general best practice measures are adhered to throughout the construction of the onshore infrastructure for the MarramWind Offshore Wind Farm, hereafter referred to as the Project.

1.1.1.2 This Outline CEMP should be read alongside the **Volume 1, Chapters 19- 29**.

1.2 Project background

1.2.1.1 MarramWind Offshore Wind Farm (hereafter referred to as 'the Project') is wholly owned by ScottishPower Renewables UK Limited. MarramWind Limited, a subsidiary of SPR, is the Applicant for the Project.

1.2.1.2 The Project is a proposed floating wind farm located in the North Sea, with a grid connection capacity of up to 3 gigawatts. The location of the Project is determined by the Option Area Agreement, which is the spatial boundary of the Northeast 7 (NE7) Plan Option within which the electricity generating infrastructure will be located. The NE7 Plan Option is located north-east of Rattray Head on the Aberdeenshire coast in north-east Scotland, approximately 75 kilometres (km) at its nearest point to shore and 110km at its furthest point. An Option to Lease Agreement for the Project within the NE7 Plan Option was signed in April 2022.

1.2.1.3 In March 2024, National Energy System Operator published the 'Beyond 2030' report, which presented the ScotWind elements of the Holistic Network Design Follow Up Exercise. This report confirmed that the full 3 gigawatt connection for the Project will be connected to the Scottish and Southern Electricity Networks (SSEN) Netherton Hub at Longside, near Peterhead. This update informed further refinement of the Project design envelope following the EIA Scoping Stage in January 2023 (see **Volume 1, Chapter 3: Site Selection and Consideration of Alternatives** for further details).

1.2.1.4 The Project's onshore infrastructure, located landward of mean low water springs (MLWS) includes:

- landfall(s) – the infrastructure associated with landfall(s) located above MLWS;
- underground onshore export cable corridor running from the landfall(s) to the onshore substations;
- onshore substations, co-located on one site;
- underground grid connection cables (connecting the onshore substations to the grid connection point at SSEN Netherton Hub);
- tie-in to grid connection point (SSEN substation at the SSEN Netherton Hub, which is a separate project and does not form part of the consenting applications which this EIA and Outline CEMP relates to); and
- associated temporary construction areas, including for example temporary construction compounds, access tracks and haul roads.

1.2.1.5 The EIA Report accompanies applications for offshore consents, licences and permissions for the Project to Marine Directorate - Licensing Operations Team (MD-LOT) under Section 36 (s.36) of the Electricity Act 1989, the Marine (Scotland) Act 2010 and the Marine and

Coastal Access Act 2009, for the offshore infrastructure seaward of Mean High Water Springs (MHWS).

1.2.1.6 The EIA Report also accompanies an application to Aberdeenshire Council for planning permission in principle consent under The Town and Country Planning (Scotland) Act 1997, for the onshore infrastructure landward Mean Low Water Springs (MLWS).

1.2.1.7 There are four sets of EIA regulations applicable to the Project: the Electricity Works (EIA) (Scotland) Regulations 2017 for offshore generating stations requiring s.36 consent; the Marine Works (EIA) (Scotland) Regulations 2017 and the Marine Works (EIA) Regulations 2007 for marine licence applications within Scottish territorial waters (0-12 nautical miles) and offshore waters (12-200 nautical miles) respectively; and the Town and Country Planning (EIA) (Scotland) Regulations 2017 for planning applications submitted to Aberdeenshire Council for onshore infrastructure located landward of MLWS.

1.3 Purpose of the Outline CEMP

1.3.1.1 The Outline CEMP sets out the environmental management and control measures essential for ensuring effective environmental management throughout the Project's onshore infrastructure construction stage, including landfall works. The Outline CEMP has been developed in accordance with the relevant environmental legislation and mitigation measures outlined in the EIA Report and industry best practice, ensuring full compliance throughout the construction process. The measures include control and monitoring procedures to manage construction activities, ensuring environmental impacts are avoided, prevented, or minimised.

1.3.1.2 The Outline CEMP supports an application for PPiP for the Project's onshore infrastructure. Following any grant of PPiP by Aberdeenshire Council, the Outline CEMP will be updated and expanded to form the basis of the Final CEMP.

1.3.1.3 The broad objectives of the Outline CEMP are as follows:

- to provide a mechanism to ensure that measures to mitigate potentially adverse environmental impacts are implemented during all onshore construction works, as presented in **Volume 3, Appendix 5.2: Commitments Register**;
- to promote and meet good construction practice standards throughout construction of the Project; and
- to provide a framework for compliance auditing and inspection to enable the Applicant to be assured that the necessary levels of environmental performance are being met.

1.3.1.4 The Final CEMP will state the legislative requirements; current standards of practice and best practice measures that define the standard of construction practice adhered to by the Principal Contractor. However, adhering to the Final CEMP does not absolve the Applicant, Principal Contractor or Sub-contractors from not complying with legislation and bylaws relevant to their construction activities.

1.4 Implementation of the Final CEMP

1.4.1.1 The Final CEMP, once approved by Aberdeenshire Council, will be integrated into the contracts for Principal Contractors responsible for the works, ensuring compliance with environmental management requirements. These contractors must provide documentation detailing how they will implement and monitor the Final CEMP requirements.

1.5 Structure of the Outline CEMP

1.5.1.1 The Outline CEMP covers the following:

- project location and environmental sensitivities;
- roles and responsibilities in relation to environmental management;
- construction operations;
- construction programme;
- environmental management plans, which include:
  - Outline Pollution Prevention and Contingency Plan;
  - Outline Surface Water Quality and Drainage Management Plan;
  - Outline Private Water Supply (PWS) Strategy;
  - Outline Construction Noise and Vibration Management Plan;
  - Outline Construction Dust and Air Quality Management Plan;
  - Outline Site Waste Management Plan;
  - Outline Soils Management Plan;
  - Outline Ecological Management Plan;
  - Outline Protected Species Plan;
  - Outline Arboricultural Method Statement;
  - Outline Construction Traffic Management Plan;
  - Outline Archaeological Management Plan, and
  - Outline Greenhouse Gases and Climate Resilience Management Plan.
- environmental monitoring;
- legal compliance and other requirements;
- training;
- procedures for communicating and reporting any environmental compliance matters associated with the Outline CEMP;
- contractor management; and
- sustainability.

1.6 Other related implementation plans

1.6.1.1 The Outline CEMP has been developed with consideration of the content and requirements of other relevant Implementation Plans. These are set out in **Table 1.1** below with details of the linkages.

Table 1.1 Other related implementation plans to the Outline CEMP

Implementation plan	Consent conditions	Linkage with Outline CEMP
Volume 4: Outline Construction Traffic Environmental Management Plan (CTMP)	Approval of Matters Specified in Conditions.	**Volume 4: Outline CTMP** establishes the principles of construction access, heavy goods vehicles and general traffic routing, in addition to safety and traffic management measures which will be required to limit the impact of construction activities from the Project on the local traffic network
Volume 4: Outline Written Scheme of Investigation (WSI) (Onshore)	Approval of Matters Specified in Conditions.	**Volume 4: Outline WSI (Onshore)** provides a framework for the proposed approach to mitigating the construction stage effects of the Project on heritage assets with archaeological interest.

2. Project Location and Environmental Sensitivities

2.1 Site description

2.1.1.1 The onshore elements of the Project are located in Aberdeenshire, Scotland. The Onshore Red Line Boundary has an elevation ranging from approximately 0.8m above ordnance datum (AOD) at its lowest point in the eastern area of the Project, rising to approximately 59.3m AOD in the southern area of the Project.

2.1.1.2 The onshore infrastructure is predominantly situated on agricultural land, with residential areas at St Fergus and Kirktown to the west and Inverugie to the south-east. The larger town of Peterhead also lies to the east / south-east of the Project, and scattered dwellings are present in the surrounding area. Longside Airfield is located directly to the west of the onshore export cable corridor before crossing the A950 and is located to the north of the onshore substations.

2.1.1.3 The Project has good accessibility from the A950 road, which intersects the Project to the west of Peterhead and from the A90, which intersects the Project in the north.

2.1.1.4 There are numerous watercourses present within the Onshore Red Line Boundary; these range in size from field drainage ditches to the River Ugie and its wider catchment. The majority of these watercourses drain into the River Ugie, which is formed from the confluence of the North and South Ugie Waters and flows in a predominantly eastern trajectory before discharging into the North Sea, directly north of Peterhead, Aberdeenshire.

2.2 Environmental sensitivities

2.2.1.1 The Final CEMP will set out information or links to information with regard to environmental sensitivities onsite such as watercourses, protected habitats, human receptors, constraints, site layout plans, and the scope of works to be undertaken, including identification of environmental aspects, impacts, risks and any opportunities.

2.2.1.2 The Applicant has an aspect, impacts, risk and opportunities register as part of the ISO14001 Environmental Management System (EMS), this details potential environmental impacts for construction projects and control measures.

2.2.1.3 The Principal Contractor will be expected to have their own aspects and impacts register as part of their EMS.

2.2.1.4 In addition, the Commitments Register, provided in **Volume 3, Appendix 5.2** of the EIA Report, identifies the embedded environmental measures that will be implemented as part of the Project. The Commitments Register has been populated with a range of environmental measures including those designed to avoid, prevent, and reduce impacts. These have been informed by the ongoing design evolution process, stakeholder engagement and consultation, good practice and / or are considered to be industry best practice.

2.2.1.5 The Commitments Register identifies how each environmental measure will be secured such as through, for example planning conditions and associated documents including this Outline CEMP and supporting implementation plans (see **Table 1.1**).

3. Roles and Responsibilities for Environmental Management

3.1.1.1 Environmental management responsibilities for the Project are required to be documented. This Section will set out the environmental responsibilities onsite, including identification of key site staff and their environmental management responsibilities and how this links in with Applicant responsibilities and that of the project team such as the environmental manager and environmental specialists such as Ecological Clerk of Works (ECoW) and Onshore Archaeological Clerk of Works (ACoW).

3.1.1.2 Interactions with stakeholders such as the Planning Authority (Aberdeenshire Council), NatureScot, Historic Environment Scotland, and the Scottish Environment Protection Agency (SEPA) should also be covered in this Section.

3.1.1.3 The Principal Contractor is responsible for environmental management on site, including the preparation of environmental documentation.

4. Construction Site Management

4.1 Site access

4.1.1.1 Access to the onshore elements of the Project and associated compounds will be via the A90 or A950 and the local road network. Further details can be found in relation to site access in the **Volume 4: Outline Construction Traffic Management Plan**.

4.1.1.2 Points of access will be agreed with Aberdeenshire Council and Transport Scotland and will be outlined in the final Construction Traffic Management Plan (CTMP).

4.2 Construction and delivery hours

4.2.1.1 Core working hours for onshore construction works for the Project are as follows:

- 08:00 to 18:00 hours Monday to Friday; and
- 08:00 to 13:00 hours on Saturday.

4.2.1.2 Prior to and following the core working hours Monday to Friday, a 'shoulder hour' for mobilisation and shut down will be applied (07:00 to 08:00 and 18:00 to 19:00) for which restrictions. No activity outside of these hours, including Sundays, public holidays or bank holidays will take place apart from under the following circumstances:

- where continuous periods (up to 24-hours, seven days per week) of construction work are required for Horizontal Directional Drilling (HDD) (or similar trenchless techniques);
- for other works requiring extended working hours such as concrete pouring which will require Aberdeenshire Council to be notified at least 72 hours in advance; and
- for the delivery of abnormal loads to the connection works, which may cause congestion on the local road network, where the relevant highway authority has been notified prior to such works 72 hours in advance as otherwise agreed in writing with the relevant Planning Authority.

4.3 General site management

4.3.1.1 The Principal Contractor will ensure that all construction work areas will be arranged to reduce as far as practicable the environmental impacts having due regard to the constraints for each site, for example:

- storage sites, temporary offices, fixed plant, and machinery will be positioned appropriately (for example, away from sensitive receptors);
- appropriate signage for vehicles and pedestrians will be employed across the sites;
- appropriate speed limits will be imposed on construction compounds, haul roads and access tracks;
- noise generating activities will be sited away from noise-sensitive receptors where practicable; and
- measures will be implemented to provide effective preventative pest and vermin control and prompt treatment of any pest and vermin infestation. Adequate arrangements will be made for handling food waste and other material attractive to vermin.

4.3.1.2 The Principal Contractor will ensure good housekeeping at all construction sites which will include the following:

- all construction sites to be kept clean, tidy and safe;
- welfare facilities will be provided appropriate to the construction site and activities in question and adequate for the workforce;
- smoking areas will be provided at appropriate locations (where required) for example, away from working locations or publicly accessible areas;
- open fires will be prohibited; and
- all necessary measures will be implemented to minimise the risk of fire and the Principal Contractor and all contractors will comply with local fire authority requirements.

4.4 Welfare facilities

4.4.1.1 The Principal Contractor will be responsible for arranging and maintaining welfare facilities throughout the Project's construction stage. These facilities will include but are not limited to; toilets, washing areas, changing and drying rooms, and kitchen amenities to support workers onsite.

4.4.1.2 At temporary construction compounds parking will be provided for construction workers, deliveries and site visitors onsite, ensuring that it does not affect the local road network.

4.5 Lighting

4.5.1.1 External lighting of the construction sites for both the onshore export cables and the new onshore substations will be directional. The work will usually be scheduled during daylight hours. If night or 24-hour working is required, such as may be required during trenchless crossing operations, then portable directional task lighting will be deployed. It has been assumed that 24-hour lighting would be required at the landfall(s) temporary construction compound during HDD (or similar trenchless technique) operations. External lighting of the construction site will be designed and positioned to:

- provide the necessary levels for safe working;
- minimise light spillage and / or light pollution; and
- avoid disturbance to adjoining residents / occupiers of buildings and to wildlife.

4.5.1.2 Site or welfare cabins, equipment and lighting will be sited to minimise visual intrusion as far as is consistent with the safe and efficient operation of the work site. Implementation will comply with the requirements set out in the following standards and guides as far as it is reasonably practicable and applicable to construction works:

- British Standards (BS) Institution, (2014). BS EN 12464-2:2014 Light and lighting. Lighting of work places. Outdoor work places;
- Institute of Lighting Professionals, (2021). Guidance Note 1 for the Reduction of Obtrusive Light;
- Chartered Institute of Building Services Engineers (CIBSE), (2018). Society of Light and Lighting Guide 1: The Industrial Environment; and
- CIBSE, (2016). Society of Light and Lighting Guide 6: The Exterior Environment.

4.5.1.3 Further details regarding lighting during the construction stage will be developed with the Principal Contractor.

4.6 Site security and fencing

4.6.1.1 Temporary construction compounds will be secured to minimise the opportunity for unauthorised entry. Where appropriate, monitoring will be done remotely using closed-circuit television technology and other remote monitoring equipment.

4.6.1.2 Fencing will also be used to mark out and secure any works areas / compounds. The onshore export cable corridor will be fenced on all sides, with stockproof fencing used where farming practices require, prior to works starting. The type of fencing will be selected to suit the location and purpose.

4.7 Safety

4.7.1.1 The Applicant will develop and implement a Health, Safety, Security and Environment (HSSE) Strategy for the Project. The HSSE Strategy will describe the way in which the Project will be delivered and include detail of compliance with relevant policies, Management Systems, and regulatory requirements, throughout the lifecycle of the Project. All aspects of the construction work will be delivered in accordance with the Construction (Design and Management) Regulations 2015.

5. Construction Programme

5.1.1.1 An indicative construction programme for the Project is included in **Plate 5.1**. The programme illustrates the anticipated duration of the main construction / installation activities by infrastructure component.

5.1.1.2 The overall duration of construction of the offshore infrastructure is anticipated to be up to 12 years. This will be subject to the final grid connection date, supply chain discussions and further site surveys (pre-consent).

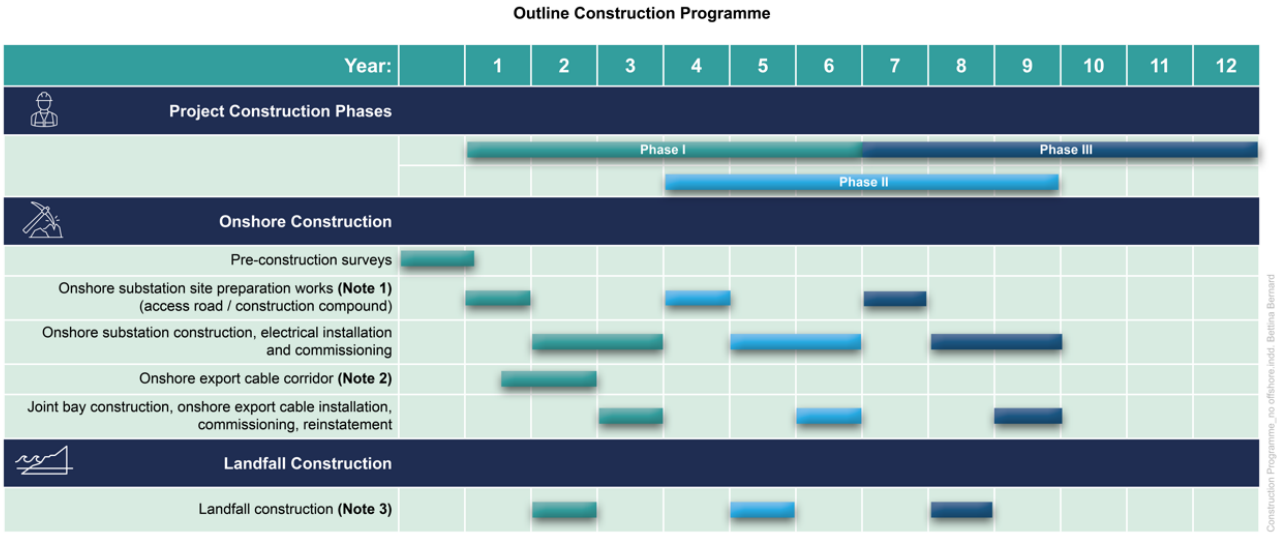
5.1.1.3 A shorter period within the 12 years is expected for construction of the onshore infrastructure; in the range of up to nine years.

5.1.1.4 The Project will be delivered in phases, which are reflected in the indicative construction programme. It is anticipated that construction of the Project would commence in 2030.

5.1.1.5 An indicative construction programme for the Project is included in **Plate 5.1** which shows the major construction activities and installation elements and indicative timeframes within which these activities are planned to occur.

5.1.1.6 The Final CEMP will set out site-specific programme, timing constraints and considerations such as ecological seasonality or restrictions on working hours for noise.

Plate 5.1 Outline construction programme (onshore)



Note 1: Permanent roads built as part of first phase onshore substation build. No further permanent roads required as part of second & third phases.
Note 2: Includes site preparation works (access / haul roads, construction compounds), cable trenching, horizontal directional drilling works and duct installation for all Project phases.
Note 3: Includes site preparation works (access road / construction compound), transition joint bay construction, horizontal directional drilling works and associated duct installation.

6. Environmental Management Plans

6.1.1.1 This Section details the controls and processes to be adopted to mitigate the environmental impacts onsite and any opportunities or initiatives should also be explored at a site level. The following Sections provide further information on the topic specific Outline Environmental Management Plans. These will be updated by the Principal Contractor within the full management plans to be included within the Final CEMP and agreed with Aberdeenshire Council. The following Outline Environmental Management Plans that form part of this Outline CEMP are detailed below:

- Outline Pollution Prevention and Contingency Plan;
- Outline Surface Water Quality and Drainage Management Plan;
- Outline PWS Strategy;
- Outline Construction Noise and Vibration Management Plan;
- Outline Construction Dust and Air Quality Management Plan;
- Outline Site Waste Management Plan;
- Outline Soils Management Plan;
- Outline Ecological Management Plan;
- Outline Protected Species Plan;
- Outline Arboricultural Method Statement;
- Outline Construction Traffic Management Plan;
- Outline Archaeological Management Plan;
- Outline Greenhouse Gases; and
- Climate Resilience Management Plan.

6.2 Outline pollution prevention and contingency plan

6.2.1 Introduction

6.2.1.1 This Section provides an overview of what will be included within the Pollution Prevention and Contingency Plan. Measures relating specifically to water pollution from sediment entrained runoff are addressed within **Section 6.3** Surface Water Quality and Drainage Management Plan.

6.2.1.2 Post consent the Final Pollution Prevention and Contingency Plan will be prepared by the Principal Contractor and agreed with Aberdeenshire Council, SEPA and NatureScot. This will include agreed emergency procedures in the event of a pollution incident. The Pollution Prevention and Contingency Plan will take into consideration the Guidance contained within SEPA's Supporting Guidance (WAT-SG-75) Sector Specific Guidance: Construction Sites (SEPA, 2021), which provides guidance on the application of environmental standards and good management practice techniques in relation to large scale construction sites and pollution control.

6.2.2 Plant and machinery

6.2.2.1 All plant and machinery will be regularly maintained to ensure good working order. Checks for leaks of fuel and lubricants will be conducted before works with plant and machinery is allowed to commence and maintenance and servicing records will be reviewed and updated as required. All works will be carried out in accordance with The Pollution Prevention and Control (Scotland) Regulations 2012 and The Environmental Authorisations (Scotland) Amendment Regulations 2025 (Scottish Government, 2025), which replace the Water Environment (Controlled Activities) (Scotland) Regulations 2011, as of 1 November 2025.

6.2.2.2 During construction vehicle maintenance and refuelling / oil changes for machinery / equipment will be undertaken within designated areas where spillages can be easily contained, and machinery will be routinely checked to ensure it is in good working condition. The areas at risk of spillage or containing hazardous materials will comply with industry good practice for pollution prevention, be appropriately bunded, have appropriate containment and segregation and will be risk assessed and carefully sited to minimise the risk of hazardous substances entering the drainage system, local watercourses, or sensitive land-based receptors. Such areas will be sited at least 10m from a watercourse, in accordance with the SEPA General Binding Rules (SEPA 2024a), and away from areas at risk of flooding. An Incident Management Plan will be in place during construction.

6.2.2.3 No washing out of concrete and cement delivery vehicles will take place onsite without suitable provision for the washing out water. Wash water will be adequately contained, prevented from entering any drain, and removed from the site for appropriate disposal at a suitably licenced waste facility.

6.2.3 Storage and handling

6.2.3.1 Non-hazardous fluids will be stored in containers suitable to prevent escape or leakage to ground or water. A requirement for bunding to 100 per cent of the container capacity will be considered if the temporary storage of non-hazardous fluids close to drains or watercourses is unavoidable.

6.2.3.2 For hazardous chemicals, fuels or oils bund capacity will be the larger of 110 per cent of the largest tank volume for single tank bunds (or, in the case of multi tank bunds, 110 per cent of the largest tank capacity or 25 per cent of the combined tank capacity, whichever is the largest).

6.2.3.3 Construction waste / debris are to be prevented from entering any surface water drainage or waterbody by appropriate best practice measures.

6.2.4 Control of substances hazardous to health

6.2.4.1 All Control of Substances Hazardous to Health (COSHH) materials will be stored and handled in accordance with the COSHH Regulations 2002 (UK Government, 2002).

6.2.5 Biosecurity

6.2.5.1 There is a legal requirement throughout the construction stage to implement robust biosecurity measures that aim to protect aquatic and terrestrial habitats within the Onshore Redline Boundary and in the surrounding environs.

6.2.5.2 Invasive Non-Native Species were identified within the Onshore Red Line Boundary therefore a management plan will be produced to prevent the accidental introduction or spread of these species and any further species restricted through the provisions of the Wildlife and Countryside Act 1981 (as amended).

6.3 Outline surface water quality and drainage management plan

6.3.1.1 This Section provides an overview of what will be included within the Surface Water Quality Management and Drainage Management Plan. This covers measures related to the protection of water quality and drainage management during the construction of the Project.

6.3.1.2 Outlined below in **Section 6.3.2** to **Section 6.3.8** is a summary of mitigation measures to be implemented during construction to control impacts on water quality and quality. These will be detailed in the Final CEMP to management impacts on onshore water resources and flood risk including changes to flow volume, water levels, water quality and watercourse morphology due to construction.

6.3.1.3 All relevant good practice will be followed onsite to avoid impacts on water quality and quality. This includes, but is not limited to:

- Netregs Guidance for Pollution Prevention (GPP) (Netregs, 2025);
- CIRIA C648 Control of Water Pollution from Linear Construction projects: Technical Guidance (Construction Industry Research and Information Association (CIRIA), 2006); and
- CIRIA C741 Environmental Good Practice on Site (CIRIA, 2015).

6.3.1.4 Further details for prevention of pollution from storage and handling of fuel, oil and other hazardous substances is provided in **Section 6.2**.

6.3.2 Standoff distances

6.3.2.1 Stand-off distances will be maintained between watercourses and construction works, including stockpiling.

6.3.2.2 The Applicant will follow Scottish Water's 'Precautions to Protect Drinking Water and Scottish Water Assets During Windfarm Construction and Operational Activities' guidance (Scottish Water, 2025). Where it is impractical for infrastructure and activities to be located outside of the River Ugie Drinking Water Protection Area (DWPA), then all infrastructure and activities should be located 100m from any watercourse wherever possible, and a minimum of 50m distance where 100m can be demonstrated to be undeliverable.

6.3.3 Watercourse crossings

6.3.3.1 All watercourse crossings of Water Framework Directive river water bodies (River Ugie and Burn of Faichfield and their tributary watercourses (within the River Ugie DWPA)) will be trenchless, with no need for associated haul road crossings.

6.3.3.2 Where trenchless crossing techniques such as HDD (or similar trenchless technique) are not required or are not practical, the crossing of drainage ditches or engineered channels may be by open cut techniques or the installation of culverts or bridges to allow water to continue flowing.

6.3.3.3 This will be done in accordance with The Environmental Authorisations (Scotland) Amendment Regulations 2025, and the General Binding Rules in the SEPA Practical Guide (SEPA, 2024). Appropriate authorisations from SEPA will be applied for, if required for proposed works.

6.3.3.4 Where practicable, haul routes will be located out of the functional floodplain.

6.3.4 Disposal of accumulated rainwater

6.3.4.1 Rainwater and surface water may accumulate in a number of locations onsite, for example in uncovered bunds and drip trays. This has the potential to become contaminated. Measures to reduce this risk will be included in the Final CEMP.

6.3.4.2 In accordance with the GPPs, other effluents may be produced that need to be properly managed and controlled in order to prevent contamination of surface water. The Final Surface Water Quality and Drainage Management Plan will ensure these are managed in accordance with the GPPs.

6.3.5 Stockpiles

6.3.5.1 During construction topsoil and subsoil will be stored within stockpiles in the construction working corridor of the onshore export cable corridor, at the landfall(s) and onshore substations.

6.3.5.2 The topsoil and subsoil will be stored in separate stockpiles, in line with the Department for Environment, Food and Rural Affairs (Defra) Code of practice for the sustainable use of soils on construction sites (Defra, 2018).

6.3.6 Land drainage

6.3.6.1 Particular care will be taken to ensure that the existing land drainage regime is not compromised as a result of construction.

6.3.7 Discharges

6.3.7.1 Temporary surface water management systems will be installed early in the construction sequencing and carefully managed to prevent localised flooding or pollution of surface and groundwater from silt and other contaminants.

6.3.7.2 No silty water will be discharged directly into any watercourse. Groundwater dewatered from excavations will be discharged to adjacent grassed / vegetated agricultural land, away from watercourses as far as possible. Where there remains the potential for this water to runoff into nearby surface water features or agricultural land used for crops, additional measures will be put in place.

6.3.7.3 If water being pumped from excavations is suspected to be contaminated, appropriate measures will be taken in accordance with SEPA guidance and The Environmental Authorisations (Scotland) Amendment Regulations 2025.

6.3.8 Emergency flood response plans

6.3.8.1 An Emergency Flood Plan for flood events will be prepared for all construction activities, working areas, access and egress routes in floodplain areas. These plans will be provided for construction (whilst the protocols would also be applicable to the operation and maintenance stage) and will include evacuation procedures for personnel.

6.3.9 Monitoring

6.3.9.1 During construction, a programme of visual inspections will be undertaken to ensure that the measures taken to protect the water environment are effective. The visual inspection points will be selected downstream of construction areas. The frequency, duration and methodology will be agreed with SEPA and Aberdeenshire Council.

6.4 Outline PWS strategy

6.4.1.1 As part of the EIA process where practical, PWSs have been avoided by the temporary and permanent onshore infrastructure footprint.

6.4.1.2 An initial assessment for the effects on PWSs has been provided in **Volume 1, Chapter 20: Water Resources and Flood Risk** of the EIA Report**.** A number of specific embedded environmental measures have also been put in place for PWSs thought to be directly at risk from the Project (including PWSs 10, 11 Lunderton Farmhouse, PWS26: West Thunterton and PWS 30: Parkhill):

- A water quality monitoring programme and / or further assessment will be carried for PWSs which have been identified as being at potential risk from the Project (see **Volume 1, Chapter 20: Water Resources and Flood Risk** of the EIA Report). Any monitoring will be carried out in accordance with SEPA's Guidance on Assessing the Impacts of Developments on Groundwater Abstractions (SEPA 2024b). PWSs 10 and 11: Lunderton Farmhouse and Westfield, PWS 26: West Thunderton and PWS 30: Parkhill have all been identified as within 250m of the onshore export cable corridor and consequently in potential hydrological connection with the Project. On this basis a commitment has been made for further detailed assessment and monitoring (subject to the outcomes of that assessment) post consent and prior to construction.
- In relation to PWS 30: Parkhill, the proposed drilling works are likely to be directly below the well and therefore the Applicant has made a specific commitment to the provision of an alternative water supply (subject to an agreement with the landowner) at that location prior to any construction to avoid any potential impact.

6.4.1.3 As part of the Final PWS Strategy, prior to construction, the Principal Contractor will confirm the location of all springs, abstractions and any infrastructure including treatment plants and interconnecting pipes that require appropriate protection. These features will be mapped, and appropriate exclusion zones will be applied to ensure that construction methods do not disturb the physical infrastructure layout. All appointed contractor staff will be given training to protect abstractions deemed to be at risk.

6.4.1.4 In the event that an abstraction is identified as being at risk of water quality deterioration, a comprehensive sampling programme will be agreed with the relevant authority and for the abstraction in question. This will also be subject to agreement with the relevant landowner and resident for monitoring to take place.

6.5 Outline construction noise and vibration management plan

6.5.1.1 This Section provides an overview of what will be included within the Final Construction Noise and Vibration Management Plan.

6.5.1.2 The noise impact levels resulting from the construction of the Project must be compliant with the threshold limits defined in the EIA. The threshold noise levels at sensitive receptors have been set using the 'ABC method' provided in BS 5228 (British Standards Institution, 2014).

6.5.1.3 Where construction activities are identified as having the potential to exceed the adopted ABC threshold of criteria at the nearest noise sensitive receptors (NSRs) to the works, there is a need to provide mitigation measures to avoid significant effects. Section 4.2 of **Volume 3, Appendix 25.3: Construction Stage Noise and Vibration Assessment** presents further details on the combinations of measures needed to meet the threshold of

significance. These measures may include the application of best practice measures, temporary acoustic screening and compliance noise monitoring.

6.5.1.4 The exceedances relating to the construction of trenchless crossings and landfall(s) works outside of core working hours will be managed to meet required limits by employing appropriate mitigation which could include a combination of the following:

- **management of the construction of trenchless crossings outside of core working hours:** works will be managed to include an appropriate separation distance between the works and NSRs;
- **deployment of temporary acoustic barriers:** Mobile noise screens will be installed around high-noise plant and activities, particularly during trenchless crossings and landfall construction;
- **real-time noise monitoring and trigger protocols:** Noise monitors will be installed at representative NSRs. Trigger thresholds will be defined, and exceedances will initiate immediate review and corrective action; and
- **receptor-specific mitigation:** Where significant effects cannot be mitigated through site-based controls, additional measures such as temporary relocation will be considered on a case-by-case basis.

6.5.1.5 In addition to the specific mitigation measures for works construction of trenchless crossings and landfall(s) works outside of core working hours, the following standard mitigation measures will be implemented by the Principal Contractor to minimise noise impacts:

- all construction activity will be undertaken in accordance with good practice as described by BS 5228-1: 2014;
- all construction staff must show consideration to the sensitive receptors, including residential neighbours, and must not generate unnecessary noise when walking to and from the construction sites, or when leaving and arriving at work;
- all personnel involved in the works will receive training and advice on noise minimisation and general good site practice through site-specific training and briefings; and
- all materials (including waste materials) will be handled, stored, and used in a manner that minimises noise. This will include ensuring the efficient handling of materials to avoid unnecessary double handling and to ensure drop heights are minimised. Wherever practicable, materials will be lowered and not dropped from height.

6.5.2 Plant and equipment

- Plant will be certified to meet relevant legislation and should be no noisier than would be expected based on the noise levels as stated in BS 5228-1 (British Standards Institution, 2014).
- Noisy plant or equipment will be situated as far as possible from site boundaries and will be fitted with exhaust silencers, maintained in good and efficient working order, and operated in such a manner as to minimise noise emissions. Plant will comply with the relevant statutory requirements.
- Static equipment, such as generators and pumps, are to be sited and oriented as far as is reasonably practicable away from NSRs and will have localised screening if deemed necessary.
- All plant will be regularly serviced, maintained, and operated in accordance with manufacturers' instructions.

- Machines that are intermittently used will be shut down in the intervening periods between work or throttled down to a minimum.
- Engine compartments will be closed when equipment is in use.
- Site inductions will highlight the need for vehicle horns and alerts to only be used when absolutely necessary.
- Deliveries will be programmed to arrive during normal working hours, wherever practicable.
- The Principal Contractor will comply with the requirements of the Control of Pollution Act 1974 (with particular reference to Part III), the Environmental Protect Act 1990 and the Control of Noise at Work Regulations 2005.
- All trade contractors will be made familiar with current noise legislation and the guidance contained in BS 5228 (Parts 1 and 2) which will form a pre-requisite of their appointment.

6.5.3 Monitoring and reporting

- All noise and vibration complaints will be recorded and investigated, and any corrective actions implemented.
- Contact details will be established to provide the opportunity for the local community to raise their concerns if issues with site activities, such as noisy conditions, are causing a nuisance. These contact details will be provided by the Principal Contractor prior to commencing works.

6.6 Outline construction dust and air quality management plan

6.6.1.1 This Outline Construction Dust and Air Quality Management Plan sets out the proposed approach to managing air quality pollutant and dust emissions arising from construction stage activities.

6.6.2 Dust, PM_{10} and NOx emissions mitigation measures

6.6.2.1 Commensurate with the dust risk assessment presented in **Volume 1, Chapter 21: Air Quality** of the EIA Report**,** key environmental measures are outlined below, following the Institute of Air Quality Management (IAQM) Guidance on the assessment of dust from demolition and construction (2024):

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

- Minimise Non-Road Mobile Machinery (NRMM) emissions but considering on-road vehicles that comply with the more stringent requirements of the London Low Emission Zone and the London NRMM standards.
- Ensure all vehicles switch off engines when stationary – no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment, where practicable.
- Impose and signpost a maximum-speed-limit of 15 miles per hour (mph) on surfaced and 10mph on unsurfaced access roads, haul roads and work areas.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, for example, suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust / particulate matter suppression / mitigation and that cleaning equipment is readily available on site, so any spillages or dust accumulated on site (for example, fences) are cleaned as soon as reasonably practicable.
- Use enclosed chutes and conveyors and covered skips and minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Avoid bonfires and burning of waste materials.
- Re-vegetate earthworks and exposed areas / soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or tackifiers (for instance, adhesive substances) where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove topsoil gradually, ideally over small areas during earthworks and not all at once.
- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Access gates to be located at least 10m from receptors, where possible.

Monitoring and communication

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Display the name and contact details of the person(s) accountable for air quality and dust issues on site. This may be the environmental manager / engineer or the site manager.

- Dust monitoring is proposed throughout the duration of the Project and is to be adapted to each phase stage / zones of the works and will be included in a Dust Management Plan, if required. The proposed monitoring measures include several options including visual inspections, passive monitoring and automatic monitoring. The type and frequency of the any monitoring will be decided after consultation with the Aberdeenshire Council during the production of the Final CEMP.
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the complaints log available to Aberdeenshire Council when asked.
- Record any exceptional incidents that cause dust and / or air emissions, either on- or offside and the action taken to resolve the situation in the log book.
- Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the offsite transport / deliveries which might be using the same network routes.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

6.7 Outline site waste management plan

6.7.1.1 The Project will comply with waste management licencing. Good construction and management practices will be adopted and the waste hierarchy applied, with the aim of ensuring that wastes arising during construction of the Project are minimised where possible, and that the storage, transport, or disposal of waste, does not result in significant environmental effects.

6.7.1.2 Several waste streams are likely to arise during construction of the Project. For the construction stage, a Site Waste Management Plan will be developed which identifies all waste streams and provides an estimate of the expected volumes of each waste type.

6.7.1.3 The Site Waste Management Plan will provide details of the types and estimated volumes of waste to be reused, recycled, processed / treated, or disposed of to a suitable licenced facility, during construction. Measures to reduce environmental impacts associated with the generation, storage, treatment / processing, and transportation of waste will also be detailed. The avoidance of waste will be a stated Project goal in the Site Waste Management Plan.

6.7.1.4 Measures to protect imported construction materials from becoming waste will be detailed in the Site Waste Management Plan, such as measures to avoid over-ordering or other generation of surplus materials, use of supplier contracts which enable returns of unused items and packaging, and measures to protect temporarily stored construction materials from damage or contamination that could render them unusable and create waste.

6.7.1.5 The Site Waste Management Plan will define the measures for waste storage for the waste types, including how wastes will be segregated, labelled, secured, and protected from the weather, as required, and positioned away from sensitive receptors such as watercourses, in accordance with pollution prevention guidance produced by SEPA and CIRIA, as set out in **Section 6.3**.

6.7.1.6 An audit trail will be maintained for the wastes produced and waste movements (including waste transfer notes) that can demonstrate compliance with waste management licencing.

6.7.1.7 The Site Waste Management Plan will set out the roles and responsibilities for implementing the Site Waste Management Plan. It will also define the monitoring and inspection measures to be implemented for wastes during construction of the Project. These will include the use of key performance indicator (KPIs) and targets, and the Site Waste Management Plan will include follow-up actions to be taken if targets are not met.

6.7.1.8 Excavated soils will be managed in accordance with SEPA's Land remediation and waste management guidelines (SEPA, 2022). Soil management planning will be undertaken during pre-construction within the aim of avoiding, or if this is not possible, minimising, the permanent displacement of soils and retaining them within the Project. If soils cannot be reused within the Project, then measures to protect them and enable their potential reuse at an offsite location will be implemented during construction. **Section 6.8** includes measures to avoid damage to excavated soils that could result in these soils being unsuitable for reuse and subsequently requiring disposal as waste.

6.7.1.9 Consideration will be given to the reuse of excavated soils or other materials found to contain contaminants within the Project, if these can be confirmed through suitable testing and assessment, in accordance with Land Contamination: Risk Management (LCRM) (Environment Agency, 2020), to be suitable for the intended use and reuse can be undertaken in accordance with SEPA's Land remediation and waste management guidelines (SEPA, 2022).

6.7.1.10 Any disposal offsite of excavated material will be undertaken in consultation with the landowner / occupier and in accordance with the Waste Management Regulations, including the Environmental Protection Act 1990, The Environmental Protection (Duty of Care) (Scotland) Regulations 2014, and The Waste (Scotland) Regulations 2012.

6.8 Outline soils management plan

6.8.1.1 The purpose of this Outline Soils Management Plan (SMP) is to support the protection and suitable restoration or reuse of all soils that may be excavated or otherwise disturbed (for example, by plant or vehicles tracking over soils) because of the Project.

6.8.1.2 The Outline SMP will be updated to a Final SMP during pre-construction.

6.8.1.3 The aim of the Outline SMP is to maintain the value and functions of the existing soil resources.

6.8.1.4 Excavated clean soils from greenfield land can fall under waste legislation. If excavated soils cannot be reinstated where they came from, or if another suitable reuse option cannot be found within the Project or at an offsite receptor site (with appropriate declarations made to SEPA), then either an exemption is needed under the Environmental Protection Act 1990 or the Waste Management Licencing Regulations 1994 (as amended) apply, and waste regulatory controls for the storage, use, treatment and disposal of soil and stones.

6.8.1.5 The Outline SMP is informed by published guidance for the sustainable use of soils including:

- *Regulatory guidance: Promoting the sustainable reuse of greenfield soils in construction.* (SEPA, 2010);
- *The code of practice for the sustainable use of soils on construction sites* (Defra, 2018);
- Carroll, B., Fothergill, J., Murphy, J., and Turpin, T. (2019). *Environmental Impact Assessment Handbook, Environmental Impact Assessment Handbook: A practical guide for planners, developers and communities, Third edition*. Chapter 7, Section 7.4 Soil;

- *Good Practice Guide for Handling Soils in Mineral Workings.* (Institute of Quarrying [IQ], 2021); and
- *IEMA Guide: A New Perspective on Land and Soil in Environmental Impact Assessment* (Stapleton, C., Reed, E., Gemmell, L., Adams, K. (eds), 2022).

6.8.2 General principles for soil management

6.8.2.1 The footprint of the construction works should be limited to that necessary to complete the work safely (and in accordance with planning permission).

6.8.2.2 Embedded environmental measure M-078, as set out in **Volume 3, Appendix 5.2** of the EIA Report makes provision for a depth of up to 1.5m to the base of an onshore export cable trench is assumed. In sensitive areas, the amount of topsoil removed will be the width of the trenches only, rather than across the entire temporary construction corridor.

6.8.2.3 Soil handling and construction operations potentially impacting soils should be carried out in general accordance with the methodology set out in the Defra Code of Practice for the sustainable use of soils on construction sites (Defra, 2018).

6.8.2.4 Soil handling, including excavation and reinstatement, should take place when soils are sufficiently dry and ideally during climatic conditions where vegetation cover can be readily established on reinstated soils. Soils will be most prone to structural damage or degradation when they are too wet and / or vegetation cannot be established. This means that the best period for soil handling typically occurs during the drier months from April to September.

6.8.2.5 Stripping of vegetation should not be undertaken unnecessarily, as this increases the potential for soil erosion by wind or rainfall. Vegetation stripping and excavation work should take place on a phased basis to avoid having large areas of bare soil for extended periods.

6.8.2.6 Where excavated soils can be reinstated at their original location, reinstatement should be completed at the earliest suitable opportunity, considering the points above. This is to minimise the period that soils are temporarily stockpiled, as stockpiling can affect soil structure, soil biodiversity, and soil chemistry (for example, an anaerobic core can form in the centre of the stockpile, soils in the centre and the base of the stockpile can be compacted by the weight of the soils above, stockpiling will affect soil fauna essential for soil health, such as earthworms, stockpiled soils are at risk of erosion). Measures for soil stockpiling to minimise damage to soil are outlined below.

6.8.2.7 Stripping / excavation of topsoils and subsoils should always be carried out as separate operations, the two should not be mixed during handling or storage.

6.8.2.8 The use of aggregates for temporary construction activities (such as to construct temporary access roads or temporary construction compound surfaces) should be controlled (for example, by placing aggregates over separating layers such as suitable geotextile membrane) so that the aggregate materials can be removed at the end of the construction activity and not mixed with the natural soil horizons.

6.8.2.9 Peat is not covered by this Outline SMP. The Project has been designed to avoid deep peat. One area of peat is shown on soil mapping in the Onshore Red Line Boundary. This is within an area of coniferous plantation woodland (at grid coordinates 410496, 851319) and a field. Disturbance to peat, if present at this area, will be avoided by the use of a trenchless crossing. Peaty gleys identified on soil mapping are within arable fields where peat layers are likely to have been damaged / lost / mixed with other soils through cultivation (ploughing, tilling etc) and harvesting. The soil handling measures in this Outline SMP would therefore apply for these potentially peaty soils.

6.8.2.10 As above, deep peat, defined in Scotland (NatureScot, 2025) as: soil with a surface peat layer with more than 60 per cent organic matter and of at least 50 centimetres thickness) is unlikely to be encountered during construction of the Project. This is based on the review of baseline soil and land use information and ecological habitat surveys undertaken for the EIA Report. However, if deep peat is encountered unexpectedly during excavation for the Project, work in the area should stop to enable a suitable approach to be devised, in accordance with relevant guidance below. The area should be investigated (such as by peat probing) in accordance with the guidance, to determine a suitable approach in accordance with the peat hierarchy for example, by the use of micro-siting to avoid peat:

- Scottish Government (2014) Developments on Peatland: Guidance on the assessment of peat volumes, reuse of excavated peat and the minimisation of waste; and
- Scottish Government, Scottish Natural Heritage, SEPA (2017) Guidance on Developments on Peatland: Peatland Survey (2017) to delineate the extent and depth of peat.

6.8.2.11 Excavated soils should be stored / stockpiled locally to the point of excavation if this is possible, so that restored soils can go back where they came from and to avoid mixing soils between fields / other boundaries.

6.8.3 Soil storage and management

6.8.3.1 This Section sets out general principles for storage of excavated soils.

6.8.3.2 Topsoil and subsoil stripped from any impacted footprint of the onshore export cable corridor (including, but not limited to, temporary construction compounds, trenches, temporary access roads, onshore substations, etc.) where soil must be stripped, will be stored separately in temporary mounds. Topsoil mounds will not exceed 3m in height. Subsoil mounds should also be limited to 3m in height where possible (maximum 5m). Soil stockpiles should not be over-compacted, but to help shed rainwater and prevent ponding and infiltration, the sides and top of stockpiles should be re-graded to form a smooth gradient.

6.8.3.3 Where soils are to be reinstated these will ideally be stored alongside the work area, for reinstatement following completion of the construction activity. Soils stripped from temporary construction compounds will be stored temporarily and suitably identified / referenced to ensure they can be reinstated where they came from. Soils stripped from permanent development areas which are to be permanently displaced will be stored in temporary mounds. Reuse of these soils within the Project or offsite must be in accordance with SEPA's guidance on sustainable reuse of greenfield soils (SEPA, 2010).

6.8.3.4 Stockpiles should not be positioned within the root or crown spread of trees, or adjacent to ditches, watercourses or existing or future excavations. Soil will have a natural angle of repose of up to 40° depending on texture and moisture content but, if stable stockpiles are to be formed, slope angles will normally need to be less than that. For stockpiles that are to be grass seeded and maintained, a maximum side slope of 1 in 2 (25°) is appropriate.

6.8.3.5 Topsoil stockpiles which remain present for six months or longer will be sown to a seed mix of grass and clover (or suitable alternative) and kept weed free by cutting. Where it is identified through materials management planning that stockpiles will be present for longer than six months, seeding will take place at the earliest opportunity following stockpile creation.

6.8.3.6 Subsoil stockpiles which remain present for six months or longer should be managed to prevent seeding, such as may occur from adjacent land. Stockpiled subsoil should be placed on geotextile matting (see **paragraph 6.8.2.8**).

6.8.3.7 During topsoil stripping, machinery with low ground pressure will be used to minimise soil compaction, including during construction of the access tracks, the tracks will then be available for heavier vehicles to use to avoid impacts on other areas.

6.8.3.8 If ground conditions require it, a temporary trackway of either metal, wood, or plastic, would be used for vehicles to access the working areas. This would be removed once construction is complete.

6.8.3.9 Storage of excavated soils within the onshore export cable corridor should be planned to enable excavated soils to be replaced in reverse order with the aim of restoring the original soil horizons / layers back to their original position and thickness.

6.8.3.10 If a layer of overburden / parent material is encountered below subsoil in the base of an excavation (for example, weathered rock layer, little or no evidence of plant or animal life), this material should ideally be stored in a separate heap from the subsoil. If this is not possible due to working area constraints, the overburden should be placed on the top of the subsoil stockpile so that it can be reinstated in the base of the excavation.

6.8.3.11 At the point of placement of a topsoil or subsoil into a stockpile for temporary storage away from its point of origin, the stockpile will be referenced and assigned a unique identifier corresponding to its site of origin.

6.8.3.12 This approach means that soil stored temporarily in a stockpile will be well defined: typical information that may be assigned to stockpiles could include: whether the stockpile holds a subsoil or a topsoil, the date(s) soil was placed, soil type, soil test results such as topsoil or subsoil sample testing to British Standard BS:3882:2015 (British Standards Institution, 2015) and British Standard BS:8601:2013 (British Standards Institution, 2013), respectively.

6.8.3.13 Stockpile management measures will include the stockpile height and whether it is complete (for instance, the maximum stockpile height for the soil being stored, in accordance with this Outline SMP).

6.8.3.14 Soil stripping, stockpiling, and removal from storage will be carried out in accordance with Section 5.4 of the Defra Code of Practice for the sustainable use of soils on construction sites (Defra, 2018).

6.8.4 Soil reinstatement

6.8.4.1 Soils should be reinstated in reverse order to excavation, for instance, (if present) placing overburden at base, then subsoil(s), then topsoil(s), with the aim of restoring the original soil horizons to their original thicknesses.

6.8.4.2 Where possible, the subsoil will be placed directly onto restored ground. This reduces the potential for soil degradation.

6.8.4.3 Before replacement of any topsoil, the subsoil layer should be lightly graded to provide a suitable bed for topsoil replacement.

6.8.4.4 Compaction of reinstated subsoil should be limited to that necessary to ensure the structural safety / stability of the onshore export cable corridor.

6.8.4.5 Plant and machinery engaged in topsoil replacement operations should only travel across previously replaced subsoil via clearly marked access routes to avoid damage to any areas where topsoil has been restored.

6.8.4.6 Topsoil should be replaced as a single unit by 'loose tipping' methods; see Section 6.1 of the Defra Code of Practice for the sustainable use of soils on construction sites (Defra, 2018), to ensure that a uniform restored, and uncompacted soil profile is achieved.

6.8.4.7 Following completion of the respreading of an area restored to topsoil, the surface should be lightly graded.

6.8.4.8 In general, vegetation cover will be established as soon as possible on reinstated soils. This will be done progressively as the soil is replaced, and, before the end of the growing season, to enable vegetation to become established as early as possible and lower the risk of water or wind erosion or infestation by weeds.

6.8.4.9 Most of the soils excavated during construction along the onshore export cable corridor can be reinstated at their original location. However, some soils will be permanently excavated, such as for above ground structures, including the onshore substations, potentially generating some excess soil.

6.8.4.10 Where it is identified through soil resource / materials management planning that topsoil or subsoil cannot be reinstated at its original location, sampling and testing of excavated topsoil and subsoil will be completed in accordance with BS:3882:2015 and BS:8601:2013, respectively, at the earliest opportunity, to inform the reuse of these soils elsewhere within the Project or at a suitable offsite receptor site in compliance with SEPA guidance for sustainable use of greenfield soils (SEPA, 2010).

6.8.5 Monitoring, roles and responsibilities, aftercare

6.8.5.1 A designated person will oversee the implementation of the Outline SMP.

6.8.5.2 Regular monitoring of the construction work will be completed to ensure compliance with the Outline SMP.

6.8.5.3 The Principal Contractor will define the reporting programme to provide evidence of monitoring and compliance with the stage specific SMP.

6.8.6 Ground conditions (including land contamination)

Land contamination

6.8.6.1 Construction works must comply with the law and will therefore be subject to the Construction (Design and Management) Regulations 2015 and safe working practices as part of normal construction health and safety management under the Health and Safety at Work Act (1974) and regulations made under the Act. These legal obligations include the requirement for risk assessments and method statements for all construction related activities.

6.8.6.2 Risk assessments and method statements for any activities requiring ground disturbance will include consideration of land contamination and ground instability in developing appropriate working methods and the use of suitable personal protective equipment (PPE).

6.8.6.3 **Volume 3, Appendix 19.1: Phase 1 Contaminated Land Report** of the EIA Report has identified potential contamination sources within the Onshore Red Line Boundary and some offsite sources, as shown in **Volume 3, Appendix 19.1, Figure 4: Land contamination and landfill**. For future developments, Planning Advice Note 33 (Scottish Government, 2017) sets out the “suitable for use” approach, which requires consideration of the potential for contamination to be present at a project site, by assessing the potential risks, investigating potentially contaminated land, and remediating the land if needed, to ensure a site is suitable for the proposed end use.

6.8.6.4 Compliance with the LCRM guidance (Environment Agency, 2020) is an embedded environmental measure stated in the EIA Report. LCRM advocates a phased approach to land contamination assessment, starting with desk study and site walkover then progressing

to exploratory investigation, if needed. At each stage of land contamination risk assessment, hazards must be identified, and risks assessed using a source-pathway-receptor linkage approach to determine whether there are any potentially unacceptable risks requiring further investigation / assessment or remediation. LCRM also requires the use of competent persons to carry out land contamination risk assessment and to carry out site work.

6.8.6.5 **Volume 3, Appendix 19.1** covers all land within the Onshore Red Line Boundary and also considers potential offsite sources of land contamination (within a 250m buffer) that could potentially impact on land within the Onshore Red Line Boundary. It must be reviewed, along with any further information on ground conditions that becomes available through ground investigation or other means, to inform the design of the construction stage of the Project, including pre-construction ground investigations.

6.8.6.6 If unexpected contamination or suspected contamination is observed or detected during an excavation, additional testing and risk assessment, in accordance with LCRM, and with reference to **Volume 3, Appendix 19.1**, will be required to determine appropriate measures. Materials will be segregated, where possible, to prevent cross-contamination occurring and will only be reused if confirmed to be suitable for use and in accordance with other requirements of the Site Waste Management Plan.

6.9 Outline ecological management plan

6.9.1.1 Implementation and monitoring of an Ecological Management Plan, which comprises a Habitat Protection Plan, Species Protection Plan and Bird Protection Plan will be the responsibility of the Environmental Clerk of Works (ECoW). The ECoW will be a suitably qualified ecologist (SQE) and a Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

6.9.1.2 The ECoW will be appointed and employed by the Applicant, the appointment is subject to approval by the Planning Authority after submission of details of qualifications and experience. The role and duties of the ECoW are further detailed below in **Section 6.9.2**.

6.9.1.3 The Habitat Protection Plan, Species Protection Plan and Bird Protection Plan apply to the immediate pre-construction and the construction stage of the Project.

6.9.2 The ECoW

6.9.2.1 An ECoW will be provided for the duration of the construction works, irrespective of whether this role is required as part of a planning consent.

ECoW tasks

6.9.2.2 The ECoW will advise and assist the Principal Contractor in avoiding, minimising and mitigating adverse effects. The Principal Contractor will consult with the ECoW prior to undertaking specific works as detailed below and will always consider ECoW advice.

6.9.2.3 The following are anticipated to represent the main tasks which translate these aspects of the role into action. This list is not intended to be exhaustive and will require modification during the construction stage as and when circumstances dictate.

Micrositing

6.9.2.4 The ECoW (in consultation with the Archaeological Clerk of Works, if applicable and required) will advise on micro-siting, where required. The Principal Contractor will consult the ECoW prior to micro-siting being undertaken.

Drainage management and watercourses

6.9.2.5 The ECoW will conduct (and maintain records of) weekly inspection of site pollution prevention measures (silt fences, sustainable drainage system ponds, check dams etc) and visually assesses their effectiveness. This will include inspection of water management measures installed by contractors. The ECoW will:

- assess, in advance of works, habitats and species on ground that may be affected by drainage management;
- review drainage management proposals associated with temporary soil storage and reinstatement works in advance of such works commencing; and
- in advance of any works near or crossing a ditch or watercourse, undertake a survey for protected terrestrial and aquatic species, using an established specialist if necessary.

Excavated materials and reinstatement

6.9.2.6 The ECoW will:

- agree proposals for temporary storage areas as construction proceeds in consultation with the ACoW as necessary;
- monitor the condition of stored turves; and
- agree any required hydroseeding specification, including seed mix and fertiliser quantities, if required as part of ground reinstatement, in liaison with NatureScot.

Ecological protection tasks

6.9.2.7 The ECoW will:

- Erect and maintain markers and notices for working buffers around watercourses, exclusion zones and other areas with protected species or habitats.
- Consider requests and granting of permission to enter within habitat and protected species exclusion zones.
- Conduct weekly checks for protected species and sensitive habitat (for example, dune grassland and watercourses) within and adjacent to construction areas and maintain a register of all habitat inspections carried out.
- Implement Species Protection Plan, if ground checks suggest this is necessary for the protected species detailed in **Section 6.9.4** of the Outline Species Protection Plan.
- Implement the habitat protection plan, including surveys and checks specific to the plan detailed in **Section 6.9.3** of the Outline Habitat Protection Plan.
- Execute the terms of any protected species licences to disturb / destroy any places of shelter, which might be required as a result of any future surveys and searches.
- The ECoW will maintain a GIS database of key recordings made during the construction stage.
- The ECoW will provide monthly ecological update reports to the Applicant.
- The ECoW will produce a final report to the Applicant documenting the environmental and environmental effects of the construction stage. The evidence for effects will be based on findings included in the minutes of weekly / fortnightly meetings, together with other recording information maintained by the ECoW. The report will relate results to residual effects predicted in the site's EIA documents.

- The report will be made available to the Principal Contractor and the Planning Authority.

6.9.3 Outline habitat protection plan

6.9.3.1 The purpose of the Outline Habitat Protection Plan is to ensure that aquatic and terrestrial habitats are suitably protected during construction works.

Aquatic habitats

6.9.3.2 In relation to aquatic habitats, the purpose of the Habitat Protection Plan is to maintain good water quality to support aquatic habitats used by any existing aquatic species like otters, water voles and fish and associated ecosystems, both where construction works take place and downstream of these locations, including salmon spawning grounds.

Terrestrial habitats

6.9.3.3 In relation to terrestrial habitats, avoidance and minimisation of damage and loss to priority habitats including rivers, lowland mixed deciduous woodland, coastal sand dunes and any identified groundwater dependent terrestrial ecosystems will be embedded in the Habitat Protection Plan.

6.9.3.4 All construction working practices need to consider their possible effects on sensitive habitats and soils and mitigate significant negative effects as far as is reasonably possible.

Habitat protection measures

6.9.3.5 Proposed measures for both aquatic and terrestrial habitat protection will be as follows:

- Stand-off distances will be maintained between watercourses and construction works, including stockpiling.
- Where it is impractical for infrastructure and activities to be located outside of the River Ugie DWPA, then all infrastructure and activities should be located 100m from any watercourse wherever possible, and a minimum of 50m distance where 100m can be demonstrated to be undeliverable.
- This includes cable trenches, soil stockpiles, access tracks, trenchless crossing, temporary construction related activities such as plant, refuelling, storage of hazardous materials, cement batching, waste storage, concrete preparation, wheel washing / washout areas, and temporary construction compound areas.
- Buffer zones will be demarcated, where necessary, by the ECoW. The Principal Contractor will discuss and agree the requirement for demarcation with the ECoW and the Applicant prior to commencement of any works. Standoff distances for watercourses within the River Ugie DWPA are separately set out in **Section 6.3.2**.
- Details on watercourse crossings design and construction works (including HDD or similar trenchless technique) are provided in **Section 6.3.3**.
- All relevant good practice guidance relating to the protection of water quality and drainage management during the construction will be followed onsite to avoid impacts on water quality and quality as outlined in **Section 6.3**.
- Any requirements for tree removal works will be overseen by an Arboricultural Clerk of Works (ArbCoW) who will be appointed to oversee tree protection during the construction stage as outlined in **Section 6.10**.

6.9.3.6 The Principal Contractor will ensure the protection of habitats as detailed in this Outline CEMP.

6.9.4 Species protection plan

6.9.4.1 A Species Protection Plan will be produced to ensure the adequate preservation of protected species interests into all construction activities in order to safeguard the resident populations of badger, bat, otter and water vole (recorded during desk based or field surveys) and ensure compliance with the relevant nature conservation legislation.

6.9.4.2 The Principal Contractor will ensure the protection of species as set out in this Outline CEMP.

Badgers - pre-construction measures

6.9.4.3 Within three months prior to commencement of construction works (or during the suitable survey period prior to commencement of works) pre-construction checks for badgers will be undertaken by a SQE. Checks will be undertaken within 150m of any proposed construction works;

- A detailed badger protection plan will be prepared, as required.
- Ahead of construction works, the ECoW will mark out exclusion zones around any badger setts.
- Exclusion zones will extend to 30m from any sett. No construction activity is permitted within 30m of any badger sett unless under license.
- If required, the ECoW will make relevant licence applications (for example, licence to disturb) to NatureScot on behalf of the Applicant and will oversee and / or undertake related mitigation measures in accordance with any licence obtained.
- The ECoW will maintain a mapped record of checked areas and a log of badger surveys.
- The ECoW will provide induction material and TBTs ensuring all staff and visitors onsite are aware of the legal obligations, restrictions onsite and applicable protection measures / behaviour in relation to badgers.

Bats – pre-construction measures

6.9.4.4 All tree felling where potential roost features have been identified will be preceded by a survey for roosting bats, regardless of the known presence of a roost. This will ensure the baseline survey information remains valid (for example, in case of any delays between additional baseline surveys and construction start) and reduce the risk of encountering bats during invasive works. For trees, this will comprise an inspection of potential roost features (from ground-level or at-height) within 24 to 48 hours before felling, regardless of the time of year. If a new roost is identified, works would be postponed until a licence is in place.

Bats – measures during construction

6.9.4.5 The Principal Contractor will ensure that:

- Construction works are undertaken during hours of daylight with a requirement only for local task lighting. However, if night or 24-hour working is required, such as may be required during trenchless crossing operations, then portable directional task lighting will be deployed.

- external lighting of the construction site will be designed and positioned to:
  - provide the necessary levels for safe working;
  - minimise light spillage and / or light pollution; and
  - avoid disturbance to natural habitats where possible, including sensitive wildlife corridors.
- a bat licensed surveyor is present to oversee tree felling of any potential roost features, regardless of the known presence of a roost or time of year.

Otters and water voles - pre-construction measures

6.9.4.6 Within eight months prior to commencement of the Project works (or during the suitable survey period prior to commencement of works), a pre-construction otter and water vole survey will be carried out by the Applicant. This will be conducted by an SQE. Surveys will not be undertaken during, or after heavy rain or periods of flood.

6.9.4.7 If required, the ECoW will make relevant licence applications (for example, licence to disturb) to NatureScot on behalf of the Applicant and will oversee and / or undertake related mitigation measures in accordance with any licence obtained.

6.9.4.8 Prior to works commencing, the ECoW will mark buffers around all known otter shelters (and water vole burrows, if applicable) using a marking method and distance approved by Aberdeenshire Council in consultation with NatureScot.

Otters and water voles - measures during construction

6.9.4.9 The Principal Contractor will inform the ECoW at least one week ahead of works commencing in or near watercourses and consult the ECoW on any mitigation measures required as part of the works.

6.9.4.10 The Principal Contractor will not commence construction activities, and any HDD (or similar trenchless technique) works within 100m from a watercourse used by otters until two hours after sunrise, ceasing two hours before sunset; machinery lights will be directed away from watercourses.

6.9.4.11 Sunrise and sunset time can be obtained from the internet (www.timeanddate.com).

6.9.4.12 The Principal Contractor will ensure that:

- all open excavations are ramped to enable easy exit by otter and other species;
- culvert pipes stored onsite are capped, or if caps are not available, pipes are stored vertically, to prevent otter entrapment;
- design of any temporary lighting is such that it is directed away from watercourses and that an unlit corridor of 30m either side of watercourses is maintained;
- the ECoW will maintain a mapped record of checked areas and a log of otter and water vole surveys and informs the Principal Contractor and the Applicant as soon as possible of any potential restrictions and limitations to the planned works because of the checks / survey findings;
- the ECoW will note key areas of otter (and water vole if recorded) activity and any potential resting sites outwith a licensable distance from construction and monitor activity at these areas and shelters regularly during construction;

- all site personnel to report any sightings of otters, water vole and any potential otter shelters / water vole burrows encountered onsite to the ECoW as soon as possible; and
- the ECoW will provide induction material and TBTs ensuring all staff and visitors onsite are aware of the legal obligations, restrictions onsite and applicable protection measures / behaviour in relation to otters and water vole.

6.9.5 Outline bird protection plan

6.9.5.1 A Bird Protection Plan will be prepared to safeguard breeding and wintering bird species. Adherence to the Bird Protection Plan will be employed to ensure careful timing of construction activities within or near to sensitive locations will avoid or minimise effects on all breeding birds as well as foraging winter wildfowl (including geese and swans). The scope of the BPP will be agreed with NatureScot prior to commencement of construction.

6.9.5.2 Protection of breeding bird nests from damage and/or destruction during the breeding season, in accordance with the Wildlife and Countryside Act 1981 (as amended by the Nature Conservation (Scotland) Act 2004). Wherever reasonably practicable, all vegetation clearance will occur outside the bird breeding season (for instance between September to mid-March, inclusive), to avoid damage to or destruction of active nests by the proposed works. If work is required after the mid (15th) March, the ECoW will search areas of clearance in advance of works and recommend a buffer around active nests as appropriate. This would include any areas of clearance and vegetation removal for access tracks, compounds or onshore substation areas due to the populations of ground nesting birds on and around the site.

6.9.5.1 The BPP will also include details of protection measures that will be implemented for specific wintering (non-breeding) bird species active within or close to the Project, including within and around the Scotstown Landfall which has been identified as supporting significant numbers of pink-footed geese over the period between October and March. Protection measures during this period will include:

- presence of an ECoW to oversee works and ensure noise/disturbance is minimised during winter months in sensitive locations;
- pre-commencement surveys carried out by a suitably qualified ornithologist;
- noise reduction measures;
- the employment of ‘soft-start’ measures to all noisy activities to avoid sudden disturbance;
- Speed limits of no greater than 15mph will be imposed on all construction haul roads and access tracks; and
- minimising the working footprint avoidance or reduction of any working during hours of darkness.

6.10 Outline arboricultural method statement

6.10.1 Introduction

6.10.1.1 This Outline Arboricultural Method Statement describes protection measures to protect retained trees as part of the Project. An Arboricultural Method Statement is a dynamic document that should be reviewed prior to the issuing of any tender documentation. It should be revised to accommodate any design amendments or known construction methodologies and must be read in conjunction with **Appendix 1: Tree Removal and Protection Plan**.

6.10.2 Arboricultural site supervision

6.10.2.1 Effective tree protection can only be achieved by adherence to a logical sequence of works combined with effective arboricultural supervision. The purpose of arboricultural monitoring is to ensure that all tree protection measures are fit for purpose, are implemented in accordance with this method statement and as a means of enabling any previously unforeseen arboricultural issues to be promptly identified and suitably addressed.

6.10.2.2 An Arboricultural Clerk of Works (ArbCoW) will be appointed to oversee tree protection during the construction stage.

6.10.2.3 The role of the ArbCoW is to:

- advise the Applicant and Principal Contractor on tree protection issues;
- attend site as required to advise on unforeseen issues;
- supervise works undertaken within construction exclusion zones (CEZ); and
- inspect and report on the status of tree protection measures in place during the construction stage.

6.10.2.4 The (ArbCoW) will attend site:

- prior to commencement of works to ensure tree protection fencing is in place; and
- periodically during the construction stage.

6.10.3 Tree protection fencing

Tree protection fencing will be fit for the purpose of excluding construction activity and appropriate for the degree and proximity of work taking place.

6.10.3.1 Tree protection fencing will be used to prevent access to the Root Protection Areas (RPAs) of retained trees and this will form the CEZ. In all instances the following will be adhered to:

- tree protection fencing will be erected prior to any works on site including site clearance, groundwork or the importation of plant and materials;
- tree protection fencing will be erected in accordance with the layout of the tree protection fencing shown in **Appendix 1**;
- all weather notices will be attached (at eye level) to the tree protection fencing at suitable intervals and will include suitably sized informative text stating "*Tree Protection Fencing, Construction Exclusion Zone – No Access*";
- once erected, tree protection fencing will remain in-situ until construction activities are complete;
- no construction activities, storage of materials or pedestrian or vehicular access will take place within the CEZ; and
- regular daily checks will be carried out by an appointed person to ensure that all tree protection fencing is still in place and functioning; any damage will be rectified without delay.

6.10.4 Additional precautions outside the CEZ

6.10.4.1 A precautionary approach to working near retained trees will be adopted with site huts, welfare facilities, parking, material / spoil storage, mixing and vehicle cleaning facilities being located outside of RPAs.

6.10.4.2 Care should be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times.

6.10.4.3 Notice boards, telephone cables or any other services will not be attached to any part of a retained tree.

6.10.5 Installation of shallow underground infrastructure

6.10.5.1 Wherever possible, any shallow underground infrastructure will be located outside the RPA of any retained tree. Soakaways must not be located within RPA.

6.10.5.2 Wherever possible, services will be grouped together utilising common ducts and have all inspection chambers located outside of the RPA.

6.10.5.3 In situations where services must pass through the RPAs of a retained tree, then trenchless techniques will be used wherever possible with launch and receptor pits being located outside the RPAs.

6.10.5.4 Guidance within Volume 4: National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2) (National Joint Utilities Group, 2007) will be followed.

6.10.6 Ground protection

6.10.6.1 Ground protection will be used within any area where construction access is required within the RPAs of any retained tree. The suitability of ground protection will be reviewed by the ArbCoW prior to implementation on site and it will be:

- sufficiently robust to prevent damage or disturbance of the underlying soil and adhere to Section 6.2.3 of British Standard BS 5837:2012 (British Standards Institution, 2012);
- installed prior to any works commencing in RPAs, including site clearance, groundwork or the importation of plant and materials, and will remain in-situ until all construction activities are complete; and
- subject to daily checks by an appointed person to ensure it is still in place and functioning; any damage will be rectified without delay.

6.11 Outline construction traffic management plan

6.11.1.1 An Outline Construction Traffic Management Plan (CTMP) has been prepared and is detailed in **Volume 4: Outline Construction Traffic Management Plan**. The Outline CTMP outlines the principles of construction access, heavy goods vehicles and general traffic routing, in addition to safety and traffic management measures which will be required to limit the impact of construction activities from the Project on the local traffic network.

6.11.1.2 Before construction commences, a Final CTMP will be prepared which provides further details on these principal measures which will relate to the following:

- traffic management;
- access strategy;
- construction traffic movements;
- signage strategy; and
- abnormal loads.

6.11.1.3 General measures will be discussed with Aberdeenshire Council and Transport Scotland and may include:

- implementation of measures to ensure that the maintenance and condition of public roads, cycleways, and core paths do not deteriorate due to construction traffic. This includes agreement on monitoring and enforcement arrangements with Aberdeenshire Council and Transport Scotland;
- permitted construction traffic routing and access points for the various elements of construction and vehicles used;
- establish procedures to be followed for the temporary closure or diversion of roads, core paths or accesses during onshore construction works;
- development of a communication strategy associated with construction works to local and national stakeholders;
- measures to provide for safe operations of the roads for the public and construction staff during traffic management works and temporary traffic control measures; and
- monitoring and review strategy for traffic management and enforcement.

6.11.1.4 The Outline CTMP includes an Outline Travel Plan (TP), and an Outline Core Path Management Plan (CPMP), see **Volume 4: Outline CTMP, Appendix A Outline Travel Plan** and **Volume 4: Outline CTMP, Appendix B Outline CPMP**. The Outline TP sets out measures to decrease the use of single occupancy car trips as part of staff movements during onshore construction whilst the Outline CPMP sets out the anticipated impact on the core path network and consequent mitigation measures.

6.11.1.5 Both of these documents provide additional measures to reduce and mitigate any of the Project's impacts on the surrounding area during construction.

6.11.1.6 The development of the Final CTMP will be produced in agreement with Aberdeenshire Council and Transport Scotland.

6.12 Outline archaeological management plan

6.12.1.1 The EIA identified the potential for adverse effects to heritage assets during the construction stage of the Project. These effects would arise primarily as a result of intrusive construction activities which disturb below ground deposits with archaeological interest. Embedded environmental measures set out in **Volume 3, Appendix 5.2** of the EIA Report were established to minimise the impacts of the Project, including to heritage assets. The aim of the Archaeological Management Plan will be to ensure the implementation of the embedded environmental measures relevant to the historic environment for the construction stage.

6.12.1.2 Embedded environmental measure M-087 as set out in **Volume 3, Appendix 5.2** of the EIA Report makes provision for a WSI which will set out an agreed programme of archaeological mitigation. An Outline WSI has been prepared and is detailed in **Volume 4: Outline Written Scheme of Investigation (Onshore)**. The Outline WSI provides the framework for the proposed approach to mitigating the construction stage effects of the Project on heritage

assets with archaeological interest. The OWSI (Onshore) sets out the methodologies and standards for archaeological works and will be finalised and approved post-consent. The detailed scope of the archaeological works will be determined on the basis of the final design in consultation with the Archaeological Advisor to Aberdeenshire Council. Individual site-Specific WSI will be provided for the stages of the archaeological works outlined in the Final WSI (Onshore).

6.12.1.3 The OWSI also provides information on the relevant roles and responsibilities for delivery of the archaeological works, including the Onshore Archaeological Clerk of Works. The Archaeological Clerk of Works, appointed by the Applicant, will provide advice, monitoring and supervision in the completion of agreed archaeological works.

6.12.1.4 In addition to the approach set out in the OWSI, the final design and construction stage activities will ensure avoidance of direct impacts to known non-designated heritage assets listed below (provision of appropriate buffers), as per embedded environmental measures as outlined in **Volume 3, Appendix 5.2**:

- pillboxes and anti-tank blocks within the landfall(s) (see environmental mitigation measure M-209); and
- buried historic structures (Inverquinzie / Thunderton Royal Observer Corps bunkers x3; Remains of Battle Headquarters, Peterhead Airfield (still intact as a below-ground structures) (NK15SW0094; NK15SW0006; NK04NE0125) (see environmental mitigation measure M-208).

6.13 Outline greenhouse gases management plan

6.13.1.1 The construction and installation activities associated with the Project are anticipated to result in the generation of Greenhouse Gases (GHG) emissions. These emissions arise primarily from energy consumption, including fuel combustion by plant, machinery and transport vehicles; embodied carbon within construction materials; and energy use associated with construction activities.

6.13.1.2 The Outline GHG Management Plan establishes a framework to manage and reduce these emissions in line with, relevant legislation and industry best practice.

6.13.1.3 The key objectives in managing GHG emissions during construction are to:

- implement embedded design and construction measures that limit the use of carbon-intensive materials and processes;
- promote carbon efficiency through responsible procurement, logistics planning and material handling;
- ensure contractors are aware of, and comply with, the Project's GHG mitigation and reporting expectations; and
- enable auditing and performance tracking to maintain compliance and continuous improvement.

6.13.1.4 To meet these objectives, the following mitigation measures and best practices can be implemented:

- **Material selection and procurement:** preference will be given to low-carbon or recycled materials where technically feasible. Suppliers will be encouraged to provide Environmental Product Declarations (a third party verified assessment of lifecycle GHG emissions associated with the specific product) to support carbon transparency and traceability.

- **Construction logistics and plant operation:** Fuel-efficient, well-maintained machinery and vehicles will be used. Where practical, low-emission fuels (such as hydrotreated vegetable oil or electric alternatives will be specified. Unnecessary idling will be avoided through active site management and driver awareness.
- **Efficient site setup and energy use:** energy consumption at temporary construction compounds, welfare units, and laydown areas will be minimised through the use of energy-efficient equipment, lighting, and, where possible, renewable energy sources (for example, solar-powered lighting towers).
- **Transport optimisation:** construction logistics will be planned to reduce transport emissions, including use of consolidated deliveries, efficient route planning, backhauling, and use of local suppliers to minimise travel distances.
- **Qaste minimisation and circular economy principles:** measures to reduce, reuse, and recycle materials will be applied wherever practicable, with a focus on reducing carbon-intensive waste streams.
- **Monitoring and reporting:** contractors will be required to quantify and report fuel use and transport activity (for example, hours of operation, km travelled), which will be used to estimate construction-related GHG emissions. Monitoring data will inform site performance reviews and corrective actions where necessary.

6.13.1.5 The Final GHG Management Plan will detail specific responsibilities, monitoring protocols and performance indicators to track construction-stage GHG emissions. These measures will ensure compliance with all relevant planning conditions and support the delivery of a low-carbon construction programme.

6.14 Outline climate resilience management plan

6.14.1.1 Climate change considers the long-term and large-scale shifts in global weather patterns. The effects of climate change over the course of the construction stage are anticipated to result in increasing temperatures (summer and winter), increasing winter precipitation and a slight reduction in summer precipitation, increasing frequence of storms events and sea level rise. From the perspective of construction activities, the management of severe and extreme weather events will be critical to reduce impacts on the construction programme, protect construction sites and the health and safety of construction workers.

6.14.1.2 The construction activities for the Project will be varied both in terms of the type of construction works and the locations of the works. Management of severe and extreme weather events must be site specific and reflect the risks identified for the different types of construction.

6.14.1.3 The Outline Climate Resilience Management Plan provides key environmental measures to manage adverse and severe weather-related risk posed during the construction stage. Mitigation measures relevant to the construction stage include:

- Planning of construction works to avoid seasonal adverse weather patterns to minimise delays to the construction programme.
- Monitoring of short and medium term weather forecasts to enable programming of construction works and implementation of appropriate control measures to protect the construction site, construction activities and construction workers.
- Development and implementation of Risk Assessment and Method Statement (RAMS) and safety bulletins with respect to severe and extreme weather events. The RAMS will put in place procedures in the case of extreme weather (high temperatures, extreme

winds, flooding, wildfire risk). This may include altering the construction programme to delaying affected activities, changing shift patterns, PPE and toolbox talks (TBTs).

- Inclusion of measures to plan and respond to severe, adverse and extreme weather conditions in emergency response plans. The emergency response plans must include appropriate control measures to allow for safe access / egress from site for construction workers and emergency vehicles; protection of construction workers and site visitors; securing the site and construction materials (for example from high winds); potential for ceasing work activities in unsafe conditions, and measures for alternative power supply (where necessary).
- Provision of welfare facilities and provisions for construction workers which offer protection during extreme weather conditions. This may include, but not be limited to, cooled or heated rest areas, provision of drinking water and clothing suitable to the weather condition.
- Construction equipment and machinery will be maintained, serviced and (if necessary) replaced to minimise weather-related failure or damage. Construction equipment, machinery and permanent assets with electrical components exposed to water ingress will have suitable ingress protection rating.
- Good housekeeping and robust site safety practices will be implemented to ensure that, in the event of high winds or storm events, hoarding, signage, construction materials or other stored items are secure.
- In the event of snow or ice, the Principal Contractor will keep construction sites free of snow and ice. Walkways should be clear and treated properly to help prevent slips and falls.
- Drainage infrastructure will be regularly inspected, cleared of debris and maintained to prevent blockage of drains, collection of standing water and flooding.
- Mobile pumping equipment will be available as necessary.
- Cover stockpiles to prevent degradation of materials from heavy rain or strong winds.
- In the event of reduced water availability, control measures for dust generation and fire water will be adapted to accommodate any local restrictions.

6.14.1.4 The Final Climate Resilience Management Plan will detail specific actions, responsibilities, monitoring protocols to ensure preparedness to adverse and severe weather-related risks posed during the construction stage, enhancing delivery of the construction stage.

7. Environmental Monitoring

7.1.1.1 A programme of environmental monitoring will be required and set up for the Project, this will be documented in the Final CEMP and include the following items, where relevant:

7.2 Environmental surveys

7.2.1.1 Pre-construction and ongoing ecological surveys such as surveys for European Protected Species, bird surveys, protected habitats etc are completed, as required.

7.3 Environmental inspections

7.3.1.1 The Principal Contractor, or appointed delegate will be required to undertake environmental inspections; on at least a weekly basis (dependant on site activities). These site inspections will be required to include an environmental component which will cover the Applicant's requirements as set out in the Applicant's EMS and as a minimum cover waste management; surface water management; management of hazardous materials, water and wastewater management; emergency response, incidents and complaints, nuisance; and other site-specific issues.

7.3.1.2 Weekly environmental inspections will be complimented by a combination of daily / monthly inspections, dependant on the site-specific requirements.

7.3.1.3 The Applicant will also carry out periodic site environmental inspections to assess the performance of the various contractors onsite. This This will be recorded on a template inspection form which forms part of the Applicant EMS, The Principal Contractor is responsible for ensuring the close out of any actions identified during the environmental inspections. Records of the environmental inspections carried out are to be retained onsite by the Principal Contractor; any remedial actions required are also recorded.

7.4 Environmental audits

7.4.1.1 Environmental audits will be conducted internally by the Principal Contractor and externally via the Applicant. The Applicant's EMS and associated audit programme includes the requirement to audit the Applicant's construction sites on a periodic basis. This is in addition to the environmental inspections.

7.4.1.2 All audits are carried out by trained personnel within the Applicant's environmental team (or delegated specialists). All actions raised from the audit are logged; progress tracked, and a closing date assigned when the action is complete.

7.5 Physical environmental monitoring

7.5.1.1 A programme of physical environmental monitoring will be established, such as water quality, dust, noise, vibration monitoring, and monitoring of energy and resource usage.

8. Legal Compliance and Other Requirements

8.1 Planning conditions

8.1.1.1 The Applicant's onshore infrastructure are constructed under specific consents and licences issued by Government bodies such as the Local Authority (Aberdeenshire Council) and the regulators / statutory bodies such as SEPA and NatureScot. Specific limits for emissions to air, land and water and working practices (such as seasonal exclusions), are established within these consents / licences and must not be breached at any time.

8.1.1.2 The Principal Contractor will ensure that that all relevant planning conditions for the Project are complied with throughout construction.

8.1.1.3 The Applicant's Project Manager will be responsible for maintaining an up-to-date register of the planning conditions for the construction stage of the Project.

8.1.1.4 Planning conditions will be reviewed by the Applicant's Project Manager on a periodic basis to ensure that all planning conditions are being complied with and progress against each planning condition will be logged in the register compliance and accountability. A copy of the planning conditions will require to be held onsite.

8.2 Legal register

8.2.1.1 The Principal Contractor will be required to ensure that all relevant environmental legislation and best practice are complied with on site.

8.2.1.2 In addition, it is the Applicant's policy to minimise the impact of its construction activities on the environment by complying with all current environmental legislation and best practice. In order to ensure that the Applicant is aware of the requirements of current environmental legislation a Legal and Compliance Register is kept as part of the Applicant's EMS.

8.2.1.3 All contractors on site are required to comply with current (and future) environmental legislation, regulations, best practice, and standards applicable to the activities in which they are engaged and other environmental requirements decided upon by the Applicant. This includes maintaining sufficient records of environmental information and audits both to show compliance with legal requirements and to demonstrate continual improvement where appropriate.

8.2.1.4 The Principal Contractor will be responsible for applying and obtaining any related consents / licences to their activities such as septic tank consents, water abstraction licences, activities associated with water crossings, environmental protected species licences and other discharge consents or environmental permits.

8.2.1.5 The Applicant will assess compliance to relevant environmental legislation as part of the Applicant's construction site environmental audits and inspections.

8.3 Associated documentation and reference materials

8.3.1.1 When developing the Final CEMP, this section will include relevant associated EMS and site-specific documentation will be considered. Examples include, but are not limited to Applicant specific requirements such as:

- Applicant's Environmental Policy;

- Project EMS requirements;
- MarramWind Offshore Wind Farm EIA Report;
- planning conditions;
- consents, licences and permits;
- risk registers;
- legal register; and
- best practice guidance and industry standards, such as the GPP.

9. Training

9.1.1.1 Various mechanisms are employed at construction sites to communicate environmental management requirements. Key mechanisms are set out below in **Section 9.2** to **Section 9.4**.

9.2 Site inductions

9.2.1.1 All of the Applicant's construction sites require to have a site induction that includes an environmental component. Designated personnel from the Principal Contractors project team will be responsible for preparing and delivering the site induction and maintaining documented attendee records. The Applicant has guidance on the environmental management contents of site inductions that includes the following items:

- permits / licences;
- waste;
- water and wastewater;
- fuel, oil and chemical management;
- spillage; and
- environmental incident reporting and environmental emergency response arrangements.

9.3 Toolbox talks

9.3.1.1 TBTs are an effective method for the dissemination of information relating to work activities. Environmental TBTs will require to be delivered by the Principal Contractor to on-site personnel on an as required basis. When a TBT has been delivered it is the responsibility of the Principal Contractor to ensure that all personnel attending the TBT have signed a TBT attendance sheet. Topics for environmental TBT may include:

- waste management;
- delivery and storage of oils and chemicals;
- waste water and water supply monitoring;
- surface water management;
- emergency response;
- ecological sensitivities; and
- spill response training.

9.4 Environmental notice board

9.4.1.1 It is an Applicant requirement that all constructions sites have an environmental notice board. The notice board will be used to display copies of relevant environmental management information, including but not limited to the following:

- the Applicant's environmental policy;
- the Applicant's environmental behaviours;

- the Applicant's environmental alerts;
- site plan showing ecologically sensitive areas or management areas;
- emergency response contact details; and
- emergency response flowchart.

10. Reporting

10.1 Environmental incidents

10.1.1.1 The Principal Contractor will be required to prepare a site-specific environmental emergency incident response plan. The plan will require to include how to report and deal with an environmental incident including the measures available to contain / clean up an incident (for example, spill kits).

10.1.1.2 It is the responsibility of the Principal Contractor to ensure that all staff including any subcontractors are trained in the environmental emergency response plan so that they are prepared to respond to an incident promptly and effectively onsite. Where appropriate, the Applicant encourages a test of the environmental emergency response plan to be carried out onsite by the Principal Contractor.

10.1.1.3 The Principal Contractor will be required to report environmental incidents to the Applicant's project team. Details of the incident report require to be logged in the Applicant's reporting system by the Applicant's relevant project team member.

10.2 Public complaints

10.2.1.1 The Principal Contractor will require to have in place a procedure for recording and responding to public complaints. The Principal Contractor will be required to report public complaints to the Applicant's project team. Details of the complaint are required to be logged in the Applicant's reporting system by the Applicant's relevant project team member.

10.3 Meetings

10.3.1.1 Environmental meetings and debriefs will require to be held on-site. This includes a standard monthly health, safety and environment meeting that is required to be held on all the Applicant's construction sites. The meeting will require to be chaired by a member of the Applicant's project team and attendees generally include the Principal Contractor, infrastructure component supplier/s, key sub-contractors and environmental specialists such as an ECoW.

10.3.1.2 Where deemed appropriate and where an ECoW is present, weekly ECoW meetings may be held between the ECoW and the Principal Contractor and any other appropriate parties. The purpose of these meetings is to discuss ongoing issues relating to the ECoW's remit, which have been raised through the ECoW reports and to produce an action list to help prioritise the close out of the actions.

10.4 Community liaison

10.4.1.1 Depending on the site location, a public / community relations plan may be developed for the site by the Principal Contractor. The purpose of the plan is to set out the approach to community liaison for the duration of the Project. The Applicant will also contribute to the plan.

11. Contractor Management

11.1.1.1 The Final CEMP will set out how the Principal Contractor manages their subcontractors on site. This may range from the selection and assessment processes to the assessment of performance onsite.

11.1.1.2 The Applicant will appoint third parties to construct renewable energy developments.

11.1.1.3 The Applicant has a preference for construction sites to be registered by the appointed Principal Contractor under the Considerate Contractors Scheme. Sites and companies that register with the scheme are monitored against a Code of Considerate Practice that focuses on three main areas of concern:

- the general public;
- the workforce; and
- the environment.

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13. Glossary of Terms and Abbreviations

13.1 Abbreviations

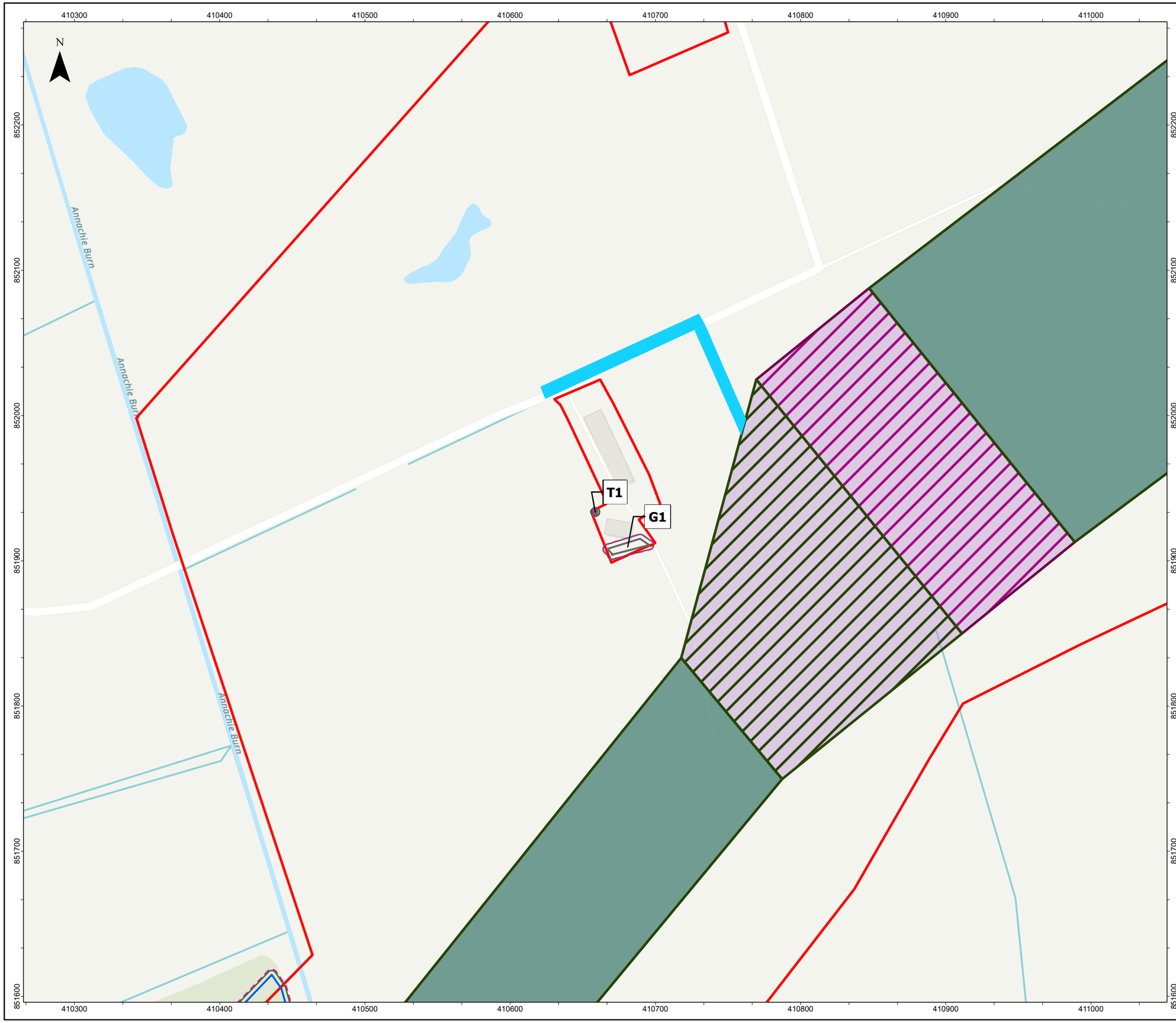
Acronym	Definition
AOD	Above Ordnance Datum
BS	British Standards
CEMP	Construction Environmental Management Plan
CES	Crown Estate Scotland
CEZ	Construction Exclusion Zone
CIRIA	Construction Industry Research and Information Association
COSHH	Control of Substances Hazardous to Health
CPMP	Core Path Management Plan
CTMP	Construction Traffic Management Plan
Defra	Department for Environment, Food and Rural Affairs
DWPA	Drinking Water Protection Area
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMS	Environmental Management System
GHG	Greenhouse Gases
GPP	Guidance for Pollution Prevention
HDD	Horizontal Directional Drilling
HSSE	Heath, Safety, Security and Environment
IAQM	Institute of Air Quality Management
LCRM	Land Contamination: Risk Management
MLWS	Mean Low Water Springs
MHWS	Mean High Water Springs
mph	Miles per hour
NE7	Northeast 7
NRMM	Non-Road Mobile Machinery

Acronym	Definition
NSRs	Noise Sensitive Receptors
PPE	Personal Protective Equipment
PPiP	Planning Permission in Principle
PWS	Private Water Supply
RAMS	Risk Assessment and Method Statement
RPA	Root Protection Areas
SEPA	Scottish Environment Protection Agency
SQE	Suitably Qualified Ecologist
SSEN	Scottish and Southern Electricity Networks
TBTs	Toolbox talks
TP	Travel Plan
WSI	Written Scheme of Investigation

13.2 Glossary of terms

Term	Definition
Arboricultural Clerk of Works	An ArbCoW is a tree specialist who oversees and monitors construction activities to ensure trees are protected and managed according to planning conditions and best practice.
Archaeological Clerk of Works	An ACoW is a heritage specialist who monitors construction or development sites to ensure archaeological remains are identified, recorded, and protected in line with planning conditions and legal requirements.
Ecological Clerk of Works	An ECoW is a specialist responsible for ensuring that construction or development projects comply with environmental and ecological regulations and commitments.
Principal Contractor	The Principal Contractor is the organisation or individual appointed by the client to manage the construction stage of the Project.

Appendix 1 Tree Removal and Protection Plan



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Indicative temporary construction access road

Onshore substation layout

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Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

Hedges

A
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C
U

Groups/Woodland

A
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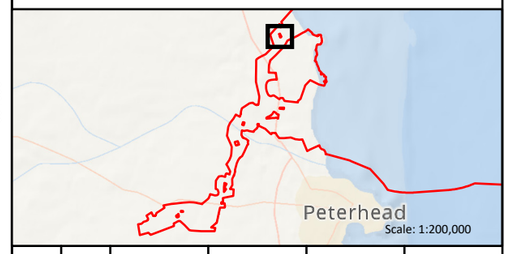
0 25 50 75 100 125 Metres



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DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 1 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

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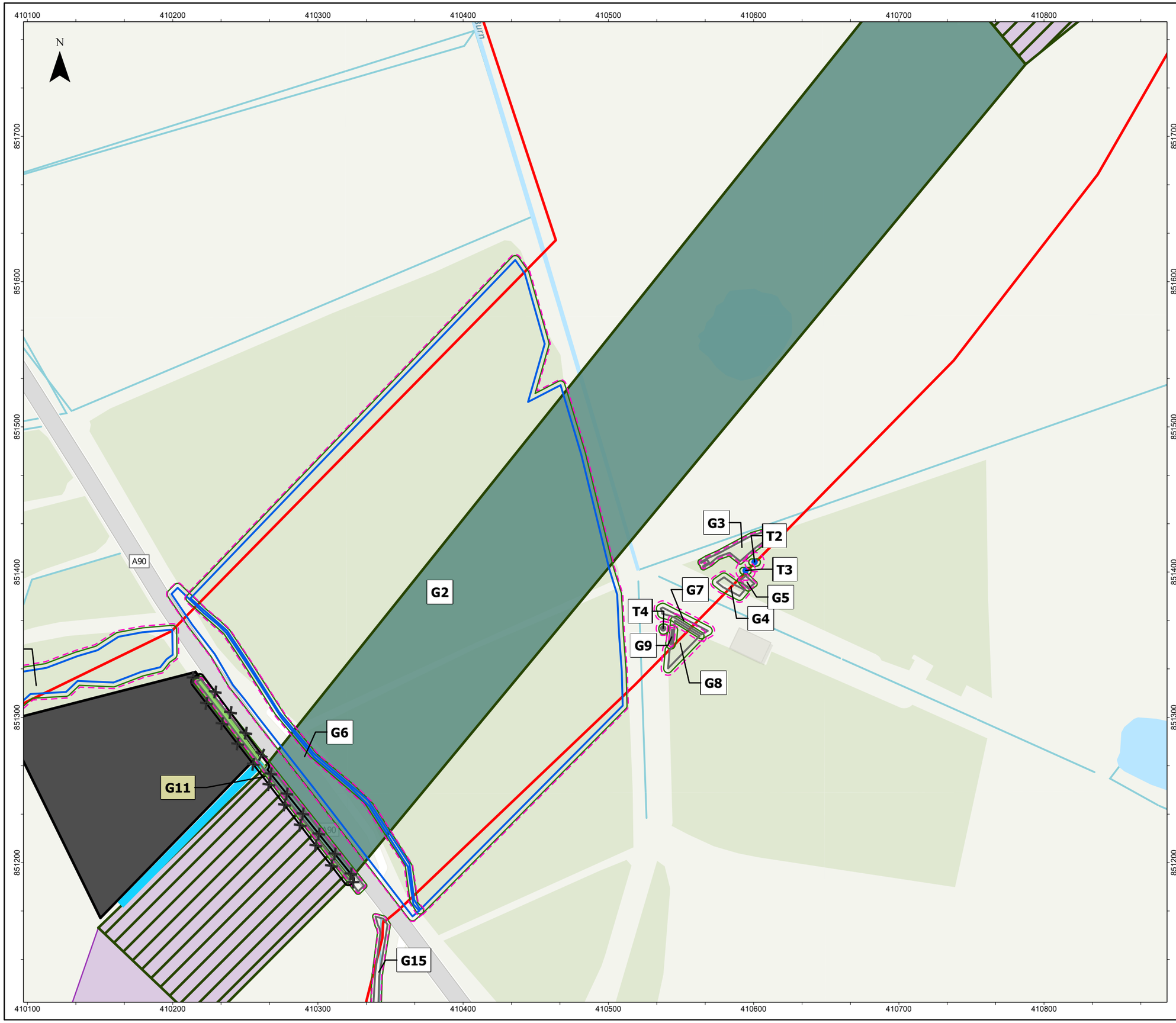
MarramWind



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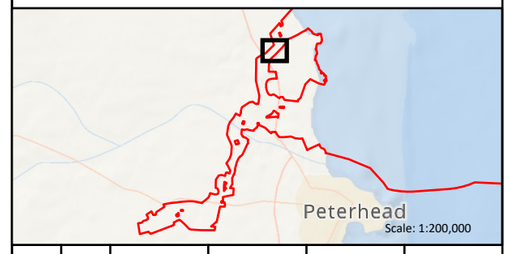
0 25 50 75 100 125 Metres



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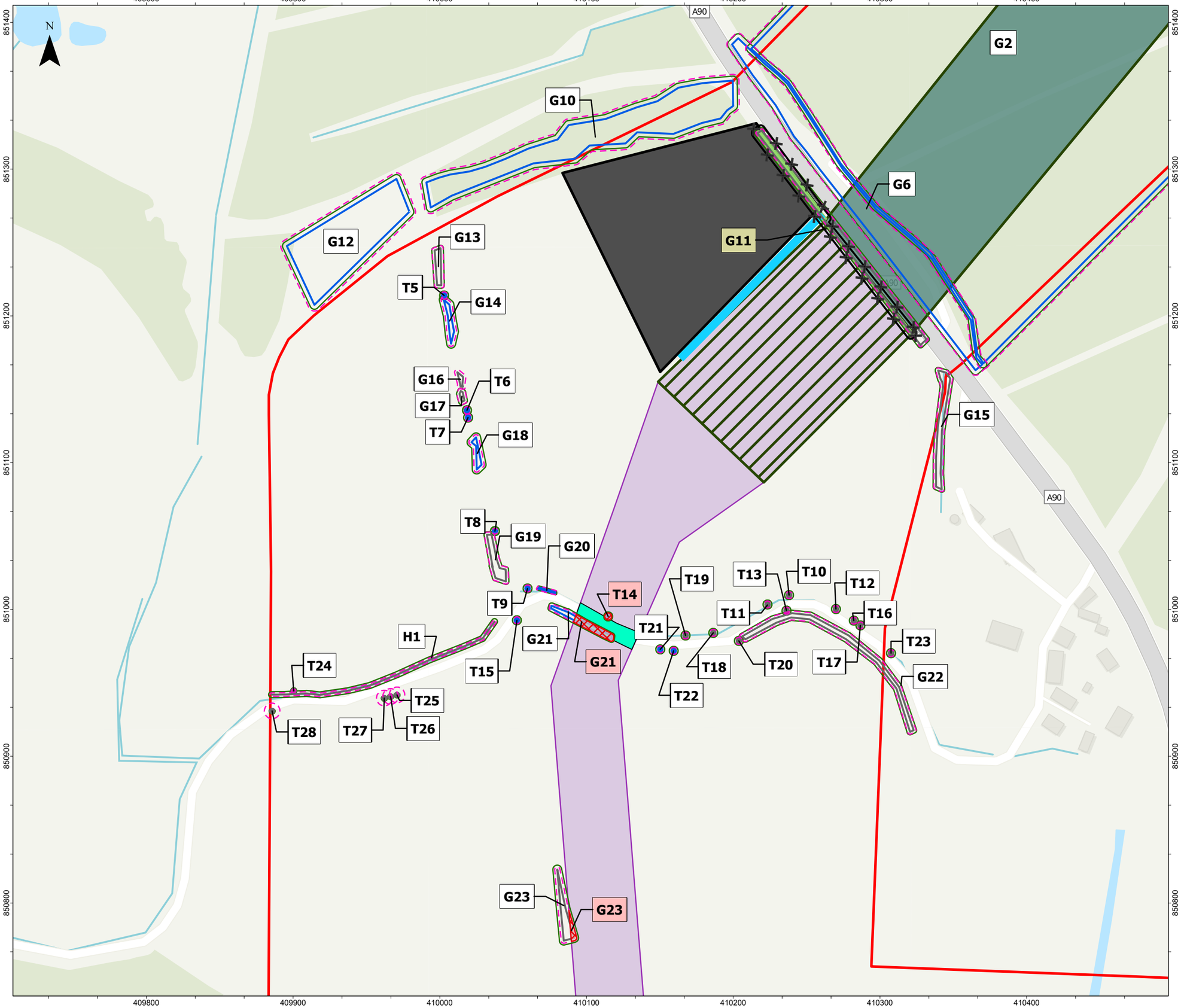

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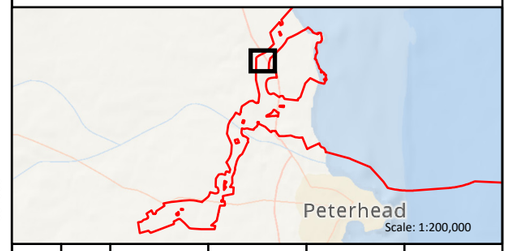

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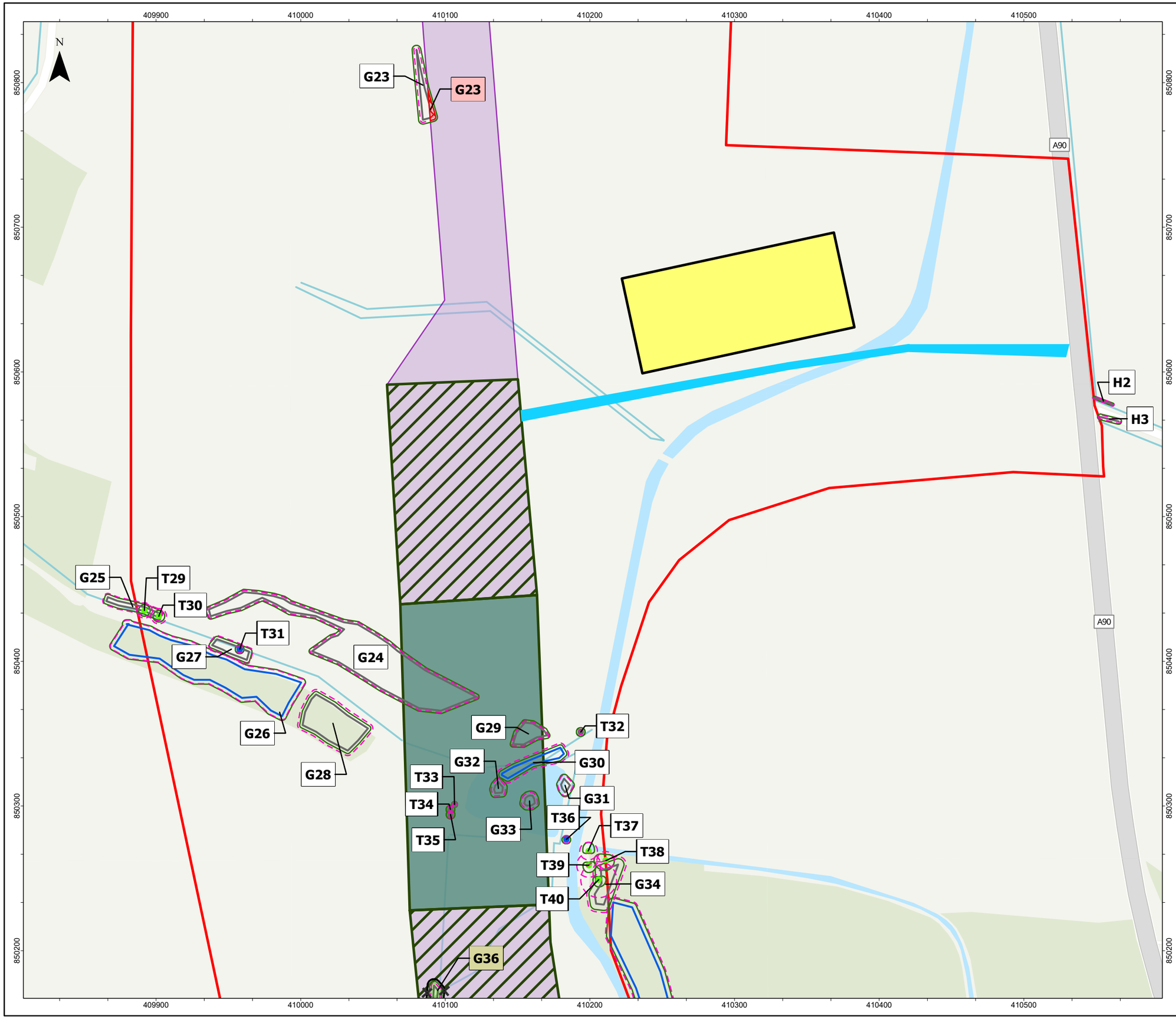

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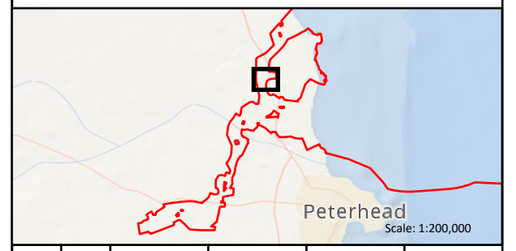

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PROJECT TITLE: MarramWind Offshore Wind Farm

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Figure 1 Tree Removal and Protection Plan
Sheet 4 of 24
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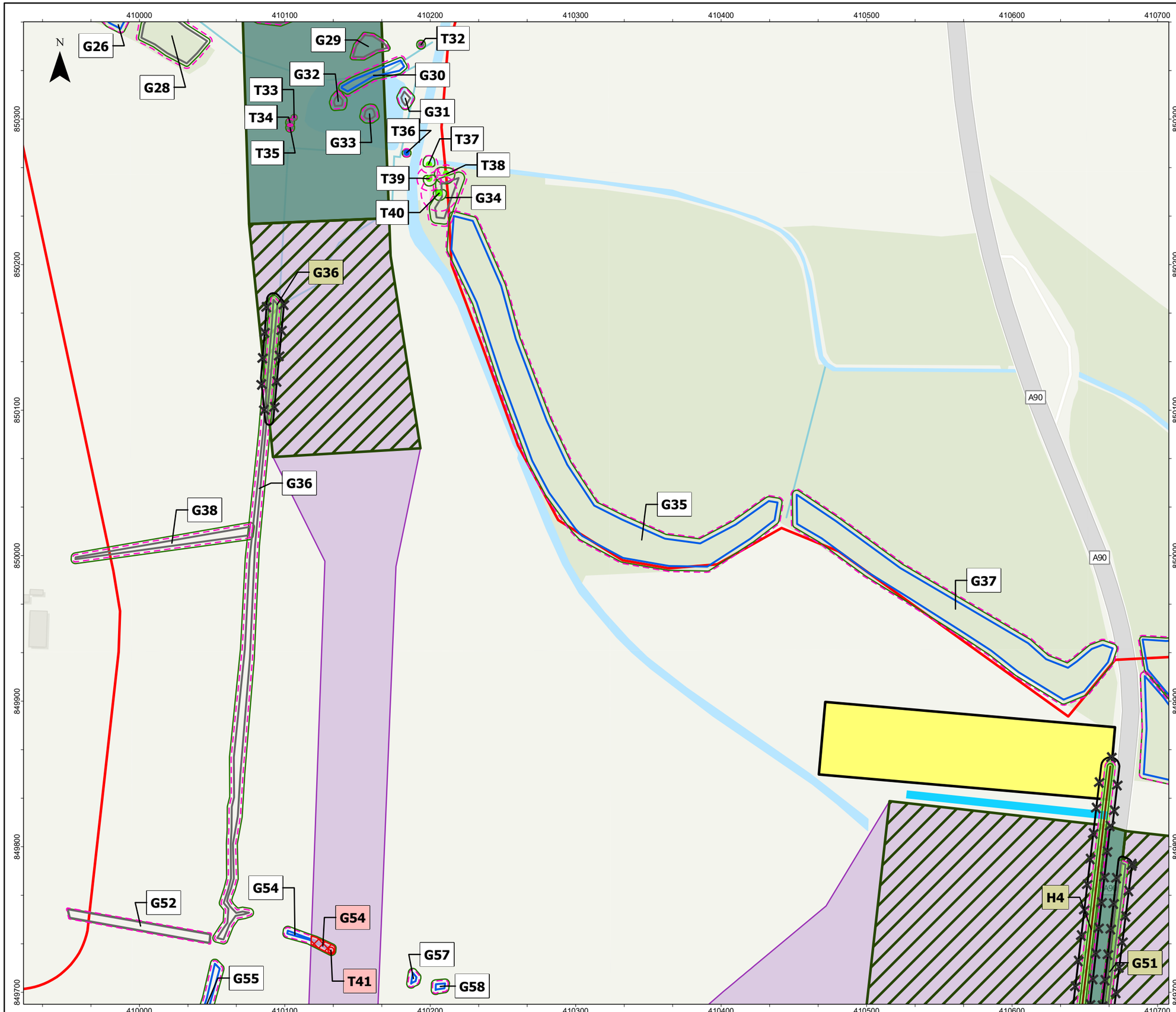

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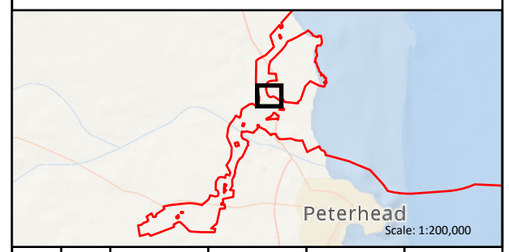

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Figure 1 Tree Removal and Protection Plan
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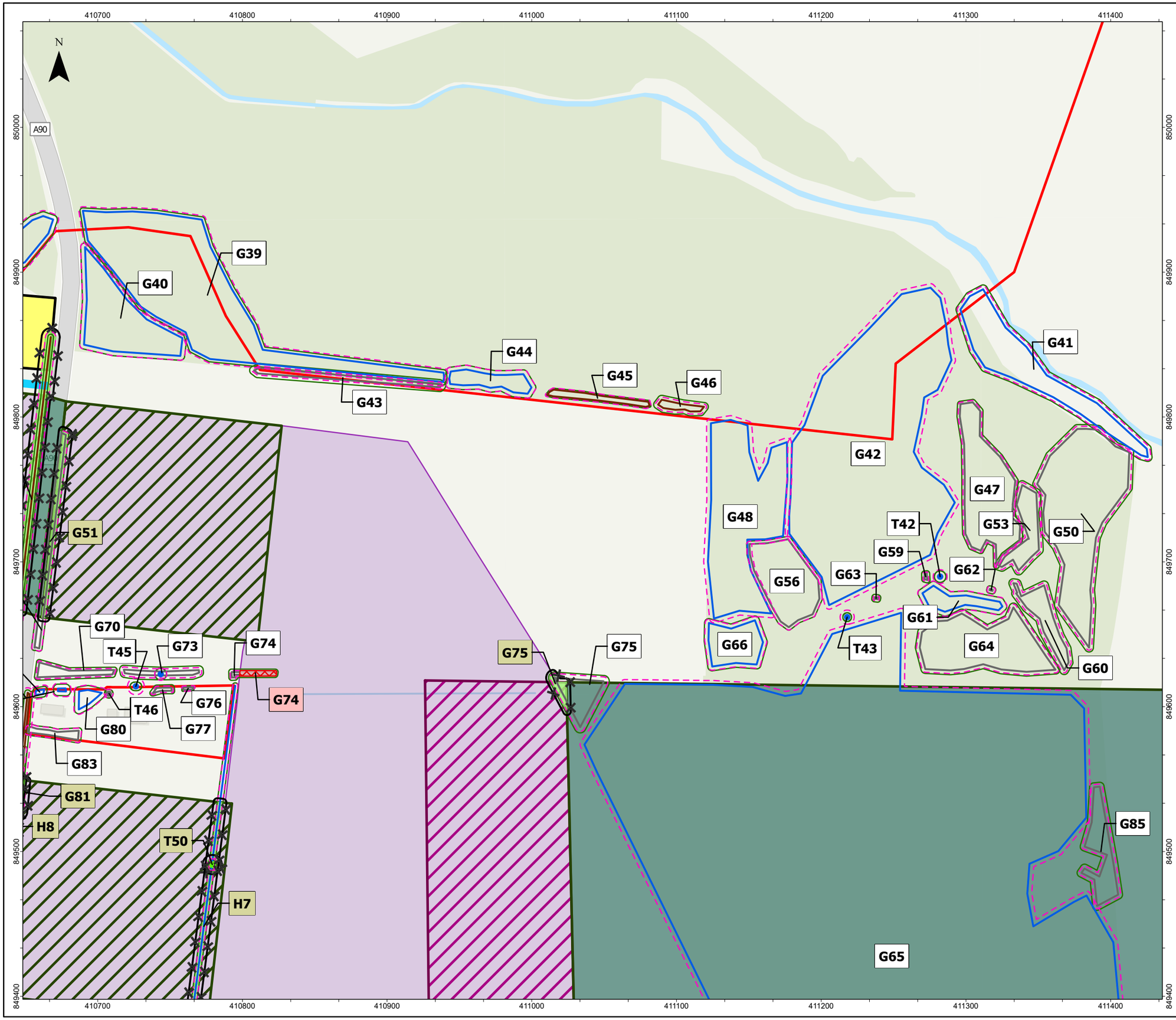

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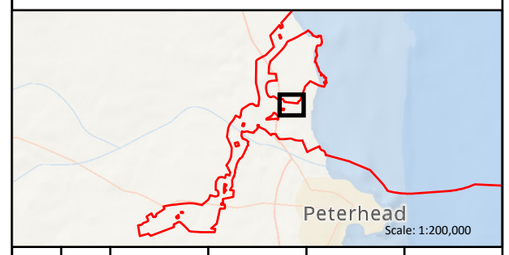

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WSP DRAWING NUMBER 808368-WEIS-IA-E5-FG-T7-42980

MarramWind DRAWING NUMBER MAR-GEN-ENV-MAP-WSP-000324

DATUM OSGB 1936 | PROJECTION British National Grid

SCALE 1:2,500 | PAGE SIZE A3

PROJECT TITLE
MarramWind Offshore Wind Farm

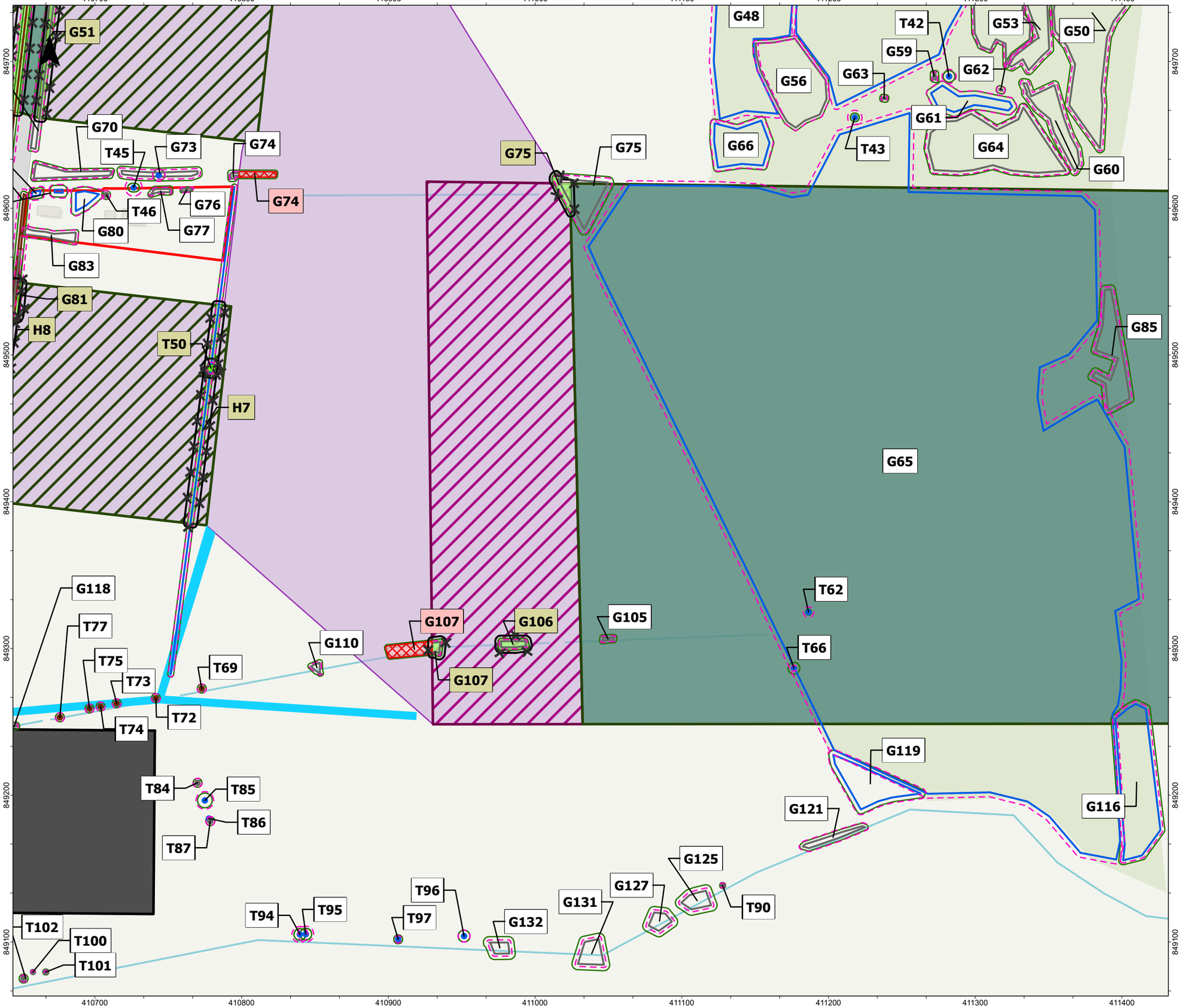
DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 6 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

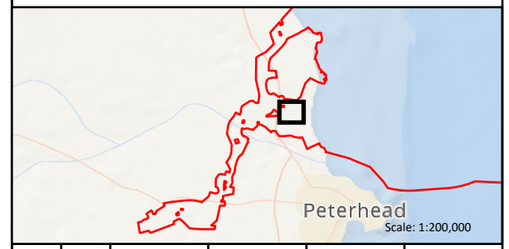
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

WSP DRAWING NUMBER: 808368-WEIS-IA-E5-FG-T7-42980

MarramWind DRAWING NUMBER: MAR-GEN-ENV-MAP-WSP-000324

DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:2,500	PAGE SIZE	A3

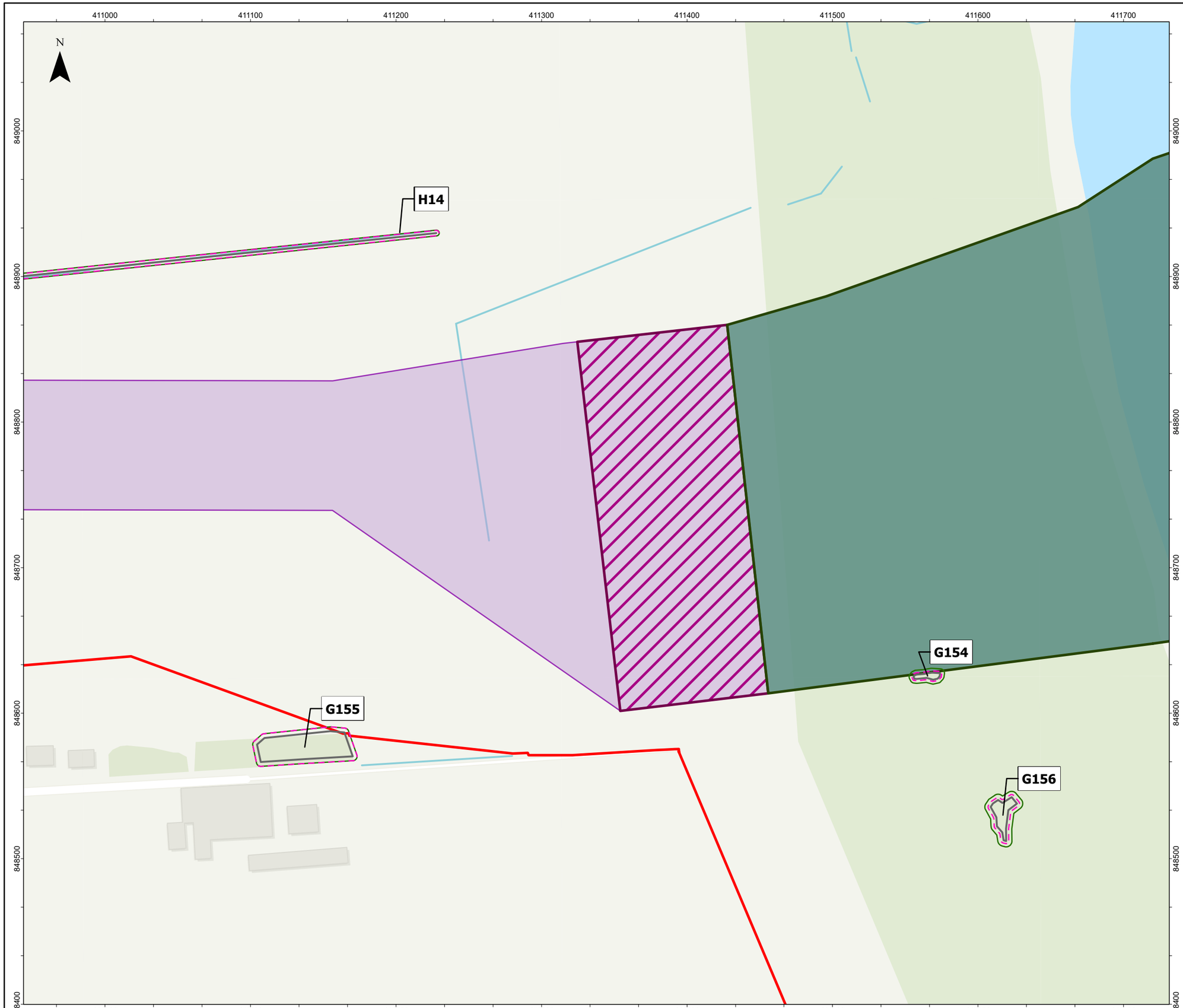
PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 7 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp
MarramWind



- Red Line Boundary
- Indicative onshore export cable corridor
- Indicative trenchless crossing compound search area
- Indicative landfall construction compound search area
- Indicative trenchless crossing
- Indicative trenched crossing
- Indicative primary construction compound
- Indicative secondary construction compound
- Indicative temporary construction access road

Onshore substation layout

- Indicative temporary construction compound
- Indicative permanent access road
- Indicative permanent substation footprint

Arboriculture Data

- Indicative Root Protection Area
- Indicative Crown Spread
- Potential RPA Enroachment
- Indicative Fencing
- Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

- A
- B
- C
- U

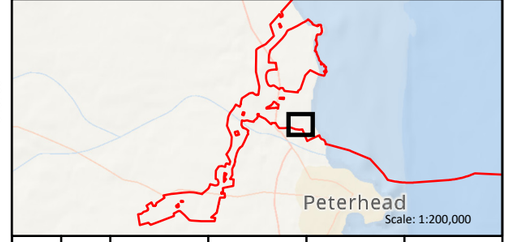
Hedges

- A
- B
- C
- U

Groups/Woodland

- A
- B
- C
- U

0 25 50 75 100 125 Metres



REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER
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1	24/06/2025	EH	LT	DH	NC

WSP DRAWING NUMBER	808368-WEIS-IA-E5-FG-T7-42980
MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

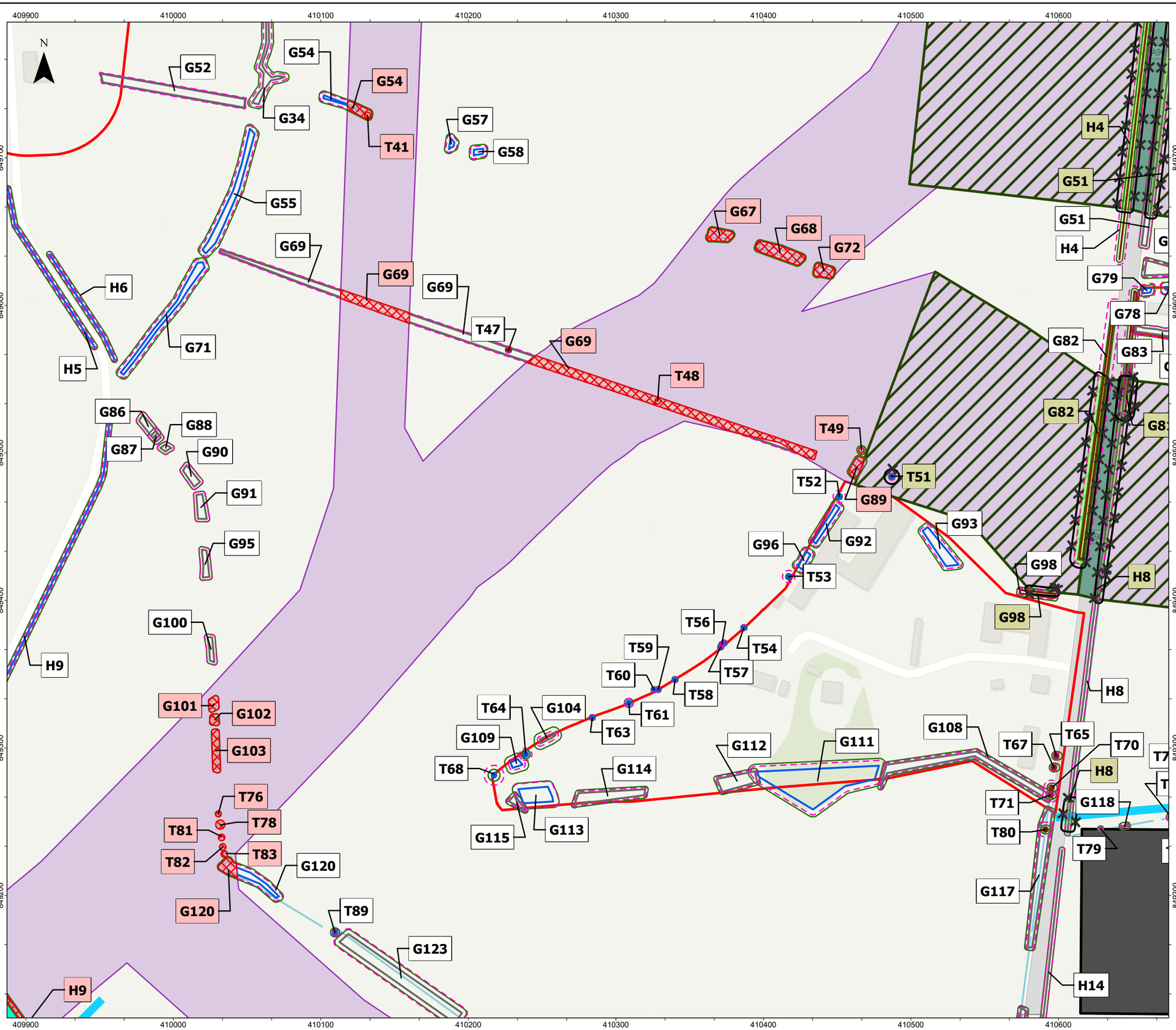
Figure 1 Tree Removal and Protection Plan
Sheet 8 of 24

Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER
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MarramWind DRAWING NUMBER: MAR-GEN-ENV-MAP-WSP-000324

DATUM: OSGB 1936 | PROJECTION: British National Grid

SCALE: 1:2,500 | PAGE SIZE: A3

PROJECT TITLE: MarramWind Offshore Wind Farm

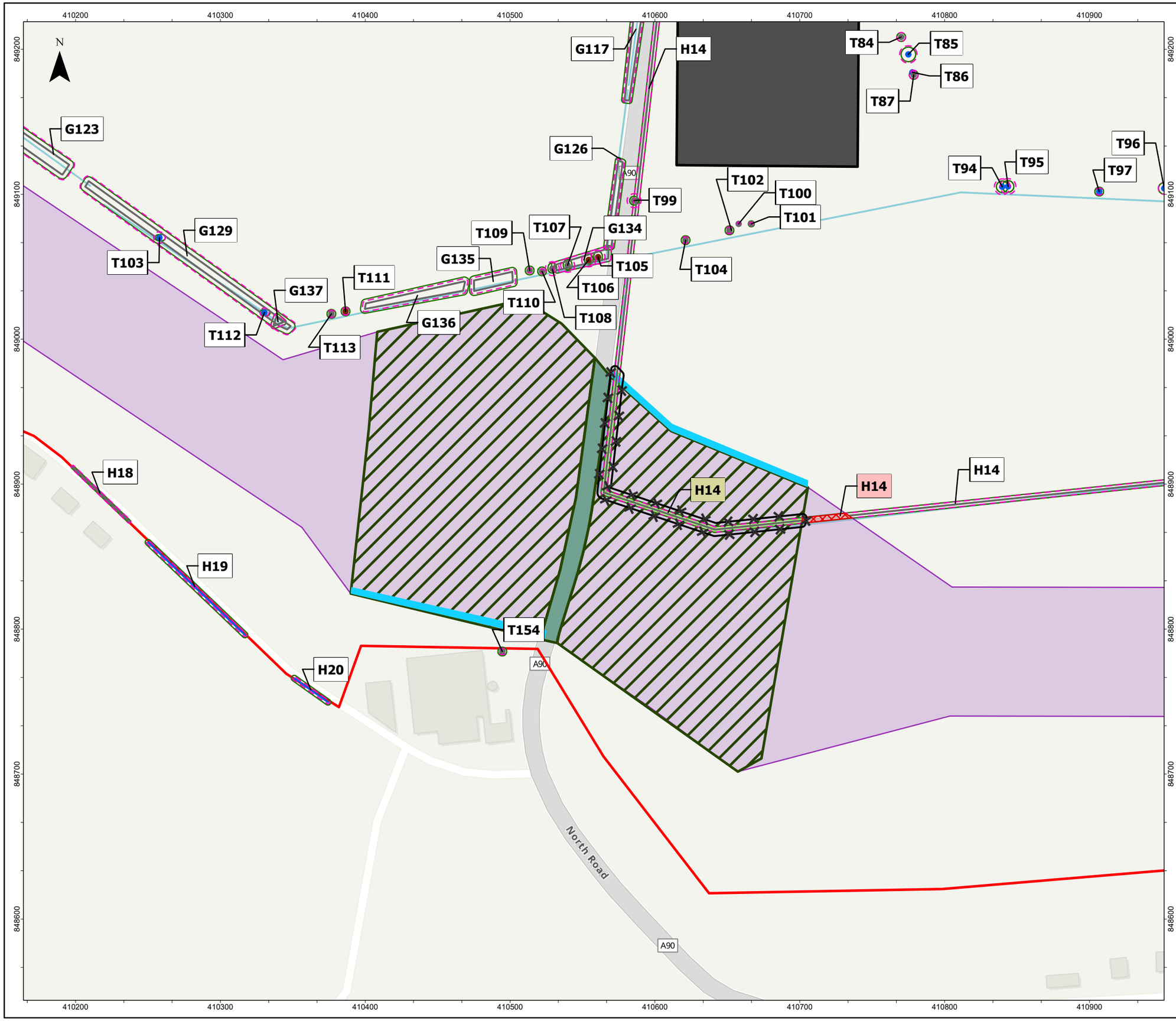
DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 9 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread

Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

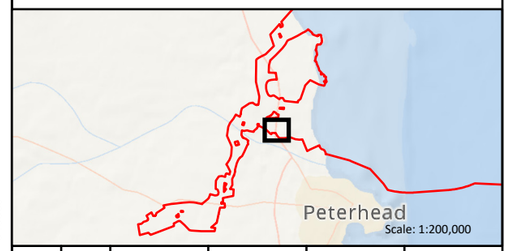
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324		
DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:2,500	PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure 1 Tree Removal and Protection Plan
Sheet 10 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

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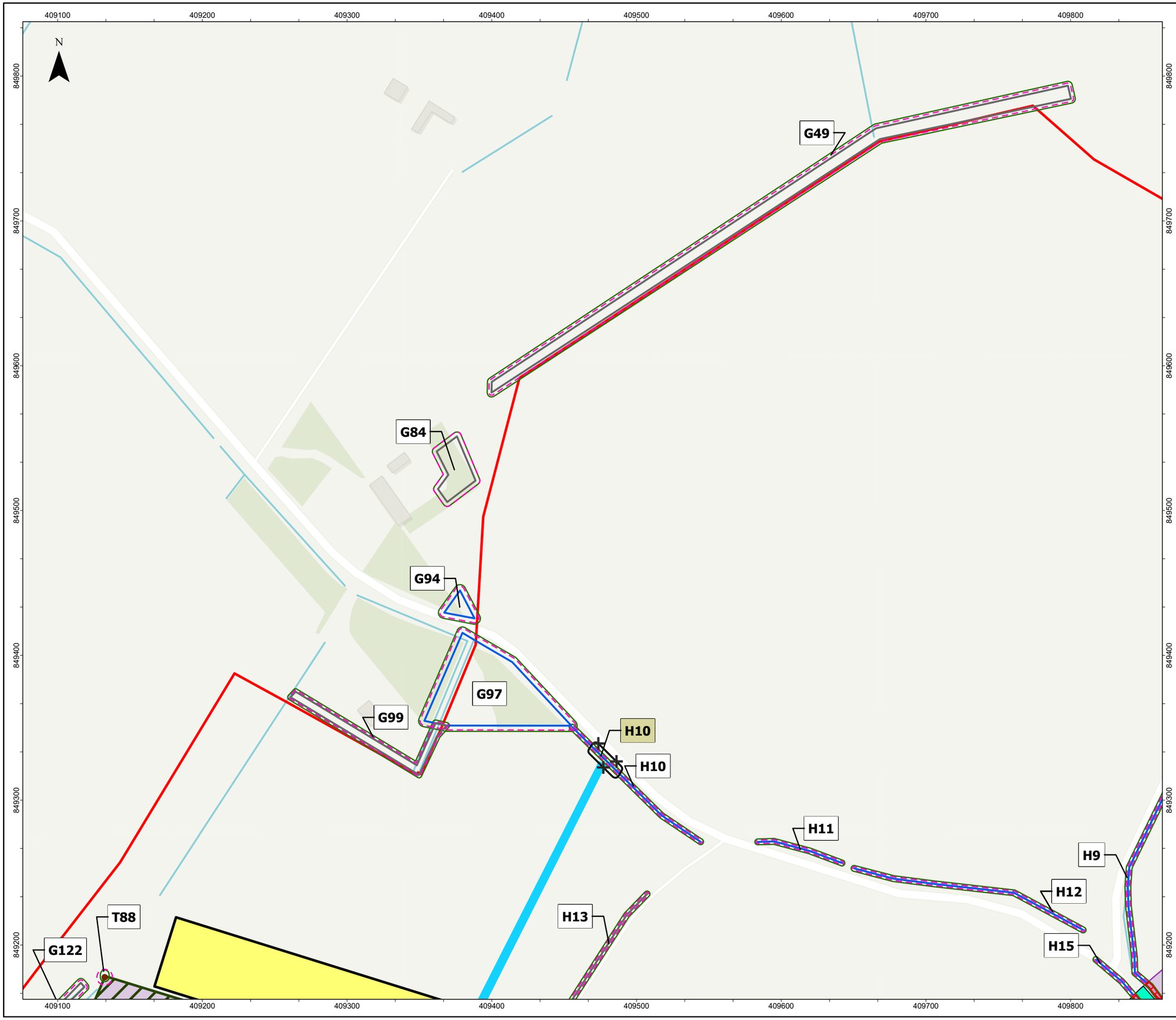
MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

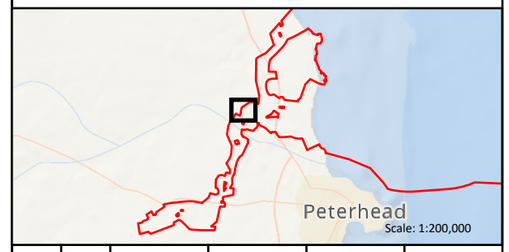
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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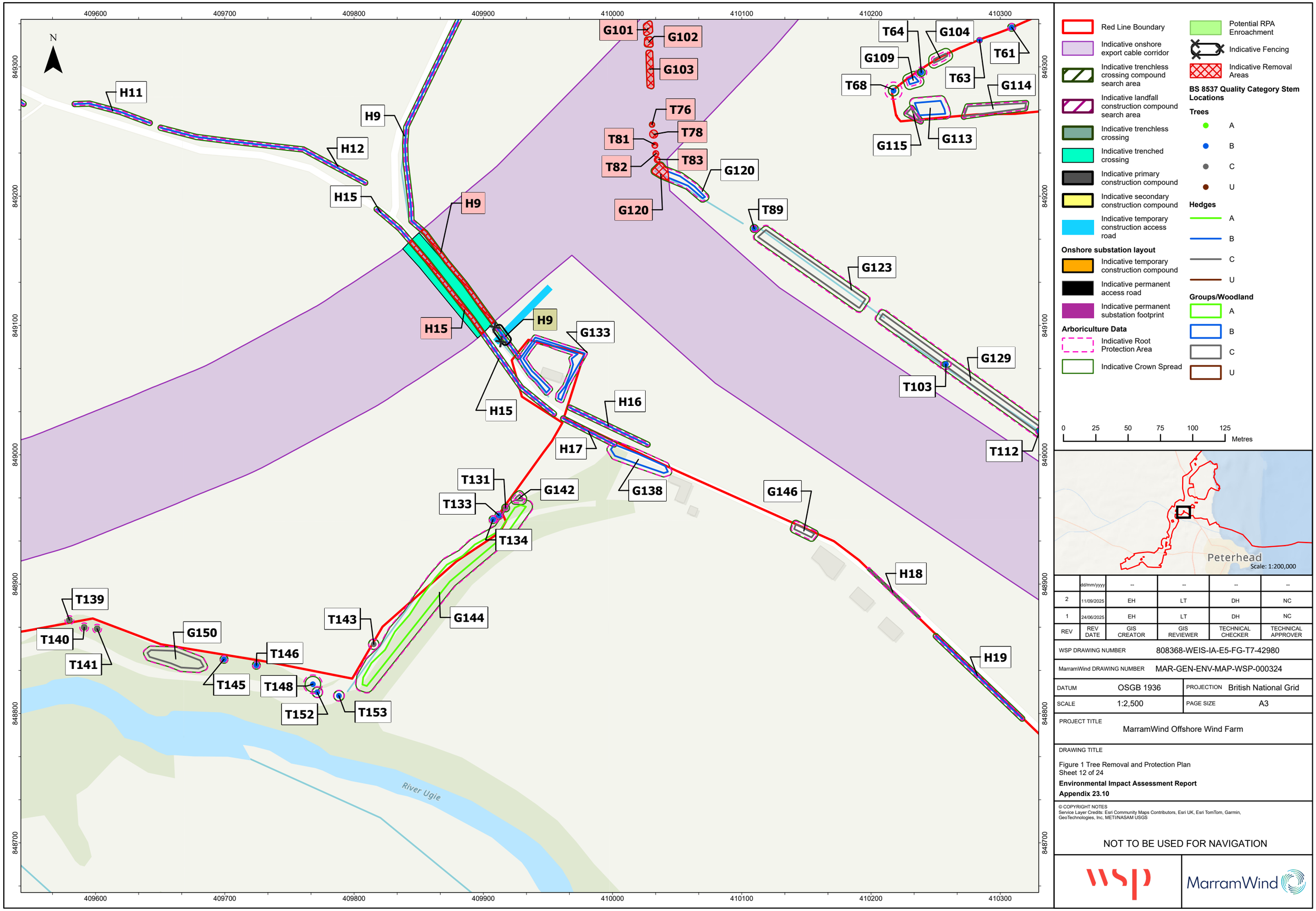
WSP DRAWING NUMBER	808368-WEIS-IA-E5-FG-T7-42980
MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure 1 Tree Removal and Protection Plan
Sheet 11 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp
MarramWind



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324		
DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:2,500	PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

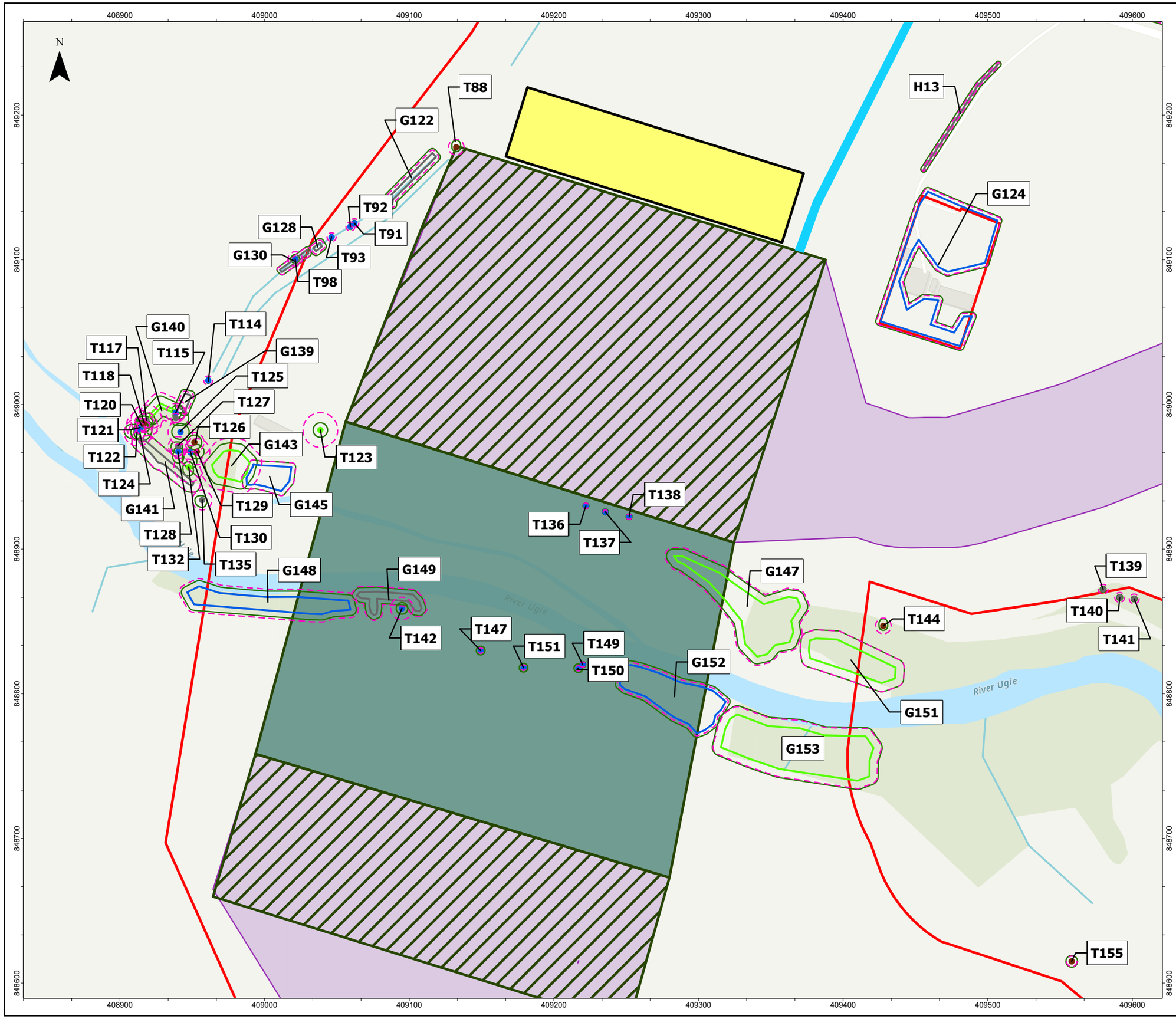
DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 12 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

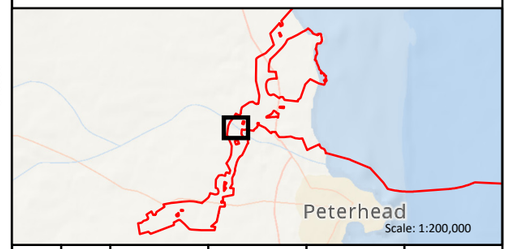
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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WSP DRAWING NUMBER: 808368-WEIS-IA-E5-FG-T7-42980

MarramWind DRAWING NUMBER: MAR-GEN-ENV-MAP-WSP-000324

DATUM: OSGB 1936 | PROJECTION: British National Grid

SCALE: 1:2,500 | PAGE SIZE: A3

PROJECT TITLE: MarramWind Offshore Wind Farm

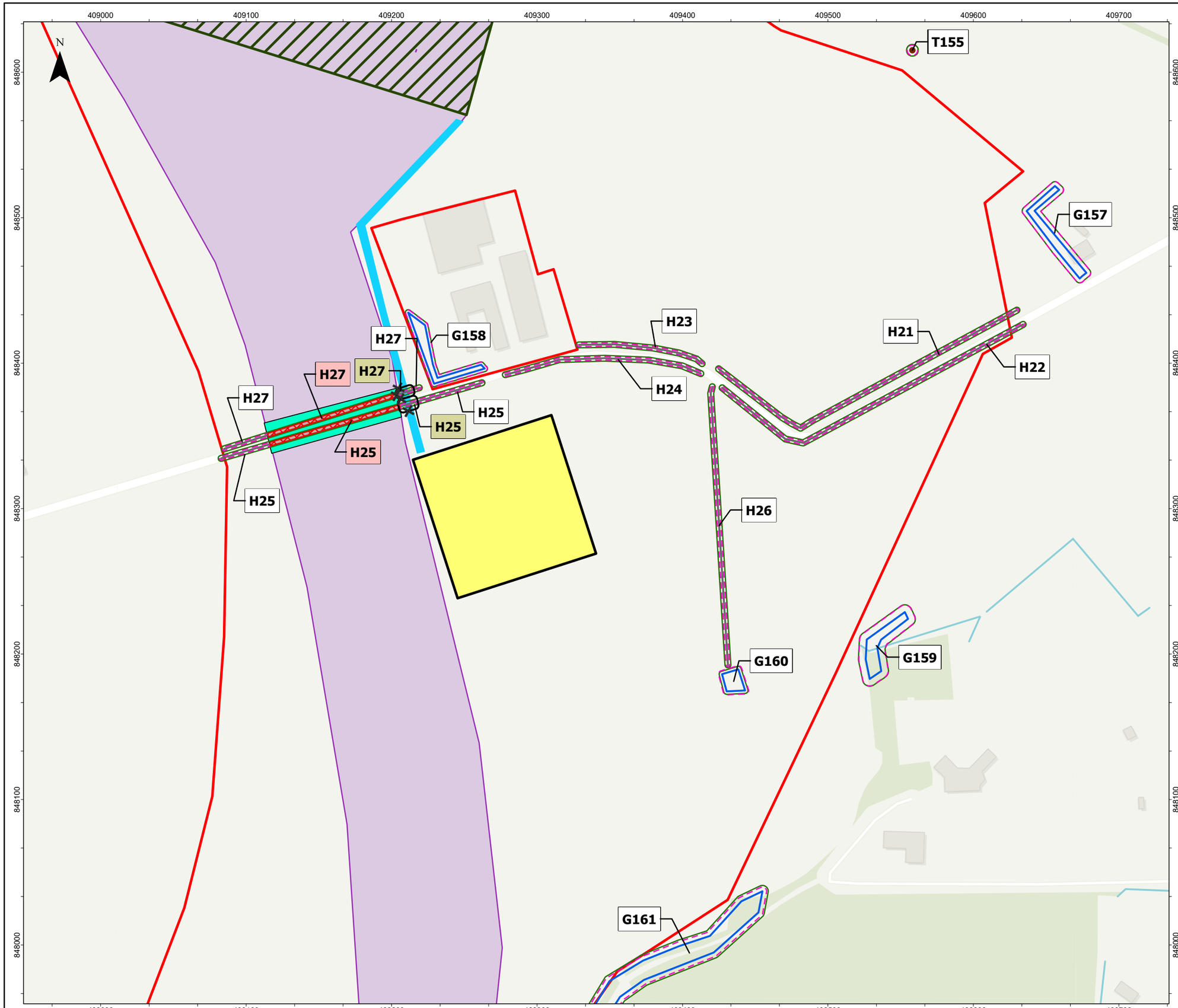
DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 13 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

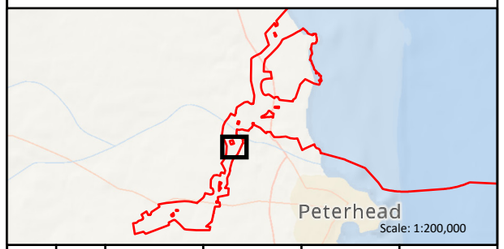
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

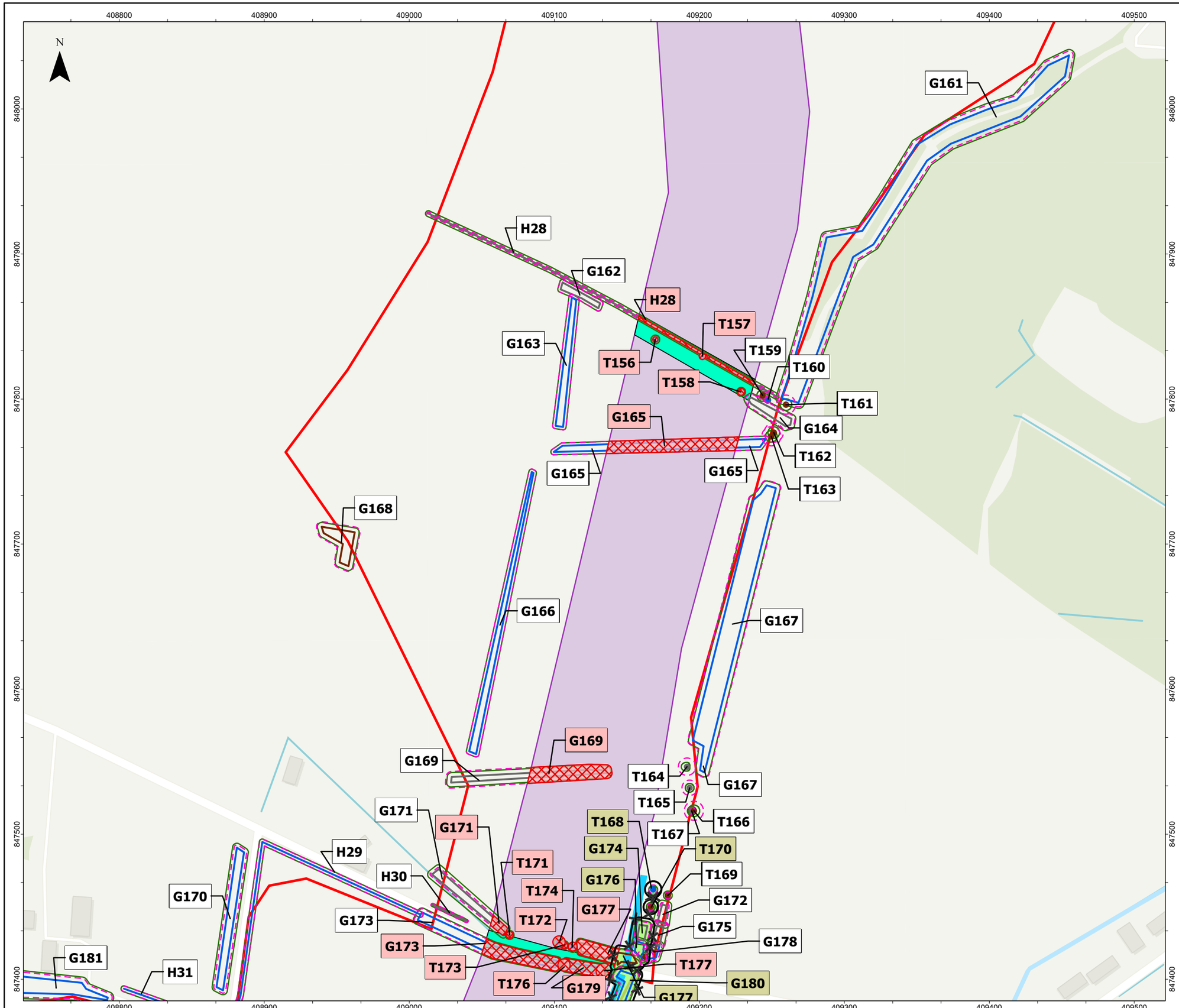
PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 14 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp
MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread

Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

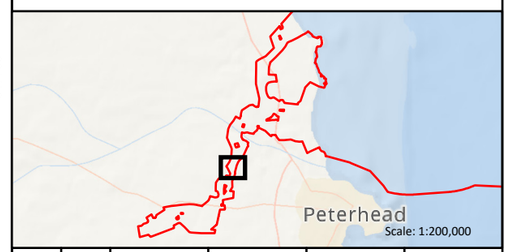
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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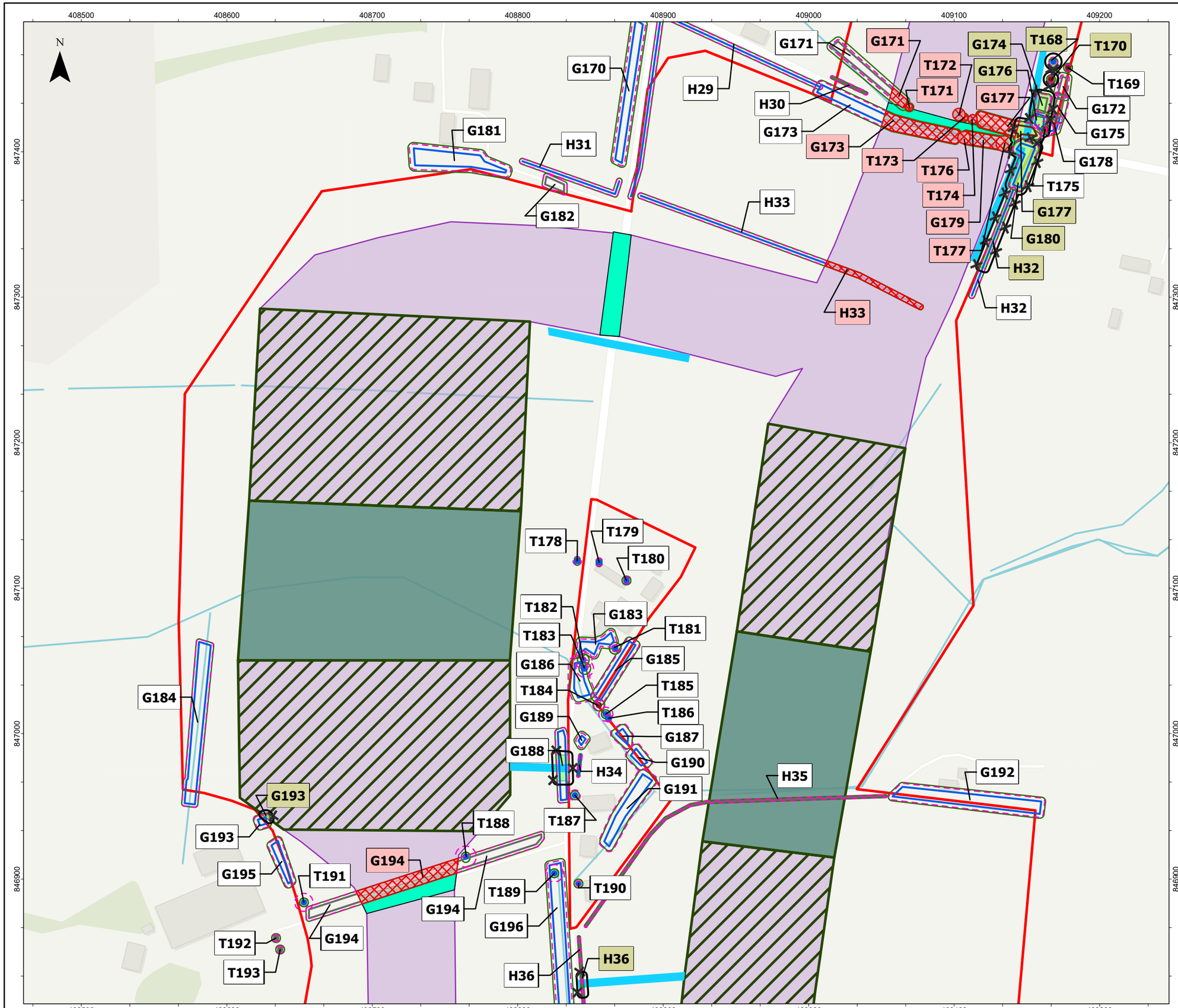
MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure 1 Tree Removal and Protection Plan
Sheet 15 of 24
Environmental Impact Assessment Report
Appendix 23.10

wsp
MarramWind



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 16 of 24

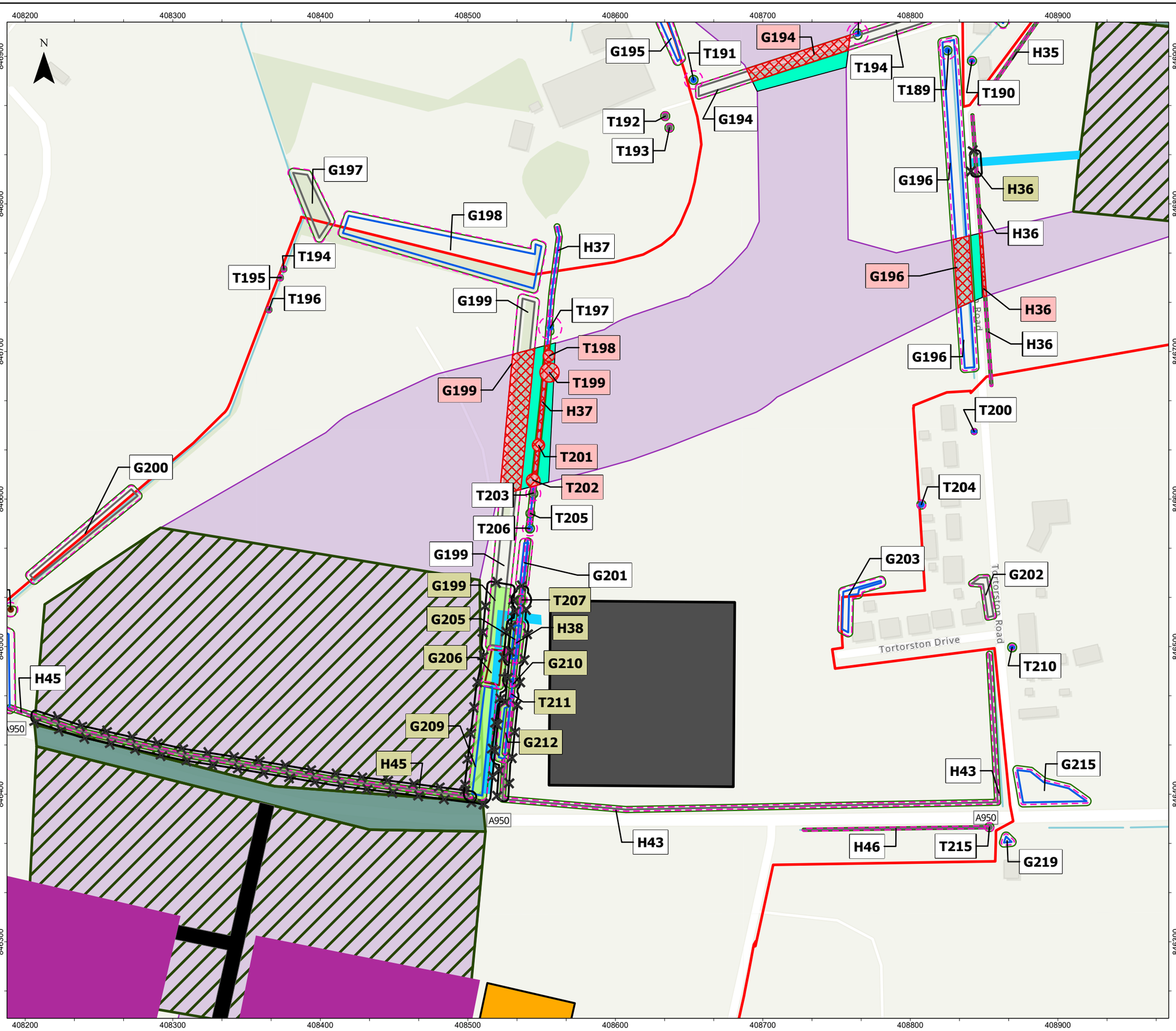
Environmental Impact Assessment Report

Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
Indicative primary construction compound
Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread
Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

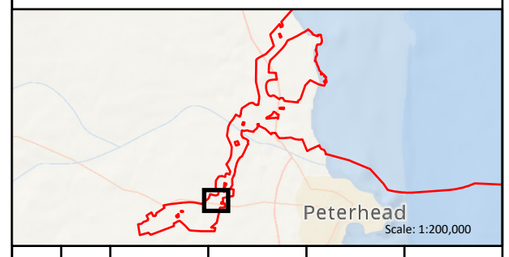
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

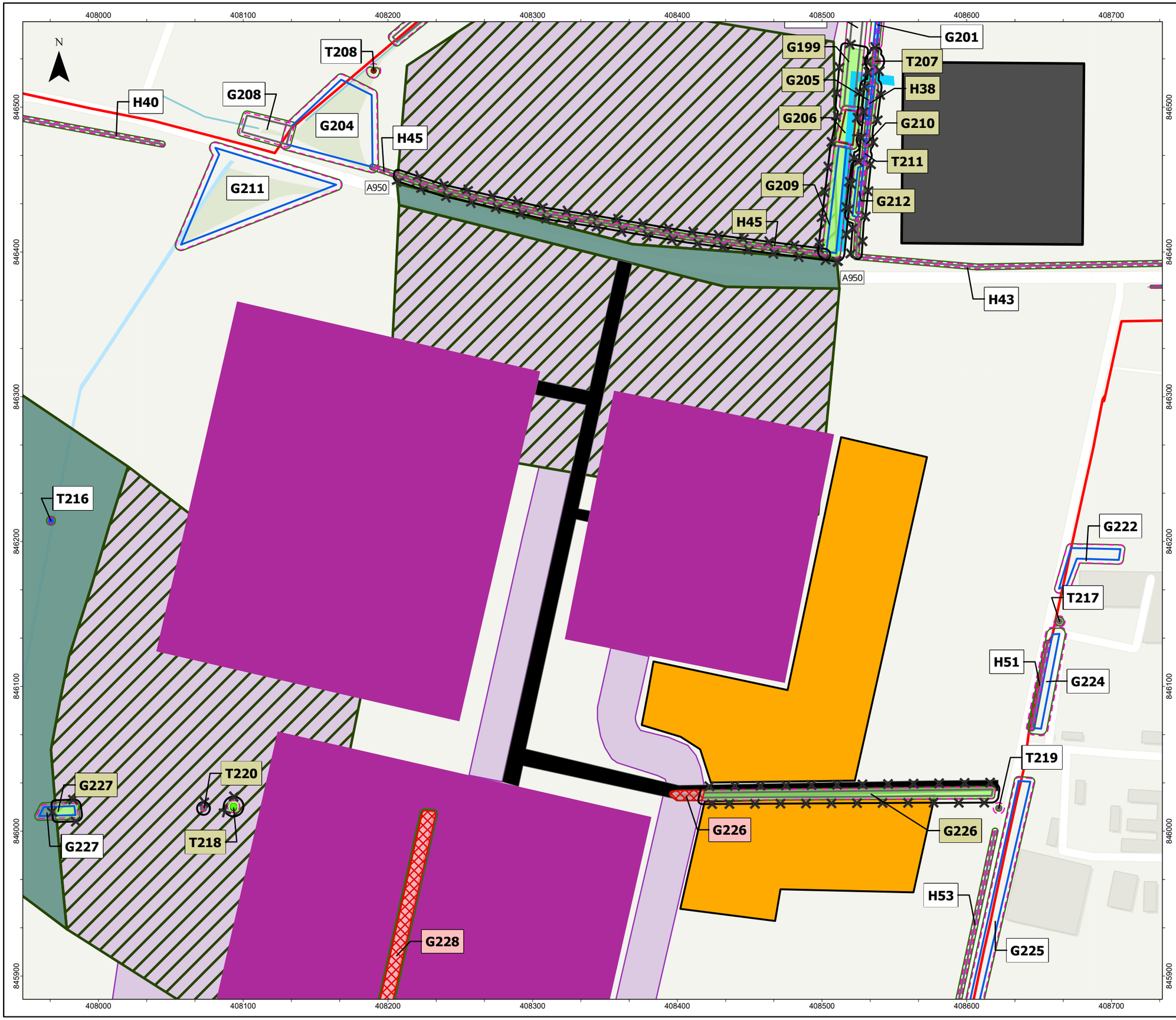
PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 17 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp
MarramWind



Red Line Boundary
Indicative onshore export cable corridor
Indicative trenchless crossing compound search area
Indicative landfall construction compound search area
Indicative trenchless crossing
Indicative trenched crossing
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Indicative secondary construction compound
Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread

Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
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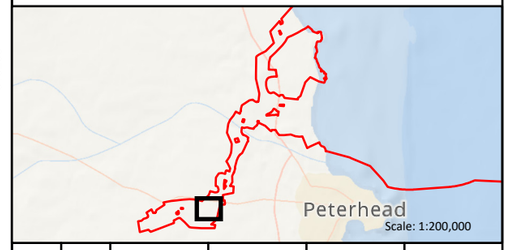
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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MarramWind DRAWING NUMBER: MAR-GEN-ENV-MAP-WSP-000324

DATUM: OSGB 1936 | PROJECTION: British National Grid

SCALE: 1:2,500 | PAGE SIZE: A3

PROJECT TITLE: MarramWind Offshore Wind Farm

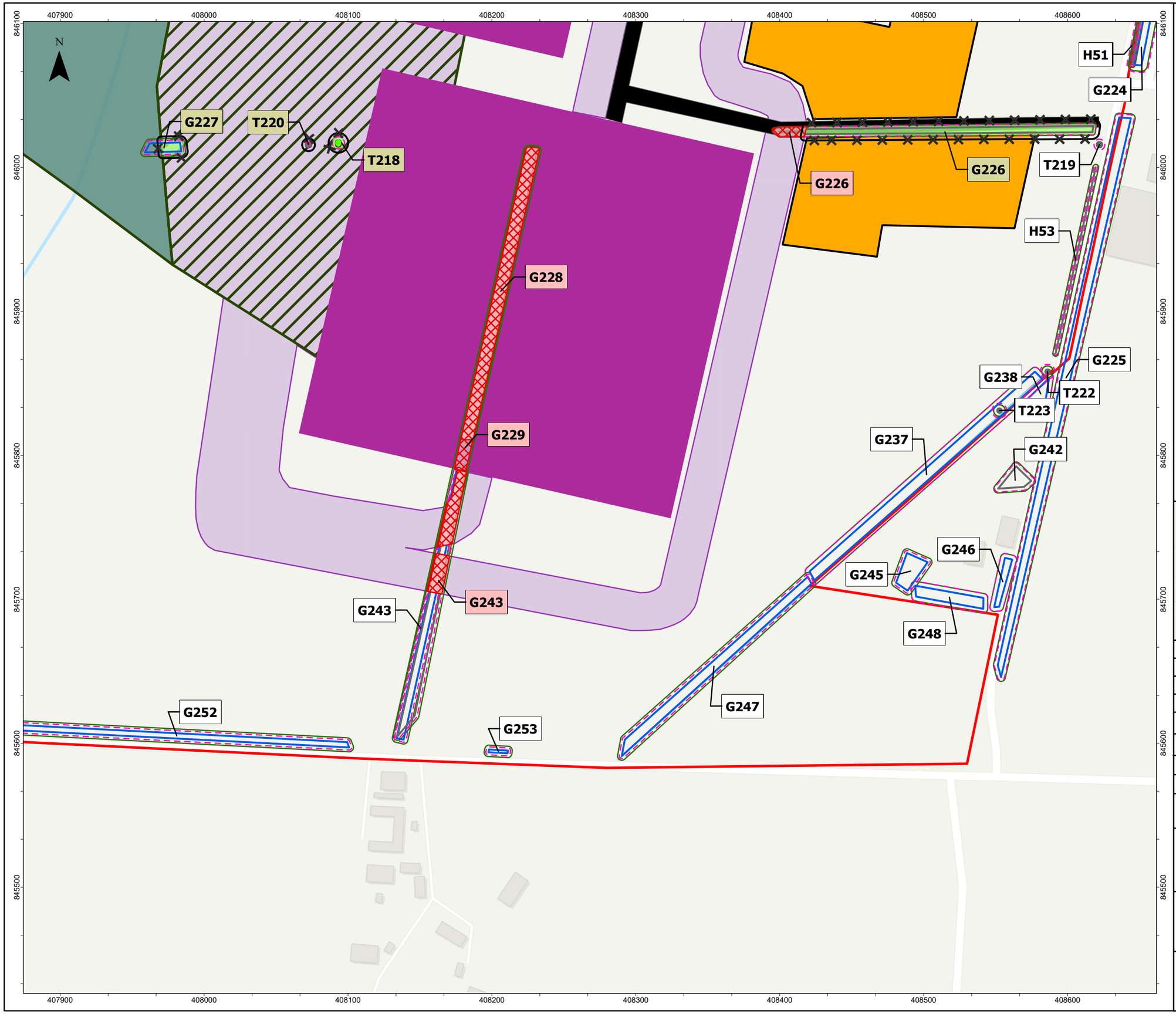
DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 18 of 24
Environmental Impact Assessment Report
Appendix 23.10

NOT TO BE USED FOR NAVIGATION

wsp

MarramWind



Red Line Boundary
Indicative onshore export cable corridor
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Indicative landfall construction compound search area
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Indicative trenched crossing
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Indicative temporary construction access road

Onshore substation layout

Indicative temporary construction compound
Indicative permanent access road
Indicative permanent substation footprint

Arboriculture Data

Indicative Root Protection Area
Indicative Crown Spread

Potential RPA Enroachment
Indicative Fencing
Indicative Removal Areas

BS 8537 Quality Category Stem Locations

Trees

A
B
C
U

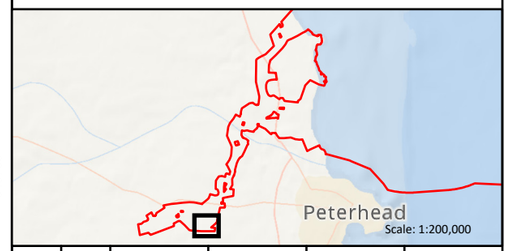
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125
Metres



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1	24/06/2025	EH	LT	DH	NC

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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 19 of 24
Environmental Impact Assessment Report
Appendix 23.10

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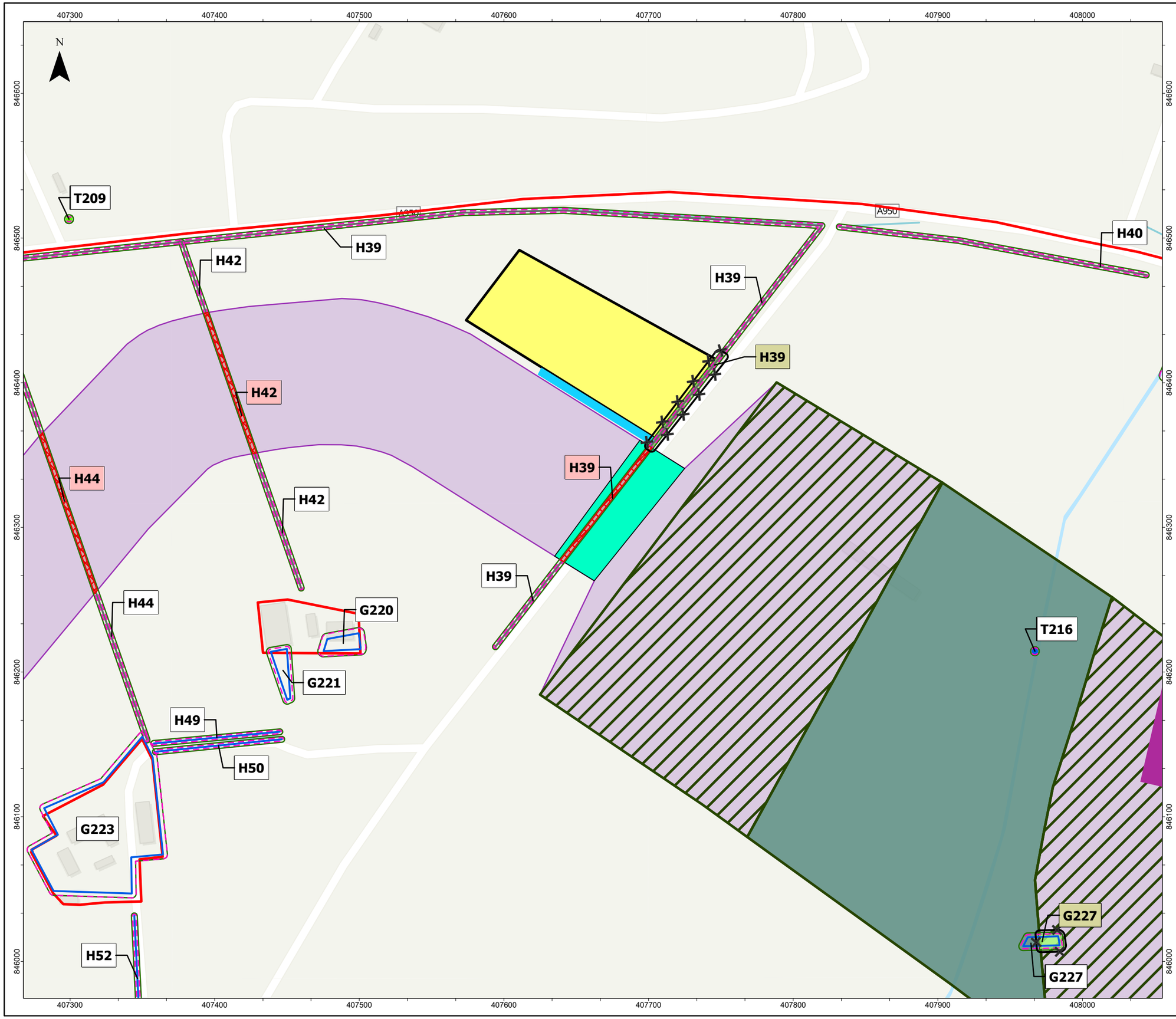
wsp
MarramWind



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A
B
C
U

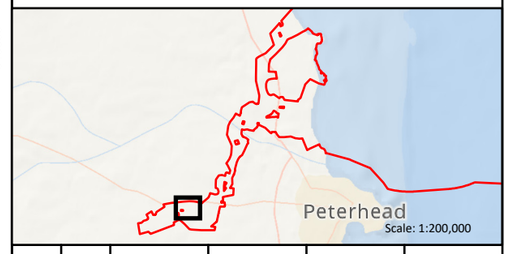
Hedges

A
B
C
U

Groups/Woodland

A
B
C
U

0 25 50 75 100 125 Metres



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SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 20 of 24
Environmental Impact Assessment Report
Appendix 23.10

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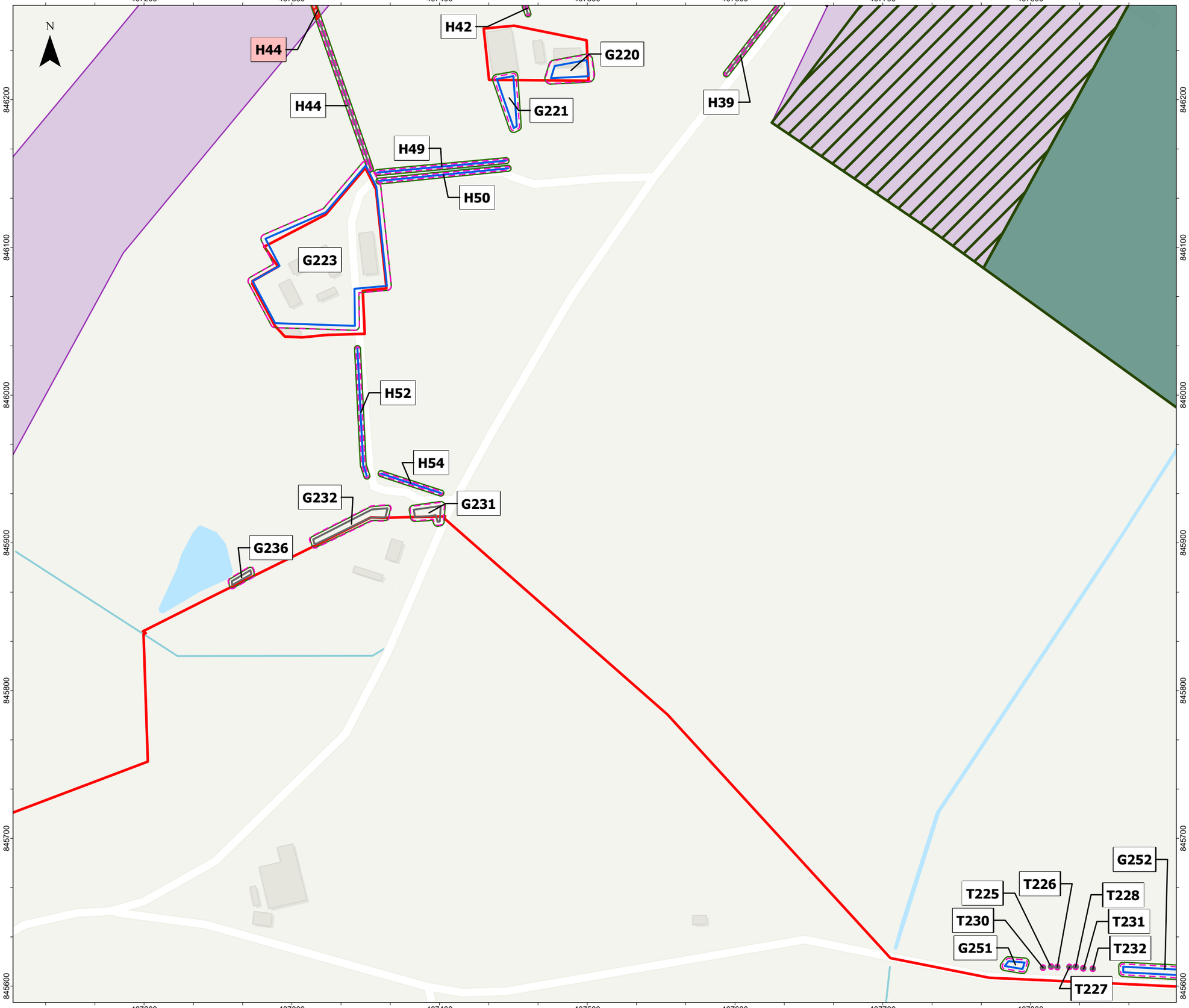
wsp
MarramWind



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Onshore substation layout

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Arboriculture Data

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BS 8537 Quality Category Stem Locations

Trees

- A
- B
- C
- U

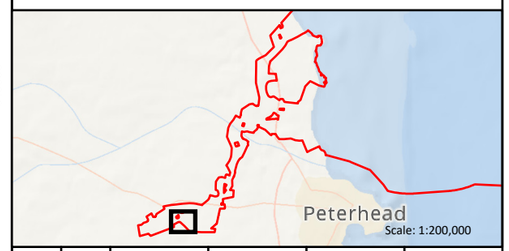
Hedges

- A
- B
- C
- U

Groups/Woodland

- A
- B
- C
- U

0 25 50 75 100 125 Metres



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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000324
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SCALE	1:2,500
PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 21 of 24

Environmental Impact Assessment Report
Appendix 23.10

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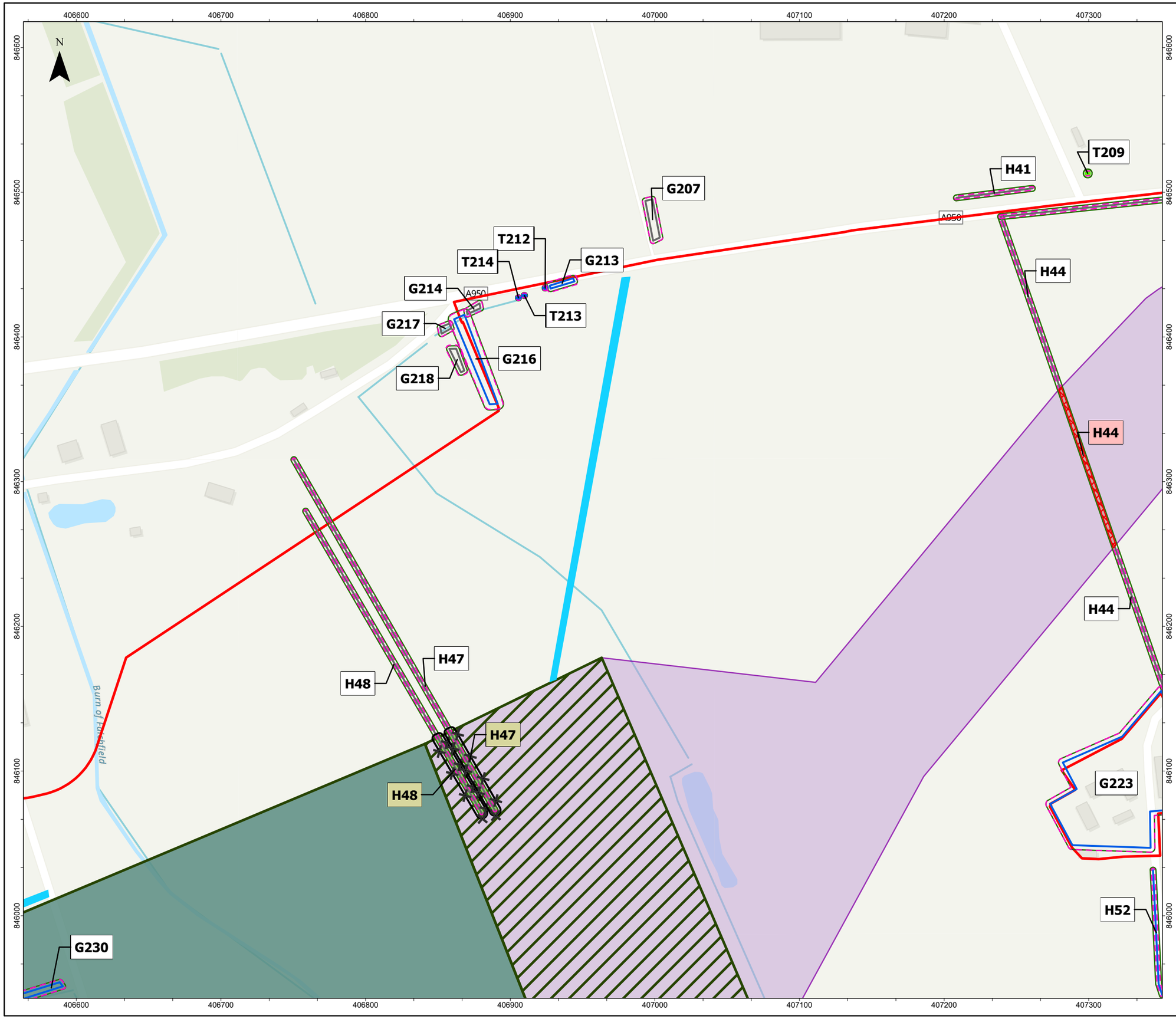

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- U

Hedges

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- B
- C
- U

Groups/Woodland

- A
- B
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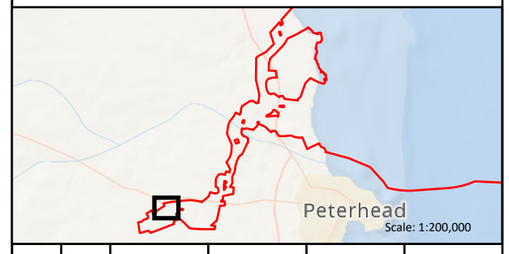
0 25 50 75 100 125 Metres



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PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 22 of 24
Environmental Impact Assessment Report
Appendix 23.10

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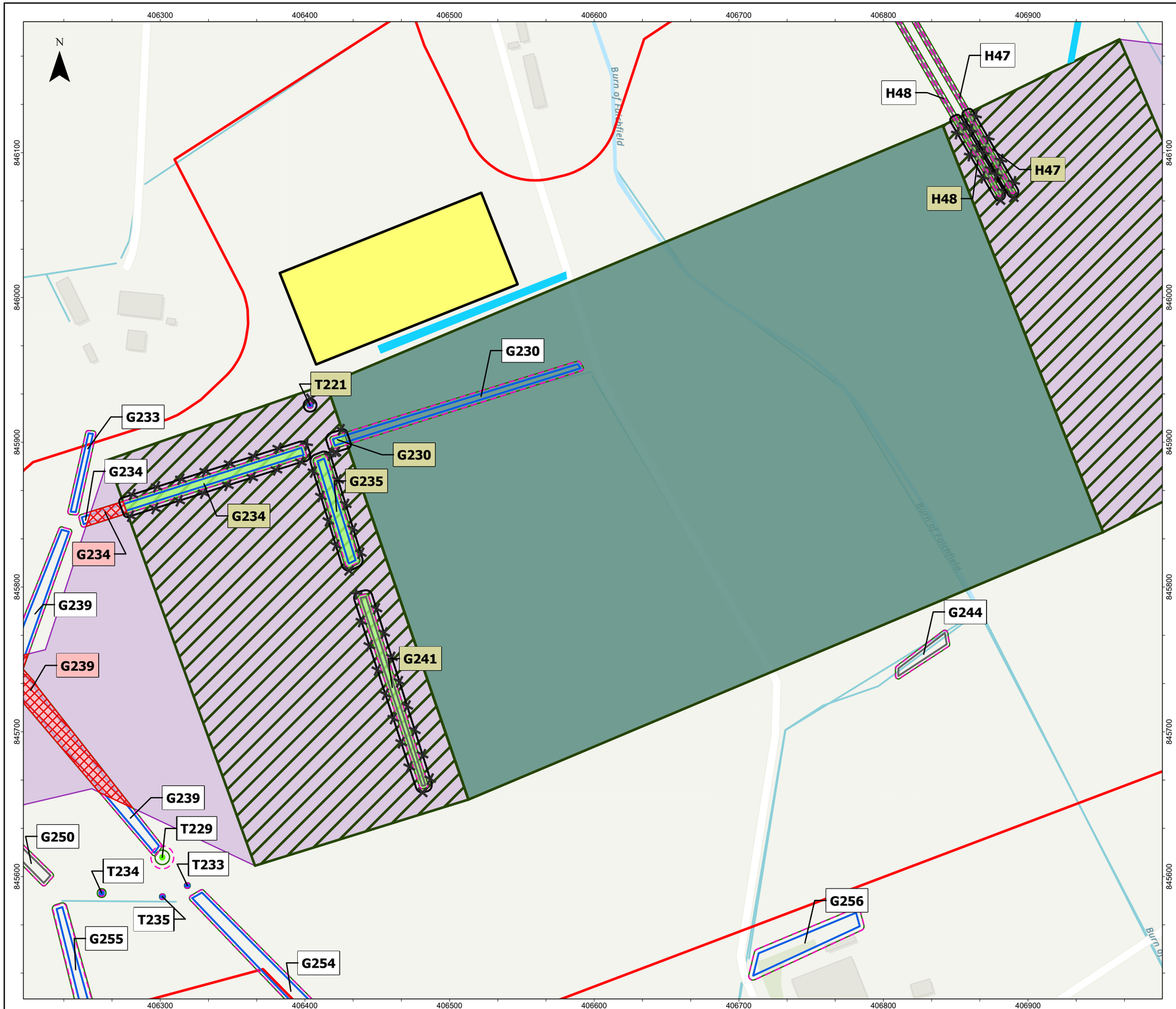
MarramWind



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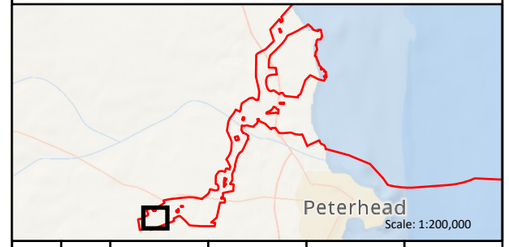
0 25 50 75 100 125 Metres



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PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Tree Removal and Protection Plan
Sheet 23 of 24
Environmental Impact Assessment Report
Appendix 23.10

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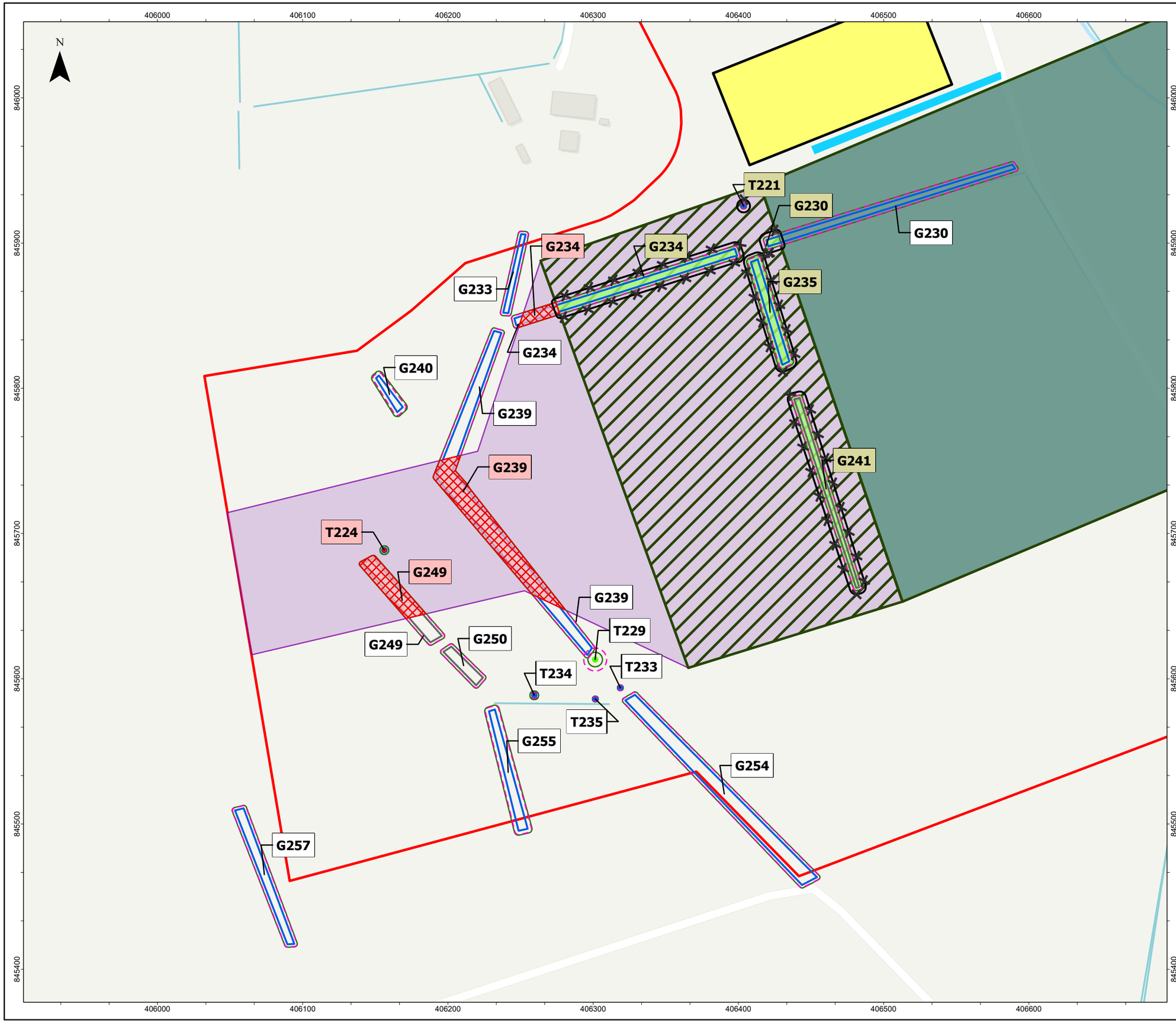
wsp MarramWind



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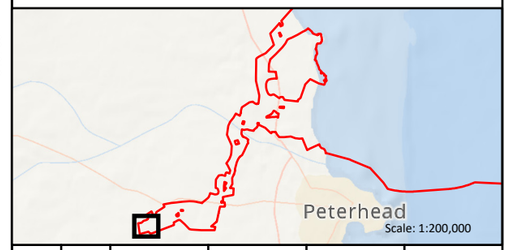

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PROJECT TITLE

MarramWind Offshore Wind Farm

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Figure 1 Tree Removal and Protection Plan
Sheet 24 of 24
Environmental Impact Assessment Report
Appendix 23.10

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MarramWind

MarramWind